Ford and General Motors Corporate Sustainability Reports: A Critical Discourse Analysis

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ABSTRACT

The environmental discourse of corporate polluters affects the perceptions and practices of actors regarding human relationships with the environment, and suggest a vision of sustainability in accordance with a corporate agenda of sustaining economic growth through supply chain sustainability. Corporations disseminate their environmental discourse through Corporate Sustainability Reports to convey an image of progress towards environmentally conscious practices. This study investigates the reports of the two largest auto-manufacturers in the U.S., Ford and GM, to assess how each company frames their environmental performance and how they define sustainability. To do this, I performed a quantitative analysis through an indexing system and a qualitative critical discourse analysis. I determined that these companies constitute their practices through a discourse of Sustainable Development, which is founded upon modernist ideals, but incorporates post-modernist principles. *Modernism* refers to ideologies that are based upon capitalist institutions with centralized authoritative actors who rely on science, technology, and the accumulation of wealth as solutions to externalities such as environmental degradation. While, *post-modernism* acknowledges that science is flawed due to its decontextualized nature and thus promotes holistic measures of research and that prioritizing profits is counterproductive to realizing sustainability. Post-modernism also rationalizes a power regime that is democratic and incorporates diverse interests in decision-making, rather than leaving decisions to capitalists and politicians. In effect, Ford and GM promote a form of sustainability that solely caters to their financial bottom line, while convincing its stakeholders that this is the 'true' way to achieve sustainability.

KEYWORDS

CDA, Sustainable Development, Post-Modernism, Modernist, Triple Bottom Line

INTRODUCTION

Because discourses construct socially accepted knowledge, attitudes, and ideologies, they create particular understandings of the natural world, which in turn, motivate particular actions towards it (Hajer and Versteeg 2005). While 'Environmental Discourse' consists of the linguistic devices that convey arguments about the relationship between humans and the environment (Mühlhäusler and Peace 2006), it influences shifts in perceptions of nature and thus transforms a particular understanding of the environment. As environmental discourse is contingent upon economic, political, and social contexts (Huckin 2002), it reflects and shapes environmental policy and regulatory enforcement, as well as influences institutional forms and practices, such as those of the Environmental Protection Agency (Hajer and Versteeg 2005). Environmental discourses also engage and give form to conflicts around environmental issues, such as corporate industrial pollution (Levy and Rothenberg 2002). In this way, discursive actors are caught in a battle to define sustainability in terms that impose their agendas onto society. Particularly, large heavy polluting corporations advocate for achieving sustainability only in ways that enhance economic profitability. Consequently, "sustainability" is a highly contested notion that is constantly being shaped and influenced by those who have access to public forms of discourse.

In response to calls for corporate accountability for the social and environmental costs of pollution and toxics, corporate actors have sought to frame their actions through the use of environmental discourse in Corporate Sustainability Reports (CSRs). CSRs are distributed as an official annual report that disclose qualitative and quantitative information revealing how companies perform in regards to economic, environmental, and social governance, or the triple bottom line (Roca and Searcy 2012; GRI 2011). CSRs typically consist of three sections: Financial, Environmental, and Social, in which the company discloses its policies, their achievements, and issues they must address in order to become more responsible organizations. As a result, CSRs characterize ways in which they are practicing sustainability in terms of environmental and social measures. Specifically, corporations address environmental issues like externalities, integration of green technology into their supply chains, and impacts on biodiversity among others. On the other hand, CSRs address social issues such as indigenous rights, diversity of the workforce, employee health and safety, disruption of local communities through materials extraction, and bribery and corruption.

Because CSRs are used as a means to project an image of sustainable practices, they serve as public relations tools that are intrinsically linked to a corporation's reputation, and thus their ability to attract and retain skilled employees, maintain consumer loyalty, and evoke a positive relationship with governmental institutions (Ihlen 2009). Moreover, CSRs utilize business performance transparency to build trust and loyalty, which also improves reputation and relationships with their employees, consumers, investors, and neighboring communities, or stakeholders (Wheeler and Elkington 2001; Kolk 2003). Further incentives to provide CSRs include accountability, investment in innovative technology that increases efficiency, and a gaining of a competitive advantage over other firms (Jose and Lee 2007). Although not mandated to do so by law, U.S. based corporations are voluntarily releasing extensive information in CSRs in order to promote accountability through transparency. With no formal reporting standards, CSRs vary widely in content, but the adoption of CSR frameworks, like that of the Global Reporting Initiative, has led to an increase in the types of information disclosed as well as converging trends in corporate environmental discursive practices (Patten 2002). While corporations are increasing their engagement in environmental discourse, this does not mean they are practicing sustainability. In fact, there is a significant negative correlation between environmental performance and disclosure, where high level polluters often release more information about their environmental practices (Patten 2002; Jose and Lee 2007).

Due to its extensive involvement in environmental degradation, the U.S. automakers have become especially significant as discursive actors and have taken a prominent role in shaping the nature and contents of environmental discourses. Ford Motor Corporation and General Motors, two of the "big three" American automobile manufacturers, have been among the most powerful players in the environmental arena (Vlasic 2011). Because automobiles are the leading source of greenhouse gas emissions, auto companies must compete with environmental advocates for institutional legitimacy and authority on issues of sustainability. Consequently, they constantly engage in environmental discourse in order to shape public perceptions and ways of thinking about sustainability in ways that benefit their financial bottom line (Levy and Rothenberg 2002). Furthermore, as heavy polluting corporations are associated with environmental destruction, stakeholders expect them to practice mitigation strategies, and thus corporations employ corporate sustainability rhetoric as a strategy for acquiring legitimacy. Such legitimacy is manifested as sufficient public support necessary for continued existence, and companies try to

avoid legitimacy gaps that may occur due to a discrepancy between a corporation's performance and society's expectations of that corporation (Ihlen 2009). As a result, auto manufacturers determine what to include in CSRs by being especially cognizant of expectations and predictions about consumer, competitor, and regulatory responses (Levy and Rothenberg 2002). Furthermore, in order for corporations to be perceived as legitimate and maintain profitability, they strive to evade gaining the reputation of creating social or environmental problems by participating in discourse that reflects the values and assumptions of their stakeholders (Ihlen 2009).

Coming out of an economic catastrophe and a bailout to avoid bankruptcy, Ford and GM are pressured to be more responsible, environmentally, economically, and socially, to maintain financial wellbeing. To do so, Ford and GM, and many other corporations, are shifting from identifying environmental and social protection as a limitation on economic growth to recognizing that these characteristics can be incorporated into their business models to bolster their financial bottom line. This notion is coined as "Sustainable Development" (Hajer 1995), which refers to the mutually reinforcing pursuit of economic growth, environmental protection, and most recently, social equity (Berger et al 2001). As a result, a focus on Sustainable Development allows for corporations to improve financial performance while eliminating environmental externalities and satisfying stakeholders (Levy and Rothenberg 2002).

While auto manufacturers have always engaged in environmental discourse, they now acknowledge the benefits of Sustainable Development, representing this through rhetoric and practices that elaborate upon implementing innovative technologies for resource efficiency, internalizing environmental costs, and integrating strategies into production processes that minimize wastes while maximizing product life-cycles (Berger et al. 2001). In order to promote social equity, corporations are improving conditions for the health and safety of their employees and surrounding communities as well as are incorporating stakeholders in decision-making. Thus, better resource management and the inclusion of stakeholders into the decision-making process creates cost savings and increased sales.

Because Sustainable Development focuses on improving ecological vitality through current economic practices, the concept itself is firmly rooted in the principles of *modernity*. Modernity, as a complex of ideologies and social processes, can be understood in terms of a focus on economic growth through capitalistic approaches, scientific knowledge, and

technological solutions (Merchant 2009). Because Sustainable Development is an ideological and political concept, issues of power and authority must be considered when analyzing the rhetoric of the ideology. In effect, neo-liberal capitalist institutions have disseminated rhetoric that emphasizes profitability through mass production, mechanization, and standardization that promotes heavy consumption patterns and continued economic expansion and globalization (Eden 1999). In this way, authority is centralized and entities that accumulate large amounts of wealth are generally those in power. In effect, these actors argue for sustainability measures that generate profit and deny the need for governmental interference by promoting self-regulation and market mechanisms, such as emissions trading and efficient technology throughout supply chains, to achieve sustainability (Ihlen 2009).

However, as Sustainable Development caters to *modern* agendas, it employs limited *post-modern* solutions and is grounded in *post-modern* discourse. Post-modernity is an ideology that stresses the complex, holistic interaction of elements within systems cause these systems to be greater than the sum of their discrete parts, otherwise recognized as holism. The concept of holism was developed in light of the interconnected processes of ecosystems that only work at their maximum potential if all parts of the system are present, creating synergistic effects (Merchant 2002). Regarding business operations, holism refers to the way in which economic growth, environmental protection, and social equity can be combined to produce synergistic effects in the financial bottom line. Furthermore, post-modernism stresses the need for all sectors of society, such as the consumers, producers, and governmental institutions to participate in measures of sustainability. Therefore, by integrating environmental and social concerns into the financial bottom line, while incorporating post-modern environmental discourses that emphasize the interdependence and complexity of systems and democratic decision-making, the modernist ideology of Sustainable Development is often confused as one of post-modernism.

Although businesses are framing their practices in terms of environmental stewardship, modern forms of sustainability, like Sustainable Development, have been criticized as being counter-productive to achieving ecological sustainability or the restoration of natural and biological communities (Eden 1999). While Ford and GM make claims of environmental management and the production of green automotive technologies and product lines, closer scrutiny of their environmental performance has revealed that many of their assertions lack substance (Kliesch 2010). Thus, CSRs released by large corporate polluters pose a particularly

important and intriguing subject for inquiry. With minimal research on automobile manufacturer CSR's and their environmental discourses, it is important to investigate how Ford and GM use environmental discourse to frame their practices in the eyes of stakeholders as well as how they rhetorically construct and define corporate sustainability.

In this study, I analyzed qualitative and quantitative information in Ford and GM CSRs from 3 time periods between the fiscal years of 2003/4 to 2011/12 in order to interpret the discursive strategies used for constructing perceptions about the auto-makers' environmental performance to the public sphere. Specifically, I performed a critical discourse analysis to examine the discursive techniques used to represent their business practices to their stakeholders as well as to explain the broader environmental, political, and economic discourses that have influenced the rhetoric included in CSRs. Furthermore, I investigated how issues of power and authority were embedded with the reports in order to determine who is responsible for disseminating the information at hand, while the determining possible motives behind them. Through a system of indicators modeled from existing CSR guidelines, I conducted a quantitative content analysis that identified the comprehensiveness of each report as well as determined which topics were emphasized.

METHODS

Study System and Data Collection

I analyzed how General Motors and Ford Motor Company framed their environmental performance and disclosed this information to their stakeholders in their Corporate Sustainability Reports throughout the last decade. Specifically, I chose these specific companies because their significant market share distinguishes Ford and GM as two of the "big three" prominent car manufactures that play a large role in the US, socially, environmentally, and economically, and so have been highly scrutinized for their malpractices in these areas (Vlasic 2011).

I downloaded the CSRs from Ford and GM's Sustainability Websites for the fiscal years 2003/4, 2006/7, and 2011/12 (GM only had the latter available and 2010/11). I also retrieved secondary sources from campus libraries and online journal databases that directly discussed

broader institutional environmental, social, and economic discourses to contextualize issues and rhetoric of the reports that are embedded within the politics of the automobile market.

Data Analysis

Quantitative Content Analysis

To quantitatively compare how report content has changed over time, I implemented an indexing system that generated a numerical score revealing how many environmental, social, and economic indicators are included in each report (Wiseman 1982). Indicators were modeled after the latest framework provided by the Global Reporting Initiative (Table A1) and are considered as topics related to a company's performance towards Sustainability (Glavic and Krajnk 2005; GRI 2011) and are based on 6 overarching categories: Environmental, Economic, Social, Human Rights, Societal, and Product Responsibility. Each indicator received a point if it was included in the report. The overall score determined the comprehensiveness of each report by exemplifying how much information is disclosed regarding these topics (Davis-Walling and Batterman 1997). In order to compare how much these indicators grew in importance throughout the decade, I investigated which categories were emphasized the most. This was determined by a large increase in its indictor score for that particular category. Furthermore, to track what topics were deemed as most important, I used the program Word Count to quantify the word frequency of buzz words that are central to four overarching themes, Sustainability, Social Equity, Science and Technology, and Profitability, mainly due to their association with modernism or post-modernity. "Sustainability" and "Social Equity" are associated with post-modern ideologies, while "Profitability" and "Technology and Science" will be correlated to modernist principles. By adding up the quantity of words and calculating a total for each of the 4 overarching categories, I was able to graph and visualize which topics were elaborated upon the most. Words that made up a significant portion of the report were deemed as important to my analysis.

Qualitative Discourse Analysis

On the other hand, I performed a subjective, interpretive study through critical discourse analysis. I began by reading each piece carefully and naively. I assumed that the text is assigned meaning through broader social, political, and economic discourses, in which I utilized to contextualize certain rhetoric and topics included in the reports. Also, I presumed that Ford and GM use their institutional authority to influence environmental discourse and produce hegemonic notions of sustainability by manipulating popular opinions and other forms of knowledge. Beyond the social context, I investigated specific discursive strategies in the text (Huckin 2002). I examined whole text levels features first and then sentence and word level features as well as analyzed illustrations and graphs. This holistic strategy analyzes the genre, or the type of discourse, looking for discursive practices like omission, framing, foregrounding, backgrounding, and presupposition. Omission allows for the manipulation of a genre by only including particular information, while framing provides the perspective of writing, which can also be presented by visual aids, like photographs or diagrams. Similarly, backgrounding and foregrounding emphasize certain concepts by giving them importance or none at all. Finally, presupposition is the use of language in such a way that takes certain ideas for granted, as if there were no alternative. On a closer level, I evaluated topicalization of particular subject matter, which deems that more important topics are discussed first. Most importantly, I investigated the similarities and differences between Ford and GM's sustainability discourse in CSR's especially in regards to contextualization through environmental, political, social, and economic discourses. To do this, I used secondary sources to become familiar with specific discursive practices that are associated with specific contextual events, such as increasing regulations and the economic bailout of the auto market.

In order to answer my research question, I used the quantitative analyze to supplement my qualitative analysis. By performing a qualitative analysis, I determined the particular type of discourse and rhetorical techniques that dominate the text in order to make arguments regarding the way in which Ford and GM frame their environmental performance and how it has constructed the stakeholder's perceptions about the respective company. By implementing the indexing system, I illustrated how comprehensive the report is as well as what topics were included and emphasized in the report.

RESULTS

Quantitative Analysis

In order to evaluate how comprehensive each CSR is, I quantified how many environmental, social, and economic topics, or indicators, are included based on a internationally recognized guideline provided by the Global Reporting Initiative (GRI 2011). The full list of 83 indicators can be seen in Table A1 in the appendix section. Throughout the last decade, Ford's use of sustainability indicators in CSRs has experienced tremendous growth, particularly in the last five years, while GM has developed more slowly as their first CSR was released in the 2010/11 fiscal year. The numerical indicator scores for Ford illustrated a faster and more extensive integration of sustainability in their CSRs than GM, as each surpassed GM's. As illustrated in Table 1, each score is broken down into 6 subsections, where the percentage of total number of indicators in that section is indicated inside the parenthesis in the left hand column. With respect to each company's actual score, the percentage of disclosure is denoted next to the bolded score for that particular category.

Table 1: Indicators each company addressed in annual CSR and total CSR score

Indicator Score		General Motors		Ford Motor Company		
	Report Year (% of indicators disclosed)	**2010/11**	**2011/12**	**2003/4**	**2006/7**	**2011/12**
	Economic Performance Indicators					
	Financials (9)	**4** (44%)	**5** (55%)	**9** (100%)	**9** (100%)	**9** (100%)
	Environmental Performance Indicators					
	Environmental Impacts (30)	**19** (63%)	**23** (77%)	**14** (47%)	**19** (63%)	**27** (90%)
	Social Performance Indicators					
	Labor Practices (15)	**7** (47%)	**9** (60%)	**9** (60%)	**10** (67%)	**12** (80%)
	Human Rights (11)	**6** (55%)	**6** (55%)	**6** (55%)	**7** (64%)	**9** (82%)
	Society (8)	**7** (88%)	**8** (100%)	**2** (25%)	**5** (63%)	**8** (100%)
	Product Responsibility (9)	**7** (78%)	**8** (89%)	**2** (22%)	**5** (56%)	**6** (67%)
	Assurance					
	Third Party Auditor (1)	**0** (0%)	**1** (100%)	**0** (0%)	**1** (100%)	**1** (100%)
	Total (83)	**54** (65%)	**56** (67%)	**42** (50%)	**56** (68%)	**72** (87%)

These scores are shown in the graph below, indicating total indicator scores by year:

Fig. 1. Ford and GM's Total Indicator Score by each yearly report analyzed.

As illustrated above, Ford's total indicator score surpassed that of GM by at least 15 for their 2011/2012 reports. Although increasing, neither Ford nor GM made significant progress in including more indicators in last 2 years, which is peculiar as it was after the auto bailout. However, the fact that GM does not release a report until 2010 suggests that this event may have been the reason for the production of their first Corporate Sustainability Report.

Word Frequency

In order to determine which concepts were discussed the most, I used the program Word Count in order to find the word frequency of the top 25 words in each report. In this way, I am utilizing Huckins strategy of topicalization to determine which words were reiterated the most and thus are deemed most important. The results are displayed in the table below, with their frequency displayed next to the word:

Table 2. Top 25 Most Frequent Words in each Corporate Sustainability Reports

Word Frequency	**Ford 2003/4** 88 pages Words: 51,555	**Ford 2006/7** 42 pages Words: 24,314	**Ford 2011/2012** 543 Pages Words: 219,298	**GM 2010/2011** Pages=113 Words: 46,477	**GM 2011/2012** 133 pages Words: 53,330
1	Emission 197	Sustainability 168	Emissions 197	Sustainability 163	Sustainability 230
2	Environment 196	Technology 119	Environment 194	Technology 156	Environment 191
3	Business 172	Emission 107	Business 172	Environment 149	Emission 170
4	Sustainability 168	Market 89	Community 133	Employee 133	Technology 166
5	Economy 124	Economy 80	Technology 130	Emission 128	Employee 154
6	Technology 109	Environment 65	Employees 128	Economy 102	Waste 138
7	Hybrid 113	Business 49	Economic 123	Business 92	Business 119
8	Employee 47	Greenhouse 49	Consumer 121	Community 77	Sales 112
9	Consumer 31	Employee 47	Hybrid 111	Water 63	Economy 105
10	Climate 65	Water 47	Market 91	Efficiency 61	Market 93
11	Water 59	Co2 47	Hydrogen 82	Waste 60	Community 92
12	Relationship 58	Sales 47	Sustainability 78	Recycle 53	Recycle 75
13	Research 57	Climate 45	Research 63	Co2 44	Consumer 35
14	Health 54	Health 43	Relationship 58	Health 37	Water 75
15	Efficiency 51	Community 41	Water 58	Market 36	Efficiency 70
16	Co2 51	Hybrid 41	Profitability 56	Responsibility 36	Co2 52
17	Market 47	Hydrogen 33	Health 54	Conservation 31	Responsibility 51
18	Sales 47	Biofuel 32	Efficiency 51	Consumer 30	Health 48
19	Greenhouse 47	Recycle 29	Co2 51	Financial 29	Greenhouse 42
20	Financial 45	Innovation 28	Sales 47	Renewable 28	Conservation 40
21	Citizenship 42	Efficiency 27	Climate 45	Sales 27	Renewable 37
22	Responsibility 37	Consumer 26	Greenhouse 45	Greenhouse 23	VOC 33
23	Recycle 36	Research 24	Citizenship 42	Fuel-efficient 23	Research 32
24	Innovation 36	Waste 24	Diversity 41	Stakeholder 22	Progress 28
25	Society 35	Stakeholder 23	Financial 41	Research 20	Stakeholder 27

In order to visualize which topics were discussed more extensively, I grouped each word according to 4 groups: “Sustainability”, “Social Equity”, “Profitability”, and “Technology and Science”. By adding up the quantity of words and calculating a total for each of the 4 overarching categories, I was able to graph and visualize which topics were elaborated upon the most, shown in the table and bar graph below for both Ford and GM:

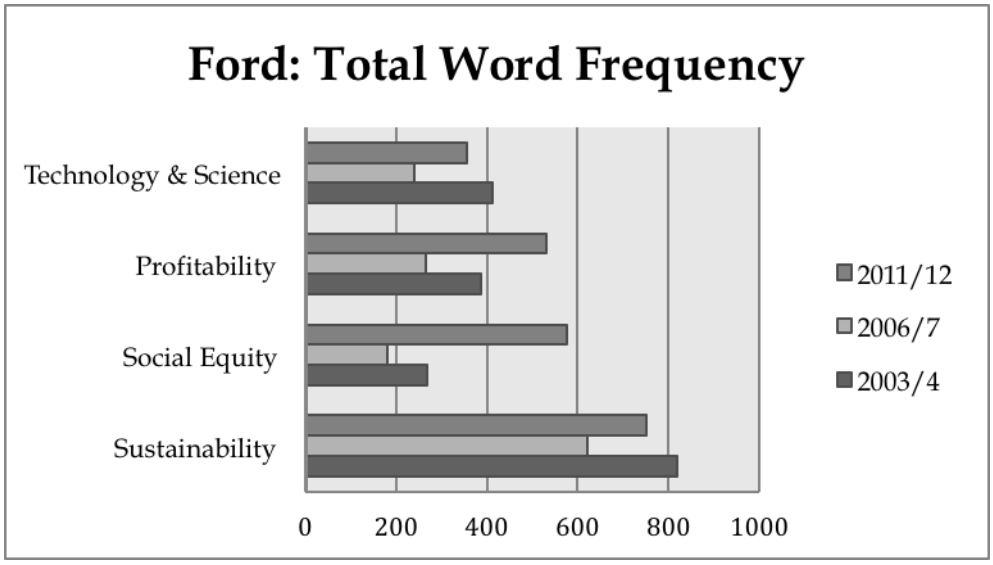


Fig. 2. **Total Count for Word Frequency Categories for Ford.** Buzz words in the Top 25 Frequent Words were categorized in order to determine which topics were elaborated on the most.

Fig. 2 demonstrates that Ford's reference to technology and science and sustainability stayed relatively the same in its initial and final CSR analyzed. However, sustainability is emphasized much more heavily in each report. Furthermore, Ford places more emphasis upon issues of social equity as references to words in this area almost doubled in the 2003/4 to 2011/12 reporting period. Here, it is important to note that Ford's only available 2006/7 report was only a summary of its entire CSR for that year and so are not really taken into account, but included for completion.

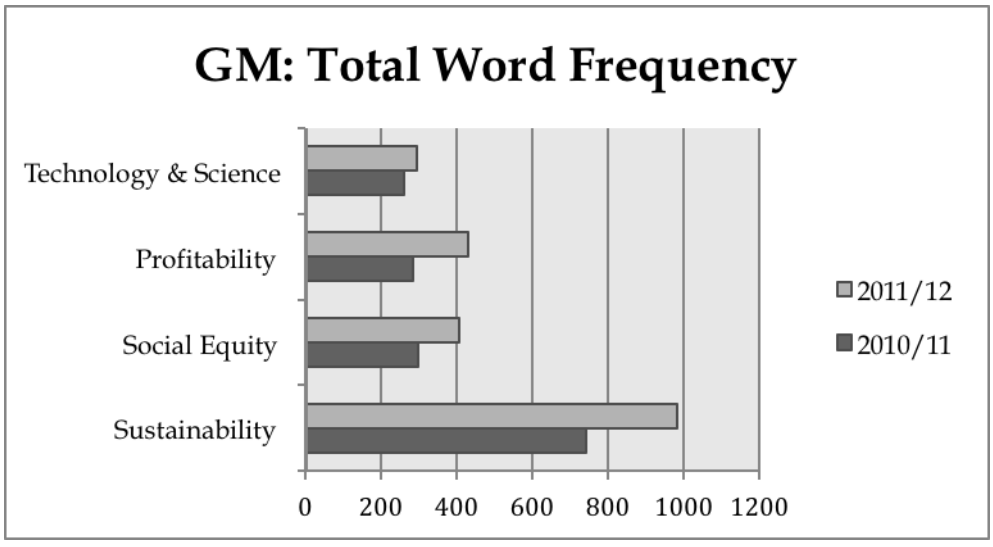


Fig. 3: Total Count for Word Frequency Categories for GM

Above, Fig. 3 illustrates that GM's most recent report for the 2011/12 fiscal year become more comprehensive as each category word frequency increases, signifying that they were discussed in greater depth.

Qualitative Analysis

Modern Discourse

Ford and GM have both emphasized *modern* approaches to sustainability through their emphasis on technocracy, science, and economic progress to achieve sustainability (Merchant 2009). Linguistically, this is shown through the repetitive use of terminology referring to these categories in Table 3, which I divided into two themes that govern modern ideologies: "the prioritization of the financial bottom line" and an "emphasis on science, technology, and innovation" as the primary methods to achieve sustainability.

Table 3: Examples of Textual Modern Discourse (words are italicized in order to emphasize modern discourse)

Textual Examples:
Prioritization of financial bottom line:
GM: ➢ "There are all kinds of politics around the issue of climate change, but from our standpoint it makes sense for us to focus on solutions that reduce CO_2 in our plants and in our vehicles. *These solutions have business benefits. Energy reduction translates into lower energy costs for us"* (pg. 3, 2010/11) ➢ "It also has become clearer that reducing waste and increasing efficiency is good for the *bottom line of the business"* (CEO Daniel F. Akerson's Message; pg. 7, 2011/12) ➢ *"We believe that corporate responsibility begins and ends with a healthy business — one that grows profitably […]"* (pg. 78, 2011/12)
Ford: ➢ "In recent years, by necessity, much of our focus has been on the *economic dimension of sustainability"* (pg. 2, 2003/4) ➢ "The economic dimension of sustainability looms large for the Ford of 2007. We *must return to profitability in order to continue to contribute to addressing global sustainability challenges*." (pg. 6, 2006/7) ➢ "Although increased energy rates have a *significant cost impact* to the Company, they do *increase awareness of energy conservation, its impact on the environment and the need for alternative energy solutions. Increased utility rates have prompted Ford Motor Company to revisit energy efficiency actions that previously did not meet our internal rate of return."* (2011/12)

Emphasis upon Technology, Science, and Innovation

GM:

- Leading in the *research and development of advanced technologies* to help displace petroleum, improve fuel economy and reduce emissions. (pg 8, 2011/12)
- "Another *key factor for success* has been leveraging investments in *sustainable innovation*" (CEO Daniel F. Akerson's Message; pg. 7, 2011/12)
- "Our global vehicle strategy is driven by a focus on energy alternatives and advanced *technologies* that could reduce and/or displace petroleum" (pg. 53, 2010/11)
- "These achievements reflect the accomplishments of our global network of GM *engineering centers and research laboratories*. Our *engineers and scientists* […] work to identify and *develop technologies* that will increase energy efficiency and enhance vehicle safety." (pg 21, 2011/12)
- "We are making progress — and respected industry research assessments confirm it." (pg. 66, 2011/12)

Ford:

- "To [become a model of sustainable manufacturing], we combined *advanced environmental technologies* within a world-class lean manufacturing center" (pg. 34, 2003/4)
- *"Technological innovation is central* to Ford's strategy to develop sustainable mobility solutions that meet current and emerging market needs, and *improve the environmental performance of our products*, including their impact on climate change" (pg. 5, 2006/7)
- "Throughout this report, we refer to Ford's climate goals as "*science-based*" – specifically, based on the *science of climate stabilization*. An advantage of this approach is that it gives us an *objective*, long-term goal focused on an environmental outcome – stabilization of carbon dioxide in the atmosphere" (pg. 112, 2011/12)
- "At Ford, we're looking at ways that *technology can help us solve such challenges while creating profitable growth*." (pg. 107, 2011/12)
- "We have a *science-based strategy* to reduce greenhouse gas (GHG) emissions from our products and operations that focuses on doing our share to stabilize carbon dioxide (CO2) concentrations in the atmosphere." (pg. 135, 2011/12)
- "We are continuing our *scientific research* to determine the relative contribution of a wide range of long-lived greenhouse gases to radiative forcing of climate change." (pg. 150, 2011/12)

Ideographic Representations:

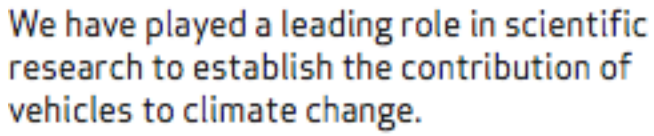


Fig. 4. **An illustration of Ford's emphasis on science as a method in achieving sustainability.** The font of this quote was enlarged in order to stress its importance (pg. 108, 2011/12)

We have learned that sustainability feeds our bottom line and that sustaining a profitable business is our ultimate responsibility.

Fig. 5. **GM's prioritization of the financial bottom line.** The font of this quote was enlarged in order to stress its importance and was centered among text so that readers focus on this statement (pg. 4, 2010/11).

Fig. 6. GM's technological line-up for more sustainable vehicles. GM elaborates on how diversity in energy technologies will be better for the environment and consumers (pg. 22, 2011/12)

Post-Modern Environmental Discourse: Sustainable Development

Most recently, Ford and GM have began to incorporate post-modernist ideologies of sustainability by incorporating the notion of holism and the triple bottom line, which places emphasis on every step of an entire process. Consequently, Ford and GM are displaying a comprehensive business model that equally highlights sustainable economic, environmental, and social practices, referred to as the triple bottom line. Therefore, Ford and GM have incorporated sustainability into many more facets of their environmental and social dimensions. This is demonstrated in Ford's social and environmental sections. In fiscal year 2003/4, only 2 social subheadings and 10 environmental subheadings were included, but increased to 8 and 19, respectively, in their 2011/12. Table 4 illustrates how Ford and GM are beginning to represent a triple bottom line business model that is comprehensive. Furthermore, Ford and GM include indirect externalities of business malpractices into their discussion of sustainability. For examples, they are beginning to take issues such as contamination of water sources and the

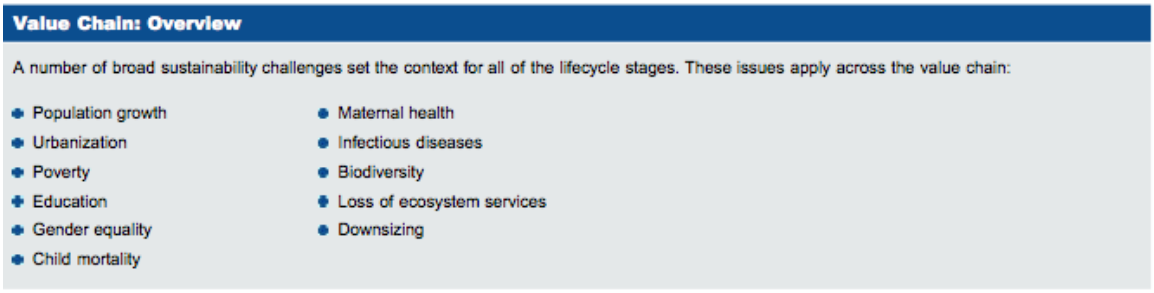
destruction of land during materials extraction into account. Also, Ford and GM are reporting on social issues that are indirectly affected by the company, such as poverty and corruption. This demonstrates the incorporation of post-modern ideals because both companies are taking holistic measures of sustainability.

Table 4: Examples of Textual Post-Modern Discourse (words are italicized in order to emphasize post-modern discourse)

Textual Examples
Ford: ➢ "We developed a *comprehensive* set of Business Principles. The Principles are now being embedded into our planning processes and performance scorecards, making explicit our high standards regarding *products and customers, the environment, safety, community, quality of relationships, financial health and accountability*" (pg. 3, 2003/4) ➢ "During 2006, the Code [of Basic Working Conditions] was revised to include additional commitments on *community engagement, corruption, the environment and sustainability*." (pg. 19, 2006/7) ➢ "We define sustainability as a business model that creates value consistent with the long-term preservation and enhancement of *environmental, social and financial capital*" (pg. 5, 2011/12) ➢ "Began looking at new mobility options through an "*ecosystem*" lens that puts vehicles in a *broader transportation context*" (pg. 14, 2011/12) ➢ "New approaches take a more *holistic* view of transportation needs and options, relying on collaborative partnerships and information technology to bring together existing services, products, technologies, infrastructure and design into something that is *greater than the sum of its parts – smarter, more sustainable, more convenient, more equitable and better connected.*" (pg. 57, 2011/12) ➢ "Our strategy is based on our One Ford plan, the outcomes of which we define as Great Products, Strong Business and Better World. *Like everything in the sustainability arena, these three outcomes are inextricably linked and interconnected*." (Robert Brown, VP of Environment, Sustainability, and Safety Engineering; pg. 7, 2011/12) GM: ➢ "In this report General Motors speaks with confidence about all three critical measures of sustainability — *environmental, social* and economic" (pg. 2, 2010/11) ➢ "Clearly, this exponential increase in demand creates significant challenges with respect *to energy, the environment, safety, congestion and land use*." (pg. 19, 2011/12) ➢ "Maximizing the benefits of operating our facilities in an *environmentally and socially responsible manner."* (pg. 39, 2011/12)

Ideographic Representations

Fig. 7. **A visual representation of the most important topics in Ford's 2011/12 report.** This illustration shows a more comprehensive business model that integrates environmental and social issues. Words that are deemed as most significant have larger fonts. (pg. 18)

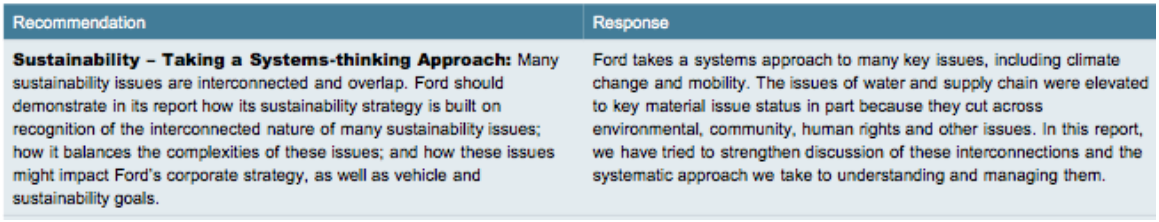


Value Chain: Overview

A number of broad sustainability challenges set the context for all of the lifecycle stages. These issues apply across the value chain:

- Population growth
- Urbanization
- Poverty
- Education
- Gender equality
- Child mortality
- Maternal health
- Infectious diseases
- Biodiversity
- Loss of ecosystem services
- Downsizing

Fig 8. **Ford's Value Chain Overview that emphasizes a lifecycle approach and incorporates indirect issues caused by sustainability challenges** (pg. 49, 2011/12)



Recommendation	Response
Sustainability – Taking a Systems-thinking Approach: Many sustainability issues are interconnected and overlap. Ford should demonstrate in its report how its sustainability strategy is built on recognition of the interconnected nature of many sustainability issues; how it balances the complexities of these issues; and how these issues might impact Ford's corporate strategy, as well as vehicle and sustainability goals.	Ford takes a systems approach to many key issues, including climate change and mobility. The issues of water and supply chain were elevated to key material issue status in part because they cut across environmental, community, human rights and other issues. In this report, we have tried to strengthen discussion of these interconnections and the systematic approach we take to understanding and managing them.

Fig. 9. Ford's response to a third party auditor discussing their integration of holism into many key issues (pg. 21, 2011/12)

Beyond the triple bottom line, Ford and GM have integrated holism into other aspects of their business models, such as Products and Manufacturing, Emissions and Externalities, and Social Equity. In regards to Products and Manufacturing, Ford and GM are including sustainability measures throughout the supply chain, otherwise coined as life-cycles processes.

This includes minimizing natural resource use for inputs and recycling of materials after disposal.

Products and Manufacturing

Main Categories of Language:

- Life-Cycle Processes (Cradle-to-Grave)
- Applying sustainability into the entire manufacturing process or supply chain (from raw materials extraction to disposal of the vehicle)

Table 5. Examples of Textual Post-Modern Discourse regarding Products and Manufacturing (words are italicized in order to emphasize post-modern discourse).

Textual Examples:
GM: ➢ "Our designers and engineers consider the *entire product life cycle* as they develop and build vehicles with a goal of sustainability" (pg. 12, 2010/11) ➢ We are committed to reducing waste and pollutants, conserving resources and recycling materials at *every stage of the product life cycle* (pg 9. 2011/12) ➢ "Waste reduction, energy efficiency and resource conservation are core competencies for us and is *fully integrated into our manufacturing operations"* (pg. 39, 2011/12) ➢ "We also focus on ways to convert material by-products from routine manufacturing operations into new vehicle components. This expertise has resulted *in closed-loop systems* […]" (pg. 53, 2011/12)
Ford: ➢ "We also promote sustainable business practices not only in our own global operations, but *throughout our entire supply chain*." (pg. 1, 2011/12) ➢ "Environmentally, we are improving our manufacturing efficiency, cutting the emissions of our vehicles, designing vehicles *with end of life in mind* and increasing the *recyclability* of our vehicles and our use of recycled materials." (pg. 124, 2011/12) ➢ "We use a lifecycle approach to assess and minimize the total adverse impacts of our vehicles from a sustainability perspective – *from raw materials extraction through manufacturing and use to end of life* [...] Called Design for Sustainability (DfS), the approach is *integrated and holistic*, to ensure that we achieve a balance between environmental, social and economic aspects in our product development process." (pg 137, 2011/12)

Ideographic Representations:

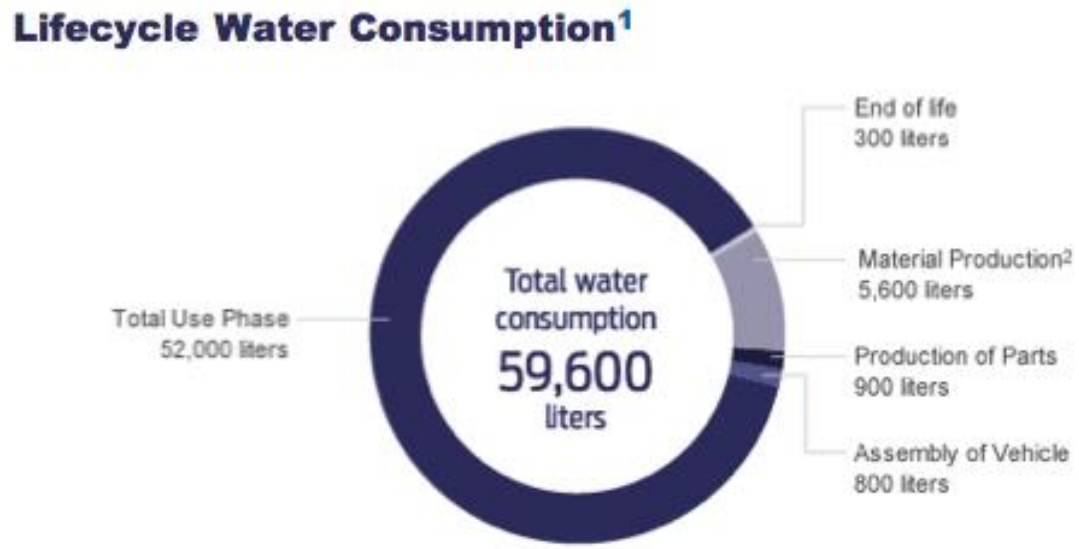


Fig. 10. Ford using lifecycle analysis during water consumption data extraction (pg. 316, 2011/12)

As mentioned above, Ford and GM are beginning to incorporate more measures of sustainability that are not associated with vehicle use, but can be caused by manufacturing processes as well. These can be associated with emissions and externalities that are the indirect consequences of manufacturing, use, and disposal.

Emissions and Externalities:

Main Categories of Language:

- Emissions other than that of CO_2
- Emissions and externalities produced during other parts of the organization rather than just during the use of the vehicle (i.e. waste, energy, and water reduction in buildings and supply chain)
- Reducing the contamination or destruction of local resources
- Preserving of biodiversity

Table 6: Examples of Textual Post-Modern Discourse regarding Emissions and Externalities (words are italicized in order to emphasize post-modern discourse)

Textual Examples:
GM:
➢ "During this period, we also made significant progress in areas of *water conservation*, renewable energy use and *wildlife habitat preservation*"
➢ "Clearly, this exponential increase in demand creates significant challenges with respect to *energy, the environment, safety, congestion and land use*." (pg. 19, 2011/12)
➢ We are committed to *reducing waste and pollutants, conserving resources and recycling materials* at every stage of the product life cycle (pg 9. 2011/12)
➢ "Environmental sustainability tends to be associated with the color green, but it is equally *important to remember "blue" — as in clean, fresh water*. Economically feasible water conservation is incorporated into the planning of every new facility" (pg. 51, 2011/12)
Ford:
➢ "During 2010 we updated our water strategy, in recognition of the importance of *freshwater to our communities* and to our own operations and in recognition of the *interconnections* between the availability and quality of water and other issues like climate change."
➢ We have a *holistic view of climate change and have addressed non-carbon-dioxide (CO_2) long- term greenhouse gases* such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrous oxide (N_2O) and sulfur hexafluoride (SF6).
➢ "The GHG emissions associated with Ford's activities include *emissions from our facilities, from the transportation of our products and people, from the vehicles we produce once they are in use* by customers and from our suppliers."
➢ "We are also committed to reducing the overall environmental footprint of our *vehicles and operations* across a range of environmental issues. For example, we continue to increase the use of sustainable materials in our vehicles. And, *we reduced waste to landfill* by 20 percent per vehicle from 2010 to 2011 and expect to reduce it

again by 10 percent per vehicle in 2012. *We are also continuing to reduce VOC emissions from our operations through the use of innovative technologies*." (pg. 137, 2011/12)

- "We have a holistic view of climate change and have addressed *non-CO2* long- term greenhouse gases such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrous oxide (N2O) and sulfur hexafluoride (SF6)." (pg. 150, 2011/12)
- "Our activities have the potential to affect *land use, nature and biodiversity, directly and indirectly*." (pg. 278, 2011/12)
- "Ford is a leader in *green building and is committed to the sustainable design of our facilities and landscapes using the basic principles of resource effectiveness, lifecycle assessment, health, safety and environmental performance*." (pg. 280, 2011/12)
- "With water pollution increasing and the world's population growing, access to clean water is growing ever more uncertain. Ford Motor Company can play a role in *developing and implementing solutions to the global water challenge*." (pg. 367, 2011/12)

Ideographic Representations:

Fig. 11. Issues taken into account during "Product Planning and Design" of Ford's vehicles (2011/12)

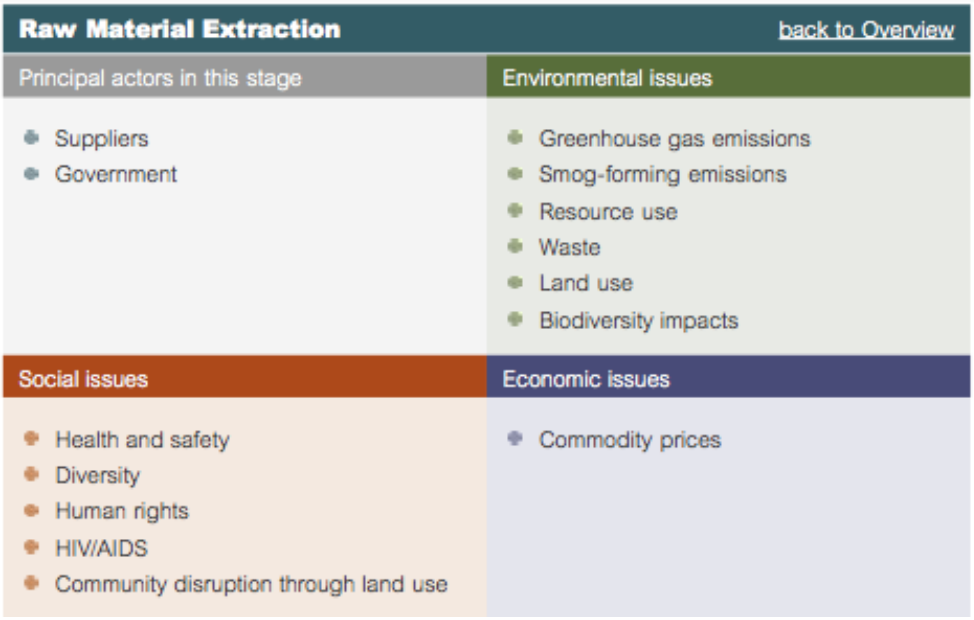


Fig. 12. Issues taken into account during the "Raw Material Extraction" phase of Ford's products (2011/12)

Fig. 13. GM incorporating biodiversity into its assembly plants (pg. 54, 2010/2011)

Social Equity:

Main Categories of Language:

- Land degradation to local communities
- Issues of human rights besides that of employees and customers (like indigenous peoples, HIV/AIDS, and poverty)
- Including stakeholders into the decision-making process

Table 7: Examples of Textual Post-Modern Discourse regarding Social Equity (words are italicized in order to emphasize post-modern discourse)

Textual Examples:
GM:
➢ "[Fulfilling consumer expectations] means listening *more and using every customer interaction as input* to the way we design, build and sell our vehicles." (pg. 64, 2011/12) ➢ Work with *governments and communities* in which we do business to improve the quality of life in those communities (2010/11) ➢ "General Motors has a strict 'zero tolerance' policy against the use of *child labor, abusive treatment of employees or corrupt business practice in the supply of goods and services to us."* (pg. 60, 2011/12)
Ford:
➢ "We need to conduct *extensive stakeholder engagement* to help us understand the wants and needs of consumers in developing countries." (2011/12) ➢ "We have sustained, interdependent relationships with several distinct categories of stakeholders: employees, customers, dealers, suppliers, investors and communities." (pg. 88, 2011/12) ➢ Categories included in their "Society" section include: *Human Rights, Diversity, Bribery and Corruption, Political Contributions,* Customer Satisfaction and Safety, *Environment* and Employee Health and Safety, *Privacy, Social Media Interactions*" (pg. 413, 2011/12) ➢ "But we also are committed to moving beyond our own fences to address water issues *within our communities of operation*. We are working with stakeholders to better understand issues around water accessibility and sanitation, *in water-stressed communities especially*." (pg. 315, 2011/12) ➢ "In recent years, we have taken steps to develop a more *integrated approach to managing the different dimensions of our community involvement.* Our goal is to more closely connect our traditional community relations programs, community impact assessment processes and human rights efforts." (pg. 455, 2011/12)
Ideographic Representations: Refer to the "Social Issues" category of Figures 11 and 12.

DISCUSSION

As environmental degradation and the need to become more sustainable is becoming ever more apparent, ways to achieve sustainability and eco-friendly practices have become a highly contested issue. As a result, discursive actors engage in environmental discourse in order to define "sustainability" in a way that satisfies their agendas. Particularly, multinational corporations try to manipulate the definition of sustainability in a way that maintains the accumulation of wealth. However, more nuanced theories of sustainability contest that economic growth is counterproductive to sustainability as it does not address the issues of overproduction and overconsumption of a materialistic consumerist society: the main causes of the current environmental crisis. In this way, more "radical" notions of sustainability believe that current capitalistic institutions that have been sustained since the industrial revolution have engrained ideals in society that revolve around economic growth through innovation, which is directly correlated to "progress." In this way, the advancement of *modern* society is based upon continued economic growth. Furthermore, entities that acquire large amounts of capital, such as multinational corporations and governmental institutions, are those who make decisions regarding environmental and social issues (Eden 1999). This has created a hegemonic authoritative regime that is centralized among politicians and capitalists. As these entities tend to have access to public discourse, they try to frame sustainability in terms of these *modern* ideologies, which seeks to only incorporate environmental management if there is a financial incentive.

Moreover, frameworks of *modernity* rely upon scientific knowledge and technocracy to provide solutions of sustainability. Science is viewed as the objective teller of truth and, scientific experts and engineers are seen as the only legitimate form of knowledge creation. Consequently, experts can use this knowledge to create innovative technologies to fix the problem at hand. In the case of climate change, technologies are implemented to cut costs due to inefficiencies and reduce emissions. However, as this knowledge is produced through experiments that decontextualize processes by concentrating on interactions of separate constituent parts, technology tends to create unintended consequences in other parts of the system, creating a need for more technology. As a result, resolving new problems with more technology is often referred to as "technological optimism" (Merchant 2009).

On the other hand, contrasting forms of sustainability have advocated for the dissolution

of these institutions in order to allow for 'true' sustainability. In effect, these *post-modernist* ideologies of sustainability advocate for a decentralized authoritative structure that includes lay people in decision-making processes because they are the ones who are often affected by the decisions made by politicians and capitalists. Post-modernism also stresses the need for holistic research strategies that factor in effects upon an entire systems, as there are feedback loops that must be accounted for in order to create more efficient technologies. As a result, post-modern frameworks view science as inherently flawed due to its disconnected and isolated nature and that the unpredicted effects of the technology it creates leads to a "technological treadmill" that leaves society having to continually keep up with negative technological externalities. Furthermore, this technological treadmill intensifies the demand of natural resources and increases waste streams, creating even more environmental degradation. Consequently, post-modern ideologies promote holistic strategies of sustainability that incorporate a democratic decision-making process and that takes into account local knowledge while eliminating the unnecessary addiction to technological innovation (Merchant 2002).

Context

Before the auto-bailout, Ford and GM focused predominantly upon producing large sport utility vehicles and pickups trucks, which have extremely low fuel economy, because of their high profit margins (Associated Press 2008). As the prices of gasoline spiked due to the 2003-2008 energy crisis customers began purchasing more fuel-efficient vehicles (Associated Press 2008). As Ford and GM offered fewer fuel-efficient models to their customers than their foreign competitors, sales declined tremendously. In effect, it was theorized that U.S. automakers brought their near-bankruptcy on themselves by not adapting to an energy efficient era, which reduced their competitiveness in the global market. After receiving billions of dollars in aid from the Department of Energy, Ford, and GM in particular, promised to begin producing more energy efficient vehicles with better fuel economy (Amadeo 2013). This initiated their intent on practicing Sustainable Development**.** Although Ford and GM are advertising their intent on participation in sustainability measures (Table 4), this was not so apparent before the automotive bailout. This is shown by GM's first sustainability report released after the bailout as well as Ford's focus on financial health and the benefits of sustainability measures to profitability in

their final report (Table 3).

"Sustainable development" is a priority- Ford (pg. 4, 2011/12)

Throughout their CSR's, Ford Motor Company and General Motors use the discourse of 'Sustainable Development' to frame their environmental performance. Sustainable Development (SD) is the central ideological framework underlying environmental policy-making and business decisions concerning sustainability in industrialized countries (Berger et al 2001). The ideology of SD claims that improved environmental performance and social equity measures in the global operations of a business can create synergetic effects that allow for enhanced economic growth **(**Berger et al 2001**).** In this way, a relationship between the economy and ecology can be formed to produce positive outcomes that translate in a company's financial bottom line (Fig. 5).

To bolster revenues, SD relies on scientific rationality and technological innovation to produce resource efficiency and the internalization of environmental costs by minimizing material use and waste throughout the supply chain while extending product life-cycles (Berger et al 2001). Consequently, SD is grounded in an epistemology of 'modernity', relying upon scientific knowledge, technological innovation, a capitalistic market economy, and a belief in progress, to address the issue of climate change (Table 3; Fig. 4 and 6). As companies act within a market economy that emphasizes profit making through cost savings, they only consider the environmental implications of business operations when there are financial gains from environmentally beneficial actions or when there is legal or customer demand pressure from outside (Berger et al 2001). Thus, neo-liberal actors believe that market mechanisms will effect reduced carbon emissions by integrating energy efficient technologies throughout supply chains that minimizes production costs, while taking advantage of eco-conscious consumer demand for green products. With a more efficient manufacturing process, companies intend to increase production and sales while continuing to extract natural resources without restraint. In this way, it is made clear that corporations do not embrace environmental management from an philanthropic perspective because they are genuinely worried about the health of the environment or social welfare, but are primarily motivated by its positive effects on economics. Sustainable Development may prove to be predominantly a rhetorical device seeking to reduce radical opposition and secure the legitimacy of existing policy while delivering limited,

economically acceptable environmental improvements'.

Although grounded in modern epistemological principles, the rhetoric and practices of SD have increasingly come to reflect *post-modern* ideologies (Table 4) positing that sustainability is only achievable through holistic measures focused on life-cycle processes (Table 5) and the incorporation of indirect externalities caused by vehicle production and use (Table 6). In effect, the *whole (*business operations in this case) is considered greater than the sum of its parts due to the interconnectedness and complexity of systems, which allow for positive synergetic effects (Merchant 2002). The notion of holism permeates of the rhetoric of SD as it stresses the need to incorporate all aspects of a system, as they are all linked to one another and thus necessary for the vitality of the system (Table 5). Specifically, holism is directly applied to SD in three main ways: supply chain management, the combination of environmental as well as social criteria into those of economic performance, and the mitigation of indirect emissions associated with production processes.

Although the theory of SD integrates principles of post-modernism, it revolves around modern philosophies and motives, which permeates every CSR report published by Ford and GM and more strongly after the auto bailout. While Ford and GM are portraying their more proactive measures to become sustainable, these focus entirely on cutting costs and maximizing profit. Consequently, CSR's increasingly incorporate post-modernist philosophies into their representation of business models, yet are dominated by modernist motives that limit true progress. While Ford and GM employ selective post-modernist solutions that fulfill their modernist priority of economic growth, each issue within CSR's is embedded within post-modern discourse that serves modernist agendas.

This can be illustrated in the form and content of the text as modernist and post-modern discourses are constantly in tension throughout the CSR's.

Form

Distribution

Ford and GM's CSRs were most directly accessible through the internet on their company websites. However, it was difficult to navigate through these websites to find the

documents, to which there were no links on their homepages. Finding past CSRs was particularly difficult as it was at the bottom of a page in small font. On the other hand, finding GM's CSR was slightly less difficult as it was under a main heading that was 1 of 3 links on the homepage. This suggests that GM is trying to advertise their "sustainable" business model more heavily as their need for a bailout is blamed upon not being able to maintain a comparative advantage by producing fuel-efficient vehicles.

Ford provides CSR's for each year beginning with the 2003/4 fiscal year, while GM only provides 2 reports for 2010/11 and 2011/12 fiscal years. Although this allows for quick access to the documents, solely distributing these reports through the internet requires stakeholders to actively seek the document and so it is not very effective in disseminating information.

Publication

These reports are published in an official manner, which is supposed to legitimize the "accuracy" of the report, giving the companies a sense of authority that may influence the reader to assume that the document is written by experts that have superior knowledge and understanding of the industry. Also, using business language and the expertise, legitimizes their claims and arguments within the reports.

Transparency

Corporate sustainability publications serve as a form of transparency, ensuring stakeholders that they are taking responsibility for their malpractices and addressing them. However, corporations with the poorest environmental performance are more inclined to disclose more environmental information (Jose and Lee 2007), which should be kept in mind when reading these reports. While transparency is intended to assure corporate accountability for business decisions, it is difficult to measure the accuracy of corporate claims. Finally, companies tend to omit important information regarding their resistance to sustainability. Particularly, GM omitted its involvement in a lawsuit that would have increased fuel economy standards altogether, while Ford justified its actions by calling upon its corporate authority. This kind of

spotty transparency is deceiving to stakeholders because companies tend to release information showing progress towards sustainability goals. However, when they do, they try to justify their reasoning through business language with a tone suggesting that they know what is best for the company and if do not comply, then lead to bad compliance, as shown in the quotation below:

> *"State-by-state regulation of fuel economy is unworkable because it raises the prospect of an unmanageable patchwork of state standards. Moreover, the AB 1493 regulations seek to impose a fuel economy task that is far more steep and severe than any that has ever been imposed in the history of CAFE. As time passes and the standards grow more stringent, many if not all manufacturers will have to severely restrict or eliminate sales of larger cars and trucks in order to maintain compliance. Even with our commitment to embrace innovative technologies, Ford would not be able to comply with these standards without restricting our product lineup over time." – Ford (2006/7)*

Accountability

In each report, Ford and GM assure that a third-party reviewed the information, signifying its accuracy. While companies receive "grades" from reporting coalitions, such as the Global Reporting Initiative (GRI), for the comprehensiveness of their reports, both Ford and GM emphasized that they received high scores, as demonstrated by Ford who in the beginning of its 2006/7 yearly report stated:

> *"This report is aligned with the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines […], at a self-checked application level of "A+" (pg. 5, 2006/7)*

However, this is deceiving because the reports are self-graded and is not based upon the *accuracy* of the report, but rather how comprehensive it is. Specifically, an "A" correlates to including the "core" indicators, which only comprise of about three-fourths of the 82 total indicators, or by explaining the reason for its omission. Thus, companies receive a higher grade if they included more indicators and a "plus" if the Global Reporting Initiative assured that these indicators were in the report. Consequently, assurance does not reflect how they are measuring up to their claims made in CSRs, as it seems to suggest if external assurance was utilized for the report.

Ford

Layout. In the 2003/4 and 2006/7 CSR analyzed, Ford placed its "Environmental" and "Societal" sections before that of "Financial Health", which is the final major section of the report. In this way, it appears that Ford is trying to play down the importance of financial health in relations to the environmental, community, safety, and quality of relationships sections by placing it last (Huckin 2002). Ironically, in the 2006/7 report, the "financial health" section is labeled "Sustaining Ford" and elaborates upon how Ford's sustainability is only achievable if the company maintains profitability. This is beginning to show that integrating environmental and social factors into their economics will allow for a "sustainable" company that will remain profitable.

In Ford's most recent CSR, the company adopts the epistemology of Sustainable Development most strictly, emphasizing its "Financial Health" above all other forms of sustainability, demonstrating that profitability is their priority. Issues regarding the Environment, and Society were deemed important because they will ensure the profitability of the firm.

The tension between modern and post-modern theories of development is painfully apparent in Ford's latest table of contents in the 2011/12 CSR. As the ideology of modernity would suggest, financials are deemed as the most important aspect to the company. However, the transition into post-modernist thinking of business has allowed for the environment and social factors to be high on the agenda, as shown by their positions in the table of contents.

In Ford's previous CSR's, "Financial" is the last section, but after bailout they became very explicit about their commitment to their profitability in order to assure those dependent on them (economy, workers, government) will not have to worry about another bankruptcy scare. After the bailout, "Financial Health" became the first large section after the introductory material, as shown in Ford's Table of Contents for its 2003/4, 2006/7, and 2011/12 CSRs below. By ensuring that their financial health will be bolstered by being environmentally and socially sustainable, Ford demonstrates the transition to SD.

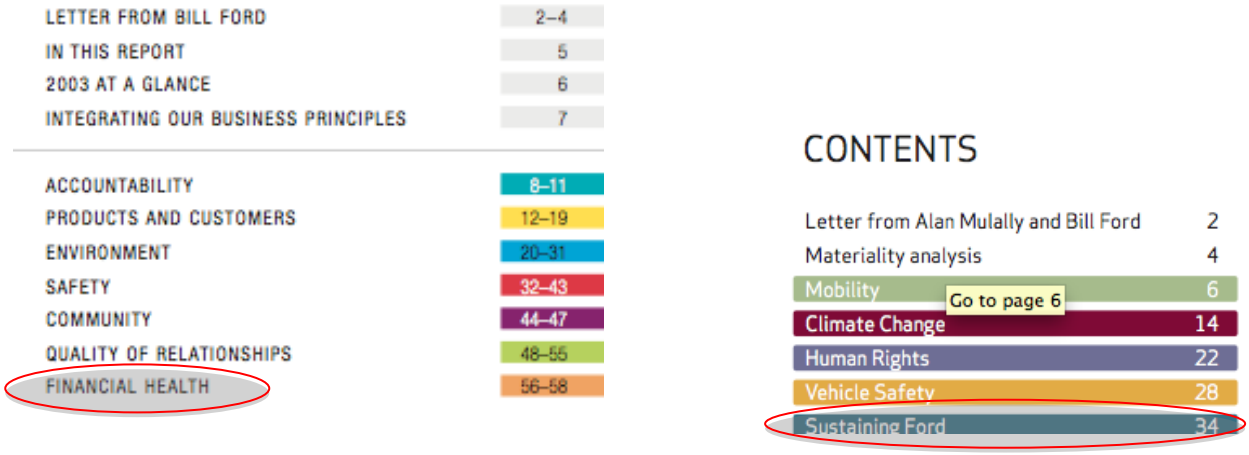


Fig 14 and 15. Ford's Table of Contents for the years 2003/4 and 2006/7, respectively, where "Financial" sections are placed last.

Fig. 16. Ford's Table of Contents for the 2011/12 CSR, where the "Financial" section is placed right after the introductory material. The categories to the left are discussed first

Indicators. Table 1 above illustrates Ford and GM mainly stress their environmental practices along with the "Society" and "Product Responsibility" sections. Initially, Ford did not place much emphasis on its social performance indicators earlier in the decade but began including more as time progressed (from 44% to 81%). Ford integrating almost double the amount of social performance indicators suggests that Ford weighs social issues almost as equally as environmental issues as their percentage of disclosure is similar (90% environmental compared to 81% social). Regarding economic performance, Ford included all indicators for every report. Lastly, Ford contracted a third party auditor, the Global Reporting Initiative, to ascertain that it included all of the information it claimed to in its 2006/7 and 2011/12 CSR's. Because Ford was not bailed out and was actually barely profitable during the report suggests that Ford was always more cognizant of its financials and was more sustainable in their practices. This can be represented by its inclusion of most indicators before the bailout in 2009 (Fig. 1).

GM

Layout. As illustrated in the Table of Contents, GM does not even include a financial section in their CSR. Because 2011 was the second year that GM began operating again after the bailout, this may reflect an effort to deemphasize financial health and stress other areas in which they are maintaining a sustainable business model to keep them in business. Although not a section by itself, discourse relating for the need to maintain profitability is weaved throughout each section and justifies why they are engaged in a SD approach.

Indicators. Primarily, GM only received scores for the last two years because it did not provide any CSR's for any years prior to 2010. Furthermore, unlike Ford, GM plays down its financial indicators, and instead places more (and almost equal) importance upon its environmental and social performance (77% to 72%, respectively). In effect, this implies that because GM was bailed by the US government on the terms that it would act more responsible financially by making more fuel-efficient vehicles, GM tries to emphasize upon more responsible forms of indicators and thus plays down its financial indicators as they filed for bankruptcy.

As Table 1 of Total Indicator Score shows, each report became increasingly comprehensive as time progressed. The number of indicators in the Environmental and Societal sections of each report also grew rapidly as the total indicator score for these sections increased by more than 14% and 11%, respectively, as demonstrated by Table 1. This demonstrates the increasing prevalence of Sustainable Development as an accepted business model.

Authority through Images

Images demonstrate what is important in reports because they force the reader to focus on this information and thus retain it more easily. Ford and GM do this particularly by presenting images of "objective facts and data", which are seen as an authoritative way of providing information, through pictures as well as figures (Eden 1999). Meanwhile, incorporating pictures of their business managers connotes that such attitudes and goals within these reports are actually permeating throughout the company (Fig. 16).

Fig. 16. Global Product Development Vice President, Derrick Kuzak's stance of integrating climate change goals into the market economy. Ford (2006/7).

Furthermore, the majority of their graphs, charts, and tables included charts that showed improving performances, which influences the reader to assume that Ford and GM are practicing more sustainable business models and are on task to completing their goals, as illustrated in the Fig. 18 and Fig. 19 below:

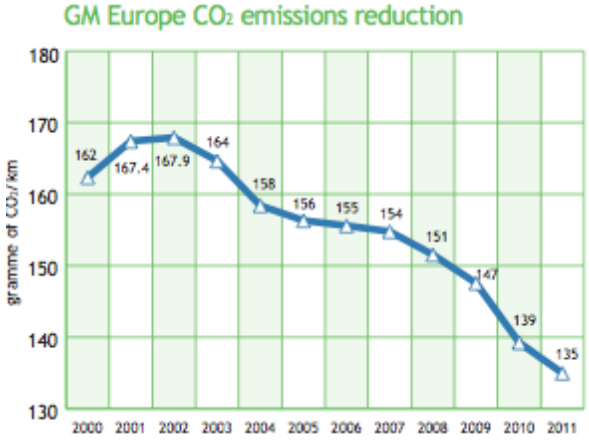
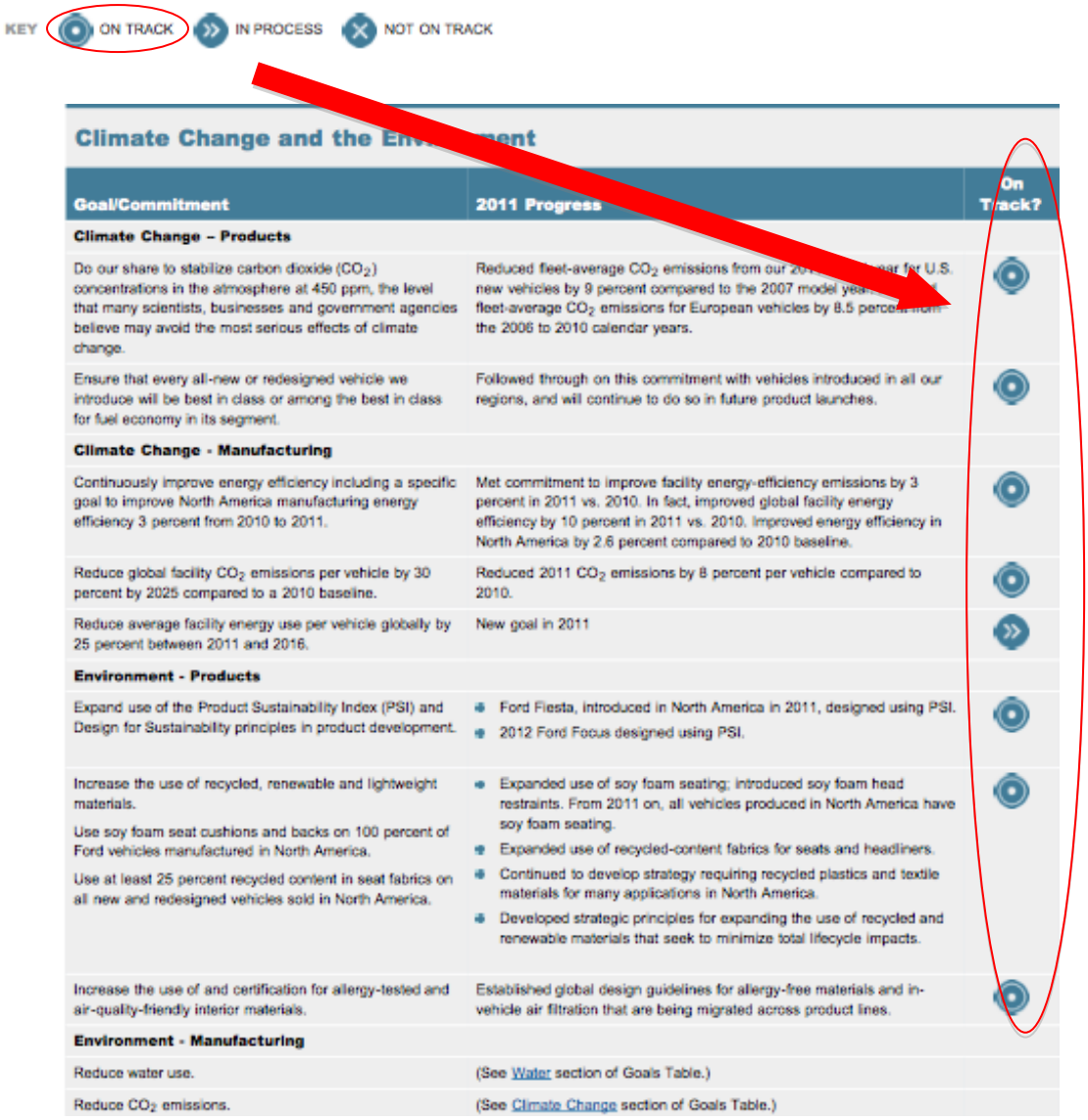


Fig. 17. GM's Europe emissions reduction for carbon dioxide. (pg. 41, 2011/12)



KEY ON TRACK IN PROCESS NOT ON TRACK

Climate Change and the Environment

Goal/Commitment	2011 Progress	On Track?
Climate Change – Products		
Do our share to stabilize carbon dioxide (CO_2) concentrations in the atmosphere at 450 ppm, the level that many scientists, businesses and government agencies believe may avoid the most serious effects of climate change.	Reduced fleet-average CO_2 emissions from our 20[illegible] year for U.S. new vehicles by 9 percent compared to the 2007 model year[illegible] fleet-average CO_2 emissions for European vehicles by 8.5 percent from the 2006 to 2010 calendar years.	
Ensure that every all-new or redesigned vehicle we introduce will be best in class or among the best in class for fuel economy in its segment.	Followed through on this commitment with vehicles introduced in all our regions, and will continue to do so in future product launches.	
Climate Change - Manufacturing		
Continuously improve energy efficiency including a specific goal to improve North America manufacturing energy efficiency 3 percent from 2010 to 2011.	Met commitment to improve facility energy-efficiency emissions by 3 percent in 2011 vs. 2010. In fact, improved global facility energy efficiency by 10 percent in 2011 vs. 2010. Improved energy efficiency in North America by 2.6 percent compared to 2010 baseline.	
Reduce global facility CO_2 emissions per vehicle by 30 percent by 2025 compared to a 2010 baseline.	Reduced 2011 CO_2 emissions by 8 percent per vehicle compared to 2010.	
Reduce average facility energy use per vehicle globally by 25 percent between 2011 and 2016.	New goal in 2011	
Environment - Products		
Expand use of the Product Sustainability Index (PSI) and Design for Sustainability principles in product development.	• Ford Fiesta, introduced in North America in 2011, designed using PSI. • 2012 Ford Focus designed using PSI.	
Increase the use of recycled, renewable and lightweight materials. Use soy foam seat cushions and backs on 100 percent of Ford vehicles manufactured in North America. Use at least 25 percent recycled content in seat fabrics on all new and redesigned vehicles sold in North America.	• Expanded use of soy foam seating; introduced soy foam head restraints. From 2011 on, all vehicles produced in North America have soy foam seating. • Expanded use of recycled-content fabrics for seats and headliners. • Continued to develop strategy requiring recycled plastics and textile materials for many applications in North America. • Developed strategic principles for expanding the use of recycled and renewable materials that seek to minimize total lifecycle impacts.	
Increase the use of and certification for allergy-tested and air-quality-friendly interior materials.	Established global design guidelines for allergy-free materials and in-vehicle air filtration that are being migrated across product lines.	
Environment - Manufacturing		
Reduce water use.	(See Water section of Goals Table.)	
Reduce CO_2 emissions.	(See Climate Change section of Goals Table.)	

Fig. 18. Ford's progress towards their Climate Change and Environment goals. The "On-Track" column is circled in red to show that all of their goals are seemingly being met. However, these goals are vague and do not denote the amount by which they are completed.

Word Frequency

Table 2 shows the tension between modernism and post-modernism in each report as the most frequent words tend to be "Sustainability," or words that can be grouped in that category, tend to be followed by words referring to profitability, like "Economy" or "Business". This suggests that Ford and GM engage in greenwashing, as I will elaborate upon in the discussion section. Furthermore, there is no clear distinction of a specific ordering among modern and post-

modern buzz words, also demonstrating the tension between these discourses.

Ford

Because Ford emphasizes words relating to sustainability much more heavily in each report (Fig. 2, Table 2), this may suggest "greenwashing", as they are a technologically based company, which is elaborated upon this later in this study. Furthermore, Ford places more stress upon issues of social equity as references to words in this area almost doubled in the 2003/4 to 2011/12 reporting period. This may imply that Ford is obeying the ideology of Sustainable Development much more closely as it is placing more, and thus equal, weight upon social justice measures.

GM

As illustrated in Fig. 3, GM elaborated upon each category more in its latest report as it was more comprehensive, which is also demonstrated by its total indicator score. Moreover, it is also apparent that GM discussed issues referring to sustainability more heavily relative to the other topics, suggesting an increase in the incorporation of post-modern language. However, a particularly greater growth in the reference to profitability demonstrates the tension between modern and post-modern discourse in CSRs.

Content of Corporate Sustainability Reports

The Dominance of Modernist Discourse: The Sustainability of Capitalism

Modernist ideologies represented through the discourse of Sustainable Development are prevalent throughout each Ford and GM CSR. As mentioned above, such rhetoric emphasizes science, technology, and the belief in economic progress as the most rational and efficient solutions to achieve both sustainability and profitability simultaneously (Berger et al 2001). This is demonstrated by the high frequency use of such words and prevalence of pertinent themes associated to modern discourse and SD. However, in their reports, Ford and GM, define sustainability in post-modern terms where it is governed by three mutually enforcing pillars of environmentally, socially, and thus financially, responsible business practices, which emphasizes

a holistic business model, as demonstrated below:

Ford:

> *"We define sustainability as a business model that creates value consistent with the long-term preservation and enhancement of environmental, social and financial capital." (2006/7)*

GM:

> *"In this report General Motors speaks with confidence about all three critical measures of sustainability — environmental, social and economic. Our confidence is based on a new business model — one that very purposefully integrates sustainability into our operations and products." (2010/11)*

Economic Growth and the Rhetoric of Business

Using modernist discourse, Ford and GM claim that a growing economy is necessary to fund the resources needed to address environmental problems. Generally, businesses will only participate in environmental management when it is in their interest to do so, and they are influenced mostly by economic incentives like short- or long-term profits, increased efficiency, risk management, or competitive advantage (Berger et al 2001). In effect, the priority of economic profitability precedes those of responsible environmental and societal management (Table 3). Ford makes this explicit 2006/7 CSR with the following statements:

> *"The economic dimension of sustainability looms large for the Ford of 2007. We must return to profitability in order to continue to contribute to addressing global sustainability challenges." (2006/7)*

> *"The feedback we receive from regular communications with mainstream investors suggests that their primary interest at this point is in our plans to return to profitability. However, these investors recognize, as we do, that the success of those plans is affected by growing carbon constraints and market shifts influenced by concerns over climate change." (2011/12)*

While GM asserts:

> *"We recognize that sustainability feeds our bottom line and that sustaining a profitable business is our ultimate responsibility. Profits enable reinvestment — in R&D to reimagine a car's DNA; in cleaner, more fuel-efficient technologies; in plants that better conserve resources; in improved vehicle safety; in job creation and stability; and in contributions to the communities in which we live and work." – (2010/11)*

In constructing environmental rhetoric, SD uses the discourse of business by framing environmental issues in monetary terms. Using the language of business makes it easier to work with business interests or gain endowments from a pro-business government and institutions (Berger et al 2001). As a result, SD portrays environmental protection as good business practice because 'pollution prevention pays', as efficiency measures translate into cost-savings and thus a competitive advantage (Berger et al 2001). This is very apparent in the following statement (which I have highlighted in red brackets) from the Ford Motors CEO, Bill Ford, in their 2003/4 CSR (Fig. 18). As the quote is enlarged and placed in a blank area to the left of the text shows that Ford is trying to stress this as central to their business model:

Fig.18. Bill Ford, the CEO of Ford, elaborates upon a new business model that incorporates sustainability

Rhetoric concerning cost-effectiveness alludes to concepts such as waste management, energy efficiency, the minimization of resource use as inputs, and pollutant emissions (Berger et al 2001). This "environmental protection for good business", or rhetoric of sustainable development is characterized by, and dependent on, the hegemony of Western science, technology, and consumer culture (Berger et al 2001).

Science and Technology

Scientific research and technological innovation underpin Sustainable Development because it improves a business's competitive advantage and fosters economic growth by mitigating emissions along the supply chain while fostering greater resource efficiency (Berger et al). Particularly, science is seen as an objective teller of truth and the only way in which modern institutions can prove and legitimate the consequences of climate change. Also, science is used to develop innovative technologies that will help to mitigate GHG emissions, minimize the use of natural resources, and aid in the disposal and recycling of consumer products. Consequently, SD is oriented around environmentally beneficial outcomes, in terms of profitability, that come from technological developments (Ihlen 2009). This directly relates to modernist ideologies, as it stresses the need for technology and innovation in order to solve any dilemma at hand, commonly referred to as technological optimism (Merchant 2002). Ford and GM repeatedly express their reliance upon science and technology to solve their environmental deficiencies, as demonstrated in Table 3 and the following statements:

Ford

> *"Technological innovation is central to Ford's strategy to develop sustainable mobility solutions that meet current and emerging market needs, and improve the environmental performance of our products, including their impact on climate change" – (2006/7)*

GM

> *"Our business model also reveals that what we need to grow our business is remarkably aligned with what we need as a society — namely energy alternatives and advanced technologies that help reduce dependency on petroleum, improve fuel efficiency and reduce emissions"- (2011/12)*
>
> *"We will continue to pursue vigorously the development and implementation of technologies for minimizing pollutant emissions." – (2010//11)*

Furthermore, businesses use the rhetoric of science and technology to evoke a sense of objective expertise and rationality that is used to legitimize their business decisions to their audience. 'Technocratic rationality' acclaims trained experts because of their specialized knowledge and

sense of professionalism, which is strongly associated with the power to make the most rational business decisions (Eden 1999). In SD, those who have the 'technical and scientific' expertise to innovate hold the authority over definitions of sustainability (Eden 1999).

Issues of Authority

Corporations: Business as environmental sub-politics

As governmental institutions move to market based instruments in their environmental management scheme, they allow for consensual negotiations between corporations on legislation, partial self-regulation (with legal boundaries), and the use of market mechanisms (Berger et al. 2001). As a result, non-state actors are gaining a larger role in the formation of environmental policy as privatization and deregulation allow for new governance structures. This permits corporations to make decisions regarding sustainability that are hardly scrutinized or audited. As mentioned above, businesses use the rhetoric of science to evoke a sense of expertise and rationality to authorize their own 'sub-political' role while avoiding the accountability associated with more politically visible/scrutinized parties (Eden 1999). In this way, businesses claim that only their 'experts' and 'professionals' have sufficient experience of the technologies and economics particular to their trade, and so they are the only ones who understand the potential options for environmental management. Thus, if regulators do not take the advice of the business professional in the matter, then they will set impossible standards far beyond current technological or economic capability, and therefore compliance will be poor (Eden 1999). Ford made this clear in its 2006/7 CSR when discussing the passing of stricter CAFE standards:

> *"State-by-state regulation of fuel economy is unworkable because it raises the prospect of an unmanageable patchwork of state standards. Moreover, the AB 1493 regulations seek to impose a fuel economy task that is far more steep and severe than any that has ever been imposed in the history of CAFE. As time passes and the standards grow more stringent, many if not all manufacturers will have to severely restrict or eliminate sales of larger cars and trucks in order to maintain compliance. Even with our commitment to embrace innovative technologies, Ford would not be able to comply with these standards without restricting our product lineup over time." – Ford (2006/7)*

Although modernist epistemologies underlie current business actions, Ford and GM appear to be disguising this modern agenda toward sustainability through post-modern discourse as well

as solutions. Thus, corporate motives of cutting costs and expanding market share in order to maximize profits underlie each solution and measure to achieve sustainability.

Post-Modern Discourse and Solutions Embedded within Modern Motives

Because businesses will only act towards environmental management when it is perceived to be a means of enhancing profits through increased efficiency, risk management or competitive advantage, post-modernist discourse and pseudo-solutions are used to disguise modern motives. While current academics consider post-modern solutions as the most effective in mitigating current environmental degradation, societal actors involved in the amelioration process are beginning to participate in its discourse in order to retain their legitimacy in the environmental debate (Merchant 2002).

As SD integrates environmental and social concerns into the financial bottom line, it adheres to post-modern discourse that recognizes the interdependence and complexity of systems. In this regard, Ford and GM are indicating that they are implementing a systems approach that caters to "ecosystem" thinking which accounts for all constituents of a process in order to produce synergetic effects in economic profitability (Table 4 and 5). Ford declares this in its 2011/12 CSR, as follows:

> *"[Ford] began looking at new mobility options through an "ecosystem" lens that puts vehicles in a broader transportation context."*

Furthermore, as shown in Fig. 7, Ford is beginning to place more importance on human rights and water, another indication that it is providing more holistic measures of sustainability, as emphasized in post-modern ideologies.

Specifically, this rhetoric referred to as 'holism' is apparent throughout Ford and GM's CSRs in three/four ways: the triple bottom line (Table 4), life-cycle solutions (Table 5), emissions and waste steams (Table 6), and a comprehensive human rights section (Table 7), as shown below:

> *"This critical global challenge requires holistic solutions including infrastructure improvements, the modification of road user behavior and the enforcement of traffic laws, as well as continued improvements in vehicle safety" – GM (2011/12)*

> *"New approaches take a more holistic view of transportation needs and options, relying on collaborative partnerships and information technology to bring together [….] something that is greater than the sum of its parts." – Ford (2011/12)*

Triple Bottom Line: Integration of economic, environmental, and social responsibility

Because stakeholders decide what companies should be in business (Ihlen 2009), corporations recognize that adhering to the concerns of their consumers and investors is critical to their financial bottom line.

In their CSRs, Ford and GM demonstrate their commitment to the triple bottom line by dedicating extensive sections dedicated to both the environment and social equity, while elaborating on their benefits to their economics. Consequently, businesses believe, that economic growth, environmental protection, and social equity can be combined to produce synergistic effects in the financial bottom line. Ford and GM's commitment to the triple bottom line is explicitly stated in the following statements:

GM:

> *"In this report, General Motors speaks with confidence about all three critical measures of sustainability — environmental, social and economic."* – (2011/12)

Ford:

> *"We made a public commitment to strengthen our connection with society and play an active role in bringing about the transition to greater economic, social and environmental sustainability." – Bill Ford (2003/4)*

Production and Consumption: Life-Cycles in Supply Chain Management

Regarding production and consumption practices, auto manufacturers are making a transition from implementing strategies in the final process stage, or "end-of-pipe" solutions, to

"life-cycle" solutions (Table 5) that emphasizes the incorporation of these strategies throughout the entire production process, from raw material extraction, production, distribution, consumption, to the disposal and recycling or reuse of materials in the supply chain (Berger et al 2001). Consequently, life-cycle solutions are considered a holistic approach because they incorporate the systemic philosophy of ecosystems that emphasizes cyclical processes in which outputs and discarded materials are also used for inputs. Ford and GM have made this eminent by constantly alluding to the ""whole life-cycle of a product" and "cradle-to-grave", respectively.

GM and Ford express that they are devoted to making the entire production and disposal of the vehicle more efficient, rather than just during its use. This is demonstrated by their efforts to minimize resources used and wastes during the creation of the car instead of using a reckless production scheme to create a fuel-efficient car, like GM's Volt. Consequently, they are focused on producing sustainable vehicles, sustainably, which is illustrated in the following statements:

GM:

> *"Our designers and engineers consider the entire product life cycle as they develop and build vehicles with a goal of sustainability." (*2011/12)

Ford:

> *"We use a lifecycle approach to assess and minimize the total adverse impacts of our vehicles from a sustainability perspective – from raw materials extraction through manufacturing and use to end of life [...] Called Design for Sustainability (DfS), the approach is integrated and holistic, to ensure that we achieve a balance between environmental, social and economic aspects in our product development process."(2011/12)*

Consequently, Ford and GM are integrating environmentally beneficial management throughout each point in the supply chain rather than setting goals for the global supply chain. As a result, this transpires into synergetic effects of resource management and sustainability (Berger et al 2001). Ford asserts this in the comment "we also promote sustainable business practices not only in our own global operations, but throughout our entire supply chain", while GM only alludes to it.

Emissions and Externalities

Secondly, Ford and GM are transitioning from merely reducing the direct emissions of tailpipes, to eliminating indirect externalities, like polluting local water sources water, waste streams, and adverse public health affects from exposure to other emission types beyond CO_2, like VOCs, NO_x, and Particulate Matter (PM) (Table 6). This is demonstrated in a list of emissions and waste streams that Ford wants reduce in its manufacturing cycle, shown in Fig. 11 and Fig. 12.

Social Equity. Post-modern discourse incorporates social equity into an environmentally friendly and economically competitive production scheme (Table 7). Ford and GM exemplify this by emphasizing consumer participation in the decision-making processes and issues of human rights, especially in relation to environmental degradation imposed onto local communities during materials extraction and disposal and occupational health and safety.

GM refers to human rights concerns by having "Principles of Social Responsibility" that points out the need to "work with governments and communities in which we do business to improve the quality of life in those communities" and having a "Workplace Health and Safety" section. Furthermore, Ford covers this topic throughout its report in regards to every point in the supply chain, as illustrated in Fig. 11 and Fig. 12. Ford also has an extensive "Society" section, with the subsections: Human Rights, Diversity, Bribery and Corruption, Political Contributions, Customer Satisfaction and Safety, Environment and Employee Health and Safety, Privacy, and Social Media Interactions. Social Issues taken account during the manufacturing process are shown in Fig. 11 and Fig. 12.

Ford and GM both state that stakeholder engagement is imperative to selling vehicles that consumer's desire, which is illustrated in the following statement:

GM:

> *"We have to continually communicate and create opportunities for people to contribute"*

Ford:

> *"Companies that address these issues with solutions that customers want will gain a significant competitive advantage"*

Although Ford and GM appear to be included their consumers into their decision-making process, it is only in regards to their desires for products, which causes economic growth, as these companies cater to their market more closely. Ford states that concerns o stakeholder concerns were key in deciding which topics were most important to them, as shown in these statements:

> *"Many of our major corporate citizenship actions have been shaped by stakeholder engagement. Our Dialogue on Emerging Issues in Corporate Citizenship in 2000 identified two issues – human rights and climate change – as particularly important for Ford to address. Our response to these issues remains central to our commitment." – Ford (2003/4)*

However, they do so in order so to mitigate dissent and maintain a good image in order to entice them to buy their products. Thus, the opinions of stakeholders are only taken into account when their decisions can increase revenues, as shown in the statements:

> *"Everywhere we operate, the future financial health of our Company depends on our ability to predict market shifts of all kinds, including those resulting from consumer concerns over fuel prices, greenhouse gas (GHG) emissions and energy security, and our ability to be ready with the products and services our customers demand." – Ford (2006/7)*

In this way, Ford and GM portray a shift in authority by alluding that the consumers play a large part in what the business should do to repair the damages they have caused. Thus, discourse allows for a representation of a shift in authority by incorporating lay peoples into decision-making processes, but in such a way to improve competitive advantage rather than actually caring.

Limitations

Although my study provided robust findings concerning the sustainability discourse within CSR's of Ford and GM, it exhibits some limitations because it is not assured that their claims of sustainability are being executed. While Ford and GM elaborate on the ways in which they hope to achieve sustainability, it is uncertain whether they are realizing these aspirations.

Research shows that corporate rhetoric has the potential to influence the perspectives of stakeholders by directing their attention to specific scenarios that reflect good stewardship, and thus, create particular meanings and understandings (Ihlen 2009). Such conduct is referred to as 'greenwashing', in which corporations re-define its adverse environmental impact as something acceptable to society (Ihlen 2009). Unsurprisingly, Ford and GM made a list of ''America's Worst Greenwashers'' in 2004 (Green Life 2005) and were ranked as the 2 out of the last 3 top eight automobile manufacturers based on their performance by the Union of Concerned Scientists (Kleisch 2010). Also, as they flaunt new green automotive technologies, these hybrids only make less than 1% of sales for both Ford and GM (Green Life 2005).

However, my research does not examine whether they are achieving their environmental goals and so my case study may be limited by the subjective nature of discourse analysis without using objective data to check it. Furthermore, level of inference about their greenwashing habits may be limited as CSRs from different industries, or automotive companies from different countries for that matter, may contain the different discourse to describe their environmental management practices. This can provide directions for future studies as CSR research should compare the rhetoric of companies in various industries. Lastly, this study only analyzed 2 companies from the automobile-manufacturing sector, which causes the implications of this study to be very specific. Thus, my level of inference was also limited because I did not take into account a larger and more diverse sample of CSRs.

Broad Implications and Future Study

The field of research in which this study engages holds great significance as it illuminates how corporations build relationships with stakeholders through sustainability discourses. While sustainable development is crucial for the prosperity of the planet and future generations, it is important to analyze how corporations are managing their business practices in relation to the environment as well as how they use discourse to portray this.

It is important to recognize that large corporations like Ford and GM disguise their modernist motives through SD and post-modernist discourse. In effect, the ideology and practices of SD are limited in motivating environmentally sound management practices, especially when working towards social equity and ecological sustainability that does not

consume resources ‘‘at a rate below the natural reproduction, or at a rate below the development of substitutes’’ (Berger et al 2001). This is due to the marginalization of ecological sustainability by economic and technological priorities of the industrial capitalistic society (Ihlen 2009). Furthermore, research showing that ‘‘unethical stocks’’ are as strong as their more ethical competitors, validates that corporations that do not participate in environmental management and sustainability measures are not punished by market mechanisms (Ihlen 2009). Consequently, areas for future research should involve the participation of consumers in order to discover how the stakeholders themselves, from environmentalist to investors, perceive corporational behavior through reader response studies. This could bridge the gap in the discourse analysis field by allowing researchers to comprehend how stakeholders actually perceive the text within CSRs.

As this study analyzes the rhetoric and discourse put forth by Ford and GM about their environmental performance and management, it does contain a physical component that determines the accuracy of the statements made within the reports. In this case, another opportunity for research would be to investigate the thoroughness of the third party auditors reviewing the reports.

Because SD is an ideological and political concept that cannot be reduced to an examination of an economical–ecological relationship, it seems necessary to investigate issues of power and influence within an analysis of current environmental policy and discourse. Because corporations are gaining more authority in making decisions over environmental matters through deregulation, this study serves as an illumination of the need to redefine conventional ideologies to include democratic participation in order to explore different, more genuine, paths to sustainability. As a result, research should be done to explore how to initiate such a process.

CONCLUSION

Through discourse analysis, this study brings to light the ways in which corporations try to legitimize modernist practices, and therefore illuminate people to recognize the ways in which it can be contradictory to realizing ecological sustainability. In this way, readers can recognize that the language of Sustainable Development is used to promote a “Business as Usual” mentality in the environmental debate through efforts that subsume its rhetoric within a capitalist framework that emphasizes economic, rather than social and ecological, dimensions of

sustainability. Because companies are embedded within a capitalistic market economy that is oriented towards cost savings and profit maximization, environmental issues are included into business models only when there is possible financial incentives from environmental management or regulatory or customer pressure. Taking into account the prominence of the economic agenda within corporate policy making, it seems to be no wonder that talking the business language informs environmental discourses and largely excludes any other approaches towards sustainability (Berger et al 2001).

However, Sustainable Development will prove to be, in fact, unsustainable as the capitalistic economic and social institutions in which it is entrenched cause the ideology to be contradictory. In this case, as stated by James O' Connor:

> "Capitalism undermines the conditions of production necessary to sustain the endless accumulation of capital because soil, water, energy sources. . . as well as public education systems, transportation infrastructure, and other services not produced directly by capital, but which capital needs in order to accumulate effectively. Therefore, capitalism is "sawing off the branch it is sitting on." (Merchant 2009)

Consequently, by neglecting capitalism and its fundamental principles, society will only generate superficial environmental improvements that will not be able to directly resolve the ecological crisis. These measures will only strengthen the capitalist mode of production as it deters criticism from the public and governmental institutions as well as encourage the perpetuation of the authority to those in power. In order to achieve true sustainability, it is imperative that we, as a society, redefine our priorities from those of economic progress and profit maximization to environmental health and social equity. This will require a reinterpretation of needs where the quality of life goes beyond economic measures of wealth that motivate the overproduction and overconsumption, but embraces the inherent value of nature. In this way, society must consider immense changes to the current institutional and economic structures to allow for more holistic measures of sustainability that result in the modification of attitudes, corporate behavior, and personal lifestyles as well as the restructuring of legal systems.

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APPENDIX

Table A1: Description of Indicators

ECONOMIC PERFORMANCE INDICATORS: The economic dimension of sustainability concerns the organization's impacts on the economic conditions of its stakeholders and on economic systems at local, national, and global levels. The Economic Indicators illustrate the flow of capital among different stakeholders and the main economic impacts of the organization throughout society.	
Aspect: Economic Performance	
(1) EC1	Direct economic value generated and distributed, including: • Revenues • Operating costs • Employee compensation • Donations and other community investments • Retained earnings • Payments to capital providers and governments.
(2) EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.
(3) EC3	Coverage of the organization's defined benefit plan obligations.
(4) EC4	Significant financial assistance received from government
Aspect: Market Presence	
(5) EC5	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.
(6) EC6	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.
Aspect: Indirect Economic Impacts	
(7) EC7	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in- kind, or pro bono engagement.
(8) EC8	Understanding and describing significant indirect economic impacts, including the extent of impacts.
ENVIRONMENTAL PERFORMANCE INDICATORS	
Aspect: Materials	
(9) EN1	Materials used by weight or volume.
(10) EN2	Percentage of materials used that are recycled input materials
Aspect: Energy	
(11) EN3	Direct energy consumption by primary energy source.
(12) EN4	Indirect energy consumption by primary source.

(13) EN5	Energy saved due to conservation and efficiency improvements.
(14) EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.
(15) EN7	Initiatives to reduce indirect energy consumption and reductions achieved.
Aspect: Water	
(16) EN8	Total water withdrawal by source.
(17) EN9	Water sources significantly affected by withdrawal of water.
(18) EN10	Percentage and total volume of water recycled and reused.
Aspect: Biodiversity	
(19) EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.
(20) EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.
(21) EN13	Habitats protected or restored.
(22) EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.
(23) EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.
Aspect: Emissions, Effluents, and Waste	
(24) EN16	Total direct and indirect greenhouse gas emissions by weight.
(25) EN17	Other relevant indirect greenhouse gas emissions by weight.
(26) EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.
(27) EN19	Emissions of ozone-depleting substances by weight.
(28) EN20	NO, SO, and other significant air emissions by type and weight
(29) EN21	Total water discharge by quality and destination.
(30) EN22	Total weight of waste by type and disposal method.
(31) EN23	Total number and volume of significant spills.
(32) EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.
(33) EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.
Aspect: Products and Services	
(34) EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact

	mitigation.
(35) EN27	Percentage of products sold and their packaging materials that are reclaimed by category.
Aspect: Compliance	
(36) EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.
Aspect: Transport	
(37) EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.
Aspect: Overall	
(38) EN30	Total environmental protection expenditures and investments by type.
SOCIAL PERFORMANCE INDICATORS The social dimension of sustainability concerns the impacts an organization has on the social systems within which it operates. Key Social Performance Indicators identify aspects surrounding labor practices, human rights, society, and product responsibility.	
Aspect: Employment	
(39) **LA1**	Total workforce by employment type, employment contract, and region, broken down by gender.
(40) **LA2**	Total number and rate of new employee hires and employee turnover by age group, gender, and region.
(41) **LA3**	Benefits provided to full-time employees that are not provided to temporary or part- time employees, by significant locations of operation.
Aspect: Labor/Management Relations	
(42) **LA4**	Percentage of employees covered by collective bargaining agreements.
(43) **LA5**	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.
Aspect: Occupational Health And Safety	
(44) LA6	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs.
(45) LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender.
(46) LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.
(47) LA9	Health and safety topics covered in formal agreements with trade unions.
Aspect: Training And Education	
(48) LA10	Average hours of training per year per employee by gender, and by employee category.

(49) LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.
(50) LA12	Percentage of employees receiving regular performance and career development reviews, by gender.
Aspect: Diversity And Equal Opportunity	
(51) LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.
Aspect: Equal Remuneration For Women And Men	
(52) LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.

HUMAN RIGHTS PERFORMANCE INDICATORS

Human rights Performance Indicators require organizations to report on the extent to which processes have been implemented, on incidents of human rights violations and on changes in the stakeholders' ability to enjoy and exercise their human rights, occurring during the reporting period. **Among the human rights issues included are non- discrimination, gender equality, freedom of association, collective bargaining, child labor, forced and compulsory labor, and indigenous rights.**

Aspect: Investment And Procurement Practices	
(53) HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.
(54) HR2	Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening, and actions taken.
(55) HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.
Aspect: Non-Discrimination	
(56) HR4	Total number of incidents of discrimination and corrective actions taken.
Aspect: Freedom Of Association And Collective Bargaining	
(57) HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights
Aspect: Child Labor	
(58) HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.
Aspect: Forced And Compulsory Labor	
(59) HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the

	elimination of all forms of forced or compulsory labor
Aspect: Security Practices	
(60) HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.
Aspect: Indigenous Rights	
(61) HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.
Aspect: Assessment	
(62) HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.
Aspect: Remediation	
(63) HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.
SOCIETY PERFORMANCE INDICATORS: Society Performance Indicators focus attention on the impacts organizations have on the local communities in which they operate, and disclosing how the risks that may arise from interactions with other social institutions are managed and mediated.	
Aspect: Local Communities	
(64) SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.
(65) SO9	Operations with significant potential or actual negative impacts on local communities.
(66) SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.
Aspect: Corruption	
(67) SO2	Percentage and total number of business units analyzed for risks related to corruption.
(68) SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.
(69) SO4	Actions taken in response to incidents of corruption.
Aspect: Public Policy	
(70) SO5	Public policy positions and participation in public policy development and lobbying
(71) SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.
Aspect: Anti-Competitive Behavior	
(72) SO7	Total number of legal actions for anti- competitive behavior, anti-trust, and monopoly practices and their outcomes.
Aspect: Compliance	
(73) SO8	Monetary value of significant fines and total number of non-monetary sanctions for non- compliance with laws and regulations.
PRODUCT RESPONSIBILITY Product Responsibility Performance Indicators address the aspects of a reporting organization's	

products and services that directly affect customers, namely, health and safety, information and labeling, marketing, and privacy.	
Aspect: Customer Health And Safety	
(74) PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.
(75) PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.
Aspect: Product And Service Labeling	
(76) PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.
(77) PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.
(78) PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.
Aspect: Marketing Communications	
(79) PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.
(80) PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.
Aspect: Customer Privacy	
(81) PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.
Aspect: Compliance	
(82) PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.
(83) Assurance Report: Third party auditor	