

Global Automakers. CSR Reporting and Targeted Stakeholders 2018-2020

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Abstract

This paper deployed a network-based computational content analysis approach to uncover the major themes and targeted stakeholder groups presented in the top leadership's corporate social responsibility (CSR) reports' introductory letters for eleven major global vehicle manufacturers for the period 2018-2020. Themes were based on the 3Ps of sustainability (people, planet, and profit), basic business practices (economic, legal, ethical, and philanthropic) in the context of CSR, time orientation of the themes whether short- or long- term, and identified targeted stakeholder groups. This study is unique in that the extant literature reveals no research examining CSR disclosure in the automobile industry from both a sustainable goal-directed and practices perspective incorporating potential influences of the COVID-19 pandemic. Results revealed that some vehicle manufacturers focused on investor and economic activities while others communicated a general social responsibility message. During 2020, greater emphasis was placed on investors and somewhat less on society in general. Findings suggest the need for a more balanced representation geared toward addressing pandemic and post-pandemic challenges as well as traditional automotive manufacturing considerations.

Keywords: CSR Reporting; Automobile; Pre-COVID-19; Post-COVID-19; CSR Disclosure; Global Automobile Industry; Stakeholders; Corporate Social Responsibility; Global Markets

1. Automakers at a Glance

According to the International Organization of Motor Vehicle Manufacturers (IOICA), in 2020, vehicle manufacturers produced 77.6 million cars and commercial vehicles worldwide. By contrast, 2019 production was over 90 million units. Based on the first three quarters of 2021, vehicle production is on target to match the 2020 figures (IOICA, 2022a). Globally, the automobile industry employs over 9 million workers directly, which is over 5% of the total global manufacturing sector, with China, the United States, Germany, Russia, and Japan, respectively, the largest em-

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ployers of vehicle manufacturing comprising nearly 5 million direct jobs (IOICA, 2022b). The number of workers employed in vehicle production indirectly is over 50 million globally. Prior to the pandemic in 2019, direct employment was 10.3 million and indirect employment was 57.5 million. Projected sales for 2022 are expected to exceed \$3.8 trillion representing a growth rate of 5.3% (IBISWorld, 2021).

In addition to providing jobs across numerous industries globally, vehicles play an important role in providing vehicles in areas not serviced by mass transit and they allow for the transportation of goods and service to most areas of the world (Ewing & Cohen, 2021). According to IOICA,

□ Automobiles are a liberating technology for people around the world. The personal automobile allows people to live, work and play in ways that were unimaginable a century ago. Automobiles provide access to markets, to doctors, to jobs. Nearly every car trip ends with either an economic transaction or some other benefit to our quality of life. (IOICA, 2022a)

The breadth and depth of the vehicle manufacturing industry and sector makes it an excellent area to study corporate social responsibility (CSR) because automakers have a vast array of stakeholders including employees, suppliers and supply chain challenges, and environmental concerns globally and in the local communities where facilities reside. This provides an environment in which there is opportunity to develop and apply a full range of CSR goals and practices. Second, automakers have access to the resources necessary to implement a CSR strategy and plan over the long-term (Campbell, 2007; Mata, 2021; Perrini et al., 2007). Third, automakers have had their share of controversy such as the Fiat-Chrysler (Spector and Shepardson, 2021), Tesla (Shepardson, 2021), Toyota (Whyte, 2016), Volkswagen (VW) (Valentini & Kruckeberg, 2018), and the auto industry in general (Kobrosly et al., 2009) scandals. Fourth, the social and economic crises due to the COVID-19 pandemic provide an unprecedented context to study CSR. The pandemic could present an ethical dilemma between selfishness in a “Hobbesian fight for survival” and altruistic sentiment for the greater good (Rainero & Modarelli, 2021). Would CSR become an organizational burden during the pandemic or an opportunity for developing anti-crisis solutions? As we can see, how automakers address CSR in light of the pandemic might result in insights as to the responses of top automaker leadership, and more specifically, their CSR priorities and COVID-related initiatives. How these factors interact and how companies address them in the context of CSR is critical to understanding the relationship between communicated CSR, CSR practices, and sustainability.

The COVID-19 pandemic is unprecedented in a world of easy global travel and interdependent business and supply chain relationships. Like all organizations and institutions, coping and responding to the pandemic requires Variety 2 decision-making where there is no clear precedent for deciding (Simon, 1997) and planning since there is no playbook for such a situation. This involves trial and error, innovation, and the associated risk. With resources available to them, large automakers utilize a management control system (MCS) approach (Vieira et al., 2021) to most functions critical to achieving overall business strategy. As it pertains to CSR, this systematic approach requires the development of sustainable goals and implementation practices as well as

assessment measures which allow for monitoring and adjustment accordingly in order to remain effective, cost-efficient, and place stakeholders at relative ease.

Stakeholder support is vital for the continued existence of an organization and thus their concerns are important to an organization. For this reason, organizations respond to stakeholder expectations in order to garner and maintain their continued support. Therefore, it is imperative for an organization to clearly communicate their response to stakeholder expectations. This is especially critical during uncertain times when there is no playbook available to guide decision-making. Stakeholder support and cooperative is thus crucial during uncertainty and the need for expeditious and flexible responses. Knowing that their concerns are taken seriously assures a higher probability of their support. Along these lines, understanding and studying CSR communication before and during the pandemic will shed light not only on the evolving nature prioritized stakeholders but also to areas important to the sustainability of vehicle manufacturing. There is no extant literature that addresses this existential dynamic, which can provide insightful knowledge to organizations moving forward and being prepared for future global challenges similar to the COVID-19 pandemic.

Additionally, top leadership sets the tone for an organization's CSR efforts. Communication from the top is vitally important especially during a crisis that is ubiquitous and global in nature. With this in mind, our focus is the narrative presented by top leadership in the official CSR reports' introductory letters from 2018 to 2020 of eleven global vehicle manufacturers accounting for over 68% of global vehicle production. This period is important because it accounts for pre- and during- pandemic conditions. It offers an opportunity for us to examine potential shifts in social responsibility and the tensions between manufacturer economic sustainability in the context of COVID-19 and CSR efforts in an extremely interdependent business world (Barrio-Fraile & Enrique-Jimenez, 2021; Lee, 2021).

For these reasons, this study content analyzes the top leaderships' introductory letters in annual published CSR reports from 2018-2020, which covers pre-pandemic and during pandemic years. What follows is a literature review of Stakeholder Theory in relation to CSR in general and in the context of the automobile industry and corporate responses to COVID-19. Second, we describe our computational methodological approach to content analysis of the leadership CSR letters. Third, we present our statistical analysis. Last, we review our results followed by a discussion of study findings including practical implications.

2. Conceptualizing Automaker CSR

2.1 Stakeholder Theory and the Automotive Industry

Conceptually and generally, CSR may be defined as an organization's response to address stakeholders' concerns in an ethical manner and includes reporting efforts and performance outcomes. This definition implies a level of organizational and stakeholder interaction and interconnection among business strategy, implementation, sustainable performance, and reporting (Perez, 2015).

Stakeholders are individuals, groups, and/or organizations who are affected by the organization's operations and/or who can affect the organization's operations (Freeman, 1984; Parmar et al., 2010; Yasir et al., 2020). Despite different corporate purposes and goals, companies have "a fundamental commitment to their stakeholders"

(Valsan, 2021). Therefore, CSR exists to meet the expectations of stakeholders and assure organizational success, which provides value to stakeholders. Del Baldo and D'Anghela (2020) argue that CSR can be motivated either extrinsically or intrinsically. Extrinsic CSR is often market-driven and is aimed at increasing shareholder value; while intrinsic CSR rests on idealistic convictions that responsible conduct and a purpose-driven business culture are considered a moral duty of the organization. Whether intrinsically or extrinsically motivated, companies have vested interest in regularly producing CSR reports for their stakeholders. In principle, the annual CSR report serves a communication mechanism to inform stakeholders of the organization's socially responsible efforts. This process requires an understanding of stakeholders and their relationship to the organization.

Researchers define stakeholders from different perspectives. Sweeney and Coughlan (2008) discussed stakeholders' needs and interests. Borrowing from Metcalfe (1998), stakeholders can be classified as primary and secondary. Primary stakeholders are those parties without whose continued participation the organization could not survive. Secondary stakeholders are those parties whose interaction is not required for the organization to survive, yet they can impact various aspects of organizational operations.

Additionally, Arvidsson (2010) analyzed and Mitchell et al. (1997) conceptualized stakeholders based on how they are ranked as necessary to an organization's existence based on an assessment of their power, legitimacy, and urgency. Power refers to the degree to which stakeholders can influence the organization's profitability or bring about an outcome. Legitimacy refers to stakeholders whose claims are deemed proper. For example, when a corporation values and discloses CSR plans and activities beyond that which is mandated, it signals a willingness to be transparent. This approach preserves legitimacy and contributes to a corporation's right to operate. Urgency is ascribed to a particular issue that is important to a stakeholder group and may also be time sensitive. Urgency is typically associated with a high engagement level that activates support or opposition to an organizational issue. Parties may have multiple and different stakes in an organization each involving different and dynamic levels of power, legitimacy, and urgency.

Who are the key stakeholders in the automotive industry? Inspired by fuel and energy technological advances and efficiencies, stakeholders expect eco-friendly automobile such as hybrid and electric vehicles, sustainable business practices such as labor safety, competitive salaries, cleaner production (Butnariu, 2016). In a study by Russo-Spena et al. (2018) examining automaker industry themes reported, discovered prioritized stakeholders as employees, customers, suppliers, companies, society, shareholders, local communities, and people in general respectively.

Although the order of priority varied by study, a number of other publications found that vital stakeholders in the automotive manufacturing industry include customers, employees (Kilian, 2014), shareholders, suppliers, regulators, and local communities where the facilities operate (Brulhart, 2019; Friske, 2020; Fuller, 2018; Mahmud et al., 2021). Local communities are concerned about jobs and the reduction of production-related emissions. Government regulators, customers, and investors are not only concerned about production emissions but vehicle usage emissions. Manufacturers focus on workers' issues (Perez, 2018). Employees focus on job-site safety (Kobrosly et al., 2009), salary, benefits, and opportunities for advancement; whereas, employers see a visible CSR program as a talent recruitment and retention tool (Goedeke, 2020; Kilian, 2014). Customers were concerned about eco-friendly automobile, innovation, and price competitiveness (Loureiro et al. 2012; Valentini, 2018).

2.2 CSR Reporting and the COVID-19 Pandemic

Since the pandemic and in a relatively short time frame and as expected, CSR and its communication have appeared to place greater emphasis on employee health, well-being, and safety (Stoica, 2020). In a European-based COVID-19 company effects study, Stoica found a socially responsible shift to social distancing, hygiene protocols, remote work, and flexible work hours. In another European study, Sanchez (2020) found that Spanish companies concentrated their CSR efforts in three areas: 1) Economic business risks group- protecting economic interests such as shoring the value chain and infrastructure access, 2) Health risks group- donating food, health, and research funds as well as contributions to community infrastructure, and 3) Socioeconomic risks group- meeting the expectations of protecting customers, employees, and the local communities.

Additionally, during the pandemic, Mata et al. (2021), found a reorientation of CSR communication toward: 1) Use of a motivational kind of content through brand communication; 2) Increased CSR communication as a consequence of more CSR actions; 3) Reporting changes in products or services offered by the company as a result of the pandemic. Moreover, their findings suggest that companies engaged in CSR messaging were containing more of a social focus rather than a marketing tone through the use of different content. In another corporate CSR COVID-19 study, Mahmud et al. (2021), the most important stakeholders for companies are employees, consumers, and communities, respectively because they are vital stakeholders for companies' business growth and firms' long-term survival (Öberseder et al., 2014).

The growing influence of environmental goals could not be overstated prior to the pandemic (Russo-Spena, 2018; Sweeney, 2008). In a pre-COVID-19 study of automakers' CSR, Garcia-Madariaga and Rodriguez-Rivera (2017) found that CSR related to a corporation's core business has a beneficial impact on profitability. Environmentally-related goals directly relate to emissions from the use, production, and disposal of vehicles. An auto manufacturer study by Loureiro and colleagues (2012) found that consumers valued CSR environmental performance more importantly than labor practices and community development. A VW case study examination by Valentini (2018) came to the same conclusion. They reported that websites of Renault, Ford and Toyota showed an emphasis on environmental performance supported by additional investments in CSR planet initiatives. A European auto industry study by Ganescu (2012) found six types of CSR strategies in order to importance: social, environmental, supply chain, corporate image, competitive advantage, and added value. Ford and Fiat were predominantly environmentally focused, Daimler and HMG were socially-centered, and Toyota and GM focused on economic goals. Killian (2014) found that companies with a greater environmental impact tend to devote more CSR reporting to environmental efforts in an effort to manage their image (Moerman & van der Laar Smith, 2005).

For vehicle manufacturing especially during a contagious pandemic, employees and the local communities that provide employees and vital infrastructure necessities are important stakeholders for the viability of the auto industry. Customers and potential customers are not far behind. In a pandemic environment, relatively complex finished goods such as vehicles require organizations to meet interdependent challenges. Some companies perform better while others less so. This causes supply shortages resulting in consumer demand not being met. For these reasons, factors upstream supporting the supply chains are vital. Based on a review of the literature, we submit the following:

- *RQ1: Which stakeholder groups will be featured in the CSR introductory letters in years 2018-2020?*
- *RQ2: Over the three years, which stakeholder groups will be emphasized by vehicle manufacturer?*

2.3 CSR Report Letters from Auto Companies' Leadership

Effective communication involves the intended message being that which is received by targeted audiences (Killian & Hennigs, 2014; Vieira, 2019). CSR is facilitated from the top; those at the top set the tone (Resche, 2020; Russo-Spena, 2018). The CEO embodies the values, beliefs, vision, and mission of the organization. This person leads the organization through inspiring, motivating, and supporting employees to carry the vision forward. Therefore, the stakeholders influence and are influenced by the CEO and company whether internally or externally.

These CSR report introductory letters are important for a number of reasons. First, these letters address the most influential stakeholders as perceived by the leader and organization and prioritizes issues presentation accordingly. Second, the letters are signed by the CEOs which commitment their responsibilities to stated goals. Third, the letters offer an executive summary of the major activities and issues discussed in the CSR report and can provide insights into leadership style, ideas, preoccupations, and plans moving forward. Fourth, the CEO letters are the most widely read part of the report, which suggest that they play an important role in investment decisions (Che, 2020). Fifth, in setting the tone, these letters reinforce the organizations CSR efforts through the CEO's public pronouncement of the company's CSR commitment (Amernic, 2010; Rameshwar et al., 2020). The letter is an important annual ritual about the good deeds that the company does (Deal and Kennedy, 2000). Last, the choice of words and how they are framed also reveal information about the signatory from a both manifestly and latently (Resche, 2020).

Analyzing CSR disclosure can focus on the breadth and depth (Fuller, 2018) of the content presented, as well as specific topics from simple "good deeds" to identifying and prioritizing stakeholders to discovering writer characteristics through framing analysis. Incorporating third party-related reporting from a MCS reporting perspective can include goals, implementation practices, benchmarked objectives and other performance assessments for a given period and over time. Our goal is to examine the types of goals and practices deployed over a time horizon.

2.4 CSR Parameters

There are a number of conceptualizations that propose characteristics which define or classify a CSR system. Our approach balances between being too broad a framework and being too detailed. Our parameters sufficiently define the key components of CSR along the lines required to implement a complete MCS akin to other corporate and vital functions such as accounting, production, and so forth. It is based on a process that sets goals, implementation guidelines and a timeline.

For CSR to flourish, some form of agreement between stakeholders and the organization about what constitutes social responsibility must exist. Meeting expectations may warrant short-term and long-term trade-offs not only between or among strategic goals and resource allocation, but among stakeholder group priorities. For instance, short-term profit may be sacrificed in favor of environment programs that

yield longer term profitability. Likewise, philanthropic efforts may be linked to a corporation's cash-flow cycles. Stakeholders decision-making criteria vary which also can facilitate tensions among groups (Skilton & Purdy 2017).

Moreover, like in many other corporate areas such as marketing, operations, manufacturing, accounting, and finance, CSR strategy should be integrated into an organization's business strategy and mission (Du et al., 2010). Commitment starts with top management and leadership and is communicated to stakeholders through various reports and disclosures such as the annual CSR report including the top leader's introductory letter (Rameshwar, 2020; Resche, 2020).

Our conceptualization combines the three pillars of sustainability (Report of the World Commission on Environment and Development: Our Common Future, 1987) as types of CSR goals and Carroll's Pyramid of CSR (Carroll, 1979, 1991, 2016) as the nature of practices necessary to achieve those goals.

The goals are people, planet, and profit (Montiel & Delgado-Ceballos, 2014) and are predicated on the premise:

□ *...development meets the needs of the present without compromising the ability of future generations to meet their own needs.*"
(Report of the World Commission on Environment and Development: Our Common Future, 1987, p. 24)

Implementation practices focus on economic, legal, ethical, and/or philanthropic activities (Cote, 2021). The goals are what is hope to attain and implementation practices are the means by which they are achieved whether driven by economic or profit, legal, ethical, and/or philanthropic intentions. More specifically, we define CSR as the intersection and conscious integration of a company's people, planet and profit goals achieved through implementation practices driven by economic, legal, and/or philanthropic considerations and ethical actions that occur over time in a sustainable, measurable, and reportable manner. Therefore, and because of limited resources and competing interests, addressing key stakeholder expectations involves a negotiation of expectations and practices required to achieve CSR goals.

2.5 Goals

Goals provide a roadmap for subsequent steps such as the development of performance indicators and practices. Goals focus on People, Planet, and Profit (Carroll, 1991, 2016) and are informed by stakeholder expectations (Coombs & Holliday, 2009). More recently, producing vehicles comparable to the competition and greater focus on reducing emissions, and tightening emissions regulations (Sweeney, 2008) have moved automakers to consider goals in these areas especially concerning technological innovations not only in producing vehicles but also in mobility more generally (Frigant, 2009). This trend has impacted suppliers, supply chain management, and value webs vying for business. At times, this has been challenging for automakers. A study by Pech (2019) about the General Motors (GM) safety switch scandal illustrated what can go wrong when internal practices are not consistent with stated ethical and CSR goals. The GM ignition switch fiasco led to the deaths of 124 people owing to poor design in conjunction with a delayed response to take action. This case like others such as the "fixing" of WV emissions tests are examples of the tension be-

tween behaving ethically and profit pressures.

People goals involve adding value to individuals' lives and contributing to society in different ways. Overall, people goals encourage citizen engagement, social justice, equality across the board, diversity, inclusion, facilitate global enrichment, develop responsible corporate governance, contribute to internal infrastructure, giving, and add value to public infrastructure. In the auto industry and because of the vital role of employees in manufacturing, people goals center around employee safety, salaries, benefits, opportunities for career growth, DEI, and local communities where the companies operate.

Planet or environmental goals involve the maintenance of the natural environment (Goodland, 1995) addressing both conservation and pollution mitigation. These goals are about business strategy implementation while sustaining the physical world. Ecologically-related stakeholders are concerned about creating environmental value. These stakeholders are individuals, groups, and the environment itself. In the case of the vehicle manufacturing industry, planet goals focus on reducing pollution as a result of vehicle production, reducing vehicle usage emissions, and focusing on alternative forms of mobility such as hybrid electric, all-electric, and hydrogen fuel cell powered vehicles.

Profit goals focus on sustainable financial and economic viability, maintaining cash flow, paying taxes, providing cost-effective and competitively priced goods and services, supply chain integrity, and offering attractive owners' equity (ability to raise and maintain capital). Profit goals also include business development, creating value in the process chain, and facilitating innovation. Such goals involve satisfying customer requirements by creating competitively priced fuel-efficient vehicles that meet performance expectations. Through financially viable business operations, automakers engage in research and development efforts designed to produce vehicles that successfully meet marketplace demands and ultimately increase owners' equity.

These goals create value for all stakeholder in similar and different ways (Borger-son et al., 2009). The goals are typically interdependent and solutions can be synergistic (Freeman et al., 2020). For example, financial performance and people goals support each other and contribute to community development in many ways. Tuition reimbursement contributes to employee educational, personal, and professional growth and adds value to the corporation by providing more productive workers and needed expertise. Contributing to infrastructure helps the company achieve supply chain efficiencies and adds value to society and those who utilize infrastructure. In light of this framework, we submit the following:

□ *RQ3: Will all of the CSR goals be represented in the CEO letters over three years in general and across companies for the three years?*

2.6 Practices

As postulated by Carroll (1991, 2016), below is a description of the four categories of corporate practices: economic, legal, ethical, and philanthropic required to meet CSR goals. Although ethics is listed as a type of CSR practice, in principle, it guides business operations and practices.

In order to be economically sustainable over the long-term, corporations earn prof-

its through economic activities. Their financial performance can enhance or diminish their capacity to maintain cash-flow, meet shareholder expectations, raise capital for expansion, institute upgrades, conduct research and development, and support other activities or capabilities necessary to be competitive, thrive, and viable.

Society expects, and the law requires businesses to pursue profitable activities lawfully. Think of these legal expectations as codified ethics. Violations of laws, whether civil or criminal, whether intentional or not, damage not only corporate image, but the trust stakeholders place in a company. Besides legal and financial penalties, diminished credibility adversely affects most stakeholders such as reduced product demand; reduced ability to raise capital under favorable terms, reduced ability to recruit talented employees, and the general apprehensiveness of partnering with a company perceived as behaving unlawfully.

It is important to acknowledge that CSR is a part of ethics (O'Mara-Shimek et al., 2015). Ethics guides the conduct of professional activities based on responses to stakeholders' expectations both mandated and voluntarily informed by normative values and beliefs. Ethical practices include being transparent which entails reporting negative issues and how they are addressed whether disclosure is or is not mandated (O'Riordan & Fairbrass, 2014). In sum, CSR is guided by ethical principles and relevant stakeholder groups' interaction, feedback, and, at least, implicit support (El-Kassar et al., 2017; Morsing & Schultz, 2006).

Philanthropic expectations include all types of giving such as monetary, scholarships grants, fundraising, products and services in kind, volunteerism by employees, sponsorship of prosocial cause events, and other types of discretionary donations. Some philanthropy relates to a corporation's core business while other forms do not (Quelch, 2004). With the above in mind, we submit the following:

□ *RQ4: What CSR implementation practices will be noted in the CEO letters and across the three years?*

□ *RQ5: What CSR implementation practices will be noted in the CEO letters across the three years by company?*

2.7 Time-Orientation

CSR is a sustainable, long-term endeavor. Like a corporation's strategic plan, successful CSR plans are consistent and part of an integrated business strategy and plan. Often CSR involves investments in the short-term, which appear abstract or out of reach, for long-term benefits that meet financial goals as well as various stakeholder expectations (Mahmud et al., 2021). Yet, the structure of business can produce tension and compromises between short-and long-term gains such as VWs focus on fuel-efficient diesel engines, which is a shorter-term solution to addressing emissions to Toyota hybrid and hydrogen fuel cell alternatives to Tesla's all electric vehicle (Kim, 2013; Lyon, 2021; Valentini & Kruckeberg, 2018).

In the USA, the expectation to distribute shareholder dividends places pressure on CEOs to focus company efforts on short-term pay-offs (Kang et al., 2017). In fact, often CEO performance compensation is based on a short timeline (Al-Shammari, 2019; Sajko et al., 2021). By the time the ramifications of a short-term focus are realized, the CEO has moved on. This is further exasperated by cultural characteristics.

American culture gravitates toward a short-term focus valuing relatively immediate results as opposed to a sustainable orientation (Kim, 2013; Ott & Xiao, 2017). These dynamics coupled with nonmandatory disclosure and lack of reporting standards (Fuller, 2018) suggest that the system is inherently flawed with conflicts of interest throughout in a competitive landscape relying solely on individuals to voluntarily make socially responsible choices perhaps at their own personal financial expense.

Additionally, with the rise of the pandemic, the existential threat of COVID-19 has moved to the forefront of corporate CEOs and their CSR efforts suggesting that the focus of emission mitigation may play an ancillary role temporarily in exchange for efforts directed at people and financial viability in the wake of the immediate threat. Based on the above review, we propose the following:

□ *H1: In 2018-2019, the CEO CSR letters will be more long-term socially responsible focused compared to 2020 where the concerns are more existential.*

In conclusion, vehicle producers deploy MCSs (Vieira et al., 2021) in some forms. These systems are used to establish, manage, assess, and adjust CSR goals and practices in light of stakeholder expectations. The process is dynamic, proactive, and responsive to changing internal and external conditions over the short- and long- terms. Goals are of three varieties and overlap. They are achieved through implementation practices that are by nature of four kinds and often contain aspects of more than one type. Influence is bidirectional and changes over time. For example, goals inform practices; yet, the degree of implementation effectiveness can impact present and subsequent goals.

3. Methodology

The analysis steps started with scrubbing the word files to remove extraneous words. Second, 2- and 5-word passes were conducted to identify the word connections. These links were combined in order to discover the most influential words that defined the key theme and sub-themes. Third, interrater reliability analysis was conducted on all key components of the CSR themes as a whole and by year. Last, in order to examine for similarities and differences, various statistical analyses were conducted by company and years 2018-2020.

3.1 Sample characteristics

Eleven large automakers were chosen because of their brand awareness in the global vehicle market. Collectively, they produced nearly 53 million vehicles in 2020 averaging over 4.8 million vehicles per automaker. They collectively generated nearly \$1.4 trillion in 2020 and directly employed more than 2.5 million workers. Table 1 contains their 2020 global dollar sales, units produced, and the nature of the company's brand equity. We conducted a small informal focus group to discover what came to mind when the automakers' names were evoked. You will note that on Table 1, we included American, luxury, affordable, and all-electric vehicle manufacturers with well-established brand recognition. The analysis includes all 2018-2020 CSR letters located in the CSR official reports of all eleven companies for a total of 33 letters. The pre-scrubbed word counts were 198-1972 and the scrubbed counts 67-551.

Table 1: Characteristics of Eleven Global Vehicle Makers for 2020

Manufacturer	Global Sales (\$)	Global Sales (units)	Number of Employees	Brand Identity
Daimler (Mercedes-Benz)	\$186.70b	2.16m	300,000	Luxury & status
Fiat-Chrysler (FCA)	\$104.84b	3.69m	192,000	Ironic & large
Ford Motor Company	\$127.14b	4.23m	190,000	American icon & large
Geely Auto Holdings, Ltd.	\$14.00b	1.32m	126,000	Private Chinese automaker
General Motors (GM)	\$122.84b	6.83m	164,000	American icon & large
Honda Motor Company	\$125.00b	4.79m	219,000	Well established quality
Hyundai Motor Group (HMG)	\$94.40b	6.35m	107,000	Popular & affordable
Nissan Motor Company	\$73.92b	4.02m	138,000	Affordable & mid-priced
Tesla, Inc.	\$31.50b	.509m	48,000	Innovative electric vehicle
Toyota Motor Company	\$256.00b	9.52m	361,907	Well established quality
Volkswagen Group (VW)	\$253.24b	9.30m	665,400	Designed for the road with iconic brands
Total	\$1,389.58b	52.76m	2,511,307	

Source: b = billions of dollars, m = millions of vehicles both personal cars and commercial trucks.

Sources of data: <https://www.statista.com/study/60874/geely-report/>, <http://global.geely.com/media-center/news/geely-auto-2020-financial-results-released/>, <https://www.statista.com/statistics/272120/revenue-of-tesla/>, https://en.wikipedia.org/wiki/Automotive_industry, <https://www.factorywarrantylist.com/car-sales-by-manufacturer.html>, <https://fortune.com/company/zhejiang-geely-holding-group/global500/>, and <https://www.statista.com/statistics/1186629/workforce-major-car-companies/>.

3.2 Operationalization

The top leadership CSR report letters were content analyzed using Text Network Analysis, (TNA), which is a computation method based on network principles (Grantham & Vieira, 2018; Vieira and Grantham, 2016, 2018). Since this is an unsupervised method, influential words are generated automatically absent of subjective decision-making. This approach generates clusters of highly connected words in communities forming themes based on the density in which words co-occur contiguously and as five-word groupings throughout the text so that the nature as well as their relationships to other communities are considered.

The density or number of connections a word has is its degree (D). For example, a word that co-occurs with ten other words in a text has 10 degrees. All connections are weighted or counted even if co-occurrences consist of the same word connections so that if out of the ten words, “blue house” appears three times each instance is a degree so that degrees can comprise similar and unique co-occurrences. A high degree word serves as a hub for a word community or theme because it demonstrates a strong connection to other words linked together thus creating a message or theme centered around the hub word.

Additionally, the location of words within a sentence can function as a bridge between word communities or themes. This links word themes and creates layers of higher-order meaning, which are ultimately integrated into an overall unified message. Betweenness centrality (*BC*) is the statistic that represents the extent to which a word connects word communities and integrates themes. Technically, it is the word that appears between the shortest distance joining two other words. For instance, in the sentence: “Jack, a nice person, enjoys this nice day,” “Nice” appears between “a” and “person” as well as between “this” and “day”; therefore “nice” has a *BC* of 2. “Nice” is an important word in this sentence.

In sum, words that have the highest *D* and *BC* scores, indicating greater intra- and inter-connectedness respectively, provide the meaning of the text. The text moves from smaller bits of meaning to themes to inter-connected themes forming higher-order messages, ultimately providing an overall motif (Vieira & Grantham, 2016).

Before analyzing the text, extraneous words and symbols were removed, the top 6 influential words per letter based on betweenness centrality statistics was the basis for the overall theme along with the themes to which they were discovered in word communities (sub-themes). We developed a coding scheme based on our conceptual framework, which consisted of Goals: People, Planet, and Profit; Practices: Economic, Legal, Social, and Giving; Time-orientation: Short- or long- term; and Primary Stakeholder Audience: Customers, Employees, Suppliers, Investors, Investors, Regulators, NGOs, Local communities, Society in general, competitors, and Other. The word communities were independently coded by two raters.

Cohen Kappa, a statistic of exact agreement which accounts for random concurrences, was deployed to determine inter-rater reliability of the assignment of words to categories. The total number of items were 672. Following procedures identified in Syed and Nelson (2015), coding differences were reconciliated through reexamination and consultation by the two coders and third researcher. We deployed the primary coder’s ratings. The final kappa for all items was .835 and all years and items by company ranged from .634 to .978.

3.3 Analysis

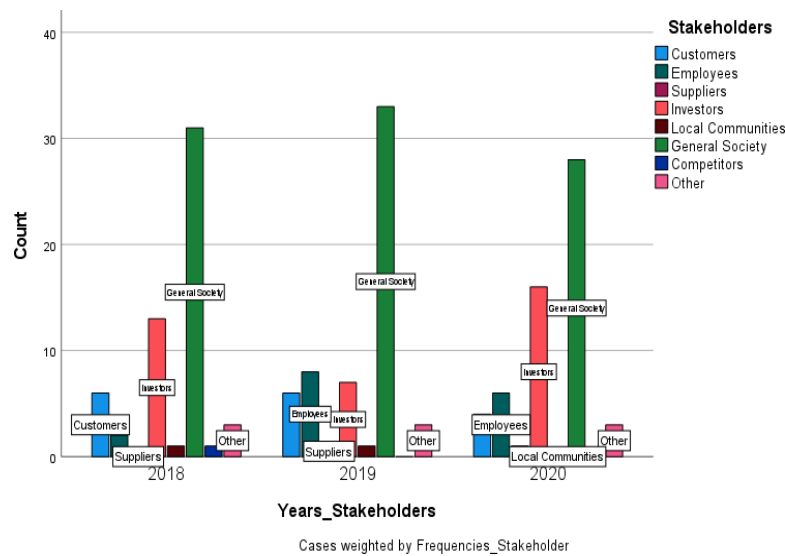
First, we ran the Shapiro-Wilk test for normality on the letter word counts for the un-scrubbed and scrubbed data by year, which was significant indicating that the data were nonnormal. Next, we conducted a log transformation for right skew distributions resulting in normalized data ($W = .953, p = .161, W = .980, p = .798$, respectively). Stratified Shapiro-Wilk test *p*-values by year for both groups were: .060-.767. The assumption of equality of variance was met ($F(2,30) = .500, p = .611, F(2,30) = .074, p = .929$, respectively). In order to control for an interaction effect between letter size and themes, we first explored where there were differences in company letter size. We then ran an ANOVA on both the un-scrubbed and scrubbed data by year where no significant differences were discovered ($F(2,30) = .503, p = .609, F(2,30) = .349, p = .708$ respectively), which is perhaps owing to the small sample size. Last, since the practice category “Legal” comprised one count, it was reassigned to “Ethical” and the “Legal” category was eliminated.

4. Results

In the following Pearson chi-square results addressing the research questions and hypotheses, we highlight some key differences.

RQ1: Which stakeholder groups will be featured in the CSR introductory letters in years 2018-2020? Although the overall distribution pattern did not deviate by year ($X^2(14) = 11.882, p = .616$), top management consistently emphasized society in general ($n = 92$) and investors ($n = 36$) ($X^2(7) = 302.414, p < .001$).

Figure 1: CSR Stakeholder Focus by Year



RQ2: Over the three years, which stakeholder groups will be emphasized by vehicle manufacturer? There were significant differences by automaker over the three years ($X^2(60) = 88.2364, p = .010, X^2(60) = 99.845, p = .001, X^2(50) = 83.177, p = .002$, respectively). Local communities specifically were not presented, but society in general may include the local communities where the companies operate. Table 2 depicts the specific significant differences at $p < .05$.

Table 2: Significant Adjusted Standardized Residuals of Key Stakeholders by Automakers Across Years 2018-2020

Stakeholder/ Automaker	Customers	Employees	Suppliers	Investors	Communities	Society	Competitors	Others
2018								
Daimler							2.7	
FCA				2.1				
Ford								
Geely				3.8		-2.3		
GM								
HMG	2.2	2.1			3.3			
Honda						-2.8		3.3
Nissan				2.1				
Tesla						2.1		
Toyota						2.1		
VW						2.1		
2019								
Daimler								
FCA								
Ford	3.0							
Geely				4.9	3.3	-2.6		
GM						2.3		
HMG								
Honda								
Nissan		4.0						
Tesla								
Toyota			3.7					
VW						2.3		
2020								
Daimler			2.7					
FCA								
Ford	3.5							
Geely				3.8		-2.3		
GM								
HMG								
Honda				2.7		-2.3		
Nissan								
Tesla						2.1		
Toyota								
VW		3.0						

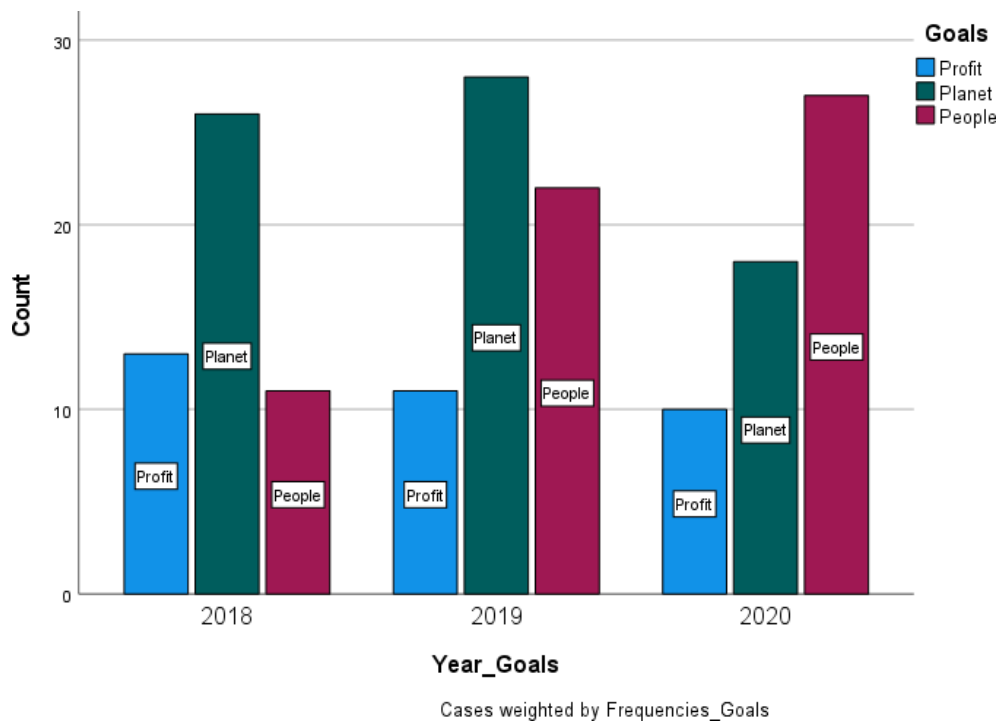
Note: The table represents the statistically significant drivers of the relation between the two variables by year at $p < .05$.

Adjusted standard residuals account for asymmetrical groupings per categorical variable. Any standardized score less than -2.00 or above 2.00 represents a significant difference ($p < .05$) from what was expected. Negative values indicate less than

expected counts and positive scores represent frequencies greater than expected. A consistent key stakeholder group for Geely was investors with less focus on society. Ford emphasized customers in two of the years. In two of the years, Honda did not focus on society as a stakeholder group as would have been expected in the overall data. In two years, Tesla and VW placed attention on society.

RQ3: Will all of the CSR goals be represented in the CEO letters over three years and across companies for the three years? Although approaching significance, no overall significant relationship was found between CSR goal emphasis across reporting years ($X^2(4) = 8.767, p = .067$). However, as rendered in Figure 2, there were significantly more people goals from 2018 to 2020 ($p < .05$). Generally, the emphasis was on planet ($n = 72$) and people ($n = 60$) ($X^2(2) = 13.639, p = .001$) and less on profit ($n = 34$).

Figure 2: CSR Goals by Year



Goals varied by company across the years by company ($X^2(20) = 68.042, p < .001$, ($X^2(20) = 54.399, p < .001$, ($X^2(20) = 39.468, p = .006$, respectively). See Table 3 for the specific differences.

Table 3: Significant Adjusted Standardized Residuals of CSR Goals by Automakers Across Years 2018-2020

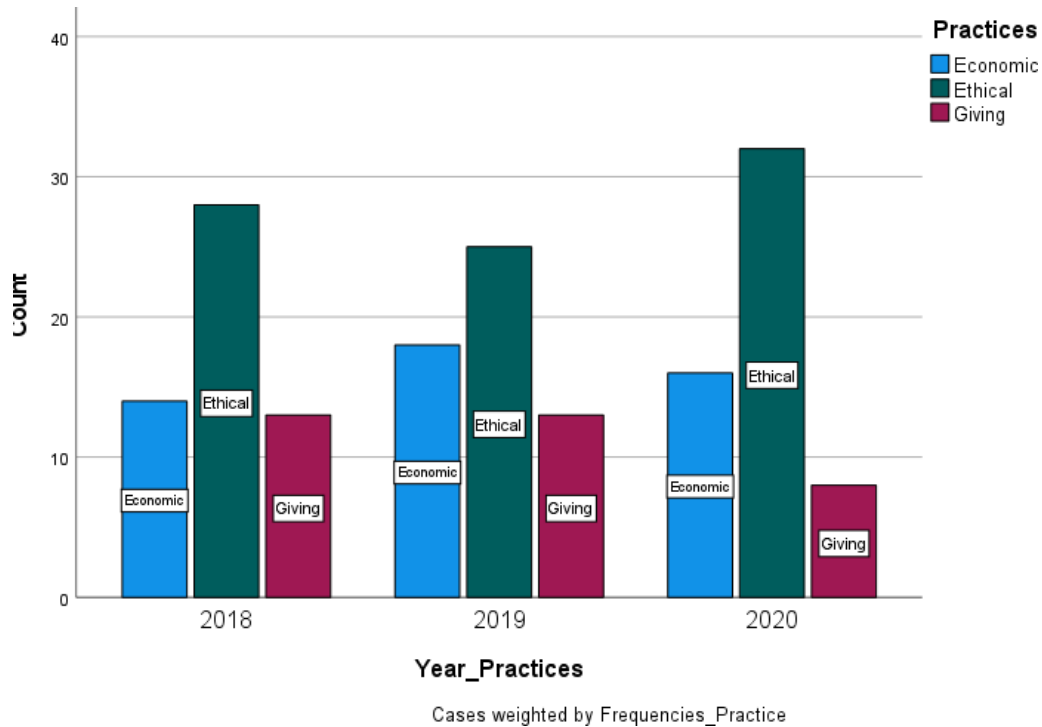
Stakeholder/Automaker	Profit	Planet	People
2018			
Daimler		2.5	
FCA		-2.5	
Ford			3.3
Geely	3.5	-2.2	
GM			
HMG		-2.2	3.9
Honda	2.9		
Nissan			
Tesla		2.3	
Toyota		2.3	
VW			
2019			
Daimler		2.2	
FCA			
Ford			
Geely	3.8	-2.1	
GM		-2.5	3.9
HMG			
Honda			2.8
Nissan	2.1		
Tesla			
Toyota			
VW			
2020			
Daimler			
FCA	2.5		
Ford			
Geely			
GM			
HMG			
Honda	3.8		
Nissan			
Tesla		3.0	
Toyota			
VW			

Note: The table represents the statistically significant drivers of the relation between the two variables by year at $p < .05$.

Consistent with key stakeholder findings, Geely's focus for 2018-2019 was profit; however, the company was more in line with other companies during the 2020 pandemic year. During 2020, FCA and Honda placed more emphasis on profit compared to the other companies. As expected of an electric vehicle company, for two of the years, Tesla focused on planet.

RQ4: What CSR implementation practices will be noted in the CEO letters and across the three years? Although ethical practices ($n = 85$) were significantly different from economic ($n = 48$) and giving ($n = 34$) across the three years ($X^2(2) = 24.946, p < .001$), the pattern did not deviate over time ($X^2(4) = 2.821, p = .588$). See Figure 3.

Figure 3: *Practices Emphasized by Year*



RQ5: What CSR implementation practices will be noted in the CEO letters across the three years by company? A significant relationship was found among the auto-makers' practices across three years ($X^2(20) = 69.505, p < .001$, ($X^2(20) = 41.512, p = .003$, ($X^2(20) = 56.462, p < .001$, respectively). See Table 4.

Table 4: Significant Adjusted Standardized Residuals of CSR Practices by Automakers Across Years 2018-2020

Stakeholder/Automaker	Economic	Ethical	Giving
2018			
Daimler		2.5	
FCA			
Ford			
Geely	3.6	-2.1	
GM			
HMG		-2.4	4.2
Honda	2.9	-2.4	
Nissan			
Tesla		2.3	
Toyota		2.3	
VW		2.3	
2019			
Daimler			
FCA			
Ford			
Geely	2.4	-2.1	
GM			2.7
HMG			
Honda			
Nissan			
Tesla			
Toyota			
VW		2.9	
2020			
Daimler			
FCA	2.2	-3.0	
Ford			
Geely			
GM			
HMG			4.4
Honda	2.7		
Nissan	2.7		
Tesla			
Toyota		2.2	
VW			

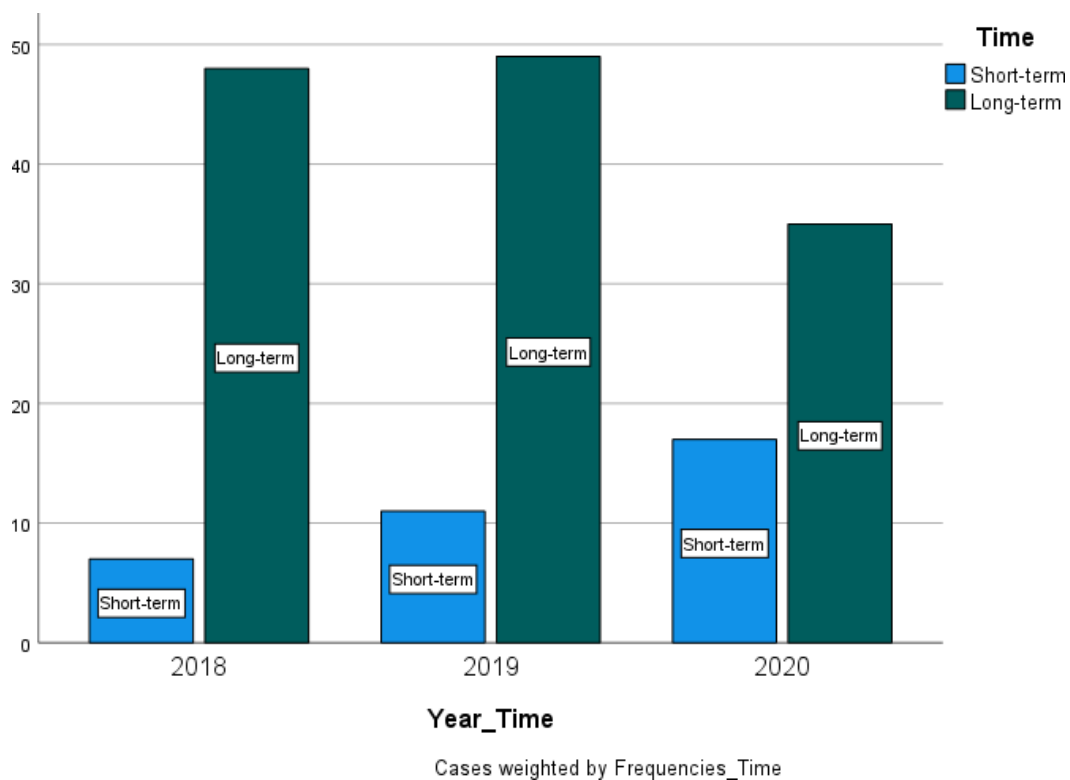
Note: The table represents the statistically significant drivers of the relation between the two variables by year at $p < .05$.

Geely's Leadership letters emphasized less economic activities over time. For

two of the years, HMG reported more giving. For 2018 and 2020, VW covered ethical practices.

H1: In 2018-2019, the CEO CSR letters will be more long-term socially responsible focused compared to 2020 where the concerns are more existential. Although no overall relationship was found between year and time orientation ($X^2(4) = 8.562, p = .073$), the dominance of long-term over short-term references was significant in each year ($X^2(2) = 163.305, p < .001$), the 2020 long-term focus was significantly less than the previous two years ($p < .05$) suggesting greater emphasis on existential threats associated with the pandemic. See Figure 4.

Figure 4: *Time Orientation by Year*



5. Discussion

Applying a comprehensive CSR framework, this study content analyzed the 2018-2020 top leadership introductory letters located in the social responsibility reports of eleven of the world's largest vehicle makers. Our findings suggest a significant difference in 2020 and patterns across companies, which intimates a possible effect of the pandemic on CSR reporting. Generally, the letters focused on society and investors as key stakeholders. During the 2020 pandemic year, there was a slight deemphasis on society and increased focus on investors. More specifically, Ford and GM focused on customers and society in general audiences. Geely, Honda, FCA, and Nissan targeted investor stakeholders. For instance, Geely's 2019 letter states, "Besides expanding its global R&D operations and laying out its design centres, Geely's brands have continuously strengthened cultural integration, collaboration with talents and technology

fusion.” In a sentiment analysis study of CEO letters in CSR report, Che et al. (2020) found strong evidence suggesting that the letters were used to make investment decisions. Knowing this, automaker anticipating capital needs, may frame letters geared toward investor audiences. For instance, starting by concentrating on affordable vehicles, Geely’s marketing strategy has changed to include the production and marketing of upscale vehicles in line with the increase income per capita growth in China, which requires investment (Murphy, 2020). In 2020, Honda experience a massive cyber-attack that forced the company to stop production and shut down both its financial services and customer services areas. Consumers questioned Honda’s ability to secure its online systems (O’Kane, 2020). In the case of Nissan, recently the company announced that it was committing nearly \$18 billion toward the “electrification” of its vehicle line (Frangoul, 2021). Recently, Reuters (2022) reported FCA also has sought financing opportunities owing to COVID-19 related debt. Last, additional investment may be required in supply chains and webs owing to the pandemic global challenges faced by automakers (Ewing and Clark, 2021). It is important to note that it is unclear whether and to what extent these conditions might have had on the leadership letters of these companies.

Moreover, we also cannot discount the influences of national cultures and institutions on top management and CSR practices. Miska et al. (2016) found that the multicultural experience of top management teams is associated with both global CSR efforts and local CSR responsiveness in China.

Other research found companies focused on employees, safety issues, and flexible schedules (Stoica, 2020). A study by Garcia-Sanchez and Garcia-Sanchez (2020) found top stakeholders to include employees and local communities where the companies operated. Mahmud et al. (2021) discovered that the most important stakeholders for companies were employees, consumers, and local communities. Again, messaging society in general may very well include local communities.

Where the current research diverges, especially in the case of some vehicle manufacturers, is in the focus on investors. This change may be in the very nature of the industry in light of the pandemic where the automobile sector was negatively affected. For the automobile industry to be successful requires the effective integration of suppliers and logistics throughout the world. One kink in the pipeline could slow the manufacturing process or even stop it. More recently, there have been shortages of vital computer boards and even tires caused ultimately by labor shortages.

This new reality requires automakers to develop a sustainable business strategy that aligns with the new business environment (Holland-Letz et al., 2021). The automobile industry will need investment to improve their automation, connectivity, electrification, and smart automobile capabilities in an environment of interdependent relationships. In short,

□ Companies are also being challenged to keep pace with the growing and ever-evolving automobile ecosystem, which includes not only vehicles, their manufacturers and operators, but also the connected cities in which they will travel. The convergence of the automotive sector with the technology, media and telecommunications sector will have wide-ranging effects. (PwC, 2022, paragraph 6)

All of this requires investment (Bowman and Robinson, 2020).

Interestingly, in terms of goals messaging, the letters primarily emphasized planet

in 2018-2019. However, in 2020, people goals were primary followed by planet goals. This is aligned with the general finding above concerning stakeholders focused upon.

Consistent with key stakeholder findings, Geely's focus for 2018-2019 was profit; however, the company was more in line with other companies during the 2020 pandemic year. During 2020, FCA and Honda placed more emphasis on profit compared to the other companies. As expected of an electric vehicle company, for two of the years, Tesla focused on planet framed its message to society in general. The company's 2020 letter states:

□ *At Tesla, we strive to be the best on every metric relevant to our mission to accelerate the world's transition to sustainable energy.*

Vehicle maker practices varied across years. The reporting of ethical practices was consistent across the three while giving practices trended downward in favor of more ethically-related content. Interestingly, HMG placed giving as a prominent practice in 2018 and 2020. For instance, in 2020, the HMG letter stated, "In 2020, the world experienced a major crisis the COVID19 pandemic. To help overcome this crisis, Hyundai Motor Group supported medical facilities, carried out response measures in affected regions, and provided relief items. We also strived to provide comprehensive and practical support to vulnerable groups, medical professionals, and those affected by the virus. In addition, we fulfilled our responsibility as a member of the international community by providing humanitarian aid to other countries." Economic practices were fairly consistent across the three years. For the most part, the leadership letters emphasized economic activities for Geely and Honda consistently.

Clearly the CSR focus has been long-term. With the exception of reduced mentioning of long-term CSR efforts in 2020, years 2018 and 2019 were fairly consistent. This is not surprising considering the existential nature of COVID-19's threat to the global economy and industries and the focus on immediate challenges (Ewing & Clark, 2021; McLain, 2021).

5.1 Practical Implementations

Often significant shifts in operations and communication themes from organization do not occur in a vacuum, but are largely owing to changes in internal and/ or external circumstances. In this case, the onset of COVID-19 and its devastating impact on a global basis forced vehicle makers to expeditiously adopt changes in response to conditions in order to mitigate any threats to sustainability. In the auto industry, this was complicated by an industry in the process of moving to more ecologically friendly production and automotive products, a strong dependence on suppliers and labor, dealers, and an overall complex and evolving manufacturing process. For the most part, all eleven manufacturers studied faced these same challenges. However, it is critical to understand their interdependencies from a key stakeholder perspective beyond investors.

Perhaps, a more wholistic approach to content presented in the CSR top leadership letters would yield a more positive response moving from capital contribution to technology and capacity outputs (Deloitte, 2022). In the vehicle manufacturing

industry, addressing the usage of digital technologies applied to manufacturing, suppliers, dealers, and customers alike would be encouraging and conducive to sustainability. Second, conveying the ability and willingness to be flexible and response is also reassuring. Also, increasing the importance and integration of value chains and supply webs are forward looking. Last, the CSR introductory letter from top leadership is a preview where stakeholders can be addressed such as suppliers, dealers, financial institutions, and regulators with the intention of collaborating in a concentrated dialogue to understand exactly what is required to address complex issues and develop a socially responsible automobile industry.

5.2 Limitations and Future Research

This study focused on the top leadership CSR report letter, which we assume provided a picture of the key stakeholders, CSR goals, and implementation practices that each vehicle manufacturer intended to highlight. Second, the letters did not provide information from a MCS perspective where manufacturer actual performance could be considered. Third, some manufacturers were required to disclosure CSR information based on government requirements. These factors might influence disclosure especially in the full-length reports. Fourth, many large companies such as vehicle manufacturer subscript to third-party CSR services and filings, which may impact what is reported in the general public disclosures typically know as sustainability or CSR report for a given year provided in pdf format.

Future research might in exogenous covariates such as countries where manufacturers do business, financial data, governmental filings information such as that located in the Securities and Exchange Commission's 10-K and 10-Q filings. Studies across industries or sectors would highlight similarities and differences in CSR reporting. Last, future research might better serve our understanding by incorporating performance measures such as key performance indicators and their performance over time.

6. Conclusion

This study is unique for two reasons. First, it deploys a novel computational content analysis approach that discovers layers of meaning within the text. Second, the extant literature reveals no research examining CSR disclosure in the automobile industry from both a sustainable goal-directed and practices perspective incorporating potential influences of the COVID-19 pandemic. Results revealed that some vehicle manufacturers focused on investor and economic activities while others communicated a more broadly-based perspective about social responsibility. During 2020, greater emphasis was placed on investors and somewhat less on society in general. Findings suggest the need for a more balanced representation geared toward addressing pandemic and post-pandemic challenges as well as traditional automotive manufacturing considerations.

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