

THE SOCIAL RESPONSIBILITY STRATEGIES IN TIME OF THE CLIMATE CRISIS IN SELECTED CAR MANUFACTURERS

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Purpose: The main purpose of the paper is to systematize and analyze social responsibility strategies the organizations operating in car industry perform with regard to climate crisis. The paper attempts to determine to what extent the non-financial reports reflect producers' concern for the environment and what impact it has on their CSR strategies.

Design/methodology/approach: The approach applied in the paper is of descriptive-empirical nature. The research methods involved in this paper are: induction, deduction, literature studies, as well as data analysis and case-study. The method of critical and comparative analysis was used in relation to the views presented in the literature.

Findings: The paper ends with a brief presentation of research findings which correspond to the formulated research questions on prevailing directions in shaping CSR strategies in car industry today.

Research implications: Future research directions should focus on further, expanded research exploration in the area, taking into account other producers worldwide. Additional work is needed to disseminate research findings among managers and to implement them in appropriate strategies.

Practical implications: The results of the research discussed in the paper have a theoretical but also some practical implications mainly for the managers but also for potential customers and cooperators of the automotive industry.

Social implications: Building awareness of trends in shaping social responsibility strategies in car manufacturing industry.

Originality/value The paper has a cognitive value for managers as well cooperators and customers of car manufacturers. The outcomes have theoretical as well as practical implications in search of solutions to improve CSR strategies in the light of ongoing climate crisis.

Keywords: social responsibility, climate crisis, car industry.

Category of the paper: research paper.

1. Introduction

The car manufacturers' industry holds a significant position in the global economy shaping transportation systems and exerting considerable influence on the environment and society (Lenort, Wicher, Zapletal, 2023). As concerns regarding environmental degradation and social impact continue to rise the concept of Corporate Social Responsibility (CSR) has gained prominence as a framework for businesses to go beyond profit-making and address their broader responsibilities (Lin, 2023). The key objective of the paper is to provide and explore the interplay between CSR and environmental aspects within the automotive industry.

The automotive sector's impact on the environment cannot be ignored. Vehicle emissions, manufacturing processes and resource consumption have profound consequences for air quality, climate change, and natural resource depletion. Recognizing these challenges the industry has undergone significant transformations, propelled by technological advancements and evolving regulatory frameworks aimed at reducing emissions and promoting sustainable practices (Sukitsch, Engert, Baumgartner, 2015).

Non-financial reports have become an essential tool for automotive manufacturers to communicate their CSR strategies, initiatives and performance to stakeholders. These reports go beyond traditional financial reporting and provide detailed insights into a company's environmental and social performance (Vieira, Li, Scotina, 2022). This paper aims to delve into the CSR strategies and non-financial reports of selected automotive manufacturers. Analyzing the reports can help to understand the comprehensiveness and preparedness of these companies in addressing environmental aspects and social responsibility.

The research's objective is to contribute to the growing body of knowledge on CSR in the automotive industry, highlighting the importance of integrating sustainability principles and responsible business practices. By exploring the CSR strategies and non-financial reports of prominent automotive manufacturers, the work aims to gain insights into their commitment to environmental stewardship, social well-being and the pursuit of a sustainable future. Ultimately this paper seeks to shed light on the role of the automotive industry in addressing pressing global challenges and the potential for positive change through CSR initiatives.

2. Some introductory remarks on non-financial reporting in car manufactures' industry

Dealing with sustainability reporting and communications requires to take a strategic and value-centric approach which is crucial to avoid unnecessary expenditure and inefficiencies (Rhoden, Ball, Vögele, Kuckshinrichs, 2023). The importance of focusing on the value created,

specifically highlighting the significance of community benefits when reporting on sustainability initiatives is commonly emphasized (Ogrea, Herciu, 2022).

It is recommended to incorporate the Sustainable Development Goals (SDGs) framework into communication strategies to enhance the relevance and impact of sustainability narratives (The Sustainable Development Goals, 2023). The Sustainable Development Goals (SDGs) are global targets aimed at addressing critical social, economic and environmental challenges to achieve a more sustainable future.

Additionally attention is paid to the Global Reporting Initiative (GRI) as a framework as it provides structure and credibility to sustainability reports. The Global Reporting Initiative (GRI) is a widely recognized framework that provides guidelines for transparent and credible sustainability reporting by organizations worldwide (The Global Reporting Initiative, 2023).

The value of sharing credit and maintaining honesty throughout the reporting process, as stakeholders appreciate transparency and authenticity is also emphasized (Kuo, Wu, Liu, 2022). Acknowledging challenges and showcasing how they were addressed is also encouraged, as it demonstrates resilience and progress (Lindow, Kaluza, Stark, 2018). Finally it is advised for organizations to prioritize engaging stories and issues that resonate with stakeholders, rather than excessive self-promotion. By adhering to these principles, businesses can optimize the effectiveness and value of their sustainability reporting and communications, garnering appreciation from both internal and external stakeholders (Leoński, Beyer, 2016).

Due to the environmental difficulties facing the sector CSR is significantly important in the context of the automotive industry. Vehicles significantly affect air quality, greenhouse gas emissions and the usage of natural resources (Tóth, Suta, Szauter, 2022).

Automakers have concentrated more and more on incorporating environmental sustainability into their business strategy as a result of this. Since the automobile sector already contributes significantly to the environment's negative consequences through emissions from its manufacturing, environmental responsibility is present and of special importance in this sector (Stefanoni, Voltes-Dorta, 2021). Unfortunately this is also true of the product which when used pollutes the air. These realities make it important for businesses in this industrial sector to modify their manufacturing methods and the creation of new goods so that they are sustainable and environmentally friendly (Ocampo, Clark, 2014).

Non-financial reporting which puts an emphasis on environmental issues is an important part of CSR in the automobile sector. Non-financial reports include in-depth analyses of a business' environmental activities, including its environmental objectives, strategy, and performance metrics (Beretta, Demartini, Lico, Trucco, 2021). Through these reports, stakeholders may assess a company's dedication to environmental responsibility and track its advancements in areas like waste management, emissions reduction, and emissions management. The demand for openness and responsibility regarding environmental performance is what has led to the rising significance of non-financial reporting (Lidvall, Rafstedt, 2023). Consumers, investors and regulators are among the stakeholders who are

growing more concerned about how automobile operations affect the environment. Non-financial reports are a way for automakers to share the actions they've made to lessen their environmental impact and encourage sustainable lifestyles (Sannö, Wallin, Fundin, 2014).

Automotive manufacturers can also find environmental opportunities and dangers thanks to non-financial reporting. Manufacturers may evaluate their performance, set goals and put plans into place to minimize harmful effects and enhance beneficial contributions to the environment by reporting on their environmental activities (Hąbek, Lavios, Krupah, 2022). Additionally automotive manufacturers may interact with stakeholders about environmental concerns through non-financial reporting. It enables businesses to share their environmental accomplishments, efforts and innovations, encouraging transparency and developing stakeholder confidence. This interaction may spark teamwork to advance environmental changes with suppliers, clients and communities (Hariyani, Mishra, Sharma, Hariyani, 2022).

In conclusion, the automobile sector places a high value on CSR's environmental components. The honest communication of a company's environmental objectives and performance relies heavily on non-financial reporting. Automakers may help create a greener, more sustainable future by incorporating environmental sustainability into their business plans and reporting procedures.

3. The overview of reports in leading car manufacturers

3.1. Introduction to the research

This part of paper examines the Corporate Social Responsibility reports from well-known automakers, highlighting their programs and objectives. These automakers have a significant influence on the global economy, transportation networks and environmental impact as key actors in the automobile industry. Automotive manufacturers have embraced CSR practices to match their business objectives with societal and environmental demands as they become more and more important. The described companies have become market leaders, garnering a sizable following and market share. Their pledges, achievements and upcoming goals in relation to CSR, environmental stewardship, community participation and ethical practices may all be learned through reviewing their non-financial reports.

The research focuses on the contents of reports published by automotive manufacturers, with a particular emphasis on the reports of Toyota Motor Corporation, BMW Group, Ford Motor Company, and Volkswagen Group. The selection of the mentioned brands for this research was based on their status as some of the largest car manufacturers in the industry. These companies have a significant global presence and their operations have a substantial impact on the automotive sector and the broader economy. The objective is to analyze and

evaluate if these reports cover various aspects of selected CSR objectives, including the social, environmental and future-related domains. The scope of this research includes analyzing the reports to determine the inclusion of key elements such as the social area, environmental sphere, recyclability, protection of the environment and future perspectives. By thoroughly examining the reports of each company a comprehensive assessment can be made regarding their CSR efforts and the transparency with which they report on these aspects. The selected automotive manufacturers represent significant players in the global market and their reports provide valuable insights into their sustainability practices and initiatives. The pre-run research of the reports will serve as a basis for their subsequent analysis in terms of each aspect. The area covered by reporting are presented in Table 1.

Table 1.

Selected areas covered by reporting from various manufacturers

guidelines/manufacturers	Toyota	BMW*	Ford*	VW AG
social area	Yes	Yes	Yes	Yes
environmental sphere	Yes	Yes	Yes	Yes
recyclability	Yes	Yes	Yes	Yes
protection of environment	Yes	Yes	Yes	Yes
future perspectives	Yes	Yes	Yes	Yes

Source: own elaboration.

BMW and Ford present one report integrating sustainability/CSR and financial aspects. The pre-run research revealed that all selected automotive manufacturers consistently covered the social area, environmental sphere, recyclability, protection of the environment and future perspectives in their reports. Their reporting indicates a strong commitment to corporate social responsibility and sustainable business practices. Having made sure that each of the selected companies has included the established criteria in its report it is feasible to lean into each of the reports and analyze them more deeply.

3.2. The case study of Toyota Motor Corporation

Toyota Motor Corporation, one of the leading automotive manufacturers globally, has gained recognition for its commitment to CSR and sustainability. This analysis focuses on Toyota's non-financial report, exploring its efforts in the social area, environmental sphere, recyclability, protection of the environment and future perspectives. By analyzing these key aspects we aim to gain insights into Toyota's CSR practices and assess the company's alignment with sustainable development goals (Toyota Motor Company, Sustainability Data Book, December 2022).

- **Social Area**

Toyota's non-financial report consistently emphasizes its dedication to social responsibility. The company's initiatives encompass employee welfare, community engagement, support for underprivileged groups, vehicle safety, privacy, intellectual property and health and safety. The main, salient risks that are taken care of by Toyota in 2022 were: migrant labor, child labor,

harassment, and discrimination (diversity and inclusion). Moreover the company focuses on promoting diversity (woman's activity, LGBTQ+ inclusion), equal opportunity, and human rights. The report highlights respect for internationally recognized Human Rights in line with the United Nations Guiding Principles on Business and Human Rights (UNGP) and the Universal Declaration of Human Rights and compliance with international Human Rights obligations together with the laws and regulations of the countries in which Toyota operates. Toyota also actively engages in philanthropic activities, partnering with organizations to address social challenges and contribute to sustainable community development.

- **Environmental Sphere**

Toyota recognizes the importance of environmental stewardship and demonstrates a strong commitment to mitigating climate change and reducing its ecological footprint. The company's non-financial report highlights various initiatives aimed at environmental sustainability. Toyota has set ambitious targets for reducing CO2 emissions, promoting energy-efficient manufacturing processes and increasing the use of renewable energy sources. The report also emphasizes Toyota's investments in research and development of eco-friendly technologies, such as hybrid and electric vehicles, as part of its broader commitment to sustainable mobility. Toyota formulated the 7th Toyota Environmental Action Plan (2025 Target), a five-year action plan to achieve the Toyota Environmental Challenge 2050. Their primary goal in that spheres Life Cycle Zero CO2 Emissions Challenge. As the report states Toyota is also committed to reducing CO2 emissions in each stage of the vehicle life cycle.

- **Recyclability**

In the non-financial report, Toyota showcases its commitment to recyclability and waste management throughout its value chain. The company emphasizes the importance of circular economy principles and aims to minimize waste generation and maximize resource utilization. Toyota's report detail efforts to design products for recyclability, increase recycling rates in manufacturing processes, and collaborate with suppliers to establish closed-loop systems. By prioritizing recyclability Toyota aims to minimize its environmental impact and contribute to a more sustainable automotive industry. The newest initiatives proposed by the company are "Toyota Global 100 Dismantlers Project Establishment of Social Systems for Appropriate Treatment and Recycling of End-of-life Vehicles" and "Toyota Global Car-to-Car Recycle Project".

- **Protection of the Environment**

Toyota's non-financial report emphasizes its dedication to the protection of the environment. The company implements comprehensive measures to conserve natural resources, preserve biodiversity and minimize the negative impacts of its operations. Toyota engages in initiatives such as reforestation, habitat restoration and water conservation programs. The report also highlights Toyota's commitment to adhering to environmental regulations, implementing stringent emission control measures, and promoting sustainable supply chain practices through initiatives with suppliers, dealers and distributors.

- **Future Perspectives**

Toyota's non-financial report provides valuable insights into the company's future perspectives and sustainability goals. The report outlines Toyota's long-term vision, which includes developing advanced technologies and mobility solutions that contribute to a low-carbon society. Toyota aims to expand its lineup of electrified vehicles, increase the use of hydrogen fuel cell technology, and promote innovative solutions for sustainable urban mobility. The report also highlights Toyota's commitment to continuous improvement and innovation, demonstrating the company's forward-looking approach to sustainability. The most important perspectives from the report are electrification leadership (Toyota aims to lead the electrification revolution by expanding its lineup of hybrid, plug-in hybrid, battery electric and fuel cell vehicles), carbon neutrality (Toyota has set a goal to achieve carbon neutrality across its entire vehicle lifecycle by 2050 through increased fuel efficiency, electrification, and renewable energy use) and sustainable mobility solutions (Toyota is investing in connected and autonomous driving technologies and promoting "Mobility as a Service" to create seamless and sustainable mobility experiences).

- **Conclusion**

In conclusion the analysis of Toyota's non-financial report showcases the company's strong commitment to CSR and sustainability. Toyota places a significant emphasis on social responsibility, addressing employee welfare, community engagement and supporting underprivileged groups. The company also actively promotes diversity, equal opportunity, and human rights. In terms of environmental sustainability Toyota is dedicated to mitigating climate change and reducing its ecological footprint. The company sets ambitious targets for reducing CO2 emissions, investing in eco-friendly technologies and promoting recyclability throughout its value chain. Toyota's non-financial report also provides insights into its future perspectives, including leadership in electrification, striving for carbon neutrality and investing in sustainable mobility solutions. Overall Toyota's non-financial report reflects its commitment to addressing social and environmental challenges while driving innovation in the automotive industry.

3.3. The case study of BMW Group

BMW Group, a renowned automotive manufacturer, has been actively engaged in corporate social responsibility and sustainability practices. This analysis focuses on BMW's non-financial report, examining the company's efforts in the social area, environmental sphere, recyclability, protection of the environment and future perspectives. By analyzing these key aspects this section aims to gain insights into BMW's CSR practices and assess the company's commitment to socially responsible and sustainable development.

- **Social Area**

BMW actively focuses on employee well-being, diversity and inclusion through programs that foster a supportive work environment. The report showcases BMW's initiatives to engage with local communities, promote education and skills development and support social causes. The company also places a strong emphasis on customer satisfaction and safety aiming to build trust and long-term relationships with its stakeholders. One of the most important documents for the company is the "BMW Group Supplier Code of Conduct – BMW Group Supplier Sustainability Policy" which covers the basic assumptions for suppliers (BMW Group Supplier Code of Conduct, 2023). In this document the BMW Group emphasizes social responsibility towards employees and expects its suppliers to adhere to guidelines on human rights, labor conditions and sustainability. The company prohibits child labor and forced labor, supports freedom of association and collective bargaining, advocates for non-discrimination and ensures health and safety in the workplace. The BMW Group also promotes fair remuneration, respects the rights of local communities and emphasizes animal welfare. Suppliers are expected to implement due diligence processes and comply with standards for critical raw materials. The BMW Group encourages continuous improvement and offers support to suppliers in meeting these requirements, noticing also that audits may be conducted on certain suppliers. (BMW Group Supplier Code of Conduct, 2023) Another important factor of social area responsibility is an increase in expenditures on employee training and development as well as taking part in young talent programs.

- **Environmental Sphere**

BMW recognizes the significance of environmental sustainability and has integrated it into its business strategy. The company's annual report emphasizes its commitment to reducing carbon emissions, energy consumption and water usage throughout its operations. BMW actively invests in research and development of sustainable mobility solutions such as electric and hybrid vehicles. The report also highlights BMW's efforts to increase the use of renewable energy sources in manufacturing processes, ensuring a more sustainable and environmentally friendly approach. In the previously mentioned document, the manufacturer presents also guidelines referring to environmental aspects, outlining the environmental responsibilities expected from BMW Group's suppliers. The BMW Group emphasizes the careful and efficient use of resources and expects suppliers to comply with national and international environmental standards and laws. Suppliers are required to minimize pollution and risks, reduce environmental impacts and introduce an environmental management system. The BMW Group is committed to reducing CO₂ emissions throughout the product life cycle and expects suppliers to implement measures for emission reduction. Transparency and reduction targets for emissions in the supply chain are also expected. Suppliers are encouraged to adopt resource conservation and circular economy practices and utilize recyclable materials. Protection of biodiversity, avoidance of deforestation and responsible land and forest use are emphasized. The BMW Group excludes the use of deep-sea raw materials until their

environmental impact is better understood. Handling hazardous materials and waste should adhere to regulations and conventions, with proper labeling, safe handling, and appropriate disposal (BMW Group Supplier Code of Conduct, 2023).

- **Recyclability**

BMW places a high priority on recyclability and waste management. The company's report showcases its commitment to incorporating sustainable materials and design principles into its products. As stated in the report, BMW Group uses secondary raw materials in their products, designs their products to facilitate their recycling, manages waste at their production sites in a way that prioritizes recycling over disposal as well as registers substances of concern systematically along the entire supply chain. BMW aims to maximize the recyclability of its vehicles and components, minimizing waste generation and promoting resource efficiency. The company emphasizes that in 2022 a total of 99.3 percent of waste generated by production was either recycled or recovered. The report highlights BMW's efforts to establish closed-loop supply chains and collaborate with suppliers to enhance recyclability throughout the product life cycle.

- **Protection of the Environment**

BMW's Group report underscores its commitment to protecting the environment. The company implements measures to reduce environmental impacts, including emissions control, responsible waste management and sustainable use of resources. For example, in the Leipzig plant, the company optimizes circulation systems by expanding the purification stages in wastewater treatment. BMW emphasizes compliance with environmental regulations and the integration of environmental considerations into its decision-making processes. The report also highlights BMW's engagement in projects focused on conservation, biodiversity and sustainable land use, demonstrating its dedication to preserving the natural environment.

- **Future Perspectives**

The report outlines BMW's commitment to innovation and the development of cutting-edge technologies that promote sustainable mobility. BMW's future perspectives include expanding its electric vehicle lineup, i.e. Neue Klasse (a technology platform with new standards for electromobility, digitalization, and sustainability), advancing autonomous driving capabilities and investing in smart mobility solutions. The report also emphasizes BMW's commitment to continuous improvement, transparency and stakeholder engagement in shaping its future sustainability strategies. The main goals of the manufacturer are by 2030 to have over 50 percent of all-electric vehicles in their deliveries, 80 percent reduction of carbon emissions per vehicle in their production, over 50 percent reduction in carbon emissions during a vehicle's use phase and over 20 percent reduction in carbon emissions in the supply chain.

- **Conclusion**

BMW Group is committed to corporate social responsibility and sustainability. The company focuses on employee well-being, diversity, and customer satisfaction. It expects suppliers to adhere to guidelines on human rights, labor conditions, and sustainability. BMW in their report prioritizes environmental sustainability, aiming to reduce carbon emissions, energy consumption and water usage. The noticeable practice is that of CSR-related policies with suppliers, who are expected to comply with environmental standards, reduce pollution, and implement environmental management systems. BMW emphasizes recyclability, waste management and the use of sustainable materials. The company is dedicated to protecting the environment and investing in future technologies for sustainable mobility. Its goals include increasing the use of electric vehicles and reducing carbon emissions throughout the supply chain.

3.4. The case study of Ford Motor Company

Ford Motor Company, another one of the prominent players in the automotive industry, has also been actively involved in CSR practices and sustainability initiatives. This analysis focuses on Ford's integrated sustainability and financial report, examining its efforts in the social area, environmental sphere, recyclability, protection of the environment and future perspectives (Ford Integrated Sustainability and Financial Report, 2023). By analyzing these key aspects we aim to gain insights into Ford's CSR practices and assess the company's commitment to sustainable development.

- **Social Area**

The part of Ford's non-financial report demonstrates a strong emphasis on social responsibility. The company prioritizes employee welfare and engagement, fostering a culture of inclusivity and diversity. Ford's report showcase initiatives that promote employee well-being, professional development, and work-life balance. For Ford, the emphasis is put on human and capital diversity, equity and inclusion, employee health, safety and wellbeing, human rights, supply chain management, product safety and quality, socioeconomic contributions and community engagement. The most salient issues for Ford are access to water and sanitation, air quality, child labor, climate change, equal and fair wages, ethical recruitment, harassment and discrimination, human trafficking, occupational health, safety and wellbeing and product safety and quality. The company also engages in community-based projects and partnerships, addressing social issues such as education, access to healthcare and economic empowerment. Ford's commitment to social initiatives reflects its dedication to creating positive social impacts beyond its core business operations.

- **Environmental Sphere**

Ford recognizes the importance of environmental sustainability and aims to minimize its environmental footprint. The company's report highlights its efforts to reduce greenhouse gas emissions, conserve energy and optimize resource utilization. Ford actively pursues sustainable

manufacturing practices, investing in technologies that promote energy efficiency and waste reduction. The most emphasis is put on the successes of Ford in actions to improve air quality, water use and waste management. The report also emphasizes Ford's commitment to developing and promoting electric and hybrid vehicles as part of its strategy to mitigate climate change and contribute to a greener future.

- **Recyclability**

Ford places a strong emphasis on recyclability and waste management throughout its value chain. The company's report outlines initiatives focused on designing products for recyclability, promoting recycling programs, and collaborating with suppliers to establish closed-loop systems. Ford's commitment to recyclability extends beyond its vehicles, encompassing packaging materials, manufacturing waste and end-of-life vehicle disposal. Ford states recycling can reduce the carbon footprint of some plastics by 70-90 percent. Through activities such as transforming recycled plastic bottles into vehicle parts, the company is helping to promote environmentally friendly auto parts. As they state in the report recycled plastic is ideal for the manufacture of underbody shields, engine under shields, and front and rear wheel arch liners. By prioritizing recyclability, Ford aims to reduce waste generation and promote resource conservation throughout its operations.

- **Protection of the Environment**

The environmental section of the report demonstrates the manufacturer's commitment to the protection of the environment. The company implements measures to minimize environmental impacts, such as water conservation, emissions control and the adoption of sustainable materials.

Ford's report highlights its efforts to comply with environmental regulations and promote responsible manufacturing practices. The company also engages in biodiversity conservation initiatives and supports projects focused on preserving natural habitats and ecosystems such as Ford's Wildlife Foundation which takes care of biodiversity and ecosystem health. Ford's commitment to environmental protection underscores its recognition of the importance of maintaining a healthy and sustainable planet. Finally the company highlights its portfolio that includes accessible lower carbon options like electric vehicles, hybrid vehicles, fuel cell vehicles, models with aerodynamic improvements and weight reductions, also vehicles that use carbon-neutral e-fuels, i.e. electricity, biofuels (CNG/LNG) and hydrogen.

- **Future Perspectives**

In the report one can find insights into the company's future perspectives and sustainability goals. The report outlines Ford's commitment to investing in research and development of advanced technologies, including electric vehicles, autonomous driving, and connected mobility solutions. Ford aims to contribute to a sustainable and efficient transportation ecosystem, reducing emissions and improving overall environmental performance. The report also highlights Ford's collaboration with industry partners, policymakers, and stakeholders to drive innovation and shape the future of mobility. The main aspirations include goals like

carbon neutrality no later than 2050 and 100 percent usage of carbon-free electricity in all manufacturing by 2035.

- **Conclusion**

The report exemplifies commitment to CSR and sustainability across various dimensions. The report highlights Ford's initiatives in the social area, its efforts to minimize environmental impact, promote recyclability, protect the environment and outline its future perspectives. Through a comprehensive analysis of the report, one gains valuable insights into the company's socially responsible practices.

3.5. The case study of Volkswagen Group

This analysis focuses on Volkswagen Group's non-financial report, providing an examination of the selected CSR practices and sustainability initiatives (The Volkswagen Group Sustainability Report 2022). The report offers valuable insights into the company's efforts in the social sphere, environmental conservation, recyclability, protection of the environment and future perspectives. By analyzing Volkswagen Group's non-financial report, this part aims to summarize the company's commitment to sustainable development and its overall CSR performance.

- **Social Area**

The report of Volkswagen Group shows its dedication to social responsibility by prioritizing employee well-being (according to the report, in 2022, the score on the employee satisfaction index in the Volkswagen Group was 82.4 out of 100), fostering diversity and inclusion (group diversity management is assigned to the VW Group Board of Management and reports to the individual responsible for Human Resources. More than 85 diversity managers meet at an annual convention to share best practices and discuss programs and actions) and engage with local communities. The report highlights initiatives that promote safe working conditions, employee development programs, and community outreach activities. VW Group's commitment to social responsibility extends to its customers through a focus on delivering high-quality products and services that meet their needs and preferences.

- **Environmental Sphere**

Volkswagen Group is committed to minimizing its environmental impact and promoting sustainable practices throughout its operations. The non-financial report provides insights into the company's efforts to reduce carbon emissions, energy consumption and water usage. As the report states, VW Group is committed to using water sparingly, focusing on production sites in risk zones. Closed-loop circulation or recirculation of cooling and process water can reduce the need for freshwater and the quantity of wastewater. Volkswagen supports the Water Disclosure Project (WDP) and has been given the top grade of A in the WDP ranking for its sustainable water management. The amount of wastewater produced is in line with the amount of fresh water used. It also highlights Volkswagen Group's investments in research and development of eco-friendly technologies such as electric vehicles and alternative fuels.

The report emphasizes the company's commitment to sustainable supply chain management and the adoption of renewable energy sources in its production facilities.

- **Recyclability**

Uncoupling economic growth from resource consumption and developing a circular economy are key sustainability topics for VW Group. The report showcases that the manufacturer recognizes the importance of recyclability and waste management in achieving sustainability goals. The VW Group actively collaborates with suppliers to improve recyclability and adopts innovative design principles to enhance the circularity of its products. The report also highlights the company's initiatives to reduce packaging waste and increase the utilization of recycled materials. Utilizing the largest percentage of recycled materials is crucial for VW as noted in the report. The ceiling headliners, textiles, carpets, seats, door trim and ornamental inlays are all comprised of sustainable materials in the ID. family (electric cars from the Volkswagen brand). All lines' seat fabrics are up to 100% recycled PET which was typically used to make PET bottles. In Golf 8, 6% of the thermoplastics and 28% of the fabrics come from recycled sources. Moreover the manufacturer reports that electric drives are an important step towards low-emission mobility and help to protect the climate, however, their production results in different materials entering circulation, such as high-voltage batteries. It is important for these materials to remain in circulation to reduce emissions and other environmental impacts. VW Group is working on a recycling concept for batteries and has entered into strategic partnerships with a company that specializes in battery recycling. Škoda (a brand of VW Group uses raw materials from renewable sources when manufacturing vehicles, such as flax, cotton, wood and cellulose. Škoda has developed sustainable materials such as sugar beet pulp and miscanthus reed and is investigating other ecologically sourced materials. Suppliers are also required to comply with sustainability standards. The Group's focus on high quality with low need for repair is to give vehicles long lives. If a part fails, they are replaced through the Exchange Parts Program. Reconditioning is a key component of the replacement program, reducing CO2 emissions and primary energy requirements by 54%.

- **Protection of the Environment**

Volkswagen Group is dedicated to protecting the environment and preserving natural resources. The report demonstrates the company's commitment to reducing environmental impacts through measures such as emissions control, sustainable land use and responsible waste management. It outlines VW Group's adherence to environmental regulations and standards, as well as its participation in environmental conservation projects. The report emphasizes the company's commitment to biodiversity preservation and the sustainable use of resources. Volkswagen has been involved in protecting and retaining biological diversity through conservation projects since 2007. As a founding member of the Biodiversity in Good Company initiative, they have defined corresponding action areas to make their contribution to achieving these goals within the framework of their business activities. Additionally they support the Agenda for Nature and People Initiative by publishing their commitment on the page of the

German Business for Biodiversity platform. Additionally, they have developed an internal assessment tool to assess both direct measures to increase biodiversity at their production sites and indirect measures, as well as introducing a biodiversity KPI.

- **Future Perspectives**

The report outlines VW Group's strategic plans for developing sustainable mobility solutions, expanding its electric vehicle portfolio, and advancing autonomous driving technologies. The report also highlights the company's commitment to research and development, innovation and continuous improvement in its pursuit of a sustainable and carbon-neutral future. Volkswagen Group aims to position itself as a leader in sustainable mobility and contribute to the global transition towards a greener automotive industry. The group has set a long-term goal of becoming net carbon neutral by 2050, with electric mobility being the biggest contributor. In 2022, 11 percent of sales will be electric vehicles, and by 2025 the group forecasts it to rise to 20 percent. The Group is also supporting the expansion of renewable energy on an industrial scale, and additional green electricity. Volkswagen is committed to the electric drive for decarbonization, with a goal of reducing production-related CO₂ emissions by 50 percent by 2030. They have laid the foundation for their first battery cell factory in 2022 and five more factories in Europe by the end of the decade. The focus on e-mobility and software development is going to change work in an employee-friendly and socially acceptable way.

- **Conclusion**

Volkswagen Group's non-financial report demonstrates its commitment to CSR and sustainability across various areas. In the social sphere, the company prioritizes employee well-being, diversity and inclusion, and community engagement. Environmental conservation is a key focus, with efforts to reduce carbon emissions, energy consumption, and water usage. The company also emphasizes recyclability and waste management, collaborating with suppliers and adopting circular design principles. Volkswagen Group is dedicated to protecting the environment through emissions control, sustainable land use and biodiversity preservation. Future perspectives highlight the company's plans for sustainable mobility solutions, expanding electric vehicle portfolios, and advancing autonomous driving technologies. This analysis of Volkswagen Group's non-financial report provides valuable insights into the company's CSR practices and its commitment to a sustainable and carbon-neutral future.

4. Conclusions

The analysis of the CSR strategies and non-financial reports of Toyota Motor Corporation, Ford Motor Company, BMW Group and Volkswagen Group reveals the comprehensive commitment of these automotive manufacturers to corporate social responsibility. It is worth

noting that due to the limited scope of the study, the examination focused solely on the selected automotive manufacturers, also concerning the extensive length of the reports (which span up to 343 pages in the case of the BMW Group's report) the analysis was limited to selected categories.

The reports of these companies are meticulously organized, demonstrating a well-structured approach to conveying their CSR efforts. The reports often include links to specific sections or references, enhancing the accessibility and navigation for readers and are presented in a reader-friendly manner. They are designed with clarity and visual appeal, comprehensive, well-structured and transparent, incorporating graphical elements that effectively convey information and data, and showcasing their adherence to the highest standards in reporting. This visual representation not only enhances the readability of the reports but also reflects the unique "spirit" and commitment to CSR of each brand. The reports showcase the companies' dedication to transparency and accountability, providing stakeholders with a comprehensive overview of their CSR strategies, performance and future goals.

All four companies demonstrate a strong dedication to achieving carbon neutrality by 2050, aligning their goals with global efforts to mitigate climate change. These manufacturers utilize internationally recognized frameworks such as the Sustainable Development Goals (SDGs) and Global Reporting Initiative (GRI) indicators to structure their reports and provide a clear understanding of their CSR initiatives.

While there are similarities in certain areas across the reports, each company distinguishes itself in different spheres. Toyota Motor Corporation's report emphasizes its commitment to environmental sustainability through its Toyota Environmental Challenge 2050 which outlines ambitious goals for reducing CO₂ emissions and promoting sustainable manufacturing processes. Ford Motor Company's report highlights its sustainability strategy focused on electrification, mobility solutions and community engagement. BMW Group's report showcases its efforts to promote sustainable mobility, including the expansion of its electric vehicle portfolio and the implementation of circular economy principles. Volkswagen Group's report emphasizes its dedication to sustainable mobility and resource efficiency with a strong focus on reducing emissions and advancing electric vehicle technologies.

In conclusion Toyota Motor Corporation, Ford Motor Company, BMW Group and Volkswagen Group might be described as prominent in CSR practices and reporting within the automotive industry. Their reports demonstrate their commitment to achieving carbon neutrality, their comprehensive and well-prepared approach to CSR reporting and their adherence to high standards. Each company presents a distinct focus in different spheres, reflecting its priorities and strategies. Collectively, these automotive manufacturers play a significant role in driving the industry toward a more sustainable and socially responsible future.

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