

Elaborating ESG Of TESLA Based on Information

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Abstract: Sustainable development is now a hot topic in the world. In view of the serious problems in environment, society, financial market and other aspects, international organization, countries and even enterprises around the world have put forward ESG and other sustainable development action plans, so that human beings can develop sustainably. Therefore, the research theme of this paper is Tesla's ESG performance in 2022. The research method of this paper is as follows: Firstly, massive data about Tesla's ESG in 2022 and ESG of other three companies are collected, and then the ESG of Tesla company is analyzed and the ESG form of Tesla company is compared with that of other three typical companies. This paper draws a conclusion on the defects and advantages of Tesla's 2022 ESG and their differences between other companies ESG, which provides valuable reference materials for future scholars studying Tesla ESG and the whole situation of world range companies ESG.

Keywords: ESG, electronic vehicle, Tesla, new energy, automobile manufacturer

1. Introduction

Because of the urgency of the climate crisis, people pay more attention to the environment, and the UN's consistent emphases on sustainability have resulted in the passage of environmental regulations all around the world, and convene international summits COP26. The EU's Sustainable Finance Disclosure Regulation- a 2019 initiative to bring structure to the anarchic sustainable investment industry - has been the most recent step forward [1]. In the UK, the government introduced the Companies Act, which effectively established norms in the "G" category and serves as the major source of company law. The "S" category has also seen a boost, with laws passed that criminalize discrimination and, in some cases, encourage diversity [1]. Not only the global institutions and government continue focus on the ESG development, but also companies.

The biggest investment companies in the world, like BlackRock Inc., have made ESG a primary focus in their day-to-day operations [1]. Many other businesses have done the same. They believe that ESG will remain, thus they should adapt to it as quickly as possible [1]. However, Tesla, as the leading enterprise of new energy companies, has normal or even worse ESG score, and the company also faced crisis of its ESG situation in 2022.

Tesla, Inc., an electric vehicle manufacturer with headquarters in Austin, Texas, suffered a series of difficulties in June 2022 that raised concerns about its environmental, social, and governance (ESG) credentials [2]. A complaint was made against Tesla's Fremont manufacturing facility by the Department of Fair Housing and Employment of the State of California, citing various forms of discrimination. The business was taken from of S&P Global index of ESG-related businesses [2]. Moreover, there is now less research on Tesla's 2022 ESG investments. Therefore, this article chose

to analyze the company in order to provide some references for the ESG investment strategy of the new energy automobile industry and the current ESG strategic investment of companies around the world.

2. Data Analysis

2.1. Analysis Tesla's ESG situation by summary Tesla's 2022 Impact report

Based on the impact report of the Tesla, eight aspects argued in that article describe the impact of the Tesla. The business reaffirmed its goal of hastening the global switch to renewable energy. To do this, they must create products that are in every way superior to fossil fuels and maximize their sales of these things [3]. Tesla believes that providing a product ecosystem that comprehensively meets the world's clean energy production, storage, and transportation needs is the best way to achieve their goals [3]. The following paragraphs will specifically analysis the embodiment of Tesla ESG in the impact report in 2022.

2.1.1. Environmental Impact

According to the Environmental impact, the Tesla mainly mentioned their environmentally friendly on annual vehicles emission and manufacturing processes. The According to Tesla, a single Tesla car prevents 55 tons of CO₂ over the course of its lifetime [3]. Moreover, Tesla did an achievement that they produced and delivered over 1.3 million EVs globally in 2022, and their clients prevented the emission of 13.4 million tons of CO₂e into the atmosphere in 2022 [3]. The reports also held a point that the more items they supply, the sooner their objective will be completed [3]. This point was essential for the whole company because the passage frequently mentioned it.

In the manufacturing part, the passage argues that their goal is for all Tesla factories to be carbon neutral. Tesla has made many moves. They track and strive to reduce emissions across the whole value chain, which includes their sales, service, and delivery activities, as well as associated production and supply chain procedures [3]. Every new factory is designed to be better and more environmentally friendly than the last. To decrease building heating and cooling demand, they chose highly efficient, insulated, low-emissivity windows at Gigafactory Texas. More than 1 MW of natural gas will be saved from being used for process heating thanks to waste heat recovery from their compressors. In terms of the use of solar power in Tesla factories, they develop new factories that will be covered with solar panels. They had built 32,400 kW of solar at our operations by the end of 2022, with the largest installation at Gigafactory Texas [3]. The factories also use AI Control policy which minimizes the amount of energy required to support production while remaining safe. Tesla has new techniques of producing dry cell. Tesla demonstrated a new approach to dry cell manufacturing in 2020, with a fresh dry electrode method that cut the energy needed for the entire battery-making process by more than 70%. In the opinion of Tesla, its vehicles consume less water overall than the industry standard. To accomplish this, Tesla manufactories are minimizing their water consumption as much as possible across their activities, with direct usage in production taking precedence. Tesla claimed producing an EV requires less water than producing an ICE vehicle, and according to the most recent publicly accessible data, Tesla uses less water per car generated in automobile manufacturing plants than the majority of established manufacturers [3]. Tesla factories not only constantly optimizing or eliminating water-intensive production processes across their operations, but also harvesting and reuse the rainwater and condensate. They plan to absorb at least 25% of rooftop runoff in the Texas Gigafactory's core subsurface storage system. Rainwater will be collected and repurposed to cool manufacturing equipment. Each year, such a system saves around 7.5 million gallons of the city's drinking water [3]. Cooling towers consume a lot of water, yet the entire water consumption of cooling towers can be completely offset by non-potable sources like

rainwater or wastewater. Using locally treated wastewater can offset the cooling tower's demand for non-potable water throughout the year. According to Tesla's latest estimates, at the Texas Gigafactory, this could save about 170 million gallons of urban drinking water [3]. Tesla's newly designed factories will generate less waste. First, the new factory sites do not need over-packaging which will generate a large amount of waste [3]. That is because the parts which need to be packed do not need to travel long distances, so they do not need to be packed any more. Second, contemporary industries are more efficient in terms of material flow. Because the trailer entrance point surrounds the whole plant, components may be precisely unloaded in a specific area of the facility. Finally, Tesla proposed that the vast majority of generated waste is recyclable. They advocate for novel waste-reduction methods. Reduced use of non-recyclable materials, learning from local manufacturers and distributing achievements overseas, and reduced shipping and packing are a couple of instances.

2.1.2. Tesla's Influences on Social Aspects of ESG

According to Tesla's Product liability, they emphasized their safety of their vehicles. Tesla announced that they earned high scores in many safety tests, and at the same time, they contended that those high scores result from their technologies such as cameras and their safety system. For the labor capital aspect, Tesla received 3.6 million job applications in 2022. Additionally, Tesla grew its workforce by 28,565 employees, or 28.8%, in 2022. Nearly 128,000 people were employed by the corporation as of the end of 2022 [4]. Tesla argued in their 2022 impact report that they trained employees before the work which learners could learn about Tesla's respectful workplace. That is because Tesla does not tolerate harassment and discrimination. For their employees, Tesla announced that their health programs promote employee wellbeing. Tesla has programs and partnerships to benefit the communities around them.

2.1.3. Tesla's Governance Aspect Around ESG

In the Tesla impact report, Tesla specifically created a section to describe its own efforts in governance. Tesla's board of directors has established the highest standards for ethical conduct, corporate citizenship, and corporate governance. The board oversees risks related to environmental, social, and governance (ESG) issues at both the board and committee levels, in 2022, Tesla developed a dedicated governance strategy that enables the company to assess, manage, and take action on its climate-related risks. This strategy was formulated based on recommendations from the Task Force on Climate-related Financial Disclosures (TCFD). Tesla conducts an annual Enterprise Risk Assessment (ERA) to identify risks to the organization, including those related to ESG. Additionally, Tesla is committed to addressing any potential adverse human rights impacts. They strive to correct any negative impacts, track and measure their progress, and report their findings. They support and adhere to the definition of human rights based on the Universal Declaration of Human Rights (UDHR), opposing any form of discrimination. Tesla also emphasizes privacy and security as core aspects of the products they build. They have a large and diverse team of privacy and security professionals dedicated to safeguarding customer data. They are also focused on ensuring that the vehicles they produce are the safest on the road. To achieve this, their top engineers are committed to ensuring that the systems are as secure as possible on a daily basis.

2.2. Superiority on Tesla's ESG

Tesla, as a super new energy company has a large amount of superiority compared with others. The most significant advantage on ESG for those new energy firms is zero emission. As Tesla's report pointed out, each of their vehicles could avoid 50 tons of emission in its average life. Tesla, however, helped our earth avoid 13.4 metrics of Co_{2e} in to the atmosphere. This achievement not only benefits

the whole world, but also enhanced Tesla for their ESG in environmental aspect. Tesla sold their part of carbon credit to other ICE vehicle companies and earned billions of dollars. Their activities which helped communities around them are also an advantage. Tesla's saving nature resources on their production improve their ESG standard at the same time.

2.3. Disadvantages on Tesla's ESG

Tesla was removed from S&P in 2022, it seems like impossible to happen in a new energy vehicle company. However, the S&P pointed out that racism and subpar working conditions, as well as Tesla's "lack of a low-carbon strategy" and "codes of business conduct," have all been brought up. [5]. S&P also figured out that the risk of autonomous driving casualties is high. The most significant aspect of Tesla's negative news was its discrimination which happened in their factory. A worker made an accusation to the Tesla because he faced the racial abused when he was worked, at the same time, he asked for billions of dollars to compensate himself.

Moreover, Musk's electric car company has ranked second and eighty seventh in 2021's and 2022's Toxic 100 Air Polluters Index [6]. It resolved a complaint with the Environmental Protection Agency in February 2022 as a result of years of Clean Air Act infractions [7]. This was result from the EPA discovered Clean Air Act breaches at Tesla's Fremont, California, auto production facility, and in 2022, Tesla deal with this violation and paid penalty [8]. In May of 2022, Elon Musk enacted a strict return-to-office policy and lots of employers felt like this action is a hit to moral. In addition to S&P argued, a whistleblower leaked 100GB of Tesla data to a German publication, including thousands of customer complaints and information on more than 100,000 former current employees, bank details of customers which caused much concern of Tesla's data security. S&P also pointed out that Tesla mishandling of regulators' investigations into vehicle-related injuries. One more reason that affects tesla's 2022 ESG development was that they did not publish their net zero goal and climate-related risks. In summary, "E" and "G" part of Tesla's whole ESG mainly are their weakness.

3. Comparing Tesla's ESG with other companies

3.1. Compare Tesla's ESG with BMW

As we all known, BMW is an immense vehicle company which is known of its ICE vehicles. However, BMW has an ESG rating higher than the Tesla one. There are reasons to explain it. In all of its material, the BMW Group has established a clear and measurable interim objective for 2030, all the way from production to consumption and recycling, along the supply chain. The "Business Ambition for 1.5°C" pledge comes ahead of the United Nations Climate Change Conference. This is an essential goal of total climate neutrality by latest 2050. However, Tesla does not have such goals which affect its ESG ranking a lot. Moreover, BMW figured out that their associates are their greatest asset. They contend that developing and sustaining them is a key part of long-term sustainability, so they gave chance for their employers for wide range of education, particularly in areas of innovation such as digitalization and electrification. This aspect of governance is lack on Tesla but important on ESG rating. In addition, both of two companies pointed out that they had special methods to make specific material be recycled and deal with the dangerous of those materials, such as Aluminum and Tin. Tesla announced in its 2022 impact report that they were looked up to the human right, but scandals happened in 2022 or even in 2023 obviously showed that Tesla didn't do what they said. However, BMW does not have bad news according to what they announced before.

3.2. Compare Tesla's ESG with Porsche

Porsche is a vehicle company that has lower ESG ranking than Tesla, but how does Tesla's ESG ranking prior to Porsche's? There are some reasons in the following passage. First, according to one of the Porsche's 2021 report [9], they announced that they reduce their decarbonization Index which represents Tons Co2 emission per car. It showed that their emission of carbon per car gradually decline annually. However, Tesla gained advantage that they only have less than 15tons of CO2 emission on production, and few emissions per year. Moreover, Tesla's "cumulative EV avoided emissions" increasing dramatic annually which leads to make profit of millions of dollars of it.

3.3. Compare Tesla's ESG with Alphabet Inc

Alphabet Inc was the top one ESG ranking company. How were the differences between two companies in their ESG behaviors? The first difference is the company's category, one is vehicle industry, and one is world-wide data company. I am going to analysis the Alphabet Inc from its 2022 Impact Report. In the first page, the report emphasized that they issued \$5.75 billion in sustainability bonds. The money that the Alphabet issued is an overwhelming advantage among almost every company. In the report, they figured out eight aspects that they did in 2022. In the Clean energy part, they announce that they have prioritized improving their energy efficiency and sourcing 100% of the annual electricity needs of their global operations from renewable sources. However, Tesla could not do it. Moreover, there is an aspect of cleaner transportation which Tesla did not mentioned in their Impact report is that to assist Google employees in making the switch to shuttles, carpooling, public transportation, biking, and walking, Alphabet Inc. has set ambitious targets. This action helps Googlers at the same time reduces the carbon emission, which both benefit "E" and "S" aspects of their ESG. They also provide EV charging stations for personal vehicles because of increasing Googlers number who using EV's. In Alphabet's circular economy and design, it proposed that they are determined to increase the reuse of limited resources and to make it possible for others to do the same. To reduce waste, maintain goods and materials in use, and support safe chemistry and healthy materials, they employ the concepts of the circular economy. In this action, Tesla did the similar thing in their 2022 report. They tracked and decreased pre-consumer food waste using software and Tesla have not mentioned on their report as well. Alphabet Inc has Affordable Housing program in their Impact report, but Tesla did nothing on this area. They allocated net proceeds from their Sustainability Bond to loans supporting two new affordable housing projects. In another part of their sustainability Bond, they allocated net proceeds to nine new projects and then used them to help black community and investment in Black-led capital firms. However, Tesla did nothing for helping black people but have scandals of racist in their factory. The last part is The Supporting Small Business in COVID-19 Crisis. However, Tesla said nothing in their impact report about this point. In COVID-19 period, they established a \$200 million investment fund as part of their eight-hundred million dollars pledge to support small and medium-sized businesses, health groups, governments, and front-line health workers [10].

4. Conclusion

This paper founds that the behaviours in Tesla's 2022 ESG has both Strengths and weaknesses. As a result, Tesla should improve their weakness on the human right, goal emphasize, dealing with the vehicle-related injuries, and their data security. In addition, Tesla has main advantages of their carbon emission. This article fills the gap in the multi-level analysis of Tesla's ESG performance in 2022, while comparing the ESG of Tesla and other classic companies for the first time in the form of a paper. This paper is mainly beneficial to companies or individuals who study the overall situation of Tesla ESG, and can also help scholars who study the ESG form of 2022 Tesla and even the world, as

well as scholars who study the comparison between companies ESG. Due to the limited literature and network information, there are still deficiencies in the analysis of Tesla's ESG performance, and the comparison of the company is still not fully sufficient. Future research should use more newly published materials to analyze Tesla's ESG in a comprehensive and multi-level way.

References

- [1] Dan Byrne. *What is the history of ESG*, 2023.7.16, <https://www.thecorporategovernanceinstitute.com/insights/lexicon/what-is-the-history-of-esg/>
- [2] Ram Subramanian, *Tesla, Inc.: addressing ESG challenges*, 30 March 2023, 18 July 2023, <https://www.emerald.com/insight/content/doi/10.1108/TMJ-12-2022-0198/full/html>
- [3] Tesla. Inc, *Tesla 2022 Impact Report*, April 2023, 20 July 2023, https://www.tesla.com/ns_videos/2022-tesla-impact-report.pdf
- [4] Eva Fox, *Tesla Increased its Workforce by 29% in 2022 to 128K Employees*, 12 May 2023, 21 July 2023, <https://www.tesla-mag.com/tesla-increased-its-workforce-by-29-in-2022-to-128k-employees/>
- [5] Lora Kolodny, *Why Tesla was kicked out of the S&P 500 's ESG index*, 19 May 2022, 21 July 2023, <https://www.cnbc.com/2022/05/18/why-tesla-was-kicked-out-of-the-sp-500s-esg-index.html>
- [6] PERI, *Toxic 100 Air Polluters Index (2022 Report, Based on 2020 Data)*, 2022, 22 July 2023, <https://peri.umass.edu/toxic-100-air-polluters-index-current>
- [7] Margaret Davis, *S&P 500 ESG Index Drops Tesla Due to Lack of Low-Carbon Strategy and More; Elon Musk*, 19 May 2022, 22 July 2023, <https://www.sciencetimes.com/articles/37749/20220519/teslas-lack-low-carbon-strategy-reasons-removed-s-p-500.htm>
- [8] Soledad Calvino, U.S. EPA settles with Tesla over Clean Air Act violations at Fremont, Calif, facility, 22 February 2022, 20, July 2022, <https://www.epa.gov/newsreleases/us-epa-settles-tesla-over-clean-air-act-violations-fremont-calif-facility>
- [9] *Porsche Annual & Sustainability Report*, Porsche Newsroom, 18 March 2022, 22 July 2023, <https://newsroom.porsche.com/en/company/annual-sustainability-report-2021.html>
- [10] Alphabet Inc, *Sustainability Bond Impact Report*, 2022, 22 July 2023, <https://abc.xyz/assets/36/d7/84a25d7246cc954a9442f95fcf73/alphabet-2022-sustainability-bond-impact-report.pdf>