

INNOVATION IN SIGNAL: A COMPREHENSIVE TRIPLE BOTTOM LINE STUDY OF CORPORATE SOCIAL RESPONSIBILITY PRACTICES IN AUTOMOTIVE COMPANIES

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Abstract

This comprehensive study, titled "Innovation in Motion: A Comprehensive Triple Bottom Line Study of Corporate Social Responsibility Practices in Automotive Companies," delves into the dynamic landscape of the automotive industry, scrutinizing the CSR initiatives adopted by leading companies. The research adopts a triple bottom line framework, exploring the economic, social, and environmental dimensions of corporate responsibility. In examining the economic facet, the study investigates how automotive companies integrate financial sustainability into their business models, exploring strategies that contribute to both profitability and societal advancement. The social dimension investigates the impact of CSR practices on stakeholders, encompassing employees, communities, and customers. Furthermore, the research explores initiatives that enhance inclusivity, diversity, and employee well-being within the automotive workforce. The environmental dimension scrutinizes how automotive companies address ecological concerns, emphasizing sustainable practices in manufacturing, supply chain, and product life cycles. This section evaluates the efficacy of eco-friendly technologies and the reduction of carbon footprints in the pursuit of environmental responsibility. By employing a comprehensive triple bottom line approach, this study aims to provide a nuanced understanding of the CSR practices within the automotive industry. The findings contribute valuable insights for practitioners, policymakers, and scholars, fostering a sustainable paradigm shift in the automotive sector. Ultimately, "Innovation in Motion" strives to inspire continuous improvement and innovation, promoting corporate responsibility as an integral aspect of the automotive industry's evolution towards a more sustainable and socially responsible future.

Keywords: Sustainable Development, Corporate Social responsibility, Customer Support

1. Introduction

Corporate social responsibility (CSR) aids as a self-regulating business model that empowers a company to be socially accountable to itself, its stakeholders, and the public (Fernando, 2023). Building on this, CSR integrates economic, social, and environmental concerns into the core activities and decision-making processes of a company (Carroll, 1991). Companies are increasingly focusing on social responsibility to improve their public image and positively impact their bottom line. These appeals to both consumers and shareholders (Dr. Naveen Prasadula, 2023). The automobile industry stances at a serious stage due to its significant environmental and socio-economic influences, captivating the approval of CSR practices as a substance of urgency (Bansal & Roth, 2000). With increasing pressure from policymakers and stakeholders to alleviate high ecological and social footprints—including pollution, climate change, and resource depletion—companies in this sector can no longer afford to overlook sustainability (Jasiński, Meredith, & Kirwan, 2021). As a response to this persistent demand, the industry is increasingly concentrating on initiatives like reducing greenhouse gas emissions, improving resource efficacy, and applying fair labor practices (Bebbington, Larrinaga & Moneva, 2008).

To navigate this multifaceted landscape of expectations and responsibilities, many companies are revolving to the Triple Bottom Line (TBL) framework. Introduced by Elkington in 1997, the TBL framework suggests an inclusive approach to assess CSR performance by considering three primary dimensions: economic, environmental, and social. The social pillar emphasizes on equality and human rights, the economic pillar purposes for growth while reducing environmental risk and the environmental pillar concentrates on reducing environmental impact. Together, these three pillars offer a inclusive framework for assessing a company's sustainability initiatives (Safdie, 2023). The growing evidence in support of accepting the TBL framework for CSR in the automotive sector is persuasive. Jones, Comfort, and Hillier (2014) found that companies employing the TBL framework

revealed stronger CSR performance and more robust stakeholder dealings. These merges with scholarly declarations that CSR should not only assist to alleviate social and environmental impacts but should also be seen as a strategic device for competitive gain and long-term victory (Porter & Kramer, 2006; Dyllick & Hockerts, 2002).

Recent research provides further weight to this argument. Devie et al. (2022) exposed that a commitment to sustainable practices and CSR activities associates with enhanced financial performance and competitive advantage. This is not just a matter of public relations, effective CSR can lead to tangible business results such as improved brand reputation, customer loyalty, and employee satisfaction (Orlitzky, Schmidt, & Rynes, 2003; Luo & Bhattacharya, 2006). In sum, the TBL framework bids a vital lens through which automotive companies can evaluate and advance their sustainability performance, a move that not only addresses ethical requirements but also strategically positions them for competitiveness and long-term success.

In this research will conduct an in-depth evaluation of the CSR initiatives of four key companies in the automotive sector, exploring their alignment with the United Nations Sustainable Development Goals. Through the lens of the Triple Bottom Line framework, we aim to distinguish the effectiveness of these initiatives in encouraging economic, social, and environmental sustainability. The exclusive contribution of this study lies in its multi-dimensional approach, marrying CSR performance with the broader agenda of global sustainable development. By proposing a robust comparative analysis, this research not only aims to identify best CSR practices but also attempts to focus prospective gaps and opportunities for improvement in existing CSR strategies. The findings will assist as a guide for both industry stakeholders and policymakers, helping more informed decision-making in the repetitive development of CSR approaches within the automotive industry.

2. Literature Review

The automobile industry is considered one of the top industries that play a critical role in the gross domestic product (GDP) growth and employability of many economies (International Labour Organization, 2021). The automobile industry has experienced a substantial shift in its approach to CSR over the years. One of the early drivers of CSR was the increasing focus on environmental concerns, particularly air pollution and climate change (Bansal, 2005). In response to these issues, companies began implementing CSR initiatives such as investing in alternative fuel technologies and emissions reduction strategies (Bebbington et al., 2008). Numerous studies have investigated the impact of CSR activities on various aspects of business performance. Economic performance in the automobile industry can be bolstered through CSR initiatives, which may lead to financial stability, investments in sustainable technologies, and contributions to local economies (Orlitzky et al., 2003). Companies with more transparent CSR disclosures tend to experience better financial performance and market valuation (Bebbington, Larrinaga, & Moneva, 2008). The social dimension of CSR in the automobile industry involves addressing CSR initiatives, such as addressing labour practices and community engagement, can enhance innovation and competitiveness (Du, Chang, & Jiang, 2019). Environmental performance is a critical aspect for automobile companies, who face pressure to reduce emissions, improve resource efficiency, and manage waste (Dr. Naveen Prasadula., 2023). Innovative technologies, like electric vehicles and alternative fuels, help address environmental concerns (Bansal, 2005). Sustainable practices in emissions reduction and resource efficiency can result in better financial performance and competitiveness (Devie et al, 2020). Islam et al (2021) studied the role of CSR in enhancing customer satisfaction and loyalty in the Indian automobile sector, concluding that a strong CSR orientation led to increased trust, satisfaction, and loyalty towards the brand.

3. Research Objectives & Methodology

1. To examine the extent to which selected automobile companies have integrated CSR initiatives into their business strategies, using the Triple Bottom Line (TBL) framework.
2. To assess the environmental performance of the selected companies in terms of emissions reduction, resource efficiency, and waste management.

3. To evaluate the social performance of the selected companies, focusing on labor practices, community engagement, and supply chain management.

4. To analyse the economic performance of the selected companies, considering their financial stability, investment in sustainable technologies, and contribution to local economies.

3.1 Selection of automobile companies for the study

Following the approach suggested by Park and Ghauri (2015), this study focuses on four leading automobile companies: Hero MotoCorp, Honda, Maruti Suzuki, and Yamaha. These companies have been chosen due to their significant market share, substantial impact on the automobile industry, and the variety of their CSR initiatives.

3.2 Data collection methods

The study will rely on secondary data, consistent with recommendations by Hair et al. (2017), including annual reports, CSR reports, and other public disclosures available on the companies' websites, financial databases, and credible sources. This information will offer valuable insights into the companies' CSR efforts, as well as their environmental, social, and economic performance (Kolk, 2008).

3.3 Data analysis techniques

To analyse the data, a comparative analysis technique will be utilized, as suggested by Yin (2018). This method involves examining the selected companies' CSR initiatives and their performance in the environmental, social, and economic dimensions of the Triple Bottom Line (TBL) framework (Elkington, 1997). By comparing and contrasting the companies' CSR practices, the analysis will identify trends, similarities, and differences among them (Eisenhardt, 1989). This will help assess how well they have incorporated CSR into their business strategies and provide a comprehensive understanding of their sustainability efforts and overall performance in the context of CSR (Carroll & Shabana, 2010).

4. Data Collection & Result Analysis

4.1 CSR - Corporate social responsibilities activities in selected automobile companies

4.1.1 Hero MotoCorp

Hero MotoCorp has been actively involved in CSR initiatives. In the fiscal year 2020-2021, the company invested INR 44.31 crores in CSR activities (Hero MotoCorp Annual Report, 2020-21) and in 77.11 crores in fiscal year 2022-23. Some of its key programs include:

- "Hamari Pari" program, which has reached over 50,000 girls to promote their education and overall development.
- The "Ride Safe India" initiative, which has trained more than 1.5 million two-wheeler riders in safe riding techniques.
- The company has achieved a 6.9% reduction in CO₂ emissions per vehicle produced compared to the previous fiscal year.
- Hero MotoCorp has set up eight Skill Development Centres across India, training over 25,000 youths in various skills and trades (Hero MotoCorp Annual Report, 2020-21).
- The company has planted more than 200,000 trees as part of its "Green Hero" initiative to promote afforestation and combat climate change.
- Hero MotoCorp has constructed over 3,000 toilets in rural areas, improving sanitation and hygiene for thousands of families.

4.1.2 Honda

Honda's commitment to CSR is reflected in its global and regional efforts and spent 1.7 cr during the financial year 2021-22. Some notable CSR data points include:

- Honda set a target to reduce CO₂ emissions from its products by 50% by 2050 compared to the 2000 levels (Honda Sustainability Report, 2020).
- In 2020, Honda reached an 87.5% global average of waste recycling at its manufacturing facilities.
- Through its "Honda Dreams Fund" scholarship program, the company has provided educational support to over 5,000 students across Asia and Oceania.

- Honda has achieved a global average of 96.4% recycling rate for its end-of-life vehicles (ELVs) as of 2020 (Honda Sustainability Report, 2020). The recycling rate of Honda products came to 97.5% on a weight basis in FY 2022.
- The company has established Honda Traffic Safety Promotion Centres in 14 countries, contributing to road safety awareness and training.
- In 2020, Honda's global renewable energy usage reached 16.1%, contributing to a reduction in greenhouse gas emissions.

4.1.3 Maruti Suzuki

Maruti Suzuki has consistently invested in CSR initiatives. In the fiscal year 2020-2021, the company spent INR 125.05 crores on CSR activities (Maruti Suzuki Annual Report, 2020-21) and 100.7 crores in fiscal year 2021-22.. Some key highlights include:

- The "Maruti Suzuki Skill Development" program has trained over 2,000 youths in automobile trades.
- The company's water conservation initiatives have resulted in saving 294 million liters of water in 2020-2021.
- Maruti Suzuki has implemented environmental initiatives that have led to a 10% reduction in CO2 emissions per vehicle produced between 2012 and 2021.
- Maruti Suzuki's CSR initiative, Village Development Program, has positively impacted 48 villages, improving the lives of more than 100,000 people in the areas of healthcare, education, and infrastructure (Maruti Suzuki Annual Report, 2020-21).
- The company has set up five Japan-India Institute for Manufacturing (JIM) centers, which have trained over 3,000 students in industrial skills.
- Maruti Suzuki's Road Safety Knowledge Centre has trained more than 50,000 people in road safety measures, contributing to a safer driving environment.

4.1.4 Yamaha

Yamaha Motor Company's CSR activities are focused on various areas, including education, environment, and community development. Some of the key data points are:

- Yamaha aims to reduce CO2 emissions per unit of sales by 50% by 2050 compared to the 2010 levels (Yamaha Motor Sustainability Report, 2020).
- The company has invested in developing electric motorcycles, with a target to release two new electric models by 2025.
- Through its "Yamaha Clean Water Supply" program, the company has provided clean water to over 47,000 people in 40 locations across Africa and Asia.
- Yamaha's "NEXT100" long-term vision includes expanding its lineup of electric motorcycles to over 10 models by 2030 (Yamaha Motor Sustainability Report, 2020).
- The company has set a goal to reduce the average CO2 emissions of its outboard motors by 50% by 2050 compared to the 2008 levels.
- Yamaha's "Gift of Mobility" program has provided more than 1,000 motorcycles to healthworkers in Africa, helping them reach remote communities and deliver essential healthcare services.

These data points illustrate the selected automobile companies' dedication to integrating CSR initiatives into their business strategies, focusing on environmental, social, and economic performance.

4.2 CSR Comparative Analysis between Selected Automobile Companies



Figure 1 - Economic CSR and its Importance

Table 1 - Comparison Matrix for Honda, Hero MotoCorp, Yamaha and Suzuki, and Their Economic CSR Initiatives

Comparative Analysis	Honda	Hero MotoCorp	Yamaha	Suzuki
Employee Development & Well-being	- Competitive pay & benefits - Training & development	- Educational assistance - Mental health support	- Employee benefits - Training & career growth	- Skill development programs
	- Wellness programs - Innovation recognition - International opportunities - Work-life balance initiatives	- Health check-up's - Child care facilities - Disaster relief & parental leave - Employee skill development	- Work-life balance - Employee engagement - Safety & health programs - Employee recognition	- Employee wellness initiatives - Mental health support - Diversity & inclusion - Supportive work environment - Employee development programs
Workplace Environment & Engagement	- Promoting innovation culture	- Diversity & inclusion	- Open communication culture	- Innovation-focused environment
	- Employee recognition programs	- Employee volunteer programs	- Safe & inclusive workplace	- Employee recognition & rewards
	- Talent mobility	- Safe working environment	- Employee empowerment	- Talent development
Customer Support & Satisfaction	- Financing solutions	- Product safety & quality awards	- Quality products & services	- High-quality products & services
	- Product innovation	- Customer education & support	- Customer care & support	- Excellent customer support
	- High satisfaction ranking	- Loyalty programs & roadside assistance	- Warranty & maintenance	- Warranty & maintenance programs

	- Extended warranty & maintenance	- Grievance & redressal system	- Customer feedback & improvement	- Customer satisfaction focus
Sustainable & Inclusive Products	- Eco-friendly vehicles	- Green vehicles	- Environmentally-friendly products	- Sustainable manufacturing
	- Energy-efficient manufacturing	- Support for differently-abled customers	- Energy conservation	- Eco-friendly products & practices
	- Recycling initiatives	- Accessible product designs	- Recycling & waste reduction	- Green technologies
Local Community & Economic Development	- Local employment & SME support	- Community & development projects	- Supporting local communities	- Community engagement
	- Community engagement	- Youth empowerment & skill development	- Education & skill development	- Local employment opportunities
	- Educational initiatives	- Local supplier capacity building	- Economic growth & development	- Supporting SMEs
Additional Initiatives	- Disaster response & recovery support	- Empowering women riders	- Traffic safety initiatives	- Road safety education
	- Traffic safety education	- Afforestation drive	- Disaster relief & support	- Environmental conservation



Figure 2 - Social CSR and its Importance

Table 2 - Comparison matrix for Honda, Hero MotoCorp, Yamaha, and Suzuki, and their Social CSR initiatives

CSR Category	Honda	Hero MotoCorp	Yamaha	Suzuki
Community Involvement & Development	- Community outreach programs	- Village development initiatives	- Community projects	- Local community support
	- Education & skill development	- School & infrastructure support	- Music education programs	- Educational support
	- Disaster relief efforts	- Clean water & sanitation projects	- Supporting local NGOs	- Disaster relief & reconstruction
	- Environmental conservation	- Environmental awareness campaigns	- Conservation initiatives	- Environmental awareness

Health & Well-being	- Health promotion initiatives	- Health & wellness programs	- Health & safety education	- Healthcare initiatives
	- Support for medical facilities	- Medical camps & health checkups	- Promoting healthy lifestyles	- Health checkups & awareness
	- Disease prevention awareness	- Disability & rehabilitation support	- Supporting medical research	- Support for hospitals & clinics
Women Empowerment & Gender Equality	- Initiatives for women in the workplace	- Empowering women entrepreneurs	- Women empowerment programs	- Gender equality initiatives
	- Support for women's education	- Women's skill development	- Promoting women in leadership	- Women's education & development
	- Women's health initiatives	- Women's safety & security	- Women's health & well-being	- Support for women's health
Youth Development & Empowerment	- Youth education programs	- Youth skill development	- Youth engagement initiatives	- Youth development programs
	- Supporting STEM education	- Scholarships & financial assistance	- Sports & cultural activities	- Scholarships & financial aid
	- Vocational training & internships	- Career guidance & mentorship	- Youth employment & entrepreneurship	- Vocational training & internships
Road Safety & Traffic Education	- Road safety awareness campaigns	- Road safety education	- Traffic safety initiatives	- Road safety campaigns
	- Support for traffic safety research	- Safe riding training programs	- Road safety education & training	- Traffic safety & research
	- Promoting use of safety equipment	- Collaborating with traffic authorities	- Safe driving practices	- Promoting responsible driving



Figure 2 – Environmental CSR and its Importance

Table: 3- Comparison matrix for Honda, Hero MotoCorp, Yamaha, and Suzuki and their Environmental CSR initiatives

CSR Category	Honda	Hero MotoCorp	Yamaha	Suzuki
Carbon Footprint Reduction	- Reduction in manufacturing emissions	- Transition to green energy sources	- Reducing CO2 emissions from products	- Reducing CO2 emissions from products
	- Promotion of hybrid and electric vehicles	- Renewable energy projects	- Energy-efficient products	- Promoting eco-driving
	- Eco-friendly manufacturing processes	- Waste reduction & recycling	- Eco-design principles	- Reduction in energy consumption
Water Conservation	- Reduction in water usage at plants	- Water conservation initiatives	- Water resource protection	- Reduction in water usage at plants
	- Promotion of water-saving technologies	- Rainwater harvesting systems	- Water resource restoration	- Promotion of water-saving technologies
	- Wastewater treatment and recycling	- Sustainable water management	- Water conservation education	- Wastewater treatment and recycling

Biodiversity & Natural Resource Conservation	- Promoting sustainable forestry practices	- Supporting local biodiversity conservation	- Biodiversity conservation initiatives	- Natural resource conservation projects
	- Conservation of natural habitats	- Afforestation & reforestation programs	- Promoting ecotourism	- Supporting sustainable fisheries
	- Sustainable sourcing of raw materials	- Environmental education & awareness	- Promoting sustainable agriculture	- Environmental conservation education
Waste Management	- Reduction in waste generation at plants	- Waste management initiatives	- Promoting circular economy	- Reducing waste generation at plants
	- Promoting waste reduction at customer level	- Plastic waste reduction initiatives	- Waste recycling initiatives	- Promoting waste reduction at customer level

	- Promotion of closed-loop recycling systems	- Electronic waste management	- Promoting sustainable packaging	- Promoting closed-loop recycling systems
	- Hazardous waste management and disposal	- Promotion of eco-friendly products	- Promoting zero-waste lifestyle	- Hazardous waste management and disposal
Sustainable Energy	- Development of renewable energy sources	- Promotion of sustainable energy use	- Renewable energy projects	- Promotion of sustainable energy use
	- Implementation of energy-efficient technologies	- Energy-efficient manufacturing processes	- Renewable energy purchasing	- Implementation of energy-efficient technologies

	- Collaboration with governments and communities	- Eco-friendly transportation initiatives	- Sustainable energy education	- Collaborating with stakeholders for sustainable energy
Climate Change Mitigation	- Promoting climate-friendly policies	- Climate change awareness campaigns	- Climate change research initiatives	- Carbon offsetting projects
	- Implementing eco-friendly practices	- Carbon footprint reduction programs	- Sustainable forestry management	- Implementing eco-friendly practices
	- Advocating for clean energy policies	- Climate change mitigation initiatives	- Carbon-neutral products	- Advocating for clean energy policies
Environmental Education and Awareness	- Supporting environmental education	- Promoting environmental awareness	- Environmental education programs	- Supporting environmental education
	- Organizing environmental events	- Environmental campaigns and		

As businesses continue to operate in an increasingly environmentally conscious world, environmental CSR initiatives have become a crucial aspect of corporate responsibility. Companies like Honda, Hero MotoCorp, Yamaha, and Suzuki are making significant efforts to reduce their environmental impact through various initiatives. Honda and Yamaha seem to focus more on promoting sustainable practices through the entire product life cycle, from manufacturing to product use and disposal, while Hero MotoCorp and Suzuki are more focused on sustainable practices at the manufacturing level.

Overall, all four companies demonstrate a strong commitment to reducing their environmental impact and promoting sustainable practices. The specific strategies they employ, however, differ in their approach and focus.

4.3 Alignment with sustainability goals and global frameworks (e.g., UN SDGs)

Economic CSR initiatives align with SDGs, driving responsible business practices for a harmonious blend of economic growth and sustainable development.

Table 4 - Comparative Economic CSR and SDG’S alignment

Alignment with UN SDGs CSR Category	Honda	Hero MotoCorp	Yamaha	Maruti Suzuki
Employee Development (SDG3, 4, 8)	√	√	√	√
Workplace Environment (SDG5, 8, 9)	√	√	√	√
Customer Support (SDG 9, 12)	√	√	√	√
Sustainable Products (SDG 7, 9, 11, 12)	√	√	√	√
Local Community Development (SDG4, 8, 11)	√	√	√	√
Additional Initiatives (SDG 3, 4, 5, 13, 17)	√	√	√	√

All four companies - Honda, Hero MotoCorp, Yamaha, and Maruti Suzuki - are committed to various CSR categories that align with the United Nations Sustainable Development Goals (SDGs). The table above provides summary of their alignment across key categories such as Employee Development, Workplace Environment, Customer Support, Sustainable Products, Local Community Development, and Additional Initiatives.

Table: 5 –Comparative analysis SOCIAL CSR and SDGS alignment

Social CSR initiatives undergo a comparative analysis in alignment with SDGs, assessing their impact on societal well-being. By arranging social responsibility, companies contribute to realizing sustainable development goals, fostering positive social change.

CSR Category	Honda	Hero MotoCorp	Yamaha	Maruti Suzuki
Community Involvement (SDG 4, 6, 11)	√	√	√	√
Health & Well-being (SDG 3)	√	√	√	√
Women Empowerment (SDG 5)	√	√	√	√
Youth Development (SDG 4, 8)	√	√	√	√
Road Safety (SDG 3, 11)	√	√	√	√

The table 5 above explains summary of Honda, Hero MotoCorp, Yamaha, and Suzuki's commitments to various CSR categories aligned with the United Nations Sustainable Development Goals (SDGs). The categories include Community Involvement & Development, Health & Well-being, Women Empowerment & Gender Equality, Youth Development & Empowerment, and Road Safety & Traffic Education.

Table 6– Comparative analysis environmental CSR and SDG’S alignment

Environmental CSR undergoes a comparative analysis aligned with SDGs, evaluating its impact on ecological sustainability. By integrating environmentally responsible practices, companies contribute to achieving specific Sustainable Development Goals, fostering a healthier planet and global well-being.

CSR Category	Honda	Hero MotoCorp	Yamaha	Suzuki
Carbon Footprint Reduction (SDG 7, 9, 13)	✓	✓	✓	✓
Water Conservation (SDG 6, 12)	✓	✓	✓	✓
Biodiversity & Conservation (SDG 14, 15)	✓	✓	✓	✓
Waste Management (SDG 12)	✓	✓	✓	✓
Sustainable Energy (SDG 7, 13)	✓	✓	✓	✓
Climate Change Mitigation (SDG 13)	✓	✓	✓	✓
Environmental Education (SDG 4, 12)	✓	✓	✓	✓

The table above provides a concise summary of Honda, Hero MotoCorp, Yamaha, and Suzuki's environmental CSR commitments, aligned with the United Nations Sustainable Development Goals (SDGs). The categories include Carbon Footprint Reduction, Water Conservation, Biodiversity & Natural Resource Conservation, Waste Management, Sustainable Energy, Climate Change Mitigation, and Environmental Education and Awareness. The checkmarks (✓) indicate that each company has initiatives within these categories, contributing to the respective SDGs.

5. Result Discussion

The CSR activities of Hero MotoCorp, Honda, Maruti Suzuki, and Yamaha show that these companies are dedicated to including sustainability in their business plans. This is in line with recent research on the automobile industry (Kulkarni & Devi; Rahman & Post, 2012). By using the Triple Bottom Line (TBL) framework, they can effectively measure and report their progress in economic, environmental, and social areas. Following the research by Kulkarni & Devi (2019) these companies have made important investments in eco-friendly technologies, job training, and education. These actions not only help local communities but also support the financial stability of the companies. Their environmental efforts, like reducing pollution, using resources wisely, and managing waste, align with what Rahman and Post (2012) suggest for the industry. The focus on social performance, such as fair labor practices, community involvement, and responsible supply chain management, is consistent with the findings of De Los Reyes Jr, Scholz (2017). The various projects and data mentioned in this study show that these automobile companies are committed to fulfilling their CSR goals and making a positive impact on the people and communities they serve.

In summary, Hero MotoCorp, Honda, Maruti Suzuki, and Yamaha have successfully included CSR activities in their business strategies by using the Triple Bottom Line framework. Their focus on economic, environmental, and social aspects matches the latest research on CSR in the automotive industry (Rahman & Post, 2012; De Los Reyes Jr et al., 2017).

5.1 Practical contribution

This research offers multidimensional practical contributions that can impact various stakeholders in

the automotive industry. It establishes industry benchmarks for CSR initiatives, assisting companies in strategy development and effective budget distribution. The insights also assist as a resource for investors and shareholders in measuring long-term sustainability, while proposing regulators data-driven bases for shaping CSR guidelines. Additionally, the study will enhance employee engagement by explaining how their work aligns with global sustainability goals, and help in founding a more sustainable supply chain by sharing best practices. Overall, the research assists as a all-inclusive guide for improving CSR effectiveness with suggestions that span from corporate strategy to industry standards and societal impact.

This research proposes actionable solutions for companies at varying levels of CSR maturity. For those at an entrance level, the emphasis is on applying basic employee welfare measures and sustainable business practices, such as waste management and energy conservation. Mid-level companies are recommended to participate more intensely with local communities and incorporate SDGs into their business strategy. For progressive companies, the study recommends embracing circular economy principles and leveraging technology for greater environmental impact monitoring. It also advocates for cross-sector partnerships as a mode to strengthen the impact of CSR initiatives. By proposing these solutions, the research targets to hasten the industry have united progress toward a more sustainable future.

5.2 Social Implications

The social implications of this research are extensive and multifaceted, proposing guidelines for constructing a more equitable and inclusive society. It highlights the requisite for automobile companies to go beyond traditional CSR initiatives and take a more united approach to social responsibility. The study advocates for more community engagement initiatives, such as educational and healthcare programs, to build sustainable communities. It also highlights the significance of gender equality and women's empowerment in the workplace as a means to raise social justice. Additionally, the research highlights the role of youth development and mentorship programs in development the next generation of socially responsible leaders. Finally, the emphasis on road safety education not only aids the companies' direct interest but also has wider social implications for dropping traffic accidents and increasing public safety. By systematically aligning CSR initiatives with the UN's SDGs, companies can contribute considerably to the extensive social agenda, which could lead to transformative changes at both the local and global levels. For companies aiming to strengthen their social impact, this research recommends a tiered approach to social CSR activities. For beginner, companies should emphasis on low-hanging fruits such as starting employee volunteer programs for community service and initiation basic health and wellness campaigns. As the next step, businesses could set up partnerships with educational institutions to offer scholarship programs, internship opportunities, and professional training, thus contributing to both employee development and community skill-building.

For companies with mature CSR programs, the research recommends turning toward more systemic way outs such as inaugurating long-term educational and healthcare initiatives in underserved communities. At this point, an emphasis could be on activities like setting up e- learning centres in isolated areas or mobile healthcare units. Furthermore, gender equity can be additionally encouraged by instituting women-led supply chain programs and proposing incentives for female entrepreneurship, thereby elevating whole communities. To make a extensive social impact, companies can participate in policy advocacy in regions like road safety and environmental sustainability, leveraging their expertise and reach for societal welfare. By embracing these targeted solutions, companies not only stand to augment their brand image and stakeholder relations but also considerably contribute to societal development in alignment with the United Nations Sustainable Development Goals.

6. Conclusion

In conclusion, this research has analysed the environmental, social, and economic CSR initiatives of Honda, Hero MotoCorp, Yamaha, and Suzuki, as well as their alignment with the United Nations Sustainable Development Goals (SDGs). The findings demonstrate that all four companies have made significant efforts to address various CSR dimensions, from carbon footprint reduction to community

development and workplace environment. Though the specific strategies employed by each company differ, there is a shared commitment to promoting sustainability and minimizing their environmental impact. Honda and Yamaha appear to emphasize sustainable practices throughout the entire product lifecycle, while Hero MotoCorp and Suzuki focus on manufacturing-level initiatives. These differing approaches provide valuable insights into the various pathways companies can take in achieving their CSR goals. The alignment of these companies' CSR initiatives with the UN SDGs highlights their dedication to not only addressing their environmental and social impacts but also supporting global efforts to achieve a more sustainable and equitable world. By aligning their CSR activities with the SDGs, Honda, Hero MotoCorp, Yamaha, and Suzuki are contributing to the global effort to tackle pressing challenges such as climate change, gender inequality, and poverty. Future research could delve deeper into the effectiveness of the CSR initiatives in achieving their stated goals and how these efforts contribute to the companies' long-term sustainability. Additionally, 0000-0002-9764-6048 comparative studies with other companies in the automotive sector or different industries can offer valuable insights into the effectiveness and impact of various CSR strategies. Overall, this research paper highlights the crucial role that CSR initiatives play in addressing environmental, social, and economic challenges in the automotive industry. Through their efforts, Honda, Hero MotoCorp, Yamaha, and Suzuki demonstrate a commitment to creating a more sustainable and equitable world for current and future generations.

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