



# The Dynamics between Corporate Fairness and Environmental Sustainability Initiatives in the Indian Automotive Industry

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## Abstract

Sustainability is a crucial governance issue and a strategic priority in the global automotive industry; location, technology, and business model diversities impact the industry's sustainability. This study defines the dynamics between corporate fairness and environmental sustainability initiatives in the automotive industry by adopting a quantitative design. The research measured corporate fairness and the effectiveness of environmental sustainability initiatives from the voice of 144 employees. The article examines the relationship between Fairness and Environmental sustainability among Indian corporates. The study tested two models, base model keeping only demographics as predictors and incremental model included fairness as predictors. Compared to the base model, the incremental model added value addition to the base model, R square is increased, error metrics dropped. The difference between the base and incremental models is statistically significant. The model output validated the prior literature findings and reemphasized the imperative of fairness to predict Environmental sustainability. The government and corporate policymakers can consider these insights to utilise the optimum potential of sustainable business models to improve the environmental sustainability performance of the global automotive industry.

**Disciplinary:** Sustainable Business Management & Environmental Sustainability.

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## 1 Introduction

Development is progressive, but it becomes the seed of destruction in the era of global warming (Patala et al., 2016). Business operation is a significant human activity that increases

global warming potential and allied climatic issues. Hence in the current scenario, sustainability and sustainable development have become relevant in multiple areas of human life, including in business. As a result, contemporary businesses are redefining and redesigning the purpose and the pattern of their business. The orientation of tri-profit (Economic-Social-Environmental) for the sake of holistic progress paved the way for innovative business models (Kennedy, 2018).

The influential automotive industry provides mobility to lives and promotes socio-economic growth across the globe. The capital and knowledge-intensive industry is a predominant contributor to global GDP (Saber, 2018). The industry comprises of original equipment manufacturers (OEMs), component producers and supply chain participants (Wurster et al., 2020). Products and the process of this industry together cause significant environmental sustainability intervention (Giampieri et al., 2020). A sustainable business model proposes and creates value sustainably by integrating sustainability into products and processes. Hence, these models can improve the environmental sustainability of the industry.

Sustainable Business Models are the forms of innovative business models that represent the invisible framework upon which various sustainability strategies are applied for value proposition, creation and capture mechanisms (Bocken et al., 2013). A business model becomes highly sustainable when it addresses the sustainability issues wherever the business has an economic, social or environmental intervention (Grubor & Berber, 2020; Harmon & Moolenkamp, 2012; Vuorio et al., 2018). The synchronicity between the governance level initiatives and the operational level excellence is essential to retrieve the best out from a sustainable business model framework (Jaimes-Valdez & Jacobo-Hernandez, 2016). Resource efficiency, social relevance, longevity, localization and engagement, ethical sourcing, financial stability and work enrichment are the significant indicators of a sustainable automotive industry (Wells, 2013). Hence a genuinely sustainable business model in this industry has to be explored the options to attain these targets. But sustainability is fragmented in the global auto industry through the majority of the participants have a comprehensive sustainability strategy in place (Wells, 2013; Salvado et al., 2015; Cioca et al., 2019).

Business is an open system that interacts with its stakeholders, including the environment and society (Wurster et al., 2020; Cioca et al., 2019; Parmar et al., 2010). Different approaches and views exist to integrate sustainability into an organization (Stewart et al., 2016). The ultimatum of adopting these approaches is to improve the triple-bottom-line performance of the organization (Lloret, 2016). How effectively an organization integrates sustainability into its business models through various sustainability strategies makes a business model genuinely sustainable (Schaltegger et al., 2016; Torre et al., 2019; Parmar et al., 2010; Roome & Louche, 2016). Sustainable business models make progressive changes for attaining sustainability. An advanced shift towards social equity, economic performance, and environmental performance helps such models to perform better. How effectively sustainable business models lay the foundation for strategic activities to gain the trust of all the stakeholders, including the employees, determines the

short-term success and long term sustainability of Sustainable Business Models (Abor & Biekpe, 2007)

This study has two primary objectives, to predict the environmental sustainability initiatives based on various predictors, including corporate fairness and demographic features of the respondents and to evaluate the fairness and environmental sustainability prevailing among the Indian automotive industry.

## 2 Literature Review

### 2.1 Corporate Fairness and Sustainable Business Models

The associations between corporate governance and sustainability are well discussed in academic literature and fairness in corporate governance is about a corporate's fair actions to meet the expectations of its stakeholders (Laskar & Maji, 2016). Shareholders, Community, environment, supply chain participants, employees, and government are the subset of stakeholders of an organization (Janggu et al., 2014). The theory of stakeholders states that treating all the stakeholders with respect and integrity is a way for effective and ethical management which will result in better business performance (Harrison & Freeman, 2015).

Fairness in corporate governance is critical in strategic management as it determines the level of stakeholder engagement in strategic decisions. Organizations that focus on fair governance will incorporate market, industry, resource and institutional updations into the business models (Lloret, 2016). Corporate governance controls the actions of managers and employees. Hence fairness in corporate governance advances sustainable growth potential through engaged employees (Michelon & Parbonetti, 2012). Respect and bias-free actions, protection of human rights and local values, mutual sharing of cost and benefits are the indicators of 'fairness' in corporate behavior (Kisingo et al., 2016; Schrobback & Meath, 2020). When a corporate is fair enough to all the stakeholders, the organization formulate and deploy strategies to fulfil the interests of all the stakeholder groups. Stakeholder orientation in strategic management will contribute to economic progress, social development, and environmental performance. Hence fairness in corporate governance is the fundamental element for developing a sustainable business model archetype for environmental sustainability (Abor & Biekpe, 2007). The Board of Directors (BOD) is responsible for primary decisions in every corporate. Hence board structure, board proceedings, auditing and sustainability committee etc., has a role in determining the fairness incorporation and stakeholder orientated strategy formulation (Naciti, 2019; Michelon & Parbonetti, 2012; Hussain et al., 2018).

Value proposition oriented sustainable business model strategic approach facilitates the industry's sustainable growth potential and aids the business models to achieve broader corporate goals (Bocken et al., 2013). Multi-stakeholder engagement and the effectiveness in managing sustainability strategies are interrelated in Sustainable Business Models (Naciti, 2019). It is essential to treat the stakeholders fairly and respectfully while also being impacted by negative externalities. Else the organization may experience pressure from various stakeholder groups to

improve the organization's social, environmental, and economic sustainability performance, which may lead to a messy scenario (Schroback & Meath, 2020). Hence fairness in corporate governance is vital to bring the best out from the sustainable business model approach.

## **2.2 Fairness in Corporate Governance and Environmental Sustainability Initiatives in The Automotive Industry**

The automotive industry is the pioneer in introducing innovation globally, yet the influential industry causes environmental degradation and ecological imbalance. Product and the process of this industry are responsible for that. The industry's environmental intervention starts from the point of raw material extraction till the scrapping of vehicles. Hence design for sustainability, sustainable manufacturing, sustainability considerations of vehicle usage, treating the end of life vehicle to reduce environmental interventions are the responsibilities of the industry participants (Orsato & Wells, 2007; Cioca et al., 2019). The rate of hazardous and non-hazardous waste and the amount of water and energy consumption per year for the industrial process are the environmental sustainability indicators in the automotive industry (Salvado et al., 2015). Attaining these targets is critical for the industry; the negligence will lead to more significant climatic impacts. Unsustainable production process causes energy, water and resource wastage in the automotive industry (Jasiński et al., 2016) When an organization keeps the environment as a stakeholder, corporate governance will adopt appropriate strategies to protect the environment. This fairness towards the environment reduces the harm a business does to the environment (Giampieri et al., 2020)

Technological advancement is a significant aspect through which business models can address their environmental sustainability interventions. Hence, an organization's commitment to environmental sustainability and stakeholder consideration will reflect their investment decision and dynamic capability building. (Orsato & Wells, 2007). Advanced manufacturing techniques assure health and safety during the human-machine intervention (Pop, 2020) Advanced technologies can reduce all types of wastes, including plastics, steel, and chemicals. Technology advancement will even aid to reduce GHG emissions. Recyclability, reusability, and re-manufacturability initiatives should also be backed by technological investment. (Bocken & Geradts, 2020; Cioca et al., 2019). Advancement in information technology brought massive changes to the industry. Additive manufacturing, Digitisation, Cobotic systems, Industrial Internet of Things, Augmented reality, Artificial Intelligence, RFID etc., can improve the industry's sustainability and environmental performance throughout the product lifecycle (Sinay & Kotianová, 2019). In the automotive industry technology up-gradation will lead to a better environmental performance in an advanced manner (Vaidya et al., 2018). Hence an investment decision associated with innovation and technology for environmental sustainability is an outcome of a fair governance mechanism.

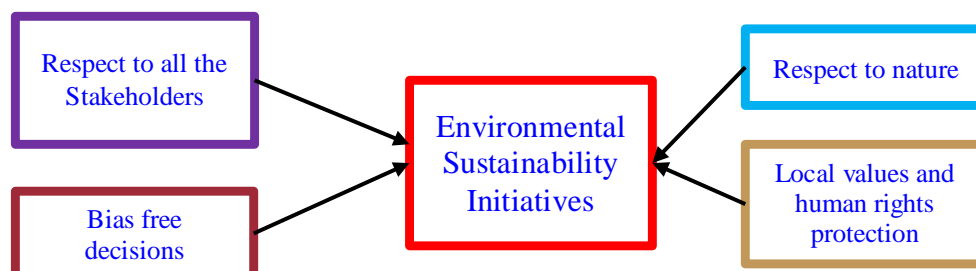
Excess usage of natural resources and toxic material in production causes resource depletion and health issues; hence preserving natural resources by using alternative materials is essential to protecting the resources (Ghadimi et al., 2012). So sustainable business models must improve environmental performance through a cleaner and greener production system (Vinodh & Rathod, 2010; Wells, 2013). Simultaneous focus on the environment and sustainable development results to better environmental performance through process standardisation (Halili, 2020). Sustainable business models can explore the possibilities of collaborative strategies to treat the end of the life vehicle that will reduce the landfills and environmental issues by the scrapped vehicles (Miglani, 2019). The growing industry will leave a threat to human existence if the environmental sustainability issue goes unaddressed (Sukitsch et al., 2015). Organizations keep the environment as a stakeholder frames strategies to reduce the environmental burden the business causes. Earlier studies have proven that CSR to employees will have positive results to financial and environmental performance (Grubor & Berber, 2020). Strategies substantiate the harms business does to the environment. Hence this study set the following hypothesis.

*H#1: Level of Gender, Age, Stakeholder Type, Role make a significant difference on the perception of Fairness and Environmental Sustainability initiatives.*

*H#2: Fairness enacts as predictors of Environmental Sustainability initiatives*

### 3 Conceptual Framework

Corporate governance is responsible for sustaining and developing a business model. Policy and strategy formulation and its deployment are governance responsibilities (Page & Spira, 2016). Fair corporate governance will respect all the stakeholders, takes bias-free decisions, respect nature and protects local values and human right. Engaging and managing stakeholders is critical for sustainable growth. Corporate's fairness to the stakeholders will reflect in their strategic initiatives (Harrison & Freeman, 2015; Aras & Crowther, 2008; Kisingo et al., 2016)



**Figure 1:** Conceptual framework of the study

### 4 Data and Methodology

#### 4.1 Sample and Data Collection

A cross-sectional descriptive research design was adopted in this study. The goal of this work is to predict environmental sustainability based on predictors. Quantitative data was collected through a simple random technique. Data collection of this work continued in a stint of 8 months, (April 2021 to December 2021). This study identified ten premier tier-2 auto component

manufacturers from the Bommasandra and Peenya industrial areas in the Bangalore district, Karnataka, India. Total 144 responses were received from 200 self-reporting forms circulated among top-managerial, middle-managerial, and operational-level employees. By assuring the sample, organisation represents the true nature of tier-2 manufacturers operating in the Indian socio-cultural environment. Before introducing the questionnaire to the stakeholders, the research purpose is communicated to the human resources departments and received permission to contact and circulate the questionnaire among the targeted group. In this study, the researchers have adopted an innovative approach for assessing corporate behavior. Demographic factors play a crucial role in their response hence the demographic profile of the respondents is listed in Table-1.

## 4.2 Methodology

This study follows broadly, the post-positivism paradigm. It followed a quantitative research approach with the statistical application. This study formulated the hypotheses based on the theory of corporate governance. The study followed a standard scale to measure perception towards Fairness and Environmental Sustainability initiatives. The Questionnaire includes the demographic profile of the respondents. On statistical techniques, the study followed standard ordinary least square regression (OLS). The study tested the internal consistency of the measures through Cronbach's alpha.

**Table 1: Demographic profile of the respondents.**

S No	Type of classification	Category	Number of Respondents	Percentage in Sample
1	Gender	Male	139	96.53
		Female	5	3.47
2	Age	(20-30)	38	26.39
		(31-40)	70	48.61
		(41-50)	28	19.44
		Above 50 years	8	5.56
3	Stint with the organization (years)	1 -10	114	79.19
		11-20	19	13.19
		21-30	8	5.56
		31-40	3	2.08
4	Academic Qualification	Post-graduation	8	5.55
		Graduation	75	52.08
		Diploma	46	31.94
		Others	15	10.41
5	Role handled	Senior Managerial	12	8.33
		Mid-level Managerial	72	50.00
		Operational	40	27.78
		Others	20	13.89
Number of respondents			144	

## 4.3 Research Instruments

Data on corporate fairness is collected using the fairness survey designed based on the existing studies, and a six-item scale is adopted (Kisingo et al., 2016). Kisingo (2016) explained good governance in general and gave guidelines to governance quality assessment (Lockwood, 2010). Each item is marked on a standard five-point Likert scale of strongly agree to strongly disagree. To check the internal reliability of the scale performed a reliability test Cronbach's alpha

for this scale was measured at 0.91 Corporate fairness was set as the independent variable for the analysis. The items mentioned in the scale are listed below.

- Stakeholders are treated respectfully and heard by the organization.
- Bias-free decisions are made within the organization.
- Nature’s intrinsic value is respected by the organization.
- Local values and human rights are valued and respected within the organization
- The government or higher authority is being respected by the organization
- The cost and benefits of each decision are shared fairly by the organization.

Environmental sustainability initiatives have many dimensions and many views. The authors have considered rigorous reviews performed in the area and chosen the corporate sustainability initiatives (Baumgartner & Ebner, 2010; Ebner & Baumgartner, 2006; Kehbila et al., 2010; Nicolăescu et al., 2015; Kocmanová et al., 2016; Patala et al., 2016; Kumar & Garg, 2017). Environmental sustainability initiatives mentioned by Ebner is used in this study to measure the effectiveness of environmental sustainability initiatives. The measuring scale lists six environmental sustainability initiatives. (Baumgartner & Ebner, 2010). All the items were marked on a standard five-point Likert scale of strongly agree to strongly disagree. The Cronbach alpha measured 0.93 for the scales corresponding to environmental and sustainability initiatives. Following are the items listed to measure the effectiveness of environmental sustainability.

- Adopted appropriate measures to reduce emissions to air.
- Adopted appropriate measures to save water.
- Adopted appropriate measures to reduce ground pollution.
- Adopted appropriate measures to reduce hazardous and nonhazardous waste.
- Biodiversity consideration is a strategic priority in the organization.
- Adopted advanced technologies to improve environmental performance.

## 5 Results

Environmental sustainability is being predicted by demographic factors as well as corporate fairness. Correlation and multiple regression analyses were performed in the study. Table 2 shows descriptive statistics of the surveyed results.

**Table 2:** Discriptive statistics (n = 144).

Item		mean	SD	Min	Max
Fairness in strategic management (FISM)	FISM1	3.36	0.94	1	5
	FISM2	3.1	0.97	1	5
	FISM3	3.3	1	1	5
	FISM4	3.27	0.96	1	5
	FISM.5	3.12	1.01	1	5
	FISM.6	3.88	0.62	2	5
Strategic management for environmental sustainability (SMfEN)	SMfENS1	3.4	1	1	5
	SMfENS2	3.2	0.99	1	5
	SMfENS3	3.36	1.05	1	5
	SMfENS4	3.37	1.01	1	5
	SMfENS5	3.22	1.06	1	5
	SMfENS6	3.84	0.75	1	5

**Table 3: Reliability test and descriptive.**

Constructs Name	Cronbach	Mean	SD	No. of Item
Fairness	0.91	3.34	0.77	6
Env_Sustainability	0.93	3.31	0.90	6

**Table 4: Correlation between corporate fairness and environmental sustainability initiatives**

Estimate	Statistic	p-value	Parameter	conf.low	conf.high
0.906	25.567	<0.001	142	0.872	0.932

Correlation coefficients in Table-3 are interpreted based on the effect size suggested by Cohen (1998). Correlation coefficients less than 0.28 are considered as minimal effects, medium effects fall in the range of 0.28 and 0.49. Anything above 0.49 is considered a large effect. The correlation analysis shows a highly positive relationship between corporate fairness and environmental sustainability initiatives ( $r = 0.906$ ,  $p < 0.001$ ).

To further confirm and dig deep into the amount of variance in environmental sustainability initiatives due to fairness in corporate governance multiple regression was performed on the data. The conditions of multi-collinearity, linearity, and normality were examined prior to the testing of the hypothesis.

## 5.1 Regression on Selected Demographics (Base Model)

For the base model, Table 5 gives the result of the regression analysis of demographic variables.

**Table 5: Regression on selected demographic variables**

Dependent variable	
Environmental_sustainability	
Constant	4.323*** (0.254)
Academic_qualification	-0.122 (0.114)
Role	-0.337*** (0.103)
Stint_with_the_organization	0.085 (0.087)
Observations	144
R <sup>2</sup>	0.236
Adjusted R <sup>2</sup>	0.220
Residual Std. Error	0.678 (df = 140)
F Statistic	14.434*** (df = 3; 140)

Note: \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$ .

## 5.2 Regression on Environmental Sustainability and Predictors

Multiple linear regression is applied as shown in Equation (1). Environmental\_sustainability is a dependent variable and the rest of the variables are independent.

$$\text{Environmental\_sustainability} = \alpha + \beta_1(\text{Academic\_qualification}) + \beta_2(\text{Role}) + \beta_3(\text{Stint\_with\_the\_organization}) + \beta_4(\text{Fairness}) + \epsilon \quad (1)$$

where  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$  are regression coefficients for each parameter,  $\alpha$  model constant, and  $\epsilon$  model error.



**Table 6: Regression on environmental sustainability and predictors**

Dependent variable	
Environmental_sustainability	
Constant	0.916*** (0.185)
Academic_qualification	0.116** (0.052)
Role	-0.204*** (0.047)
Stint_with_the_organization	-0.059 (0.040)
Fairness	0.779*** (0.033)
Observations	144
R <sup>2</sup>	0.846
Adjusted R <sup>2</sup>	0.842
Residual Std. Error	0.305 (df = 139)
F Statistic	190.953*** (df = 4; 139)

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

$$\text{Environmental\_sustainability} = 0.916 + 0.116(\text{Academic\_qualification}) - 0.204(\text{Role}) - 0.059(\text{Stint\_with\_the\_organization}) + 0.779(\text{Fairness}) \quad (2).$$

**Table 7: Model comparison**

	res.df	residual sum of squares (RSS)	df	sumsq	Statistic	p-value
Base	140	64.27861	NA	NA	NA	NA
Incremental	139	12.95754	1	51.32107	550.5389	0

Equation (1) showed the notations and Equation (2) showed the parameters value of the model, Environmental sustainability is the dependent variable. Fairness and other demographics are independent variables. R-square is .846 (84.6%). F = 190.9, P<.001, and RMSE is .305. This model explained the change in Environmental sustainability is accountable for the changes in independent variables. Except for, Stint with the organization, other predictor beta are statistically significant at least 1% level on average, one unit change in Fairness leads to a change in Environmental sustainability for .779. The relationship between Academic qualification and Environmental sustainability is positively related, but Role and Environmental sustainability is negatively related. Compared to the base model of regression, Incremental model, error metrics RMSE is drastically reduced and it showed there is a drastic improvement because of inclusion of Fairness. Further, ANOVA is used to compare both based and incremental models. From Table 7, it is understood, Incremental model is statistically significant when compared with the base model. Both H#1 and H#2 are accepted.

The analysis shows that corporate fairness can predict environmental sustainability by combining the perception with the demographic features of the respondents. Unsustainable operation leads to sustainability issues such as excess energy, power, and water consumption (Stoycheva et al., 2018; Ghadimi et al., 2012). As the industry is capital intensive, investing in technology for environmental sustainability is a governance-level decision (Schöggl et al., 2017). A

business model's overall financial strength has a role in it (Sukitsch et al., 2015; Khalid, 2014). To improve the economic component of the business operation, the organization should strategize for sustainability from the stage of raw material extraction to the point of consumption (Mayyas et al., 2012). Purchase and process efficiency will add to the economic component. Hence various operational level strategies complement the organization's economic as well as environmental sustainability targets (Giampieri et al., 2020; Koplin et al., 2007).

Fair actions towards the stakeholders have a direct impact on the environmental sustainability of the organization (Grubor & Berber, 2020). An organization's strategy adoption for employee engagement and better organizational culture will lead to resource protection through improvised productivity (Bhattacharya et al., 2019). Likewise, environmentally conscious governance deal fairly with supply chain participants and protects human rights and local values through appropriate supply chain strategies (Koplin et al., 2007).

Air, water and ground pollution cost millions of deaths in a year. Micro-level initiatives taken by the business models will help advance system-level and industry-level sustainability. Innovation and technology, Collaboration and knowledge management are essential to meet economic and environmental sustainability targets (Baumgartner & Ebner, 2010).

## 6 Discussion

Exploring technological options available in the country, investing in alternative energy resources, investing in dynamic capabilities, etc., reflect corporate fairness. Social investment bonds and Collaborations for sustainability also reflect the fairness in the governance mechanism towards the stakeholders, which will lead to better environmental performance (Wells, 2010). Hence fairness in corporate governance has a role in strategy adoption and implementation that leads to environmental sustainability initiatives.

Above all, the governance's minor every will lead to better sustainability performance. Leadership efficiency will lead to employee readiness and improve overall performance (Rodić, 2021). Similarly, a sustainability balanced scorecard is highly effective in the organisation (Jelavić & Vulić, 2021). Organisational citizenship behaviour from employees represents employee readiness for the extra effort for the completion of organisational goals (Đorđević & Milanović, 2021). In addition to this modern ERP system will also improve the organisation's overall productivity (Ivanović, 2021). Hence, along with the existing studies, this work also states that corporate governance, especially fairness in governance and demographic factors, predicts the effectiveness of organisations' environmental sustainability initiatives.

## 7 Managerial Implications

The findings show that fairness in corporate governance creates a better platform for effective strategic management. Effective sustainability strategies will ensure the organization's and the planet's longevity. This study discusses how sustainable business models become truly sustainable by incorporating fairness in strategic decisions. Also, the study suggests that the product and process of an organization should align with sustainable value for advanced business

sustainability performance. Corporate governance should adopt fairness in stakeholder management as a tool to adopt and deploy various sustainability strategies.

Practically, an organization must understand its stakeholders before initiating an input to output conversion. In the automotive sector, product lifecycle and the industry's physical interlinkage cause environmental sustainability issues (Orsato & Wells, 2007). Understanding primary and secondary stakeholders and their expectations can guide the industry participants to produce and serve sustainably. Environmental performance, resource utilization, recyclability, re-manufacturability, social impact, product functionalities are needed to be re-considered from stakeholders' point of view to serve them better.

Plant location, political, Economic, Social, Technological, Environmental, and Legal factors have the linkage with sustainable business models (Wells, 2010). Economies of scale the place can offer, market forces, and the location's viability in research and development, etc., are the considerations of corporate governance to convert the business model to a genuinely sustainable one (Wells, 2010). The scope and definition of green mobility vary as per country and continent bifurcations that will also be accounted for the industry's environmental performance (Nazir & Shavarebi, 2019).

## 8 Conclusion

Business is a principal activity that can contribute substantially to the economy, and the automotive industry facilitates socio-economic development. A micro-level initiative by the industry participants to incorporate fairness in their strategic decision-making process will take the globe a step ahead in attaining global sustainable development goals.

This paper discussed the importance of fairness in corporate governance and its impact on strategic management and concluded a significant association between fairness in corporate governance and environmental sustainability initiatives. This study highlighted the potential of sustainable business models in addressing environmental sustainability issues of the automotive industry. The study findings point the finger towards corporate governance for the fragmented sustainability of the automotive industry. Fairness in corporate governance and its reflection in stakeholder management is the indication of good corporate governance. Hence corporate fairness is the critical factor that determines effective sustainability initiatives in the automotive industry. To improvise environmental sustainability performance, organizations should treat the environment as a stakeholder. Then, strategies to reduce products' and process' intervention on ecological balance.

Corporate fairness act as a tool to apply various sustainability strategies upon an invisible sustainable business model framework. A sustainable business model becomes the penetrative tool in addressing the industry's environmental sustainability issue in such a scenario. Multistakeholder engagement and cross-sectoral partnerships for sustainability become a reality through fairness in corporate governance. This will help the industry cope with the investment issues associated with capital intensity. Exploring ways to improve material and energy efficiency, value creation from

waste, substituting with renewable energy sources, replacing ownership with functionality, promoting product stewardship, etc., becomes more meaningful with fairness in the corporate governance mechanism. Hence framing environmental sustainability strategies by considering location and technology factors and implementing them to a sustainable business model framework through corporate fairness will guide the industry to advance environmental performance.

The findings can keep as a solid theoretical foundation and a practical guideline to address the issue of fragmented sustainability in the global automotive industry. This study concludes that sustainability initiatives are not to dress up the dents caused by the business operation but to assure a pleasant interaction with its stakeholders. When a business model engages more stakeholders in its strategic decision-making process, the system becomes truthful and sustainable. Regional and National factors impact the environmental sustainability of the automotive industry; we could not get the survey feedback from a diversified group of stakeholders. This study is conducted within the parameters of the Indian socio-cultural environment. A single dimension of sustainability is considered in this study. Though authors succeed to predict environmental sustainability by using the predictors, consideration of a small sample is a significant drawback of the study. The analysis was performed by considering good governance principle fairness linking with stakeholder theory also by considering demographic factors. Other principles of good governance (such as transparency, accountability, responsiveness) can also adopt to make this study more comprehensive. Then these variables can connect with social and environmental sustainability as well. Correlation and multiple regression analyses are performed in this research. Complicated statistical models such as SEM can also be adapted to define a solid statistical model in future studies. Similar analysis can repeat in any industry in any part of the world.

## 9 Availability of Data and Material

Data can be made available by contacting the corresponding authors.

## 10 Acknowledgement

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