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Navigating Corporate Responsibility: How Auto Industry Executives Align CSR Challenges with Sustainable Development Goals

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Abstract

Purpose: This study aims to explore the perceptions of corporate social responsibility (CSR) aligned with SDGs held by executives in the automobile sector, using Carroll's CSR model as the theoretical framework. Additionally, the study investigates the influence of demographic factors, such as gender, age, position, and work experience, on CSR perception.

Methodology: The study employs a quantitative research approach, with data collected through a survey administered to 244 executives in the automobile industry. Statistical analyses, including validity and reliability assessments, path coefficients, and construct measurements, are conducted using Smart PLS software to examine the relationships between variables.

Findings: The findings reveal that executives in the automobile sector place greater emphasis on economic and social issues compared to philanthropic and legal aspects of CSR driven by concerns about profitability and shareholder value. The study identifies key factors shaping CSR perception, including executive priorities, project design challenges, top management commitment, and beneficiary responses. Notably, gender significantly impacts CSR perception, underscoring the importance of diversity and inclusiveness in CSR management.

Novelty: This research contributes novelty by comprehensively exploring how CSR challenges specifically align with Sustainable Development Goals (SDGs) in the automobile industry. It not only unpacks the nuances of executive perspectives on this alignment but also offers a novel approach for assessing the interaction between demographic factors and CSR challenges as they relate to SDGs.

Implications: The study emphasizes the necessity for businesses to address economic challenges, engage with policymakers, and adopt sustainable practices to align managers' interests with social objectives. It also emphasizes the importance of collaboration with stakeholders, including academia, government, and NGOs, to bridge gaps in understanding the philanthropic and legal aspects of CSR. Companies can use these insights to enhance their CSR strategies, contribute to sustainable development, and cultivate a corporate culture that values and promotes sustainability.

Keywords: Sustainable development, Carroll's Model, Employee engagement, CSR Policy.

INTRODUCTION

Businesses are no longer solely profit-driven organizations in the constantly evolving global business environment; they also play a critical role in addressing broader societal concerns (Nagar, 2023). Businesses face a variety of difficulties when attempting to implement CSR, including regulatory requirements, the relationship between sustainability and profitability, and commitment to a larger range of stakeholders. The most long-lasting issues and their remedies are listed in the SDGs. Their achievement involves supportive efforts from governments, the private sector, civil society, and communities. The alignment of corporate CSR goals with the Sustainable Development Goals (SDGs) established by the United Nations has further emphasized the evolution. The UN Sustainable Development Goals (SDGs) shoot from the 2030 Agenda for Sustainable Development, embraced in 2015 by entirely UN Member States. This Agenda proposes a roadmap for global well-being and environmental balance. The 17 SDGs summarize this multidimensional goal, each with precise objectives and indicators, vital for our world's sustainable advancement (Pillay, 2022). At the connection of

SDGs and corporate strategies lies Corporate Social Responsibility (CSR) - a self-regulating business model designed to ensure that businesses are socially accountable. By integrating SDGs into their CSR perception, businesses not only expand their societal contributions but also achieve sustainable business growth (Karbassi, 2000). However India is devoted to 2030 SDGs, Lately, India ranked 112 out of 166 countries and recorded 63.45/100 on the SDGindex which is very squat and demands speedy action through a partnership between the corporate sector, organizations, Individuals the government, and net zero carbon discharges by 2050(Sustainable Development Report, 2023). However, interpreting those policy-related objectives to business activity is not stress-free. The Sustainable Development Report 2023 by SDG Index shares a summary of existing SDG development, highlighting the requisite for financial transformation and multidimensional obligations. Although the world was gradually enlightening throughout 2015-2019, the worldwide pandemic, warfare, and other disasters have disturbed progress and headed to stagnancy. Only an approximation of 18% of the SDG targets is on the pathway concerning the 2030 agenda. On the other hand, 67% of the targets display inadequate to no progress, and 15% display a setback in progress. Aims linked to health and well-being, gender equality, and infrastructure availability display mounting trends. In contrast, nations still struggle to attain SDG targets associated with climate, biodiversity, and sustainable food systems, encompassing the highest-performing countries according to SDG (Kresentia Madina, 2023). Besides, the SDGs and CSR thematic development areas share a lot of overlay in terms of activities required to realize. Businesses have a crucial role to play, not merely in closing the financial gap to carry on the SDGs, but also by contributing through their products and services, generating new economic prospects, increasing access to job markets, and through innovation (Scheeyvens, Banks & Hughes,2016; Elaify, Palaschuk, EI-Bassiouny, Wilson, Weber,2020). Corporations are now being grasped as the important drivers of SDGs as they can employ their research, resources, creativity, innovation, and collaboration in resolving the sustainable development challenges and can play a robust role as organizers to catalyze implementation of the SDGs. Hitachi, well-known for its progressive IT and OT solutions, strongly backs government digitalization efforts and the search for Sustainable Development Goals. Hitachi intensely incorporates SDGs into its business ethics, deep-rooted in sustainable technology and assisting India's self-reliance. Through its Social Innovation Business, Hitachi has made considerable worldwide and Indian contributions toward SDGs, motivating sustainable growth.

Corporate Social Responsibility (CSR) policies were framed to tackle development challenges, and when united with Sustainable Development Goals (SDGs), they form a commanding agenda for interrelated sustainable growth. SDGs inspire private sector participation, bonding different businesses for united sustainable development by leveraging stakeholder collaborations. For instance, when a business prioritizes the skill development of women and young people as part of its CSR, it supports SDGs like ending poverty, reducing hunger, promoting education, promoting gender equality, and fostering economic growth. While progress is apparent, there's continuing importance in developing tactics that augment social and environmental performance, nurturing innovative and sustainable business practices. Employing SDGs as a share of the corporate strategy would not only contribute to the goals, but would also aid businesses in achieving all three Ps of the triple bottom line — People, Planet, and Profits (Pillay, 2022). The private sector's role is mainly prominent in this effort, exclusively in emerging countries where it constitutes a significant share of the GDP, delivers the majority of jobs, and draws considerable capital inflows. Further than products and services, the private sector spurs development through taxes and pioneering solutions, creating their innovation vital for the SDGs' motivated targets. Yet, despite the significant role that the automobile industry plays in this global conversation, studies focusing on this sector's CSR practices, particularly concerning the SDGs, remain sparse. As of 2023, the automobile industry produces 13.1 million vehicles annually and is responsible for employing around 13 million Europeans, which constitutes 7% of all EU jobs. Moreover, 11.5% of EU manufacturing jobs, or approximately 3.4 million, are in this sector (European Automobile Manufacturers Association, 2023). Against this background, this research seeks to explore the multifaceted challenges faced by corporations as they attempt to integrate SDGs into their CSR strategic framework. Although there is optimism about the government initiative that supports SDGs there are multiple challenges on the implementation path (Jobanputra, 2021). While some challenges are economic, emphasizing the tangible and intangible costs and benefits of social initiatives, others are legal; reflecting the intricate web of regulations and policies businesses must navigate. Moreover, philanthropic considerations underscore the roles of various stakeholders, from the government to trade unions, in promoting or hindering corporate social responsibility efforts. The role of top executives, their perceptions, and the dynamics within corporate hierarchies in shaping and executing these initiatives constitute the social dimension of our study. Furthermore, the perceptual challenges spotlight the nuanced manner in which firms perceive their contributions to societal welfare and environmental conservation. One of the most salient aspects of CSR is perception. The perception of a company's stakeholders, both internal (like employees) and external (such as consumers and communities), can profoundly impact its CSR challenges (Vuong & Bui, 2023). A positive perception can amplify the benefits of CSR initiatives, fostering trust and loyalty, while negative perceptions can undermine even the most well-intentioned efforts. Thus, understanding and managing these perceptions become paramount. In this research, we explore the associated relationship between SDGs and CSR, delving into the inherent challenges that corporations face while aligning their social responsibility efforts with global goals. Furthermore, we will assess the role of executives' perception in either accentuating or mitigating these challenges and discuss the broader implications for businesses, society, and the global sustainability agenda. Through this exploration, this research aims to provide actionable insights for corporations, policymakers, and stakeholders to effectively navigate the SDG-CSR nexus, optimizing their contributions on optimizing synergies and navigating challenges in the pursuit of a sustainable future.

Literature Review

There is a mounting recognition that Corporate Social Responsibility (CSR) serves as an essential tool for addressing environmental concerns and driving sustainable development in enterprises in extreme business competition. The strategic incorporation of CSR initiatives by businesses can boost sustainability, stimulate long-term development, and bolster firmness in contexts with intense competition (Flammer & Luo, 2017; Alrubaiee et al., 2017). Businesses are experiencing an escalating demand to tackle societal problems by integrating CSR measures throughout their operations, which often necessitates a considerable transformation of their current unsustainable business methodologies (Helmig et al., 2016; Henderson, 2021). and creative business strategies along with the incorporation of CSR actions, companies may be better prepared to meet the needs of a competitive market. (Almeida & Coelho, 2019; Aguinis & Glavas, 2013). Research has indicated that companies that adopt sustainability goals can foster conditions that are both advantageous to economic growth and sustainability (Burritt & Schaltegger, 2010). Companies can use technology to achieve the Sustainable Development Goals (SDGs). This includes using renewable energy sources instead of conventional ones and adopting information and communication technology-based solutions for manufacturing and processing (S&P Global, 2021; Zhu et al., 2019). Also, Integrating SDGs into business strategies can bring benefits to established companies, such as innovation, new market opportunities, investments, and improved social reputation. (Villiers et al., 2021). According to the United Nations (2020), it is estimated that the SDGs could create business opportunities valued at around US $12 trillion by 2030. However, Previous research has focused on investigating the elements that may influence a corporation's execution of SDGs (Martins et al., 2020; Mutale et al., 2019; Vildasen, 2018).

Research in the past has focused on the consistency of employees' perceptions of justice and CSR, which helps to explain organizational identity (Roeck et al., 2018). Additionally, the relationship between employees' fairness principles and their perception of an organization's CSR effectiveness has been examined (Vlachos et al., 2014). Furthermore, research has studied the alignment of CSR with employees' objectives.-(Seivwright & Unsworth, 2016). The current research on the impact of CSR initiatives that conflict with employees' personal beliefs is insufficient. Some experts argue that employees may not actively participate in such initiatives (Haski-Leventhal et al., 2017) and that disagreements between employees and executives over CSR may result in adverse outcomes (Vogel et al., 2016). Recent studies present a further varied picture. Carrington et al. (2019) found that executives whose individual, moral, and ecological goals conflict with organizational CSR programs are simply willing to get involved if given the ability to do so. According to Tosti-Kharas et al. (2017) study outcomes, when staff trust that the corporation's CSR goals are more ambitious than their own, disagreement may even be linked to high CSR involvement. Slack et al. (2015) discovered the contrary, namely that employees may get disengaged from CSR as a result of disputes, or whenever they think that CSR is not strategically aligned with their personal or professional goals. The same employee may occasionally be engaged and disenchanted with CSR (Hejjas et al., 2019). Employees can drive changes in CSR initiatives they disagree with through social initiatives (Alt and Craig, 2016) or trading societal issues (Wickert & Bakker, 2018). Thus, understanding the numerous reasons why employees engage in and disengage from their employers' CSR programs remains a substantial knowledge gap.

Sustainable Development Goals (SDGs) and CSR

Under the Triple Bottom Line theory (TBL), organizations may leverage their resources to fulfill societal obligations and promote SDGs. CSR embodies this by balancing economic, environmental, and social factors (KsiezaK & Fischbach, 2017). Although CSR is crucial to attaining sustainability (Grazhevska & Mostepaniuk, 2020), it promotes sustainable development and aids in the achievement of the SDGs (Jacquinet & Nobre, 2021). Prioritizing SDGs based on importance and urgency is key for effective CSR funding allocation (Carroll, 2021). While sustainable development covers a wide range, CSR focuses on aspects like the environment, society, stakeholders, ethical behavior, and volunteerism (Behringer & Szegedi, 2016). Sustainable development gives businesses a way to meet both their present needs and the safety of the environment and upcoming age group. To fulfill their societal commitments, companies need to adjust to meet new expectations and promote transparency (Silva, 2021). SDGs offer a resilient agenda in the fluctuating corporate landscape, underpinning broader, future-oriented, sustainable, and socially responsible business practices (Van Zanten &Van Tulder, 2018). They stand as a reliable, extensive, and useful CSR base, aligning with sustainability for the collective benefit of firms and society (Schonherr et al., 2017).

Theoretical Framework: Carroll's Pyramid of CSR

In 1979, Carroll built on past studies by claiming that CSR "encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time" (Carroll 1979, p. 500). Carroll (1991) divided CSR into four essential categories using a pyramidal structure: economic, legal, social, and philanthropic, with economic responsibilities forming the standpoint. The remaining dimensions, while secondary, address important legal and ethical issues. This model, known as Carroll's CSR pyramid, is widely regarded in CSR research (Carroll, 2008; Cho et al., 2017; Akremi et al., 2018). The widespread use of Carroll's CSR pyramid reflects its influential role in shaping CSR understanding and implementation (Schwartz & Carroll, 2003). This study will use this pyramid as a framework to examine auto industry CSR executives' views on aligning CSR with SDGs. The pyramid's four-tier approach will provide strategic insights for sustainable development and assist in identifying CSR decision-making challenges and determinants.

Hypotheses and conceptual framework

A key responsibility of any commercial enterprise is to create and maximize profit through its operational activities. However, Carroll (1979; 1991) argues that a firm's responsibilities should fundamentally be grounded in economic responsibility, as no other activity is possible without it. Recent research supports this perspective, suggesting that when companies invest in local economies and create jobs, they not only improve their social reputation but also strengthen their competitive position, contributing to their long-term sustainability (Lu et al., 2019; Park, 2019). Li et al. (2013) offer several methodologies, such as rigorous control over production costs, and strategic planning to improve economic performance, all of which have the potential to boost a business's reputation. Gurlek et al. (2017) underscore the role of innovative organizational behavior as an intermediary between the economic aspects of CSR and overall corporate behavior. Furthermore, economic responsibility, including strategic performance, competitive advantage, and sustainable growth, plays a crucial role in shaping corporate operations (Jeon & An, 2019; Masoud, 2017). Empirical studies have found a positive correlation between economic CSR activities and customer approval of corporate social behaviors (Rethinam et al., 2013). In the same vein, Serrano Archimi et al. (2018) emphasize the profound impact of economic responsibility on employee satisfaction and internal cohesion within the corporation. Given the intricate relationship between economic challenges and sustainable growth, this research aims to explore how CSR executives in the automobile sector perceive and respond to economic challenges. Specifically, it seeks to understand whether these challenges catalyze integrating CSR initiatives that support the Sustainable Development Goals and the broader sustainability agenda. Therefore we posit that:

Hypothesis 1: Economic challenges positively impact the perception of CSR executives towards practicing and implementing CSR activities aligned with SDGs in the automobile sector.

An organization's ethical responsibility positively impacts internal trust, showcasing its commitment to sustainable growth through actions benefiting both the company and broader society (Iglesias et al., 2020; Shair et al., 2021). CSR emphasizes social issues, which in turn have a favorable impact on employees' faith in the company (Palacios-Florencio et al., 2018; Sun et al., 2021; Xiang et al., 2021). Youn et al. (2018) also found a positive link between ethical responsibility and employee trust, specifically within the casino industry.

Achieving environmental ethical obligations not only improves company performance but also contributes to the overall wellness of communities and stakeholders (Wahba, 2008; Rashid et al., 2014). Dogl and Holtbrugge (2014) affirmed that CSR, along with aspects like strategy and employee well-being, positively affects the corporate image and employee commitment. Moreover, increasing written evidence and safeguarding procedures can also improve organizational effectiveness (Liou & Chuang, 2010). However, they highlighted that the pursuit and execution of ethical obligations can be a considerable challenge for businesses (Loosemore & Lim, 2018; Masoud, 2017). When confronted with social challenges, CSR executives could seize the opportunity to strengthen organizational trust by integrating Sustainable Development Goals (SDGs) deeper into their ethical responsibilities. This strategy will address social issues while promoting employee engagement and commitment

Therefore, we posit that:

Hypothesis 2: Social challenges positively impact the perception of CSR executives towards practicing and implementing CSR activities in the automobile sector.

Businesses are expected to function within defined legal guidelines, which necessitates them to align their economic obligations and the current legal restrictions (Hagmann et al., 2015; Lekovic et al., 2019). In addition, the fundamental rules directing how organizations conduct their operations include legal and economic obligations (Park, 2019). Studies indicate that awareness of environmental laws, compliance with employment regulations, employee benefits, adherence to legal standards, and workplace diversity can elevate organizational performance, supporting sustained growth and competitiveness (Rashid et al., 2014; Galbreath, 2010). Salmones et al. (2005) recommended that a business strategy prioritizing honest treatment of clients, based on legal obligations, boosts organizational performance and competitiveness. Proper enforcement of employee protection laws also improves a company's efficiency (Lee and Park, 2016; Al-bdour et al., 2010).

When facing challenges, the need to comply with legal obligations can spur CSR executives to embed SDGs into their CSR practices more deeply. This could lead to improved organizational performance and a stronger commitment to sustainable development. Therefore, we posit the following:

Hypothesis 2: Legal challenges positively impact the perception of CSR executives towards practicing and implementing CSR activities aligned with SDGs.

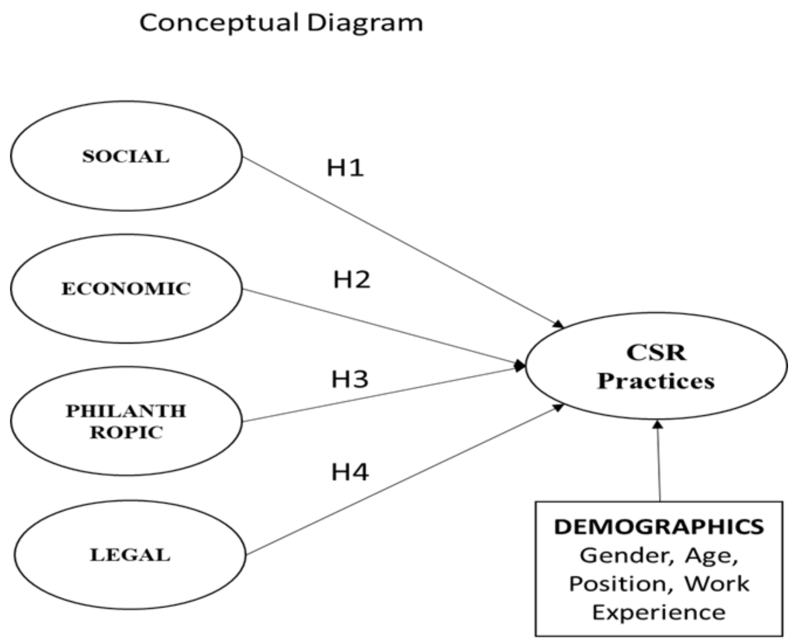
Carroll (2016) underscored the role of philanthropy in CSR, like charity and job training for locals, while not overshadowing other CSR efforts. The focus is on employing business resources to better societal conditions (Schyvinck & Willem, 2018; Amin-Chaudhry, 2016).

Regarding philanthropic duty, a corporate strategy that successfully supports social activities like community concerts, charitable contributions, and sponsors for sports can enhance customer satisfaction and organizational efficiency, giving it a competitive edge (Park, 2019; Salmones et al., 2005). Company initiatives tied to causes, such as scholarships or patient support, can strategically improve brand image, crucial for sustainable growth (Vanhamme et al., 2012). Voluntary actions, like time and effort contributions, can also enhance a firm's value, performance, and reputation. Li et al. (2013) proposed that a company's willingness to forgo some profit for ethical responsibilities can enhance its perceived philanthropy, subsequently impacting its brand and image. Gurlek et al. (2017) identified philanthropic responsibility as a vital influencer of employees' trust in the hotel business. Separately, Lu et al. (2020) found that an organization's philanthropic actions can shape employee trust.

CSR leaders in the automotive industry can address philanthropic challenges by adhering to the UN's Sustainable Development Goals, enhancing corporate reputation and employee trust. Ultimately, these insights could significantly influence CSR decision-making processes, which are in line with the goal of this research to suggest methods for sustainable development. Therefore, we posit the following

Hypothesis 4: Philanthropic challenges positively impact the perception of CSR executives towards practicing and implementing CSR activities aligned with SDGs in the automobile sector.

Figure 1: Conceptual Model Diagram



Source: Created by authors

METHODOLOGY:

Survey Design:

This survey is part of a research project that aims to study the role of CSR in the modern business operations of the automobile industry. The study concentrated on how CSR managers perceive CSR doings utilizing Carroll's CSR model to identify the four key challenges of Economic, Social, Legal, and Philanthropic aspects (Carroll, 1991). The research methodology involves gathering data through a survey questionnaire that collects quantitative data on CSR executives ' perceptions of these challenges in their respective companies. Participants eligible for this survey are CSR managers who work in the automobile industry. The items in the constructs adopted from existing literature and the details are given in the Annexure. These items are grouped as Economic, Legal, Philanthropic, and Social (Padhiyar & Bhathawala, 2018; Hanzaee & Rahpeima, 2013), and numerous authors have previously undertaken studies on CSR (Bhattacharya & Sen, 2010; Dhawan & Samantara, 2020). A substantial study has been widely referenced in subsequent studies on the connection between CSR and economic performance (Bhattacharya & Sen, 2010; Goyal, 2017).

To ensure the validity of our adapted questionnaire for the automobile sector, we used a previously validated questionnaire that was originally developed for the oil and textile sector CSR executives. We modified the questionnaire to make it relevant to the automobile sector and consulted with experts in the field to make sure that the questions were comprehensive and appropriate to the automobile industry. To improve the accurateness and consistency of the data collected experts in the field evaluated the questionnaire to eliminate any questions that could have influenced the responses, including those that were leading, unclear, or double-barrelled.

The Composite reliability and Cronbach's alpha value of two items from the Economic construct and two items from social constructs are beyond the acceptable value. Hence, we dropped these items from the analysis (shown in Annexure 1).

Sampling and Survey Data Collection:

This study's approach included using a questionnaire consisting of 26 items collected from previous literature. The survey was designed for managers, executives, and upper management employees working in the CSR department in the automobile industry. The survey was created using Google Forms and disseminated over social media and emails. In addition, 20% of respondents filled out a paper copy of the survey questionnaire. After collecting 50 responses, the constructs' reliability was validated using a pilot survey. The outcome was found to be below the cut-off value of 0.95. As a result, the survey continued with no more changes to the questionnaire. After removing incomplete and non-serious replies, a total of 350 responses were gathered, however, only 244 were chosen for study. SmartPLS, a reputable statistical program for Structural Equation Models, was utilized for data analysis (Hair et al., 2011; Kapoor & Gupta, 2022).

The confidentiality of survey respondents is also an essential ethical factor in the research. Anonymity protects the participants' identities and allows them to make honest and accurate comments without fear of penalties or censure. This can aid in improving data quality and ensuring the validity of the study's findings. Participants were made aware up front that they might opt out of surveys at any moment.

EMPIRICAL ANALYSIS:

Table 1 presents the frequency and percentage of various items related to gender, work experience, position, and age of the participants in a study. The sample size for the study was 244. 5 to 10 years of work experience was represented by 36.48% of participants. Perhaps mid-career professionals were the study's intended audience. Middle-level managers made up 54.51%. This shows that middle-level management-related issues may have been the study's primary focus. The majority of participants, or 76.64% of the sample, were between the ages of 1981 and 1999. This suggests that the study might have given special attention to younger professionals. In conclusion, Table 1 shows insights into various characteristics of the study participants. However, the sample's biases and restrictions should be taken into consideration by researchers because they may affect how broadly the findings may be applied.

The data in Table 2 appear to be the output of a statistical analysis, most likely a factor analysis or a structural equation modeling analysis. Age, Position, Gender, Work Experience, Economic, Social, Philanthropic, Legal, and Perception are some of the variables. Each cell in the matrix-style depiction of the correlations displays the correlation between any two variables. Cells having negative signals are adversely linked. Position negatively correlates with Age and Work Experience. Junior employees are younger and less experienced. Women are younger than men because gender is inversely associated with age.

Measurement Model

The table's second section shows Cronbach's alpha, composite reliability, and average variance extracted (AVE) for the study's components. Internal consistency, reliability, and convergent validity are measured.

The factors are reliable and valid when Cronbach's alpha (between 0.85 and 0.95), composite reliability (between 0.85 and 0.95), and AVE (above 0.7) are all high values (Hair et al., 2011; Mitra et al., 2022; Queiroz & Fosso Wamba 2019a; Wong 2013). Table 2 also shows the square root (SQRT) of AVE values, all of which are greater than 0.8, indicating that the components have excellent convergent validity.

Table 2 shows that diagonal values indicating AVE's SQRT are more significant than row and column correlations. This shows construct discriminant validity, which has been shown (Fornell & Larcker 1981; Mitra et al. 2022). Overall, Table 2 provides valuable insights into the relationships between the study variables and the factors' reliability and validity.

However, it isn't easy to draw any firm conclusions without additional information about the study design and the research questions being investigated.

Annexure 1 shows Smart PLS loadings used to assess the robustness of the relation between a construct and its items. In Annexure 1, the highest loading values are found for the items related to the constructs, which indicates a strong relationship between the build and its objects. VIF (Variance Inflation Factor) values are used to assess multicollinearity, which is a problem that arises when independent variables in a regression model are highly correlated. In Annexure 1, the VIF values are generally below 5, indicating no significant multicollinearity problem among the independent variables.

Common Method Bias (CMB)

To assess the potential for common method bias (CMB) in the survey data, the researchers employed the Harman single-factor analysis test, as described in previous studies (Mitra et al., 2022; Queiroz & Wamba, 2019). The researchers conducted the test utilizing the SPSS (Statistical Package for the Social Sciences) software and the results revealed that a single factor explained 33% of the variance in the response data. The threshold value for CMB is typically set at 50%, indicating that if a single factor explains more than 50% of the variance, then there may be cause for concern regarding the presence of CMB.

However, since the results of Harman's single-factor test showed that a single factor explained only 40% of the variance in the response data, no significant CMB is present in the survey data. This suggests that the survey responses are not being overly influenced by any extraneous factors or sources of bias, and the survey results can be considered reliable and valid.

Table 1: Demographic profile

Particulars	Items	Frequency (N=244)	Percentage
Gender	Female	47	19.26%
	more than 60 years	6	89.74%
Work Experience	Less than one year	20	8.20%
	At least 1 year but less than 5 years	61	25.00%
	At least 5 years but less than 10 years	89	36.48%
	At least 10 years but less than 20 years	41	16.80%
	More than 20 years	33	13.52%
Position	Individual contributor	24	9.84%
	Junior management	46	18.85%
	Middle management	133	54.51%
	Senior management	35	14.34%
	CXO level	6	2.46%
Age	Before 1965	17	6.97%
	1965 to 1980	34	13.93%
	1981 to 1999	187	76.64%
	Later than 1999	6	2.46%

Source: created by authors

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Table 2: Validity & Reliability

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
[1] Age									
[2] Position	-								
[3] Gender	-	-							
[4] Work Experience	-	0.046	0.203						
[5] ECONOMIC	-	0.030	0.038	0.094	0.877				
[6] SOCIAL	0.039	-	-	0.055	0.469	0.899			
[7] PHILANTHROPIC	0.024	0.015	-	-	0.396	0.362	0.948		
[8] LEGAL	0.035	0.038	-	-	0.297	0.425	0.337	0.910	
[9] perception	-	-	-	0.011	0.445	0.445	0.300	0.252	0.843
Cronbach's alpha					0.900	0.921	0.944	0.896	0.864
Composite reliability					0.900	0.934	0.945	0.900	0.868
Average Variance Extracted					0.769	0.808	0.900	0.828	0.710
SQRT of AVE					0.877	0.899	0.949	0.910	0.843

Source: created by authors

Table 3: Path coefficients

	Hypotheses	**CSR perception**			
Controls		**β**	**SE**	**T value**	**P Value**
Age		-0.057	0.059	0.973	0.331
Position		-0.045	0.064	0.711	0.477
Gender		-0.532	0.261	2.039	0.042*
Work Experience		-0.034	0.06	0.562	0.574
Direct Effects					
ECONOMIC	H01	0.285	0.066	4.348	0***
SOCIAL	H02	0.275	0.064	4.267	0***
PHILANTHROPIC	H03	0.079	0.073	1.085	0.278
LEGAL	H04	0.016	0.058	0.273	0.785

Source: created by authors
*** p <0.05, ** p <0.01, *** p <0.001**
***, **, *** Supported**

DISCUSSION:

Table 3 presented in the manuscript provides insight into the role of CSR in the automobile industry, focusing specifically on the perceptions of CSR executives towards CSR activities. The study uses Carroll's CSR model to identify four key economic, Social, Legal, and philanthropic challenges.

Table 3 presents the direct effects of these four challenges on CSR executives' perceptions, as measured through a survey questionnaire. The results show that Economic ($\beta=0.285$, $p<0.001$) and social aspects ($\beta=0.275$, $p<0.001$) significantly positively impact CSR executives' perceptions towards CSR activities, as evidenced by their high β coefficients and significant t-values. As shown by the findings, executives in the automobile industry emphasize the economic and social aspects of CSR, which prior research suggests are crucial for enhancing organizational trust and improving performance and operation through sustainable social and economic activities (Malik et al., 2019).

The Philanthropic aspect has a low β coefficient and non-significant t-value, suggesting that automobile sector CSR executives don't prioritize it. This may indicate that CEOs value economic and social factors more than philanthropy or that they struggle to execute them meaningfully.

The Legal aspect has a low β coefficient and a non-significant t-value, indicating that CSR executives do not consider legal compliance a major factor in CSR efforts. Legal compliance may be seen as a need rather than a competitive advantage.

Table 3 provides useful insights into automobile industry CSR executives' views on CSR efforts. According to the data, corporations in this area prioritize economic and social factors over philanthropic and legal ones. These findings can help automakers improve CSR and overcome CSR issues.

CONCLUSION

This study employed Carroll's CSR model to explore the perceptions of CSR held by executives in the automobile sector. Four pivotal challenges influencing these attitudes were identified, highlighting the necessity for businesses to strike a balance between their economic interests and societal responsibilities.

The findings revealed a greater emphasis on economic and social issues over philanthropic and legal aspects. This observation mirrors Carroll's assertion about firms' hesitance to invest in social programs due to concerns about profitability and shareholder value. Such economic challenges remain a pressing concern, echoing previous research and underlining the persistent struggle to reconcile financial objectives with social commitments. Moreover, the study illuminated the significant influence of executive priorities, obstacles in project design, commitment from top management, and beneficiary responses in shaping CSR perception. Corporations, particularly in the automotive industry, need to carefully scrutinize these variables to bolster stakeholder perceptions and social responsibility.

The economic construct, as outlined by the study, highlights the importance of engaging with policymakers, investing in tools for measuring the benefits of social programs, adopting sustainable business practices, and implementing incentive or penalty systems. These actions aim to align managers' interests with the company's social objectives. The social construct underscores the significance of social action program design, top management's CSR perception, and beneficiary reaction. It emphasizes the need for stakeholder collaboration and manager training targeted towards social objectives. Companies can enhance their capabilities and establish clear decision-making rules through regular, transparent communication, which in turn boosts beneficiary responsiveness and understanding of social programs. Insights from this research advocate for aligning CSR activities with Sustainable Development Goals (SDGs). Companies are urged to integrate targets such as Quality Education, Good Health and Well-being, and Gender Equality into their CSR framework. Tailoring CSR initiatives in light of demographic considerations is also emphasized. Gender ($\beta=-0.532$, $p<0.05$) was found to significantly affect CSR perception, underscoring the need for diversity and inclusiveness in CSR management. Further, financial considerations, taxation rules, and the difficulty of assessing benefits present significant challenges affecting CSR perception in the auto industry. To create effective and stakeholder-friendly CSR activities, these criteria must be carefully examined.

This study also identifies a potential gap in understanding the philanthropic and legal aspects of CSR, thereby illuminating an opportunity for growth. Collaborations with academia could aid in developing training programs and thought leadership, bridging this gap, and strengthening overall CSR engagement and effectiveness. Finally, this research endorses a collaborative, multi-stakeholder approach to CSR. Inter-industry collaborations could lead to shared CSR benchmarks and standards. Partnerships with the government could aid in aligning corporate goals with national development plans, and cooperation with NGOs can foster grassroots impact.

In conclusion, this research catalyzes companies aiming to advance their CSR strategies. By adopting an SDGs-oriented, inclusive, and collaborative approach, they can not only amplify their contribution to sustainable development but also cultivate a corporate culture that values and promotes sustainability. Notably, this study brings novelty to the field by providing a comprehensive exploration of the influence of executives' priorities, project design challenges, top management commitment, and beneficiary responses on CSR perception within the automobile sector. It illuminates the significant role of demographic factors, such as gender, in shaping CSR management and perception, bringing fresh insights into this crucial area of corporate strategy.

Practical Implications

This study offers practical implications for organizations aspiring to refine their CSR strategies. It underscores the importance of economic and social aspects, suggesting that companies can augment their contributions to socio-economic development by strategically aligning their CSR initiatives with relevant SDGs.

To apply these insights effectively, a balanced approach to CSR is critical. Companies should concurrently invest in digital transformation and comprehensive employee training. In particular, training programs aimed at cultivating understanding and implementing the SDGs should be prioritized. In parallel, digital transformation should be embraced. Technology-based monitoring systems can facilitate the evaluation of CSR initiatives and enable data-driven decision-making. Stakeholder engagement is crucial and can be significantly enhanced through the use of digital platforms. These platforms encourage open dialogue and inclusivity, fostering strong relationships with stakeholders. Moreover, demographic factors such as gender and work experience were found to significantly influence CSR perceptions. This insight should guide organizations in tailoring their CSR initiatives for optimal stakeholder engagement. The study also highlights the potential of collaborations in amplifying the impact of CSR activities. Strategic partnerships within the industry should be sought to pool resources and knowledge. Coupled with data analytics, these collaborations can provide ongoing evaluations of CSR practices, offering valuable insights for continuous improvement.

Corporations determined to knit the SDGs into their CSR fabric can embrace numerous robust, hands-on strategies. One speedy step is the integration of SDG assessment tools this not only permits for a visual mapping of their CSR initiatives to precise SDGs but also highpoints areas requiring consideration. This must be united with the creation of committed in-house SDG teams across departments, confirming that SDG alignment rests on a reliable organizational urgency. By introducing stakeholder workshops with supply chain partners and local societies, businesses can substitute a shared environment to address SDG challenges, while also collecting dissimilar viewpoints. Distributing a well-defined share of the annual budget precisely towards SDG-driven projects confirms tangible commitment. To boost frequent innovation and feedback, businesses should support short-term SDG pilot projects and sustain an open feedback mechanism, making it easy for employees and partners to express their perceptions. Partnerships with NGOs and social enterprises, which were previously SDG-focused, can enhance the influence of CSR budgets. Periodic internal audits will keep the initiatives in check, and by including SDGs in employee performance metrics, businesses confirm everyone has a stake in realizing these worldwide goals. Above all, making a public assurance to SDGs will strengthen the business's responsibility, pushing them to make constant walks toward a sustainable future.

Despite the above insights, the research reveals a gap in understanding the philanthropic and legal aspects of CSR. This gap signifies the need for enhanced training programs that can deepen employees' understanding of CSR, leading to greater involvement and effectiveness. On a policy level, advocating for CSR-supportive regulations can foster a sustainable regulatory environment across the industry. Consequently, the strategic focus should not only be on refining internal business strategies but also on influencing government policy related to CSR and sustainable development.

In conclusion, a combined effort of human capital development, digital transformation, stakeholder engagement, industry collaboration, data analytics, and policy advocacy can provide a practical roadmap. This roadmap can guide the alignment of CSR practices with SDGs, particularly in the automotive industry.

Theoretical implications

This research provides considerable theoretical insights into the alignment of CSR with SDGs, particularly within the automotive industry. By introducing a unique model, the study enhances our comprehension of the decision-making process and strategies related to CSR. A systematic examination of the influential factors that shape the alignment of CSR and SDGs is presented, further illuminating the landscape of CSR-SDG alignment. Strategic obstacles and challenges unique to the industry are also explored, providing a foundation for potential solutions. Consequently, these findings lay a robust groundwork for future research and facilitate an enriched understanding of CSR practices. Overall, this study marks a significant contribution to the theoretical landscape of CSR and SDG alignment, charting a course for further exploration and validation in this field.

Future Directions

The crux of this research lies in proposing viable collaborative strategies for sustainable development. Based on the findings, recommendations are offered that involve an enhanced engagement with stakeholders, integrating CSR and SDGs into core business strategies, incentivizing sustainable decision-making, promoting SDGs education and training, boosting transparency and accountability in CSR practices, and fostering collaborative partnerships with diverse organizations. These strategies have the potential to steer companies, stakeholders, and society toward a more sustainable future, significantly contributing to the achievement of SDGs. Future research may further investigate these recommendations' efficacy and explore best practices for their successful implementation.

LIMITATIONS

The study adopts a cross-sectional design; it may only provide a snapshot of the perceptions and challenges faced by CSR executives at a specific point in time. Longitudinal research would be needed to examine changes in perceptions and challenges over time. While the research goal is to deliver an understanding of CSR challenges in the automobile industry, its findings may not directly apply to industries with different characteristics and challenges. Further research would be needed to explore the perception of CSR executives and the challenges they face in other sectors.

Annexure: Loadings

Constructs	Items	Loading	Mean	SD	VIF
ECONOMIC	“Social initiatives programs adversely affect the profit performance of the company” (SDG 12: Responsible Consumption and Production)	0.869	3.717	0.999	2.410
	“Prohibitive and frequently changing taxation policies” (SDG 8: Decent Work and Economic Growth)	0.866	3.607	1.000	2.356
	“Social initiatives are problematic because the cost can be measured but benefits cannot be accurately known”(SDG 9: Industry, Innovation, and Infrastructure)	0.905	3.492	1.118	3.338
	“Social initiatives programs will not be interesting to the executives unless there is reward or penalty system concerning it”(SDG 17: Partnerships for the Goals)	0.867	3.311	1.124	2.581
	“In times of adversity, companies are compelled to cut back				

	on social action policies"(SDG 1: No Poverty) #				
	"Unrealistic planning causing disharmony between public sectors" (SDG 11: Sustainable Cities and Communities) #				
LEGAL	"Declaration of unwieldy controls and unworkable laws"(SDG 16: Peace, Justice and Strong Institutions)	0.919	4.074	1.030	3.657
	"Instability and frequent changes in trade policies, licensing policies, export, and import policies"(SDG 10: Reduced Inequalities)	0.938	3.996	1.022	3.964
	"Violent and disruptive activities of political parties and the high frequency of agitations"(SDG 16: Peace, Justice, and Strong Institutions)	0.872	3.832	1.052	2.072
PHILANTHROPIC	"Lack of monitoring of CSR activities by Government"(SDG 17: Partnerships for the Goals)	0.945	3.59	1.189	4.171
	"Lack of cooperation from the organizations concerned with the social area of effort"(SDG 17: Partnerships for the Goals)	0.955	3.619	1.247	5.119
	"Inadequacy of subsidies and incentives offered by Government"(SDG 7: Affordable and Clean Energy)	0.946	3.508	1.246	4.591
SOCIAL	"Most executives are simply too busy to worry about social objectives"(SDG 17: Partnerships for the Goals)	0.889	3.660	0.973	2.535
	"Designing social action programs is difficult as perceptions of priorities vary from executives to executives and also among the public"(SDG 5: Gender Equality)	0.890	3.709	0.992	3.119
	"Top management perception may not be encouraging when adopting an ad hoc approach rather than permanent approach"(SDG 4: Quality Education)	0.907	3.668	0.992	3.487
	"The response from the beneficiaries may be poor and discouraging"(SDG 3: Good Health and Well-being)	0.909	3.775	1.009	3.471
	"Ideological and methodological conflicts between the Industry and Trade Unions" (SDG 8: Decent Work and Economic Growth) #				
	"The deliberate creation of hostile anti-business climate by organized political groups with selfish interest"(SDG 16: Peace, Justice, and Strong Institutions) #				
Perception	"My firm participates in activities which aim to protect and improve the natural environment"(SDG 13: Climate Action)	0.842	3.205	1.090	1.984
	"My firm takes part in humane activities and encourages its employees to participate in such activities"(SDG 3: Good	0.848	3.484	1.018	2.248

	Health and Well-being)				
	"My firm tries to maximize its favorable effects on the natural environment" (SDG 15: Life on Land)	0.843	3.488	0.998	2.290
	"My firm supports social welfare programs and creation of employment opportunities"(SDG 1: No Poverty)	0.837	3.365	1.053	1.919

#The items that are not considered for empirical decision.

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