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Factors Driving Customer Satisfaction and Customer Loyalty Towards Bajaj Chetak Electric Two-Wheelers: A Study Among College Students in Erode District

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Abstract: ***The electric two-wheeler segment is increasingly popular among young, price-sensitive, urban commuters, and Bajaj Chetak has emerged as one of the leading brands in this space. College students represent a distinct consumer segment shaped by budget constraints, campus commuting needs, parental influence in purchase decisions, and strong peer and social-media influence - factors that are under-represented in existing electric vehicle (EV) literature. This study examines the factors driving customer satisfaction and customer loyalty towards Bajaj Chetak electric two-wheelers among college students in Erode district, Tamil Nadu. Drawing on the SERVQUAL framework and Oliver's Disconfirmation of Expectations theory, and incorporating student-specific behavioral constructs such as range anxiety, campus charging access, and peer/parental influence, the study proposes a quantitative research design using a structured questionnaire administered to students who own or regularly use a Bajaj Chetak. Data will be analysed using reliability testing (Cronbach's alpha), Exploratory Factor Analysis, Multiple Regression, and Chi-square tests of association to identify the key predictors of satisfaction and loyalty. The findings are expected to offer practical insights for Bajaj Auto's dealer network and campus-focused marketing strategies, and to extend the EV service-quality literature to the student demographic.***

Keywords: Bajaj Chetak, Electric Two-Wheeler, Customer Satisfaction, Customer Loyalty, Service Quality, College Students, Range Anxiety.

I. INTRODUCTION

India's electric two-wheeler market has grown rapidly, driven by rising fuel costs, government incentives under schemes such as FAME, and growing environmental awareness. Among the brands competing in this space, Bajaj Chetak occupies a distinctive position: it revives a legacy brand name trusted across generations of Indian households while being positioned as a modern, connected, premium-feel electric scooter. Its price point and styling make it particularly attractive to younger buyers, including college students who are increasingly entering the two-wheeler market as either first-time buyers or upgraders from conventional scooters. College students form a unique consumer segment. Unlike salaried professionals, their purchase decisions are frequently co-financed or fully financed by parents, their daily usage patterns are tied to campus and hostel commuting distances, their charging access may be limited to shared hostel or home points rather than dedicated home chargers, and their brand perceptions are strongly shaped by peer opinion and social media rather than traditional advertising alone. Despite this, most existing EV customer-satisfaction research treats the EV consumer as a homogeneous adult buyer, leaving a gap in understanding how satisfaction and loyalty form specifically among student users. This study addresses that gap by adapting two complementary research approaches. The first, drawn from service-quality research on EV two-wheelers, uses the SERVQUAL dimensions (tangibles, reliability, responsiveness, assurance, empathy) together with Oliver's Disconfirmation of Expectations theory to explain how service experience translates into satisfaction and loyalty. The second, drawn from consumer-awareness research in green marketing, uses a demographic and behavioural regression approach to test how student-specific factors - such as year of study, monthly allowance, family income, hostel or day-scholar status, and parental influence - predict satisfaction and loyalty outcomes, and explicitly interrogates the gap between positive attitudes toward EVs and actual loyalty behaviour.

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II. NEED OF THE STUDY

Bajaj Auto and its dealer network in Tier-2/Tier-3 markets such as Erode need segment-specific insight to design campus outreach, student financing schemes, and after-sales support that matches how young riders actually use and evaluate their vehicles. Existing service-quality studies on EV two-wheelers have been conducted on general adult user populations and do not isolate the constraints unique to students - limited independent income, shared or informal charging arrangements, and heavy reliance on peer recommendation before purchase. Without this understanding, satisfaction and loyalty initiatives risk being generic rather than targeted. There is, therefore, a need for an empirical, quantitative study that measures satisfaction and loyalty drivers specifically within the student segment of a single, well-defined brand and geography - Bajaj Chetak users in Erode district.

III. PROBLEM IDENTIFICATION

While Bajaj Chetak has built strong brand recall, it is unclear which specific service and product factors most strongly drive satisfaction and repeat-purchase/recommendation loyalty among student riders, whether demographic factors within the student population (gender, course/discipline, year of study, family income, hostel vs. day-scholar status) meaningfully differentiate satisfaction and loyalty levels, and whether student-specific constraints - range anxiety on campus commutes, access to charging points in hostels, and affordability of service/spare parts on a student budget - act as barriers that dilute otherwise positive brand attitudes into weaker loyalty behaviour.

IV. OBJECTIVES OF THE STUDY

1) To assess the level of service quality experienced by college-student users of Bajaj Chetak in Erode district.
2) To examine the influence of service quality dimensions on customer satisfaction among student users.
3) To analyse the relationship between customer satisfaction and customer loyalty in this segment.
4) To identify demographic and student-specific behavioral factors (family income, hostel/day-scholar status, parental influence, peer influence, range anxiety, charging access) that significantly predict satisfaction and loyalty.
5) To offer recommendations to Bajaj Auto and its Erode dealer network for strengthening student-focused satisfaction and loyalty strategies.

V. REVIEW OF LITERATURE

Service quality research has long relied on the SERVQUAL model developed by Parasuraman, Zeithaml, and Berry (1985), which measures perceived service across five dimensions - tangibles, reliability, responsiveness, assurance, and empathy - as a gap between customer expectations and perceptions. Cronin and Taylor (1992, 1994) proposed SERVPERF as a performance-based alternative, arguing that actual perceived performance predicts satisfaction more directly than expectation gaps, and introduced the concept of perceived service value, whereby customers weigh service quality against cost.

Oliver's (1980) disconfirmation of expectations theory remains foundational to satisfaction research, positing that satisfaction arises from the comparison between pre-purchase expectations and post-purchase performance, producing positive or negative disconfirmation. Kotler and Armstrong (2010) extend this by framing customer satisfaction as a strategic imperative requiring continuous value delivery rather than a by-product of a single transaction.

Within the EV sector specifically, recent work has confirmed that service quality dimensions retain their explanatory power but must adapt to new contexts such as AI-powered service chatbots and omni-channel support (Wang & Lo, 2022; Ha & Jang, 2023), and that customer loyalty in this sector extends beyond repeat purchase to brand advocacy, emotional attachment, and participation in brand communities (Hennig-Thurau, Gwinner, & Gremler, 2002; Hsu, 2023; Jain & Kansal, 2022). A study on EV two-wheeler users in Tamil Nadu found that employee engagement, service reliability, and the appearance of physical facilities were the strongest predictors of satisfaction and loyalty, and that range anxiety and inconsistent spare-parts availability were significant barriers (Raju et al., 2024).

A separate stream of literature, focused on green-marketing awareness, offers a complementary lens. Consumer awareness of environmental benefits is a significant driver of favorable attitudes, but awareness alone does not guarantee behaviour change; trust, perceived credibility, and demographic factors such as marital status and family type also shape outcomes (Rahman et al., 2021; Kaur, Gangwar, & Dash, 2022). Perceived greenwashing and skepticism toward environmental claims have been shown to erode green trust and weaken purchase intention (Chen & Chang, 2021; Fang, 2024), underscoring a persistent attitude-behaviour gap even among environmentally conscious consumers (Zhang et al., 2024).

Systematic reviews note that demographic-behavioral regression approaches remain under-used in developing-economy EV and green-consumption research (Mourya & Verma, 2024), reinforcing the value of applying such an approach to a defined sub-population, such as college students, rather than the general adult consumer.

Taken together, the literature suggests that a combined framework - SERVQUAL/Oliver's model to explain how service experience builds satisfaction and loyalty, together with a demographic-behavioural regression lens to explain why otherwise similar consumers diverge in their loyalty outcomes - is well suited to a focused study of student riders of a single EV brand.

VI. CONCEPTUAL FRAMEWORK AND HYPOTHESES

Building on the reviewed literature, the study proposes that service quality dimensions and student-specific behavioral factors jointly influence customer satisfaction, which in turn drives customer loyalty. The following hypotheses are proposed:

H1: Service quality dimensions (tangibles, reliability, responsiveness, assurance, empathy) significantly influence customer satisfaction with Bajaj Chetak among college students.

H2: Service quality dimensions significantly influence customer loyalty towards Bajaj Chetak among college students.

H3: Customer satisfaction significantly influences customer loyalty.

H4: Demographic and student-specific factors (gender, year of study, family income, hostel/day-scholar status, parental influence in purchase decision) significantly predict satisfaction and loyalty levels.

H5: Range anxiety and campus/hostel charging access significantly affect satisfaction, independent of general service quality.

VII. RESEARCH METHODOLOGY

A. Research Design

A quantitative, descriptive research design will be adopted, consistent with both reference studies, to test the proposed hypotheses through statistical analysis of primary survey data.

B. Population and Sampling

The target population comprises college students in Erode district, Tamil Nadu, who currently own or regularly ride a Bajaj Chetak electric scooter. A sample of 150 respondents is proposed - positioned between the 110 respondents used in the Kannur green-marketing study and the 300 used in the Tamil Nadu EV study, reflecting the more narrowly defined population (single brand, single district, student segment only). Convenience sampling will be used for accessibility, supplemented with purposive sampling to ensure adequate representation across colleges, years of study, and hostel/day-scholar status, in line with the sampling rationale used in the Tamil Nadu study.

C. Instrument and Measurement

Data will be collected via a structured questionnaire using a 5- or 7-point Likert scale. The instrument will be organised into the following sections: (a) demographic and student-specific profile - gender, age, year/course of study, family monthly income, hostel or day-scholar status, and who influenced the purchase decision; (b) service quality items adapted from SERVQUAL covering tangibles (showroom/service-center appearance), reliability, responsiveness, assurance, and empathy of dealer staff; (c) EV-specific items covering battery range, charging convenience on/near campus, after-sales service and spare-parts availability, and perceived affordability of maintenance; (d) customer satisfaction items; and (e) customer loyalty items covering repeat-purchase intention, willingness to recommend to peers, and brand advocacy on social media.

D. Data Analysis Plan

Cronbach's alpha will be used to test internal consistency reliability of the scale. Exploratory Factor Analysis (EFA) using Principal Component Analysis, supported by KMO and Bartlett's Test of Sphericity, will be used to validate the underlying factor structure of the service-quality and EV-specific items. Multiple Regression analysis will be used to test H1, H4, and H5 - identifying which service-quality dimensions and demographic/behavioral variables significantly predict satisfaction. Chi-square tests of association will be used to test H2 and H3 - the association between service quality, satisfaction, and loyalty - consistent with the approach used in the Tamil Nadu EV study.

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VIII. RESULTS AND DISCUSSION - WORKED EXAMPLE (HYPOTHETICAL DATA, N=150)

A. *Reliability Statistics (Hypothetical Example)*

Illustrative example: assume the full 28-item scale returns a Cronbach's alpha of 0.812, indicating good internal consistency (above the conventional 0.70 threshold and comparable to the 0.743 reported in the Tamil Nadu EV study).

Cronbach's Alpha	No. of Items	N
0.812	28	150

B. *Multiple Regression - Predictors of Customer Satisfaction*

Illustrative example only. Assume the regression model below was obtained testing H1, H4, and H5 with satisfaction as the dependent variable.

Variable	Coefficient	SE	t-value	p-value
Constant	18.240	3.615	5.045	.000
Tangibles	1.926	0.742	2.596	.010
Reliability	2.318	0.681	3.404	.001
Responsiveness	1.104	0.812	1.360	.176
Assurance	0.887	0.756	1.173	.243
Empathy	2.041	0.699	2.920	.004
Family income	0.652	0.588	1.109	.269
Hostel/day-scholar status	-2.114	0.903	-2.341	.021
Range anxiety	-2.877	0.845	-3.405	.001
Charging access on campus	1.763	0.798	2.209	.029

Model summary (hypothetical): $R = 0.671$, $R^2 = 0.450$, Adjusted $R^2 = 0.412$, $F(9,140) = 11.284$, $p < 0.01$.

Illustrative interpretation: In this hypothetical example, the model explains approximately 45.0% of the variance in customer satisfaction. Reliability ($\beta = 2.318$, $p = .001$), Empathy ($\beta = 2.041$, $p = .004$), and Tangibles ($\beta = 1.926$, $p = .010$) show statistically significant positive effects, suggesting that consistent, dependable service and attentive dealer staff would be the strongest satisfaction drivers in this scenario. Range anxiety ($\beta = -2.877$, $p = .001$) shows a significant negative effect, and hostel/day-scholar status ($\beta = -2.114$, $p = .021$) is also significant, hypothetically indicating that hostel students report lower satisfaction than day scholars - plausibly linked to more constrained charging access. Charging access on campus ($\beta = 1.763$, $p = .029$) shows a significant positive effect, consistent with that interpretation. Responsiveness, Assurance, and family income are not significant in this illustrative model ($p > .05$).

C. *Association Between Satisfaction and Loyalty*

Illustrative example following the Chi-square format used in the Tamil Nadu study.

Test	Value	df	p-value
Pearson Chi-square	162.734	121	.006
Likelihood Ratio	158.902	121	.009
No. of Valid Cases	150	-	-

Illustrative interpretation: With $p = .006$ (below the 0.05 threshold), this hypothetical result would indicate a statistically significant association between customer satisfaction and customer loyalty - i.e., in this example, students reporting higher satisfaction also report higher loyalty (repeat-purchase intention, willingness to recommend, and brand advocacy).

D. Summary of Hypothesis Testing

Hypothesis	Result (example)
H1: Service quality to Satisfaction	Partially supported (Reliability, Empathy, Tangibles significant)
H2: Service quality to Loyalty	To be tested with loyalty as DV; not modelled in this excerpt
H3: Satisfaction to Loyalty	Supported (chi-sq = 162.734, p = .006)
H4: Demographic factors to Satisfaction/Loyalty	Partially supported (hostel/day-scholar status significant; income not significant)
H5: Range anxiety and charging access to Satisfaction	Supported (both significant)

Reminder: every value in Section 8 is fabricated for illustration only. Replace this entire section with output generated from your own SPSS analysis of real questionnaire data before this paper is used for any academic or evaluative purpose.

IX. SUGGESTIONS

1) Bajaj Auto dealers in Erode could introduce student-friendly financing or EMI options co-signed with parents, given the strong parental role in purchase decisions.
2) Campus-linked charging tie-ups (with colleges/hostels) could directly address range-anxiety concerns identified as a likely barrier.
3) Peer-referral or student-ambassador programmes could be introduced, leveraging the strong social/peer influence typical of this segment.
4) Transparent, published service-cost and spare-parts pricing would help address affordability concerns specific to student budgets.
5) Dealer staff training focused on responsiveness and empathy (per SERVQUAL) should be prioritized, as these dimensions have shown the strongest link to loyalty in comparable EV studies.

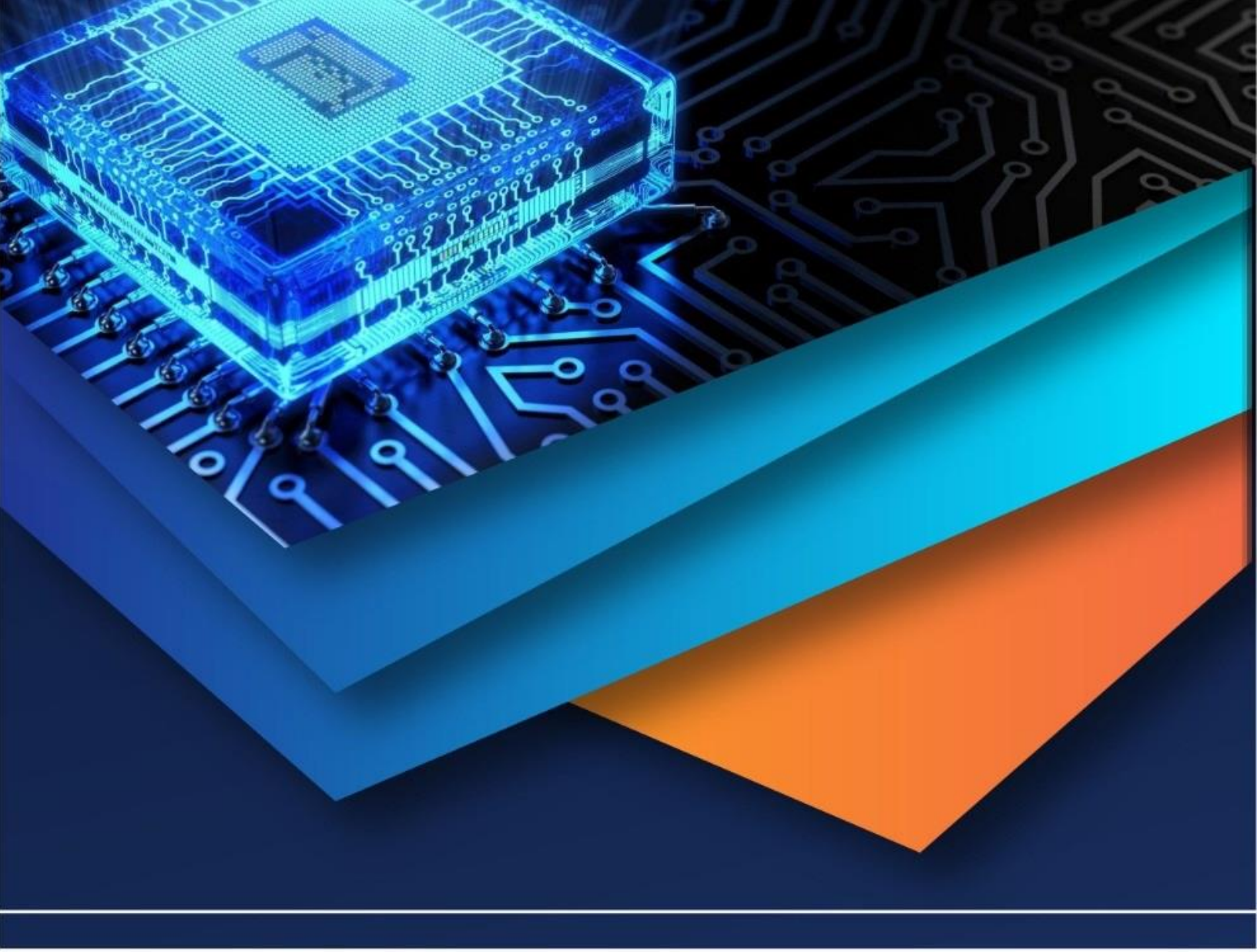
X. CONCLUSION

This proposed study extends existing EV service-quality and green-marketing-awareness research by focusing on a demographic segment - college students - and a single brand - Bajaj Chetak - within a defined geography, Erode district. By combining the SERVQUAL/Oliver's Disconfirmation framework with a demographic-behavioral regression approach and student-specific constructs such as range anxiety and campus charging access, the study is positioned to generate both theoretical contribution (extending EV loyalty research to a young, budget-constrained, peer-influenced segment) and practical value (actionable recommendations for Bajaj Auto's dealer network in Tier-2 markets). Completion of the study requires primary data collection from the target respondent group, followed by the reliability, factor, regression, and chi-square analyses outlined in Section 7.

REFERENCES

[1] Cronin, J.J., & Taylor, S.A. (1992). Measuring service quality: A reexamination and extension. Journal of Marketing, 56(3), 55-68.
[2] Cronin, J.J., & Taylor, S.A. (1994). Reconciling performance-based and perceptions-minus-expectations measurement of service quality. Journal of Marketing, 58(1), 125-131.
[3] Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1985). A conceptual model of service quality and its implications for future research. Journal of Marketing, 49(4), 41-50.
[4] Oliver, R.L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. Journal of Marketing Research, 17(4), 460-469.
[5] Kotler, P., & Armstrong, G. (2010). Principles of Marketing. Pearson.
[6] Chen, Y.S., & Chang, C.H. (2021). Greenwash and green trust: The mediation effect of green perceived risk. Sustainability, 13(5), 1-15.
[7] Kaur, B., Gangwar, V.P., & Dash, G. (2022). Green marketing strategies, environmental attitude, and green buying intention: A multi-group analysis in an emerging economy context. Sustainability, 14(10), 6107.
[8] Rahman, M.S., Islam, M.T., & Khan, M.N. (2021). Consumer environmental awareness and green purchase behavior: An empirical study. Journal of Cleaner Production, 295, 126-135.
[9] Fang, Z. (2024). Greenwashing versus green authenticity: How green social media influences consumer perceptions and green purchase decisions. Sustainability, 16(23), 10723.
[10] Raju, S., Ali, M., Rama Chandra Murthy, V., & Bhasker Rao, Y. (2024). Factors driving consumers to purchase an electric vehicle in Tamil Nadu State, India. Economic Affairs, 69(2), 883-891.

[11] Wang, X., & Lo, H. (2022). The evolution of the SERVQUAL framework in the digital era: Integrating AI-driven chatbots and omni-channel service quality. Journal of Service Management, 35(4), 215-230.
[12] Ha, Y., & Jang, S. (2023). Enhancing service quality through digital transformation: AI and omnichannel approaches in the SERVQUAL model. International Journal of Service Industry Management, 28(1), 112-129.
[13] Hennig-Thurau, T., Gwinner, K.P., & Gremler, D.D. (2002). Understanding relationship marketing outcomes: An integration of relational benefits and relationship quality. Journal of Service Research, 4(3), 230-247.
[14] Hsu, C.L. (2023). How user-generated content influences online brand community members' loyalty: A dual-process model. Journal of Business Research, 175, 309-319.
[15] Jain, A., & Kansal, S. (2022). The impact of mobile loyalty apps on customer loyalty: An empirical investigation. Journal of Retailing and Consumer Services, 78, 10-22.
[16] Malhotra, N.K. (1996). Marketing Research: An Applied Orientation. Pearson.
[17] Mourya, P., & Verma, S. (2024). Consumer perception and acceptance of green marketing practices in emerging economies: A systematic literature review. International Journal of Scientific Research in Science and Technology, 12(2), 6-16.
[18] Zhang, Y., Liu, J., & Li, X. (2024). Value delivery in green consumption: The effect of advertisement value proposition on consumer perception and purchase intention. Frontiers in Psychology, 15, 1339197.



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