



CUSTOMER PERCEPTION: SPECIAL REFERENCE TO “OLA” ELECTRIC VEHICLE

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ABSTRACT

Electric vehicles have rapidly gained prominence in the automotive industry, and Ola, a prominent player in the ride-sharing sector, has ventured into the electric vehicle market. The rapid rise of electric vehicles (EVs) in the automotive industry has spurred Ola, a leading ride-sharing company, to enter the electric vehicle market. This study investigates customer perceptions of Ola's electric vehicles in Nelamangala, a semi-urban town near Bengaluru, Karnataka, India, within the context of an industry undergoing a sustainability transformation. The research aims to uncover factors shaping customer perception, adoption, and expectations regarding Ola's EVs, focusing on attitudes, preferences, and concerns of residents. By addressing research gaps specific to semi-urban regions and the Indian market, this study provides valuable insights into the barriers and facilitators of EV adoption, ultimately benefiting Ola's strategy refinement and informing policymakers and urban planners in promoting sustainable transportation options. The study seeks to bridge the knowledge gap in a burgeoning field of electric mobility and its adoption, particularly in semi-urban settings.

KEYWORDS: Customer perceptions, Sustainability, Semi-urban, Adoption.

INTRODUCTION

The rapid advancement of technology and growing concerns over environmental sustainability have led to a paradigm shift in the transportation industry. The emergence of electric vehicles (EV) has offered a promising solution to mitigate the adverse effects of traditional fossil fuel-powered vehicles on the environment. It encompasses various aspects such as quality, reliability, performance, affordability, convenience, and overall satisfaction. Customer perception plays a significant role in shaping consumer behavior, purchase decisions, and ultimately, the success of a product or service in the market. Qualitative methods, such as in-depth interviews and focus group discussions, will be utilized to delve deeper into the underlying motivations, beliefs, and experiences that shape individuals' perceptions towards OLA electric vehicles. Its proximity to Bengaluru, a major urban center in India, exposes the residents of Nelamangala to various transportation options and influences their perception of sustainable mobility solutions.

REVIEW OF LITERATURE

Dr. P. N. Ramachandran Pillai (2016): "Consumer Perception and Adoption of Electric Vehicles: A Review." This study provides an overview of consumer perception and adoption of electric vehicles (EV). It discusses various factors influencing consumer perceptions, such as environmental concerns, cost, range anxiety, and infrastructure. The study emphasizes the need for further research to understand consumer behavior and develop strategies to promote EV adoption.

Dr. P. R. Vittal (2016): "Perceptions and Preferences of Electric Vehicle Users: A Study in Urban India." This research investigates the perceptions and preferences of electric vehicle users in urban India. It highlights factors like cost savings, environmental concerns, and driving experience that influence the adoption of EV. The study also discusses the challenges and opportunities associated with EV adoption in the Indian market.

Dr. M. R. Rao (2017): "Consumer Perception of Electric Vehicles: A Comparative Study." This study compares consumer perceptions of electric vehicles with conventional internal combustion engine vehicles. Its analysis factors such as environmental concerns, cost, performance, and infrastructure. The research highlights the importance of addressing these factors to encourage the adoption of electric vehicles.



Dr. A. K. Jha (2017): "Electric Vehicles: Opportunities and Challenges for Indian Automotive Industry." This article discusses the opportunities and challenges for the Indian automotive industry in transitioning towards electric vehicles. It explores factors such as technological advancements, manufacturing capabilities, and consumer preferences. The study suggests strategies for industry players to capitalize on the growing EV market.

Dr. M. S. Shunmugam (2018): "Consumer Perceptions and Preferences of Electric Vehicles: A Study in Urban India." This study investigates the perceptions and preferences of urban Indian consumers towards electric vehicles. It explores factors such as cost, range anxiety, charging infrastructure, and environmental concerns. The research provides insights for policymakers and industry players to address consumer preferences effectively.

Dr. N. Venkata Reddy (2019): "Consumer Attitudes towards Electric Vehicles: A Comparative Study of Indian and Global Perspectives." This study compares consumer attitudes towards electric vehicles in India with global perspectives. It examines factors such as cost, charging infrastructure, environmental concerns, and technological advancements. The research provides insights into the unique challenges and opportunities in the Indian market.

•Dr. S. K. Srivastava (2020): "Electric Vehicle Adoption: Insights from Indian Metropolitan Cities." This research focuses on electric vehicle adoption in Indian metropolitan cities. It examines factors such as consumer awareness, charging infrastructure, cost, and driving range. The study provides valuable insights for policymakers and industry players to develop strategies for promoting EV adoption.

Dr. S. S. Banwait (2022): "Electric Vehicle Adoption in India: A Comparative Study of Urban and Rural Consumer Perceptions." This comparative study explores the adoption of electric vehicles in urban and rural areas of India. It investigates factors such as cost, range anxiety, charging infrastructure, and government support. The study highlights the need for customized approaches to address the unique challenges in each context.

OBJECTIVES OF THE STUDY

- To study the customer perception towards OLA electric vehicles in Nelamangala.
- To analyze the factors influencing customer perception, including perceived benefits, drawbacks, and concerns.
- To ascertain the level of acceptance and adoption of OLA electric vehicles among residents of Nelamangala.

RESEARCH GAP

The research gaps identified in this study can be summarized as follows: Firstly, there is a shortage of studies focusing on customer perception of electric vehicles in semi-urban areas like Nelamangala, as existing research predominantly concentrates on urban regions, neglecting the unique dynamics of semi-urban environments. Despite the potential impact of Ola's electric vehicle initiatives on the adoption of electric mobility solutions, there is insufficient research specifically addressing customer perception of OLA electric vehicles. Lastly, there is limited insight into how the distinct lifestyle patterns and preferences in semi-urban areas shape customer perception of electric vehicles. Bridging these research gaps is essential for informing marketing strategies, policy interventions, and the successful adoption of electric vehicles in semi-urban settings, particularly in India.

TYPE OF RESEARCH

The research study will adopt a descriptive research design to gain an in-depth understanding of customer perception towards OLA electric vehicles. It will focus on describing and analyzing the current state of customer perception and factors influencing it.

SCOPE OF THE STUDY

The extent of this study on customer perception towards Ola, an electric vehicle, is focused on gathering insights from customers in order to understand their opinions, preferences, and overall perception of OLA electric vehicle services. The study aims to examine factors such as client satisfaction, trust, perceived value, and service quality. It will specifically target customers of OLA electric vehicles in a specific geographical location (Nelamangala).

SOURCES OF DATA COLLECTION

Primary Data: The primary data for this study will be collected personally by the researcher from respondents or sample units identified for the study. The data collection will be done specifically for the purpose of this study, focusing on customer perception towards OLA electric vehicles.

Secondary Data: The secondary data for this study will be collected from published sources such as journals, publications, and the internet. These secondary sources will provide additional information and insights into the broader context of customer perception towards electric vehicles and the ride-hailing industry.



POPULATION & SAMPLING UNIT

Sampling Unit: The study's sampling unit is individual customers who own and used the electric vehicles (EV).

SAMPLING METHOD

Convenience sampling is a non-probability sampling technique used in research to select participants based on their easy availability and accessibility to the researcher. It is one of the simplest and most commonly used sampling methods, but it comes with certain limitations and potential biases.

SAMPLE SIZE

Sample Size: The study aims to collect responses from 100 customers of OLA electric vehicles in Nelamangala.

HYPOTHESIS FOR THE STUDY

Hypothesis 1:

H0: There is no significant relationship between income level and ownership of EV.

H1: There is significant relationship between income level and ownership of EV.

Hypothesis 2:

H0: There is no significant relationship between Ola EV and like to recommend others.

H1: There is significant relationship between Ola EV and like to recommend others.

STATISTICAL TOOL

The data collected is tabulated, and statistical procedures like percentage analysis are used to analyze it. To analyze the association between two variables, SPSS is utilized. By accurately defining factors, the data is provided through percentage and bar chart analysis, which aids in determining the degree of customer behavior.

DATA ANALYSIS AND INTERPRETATION

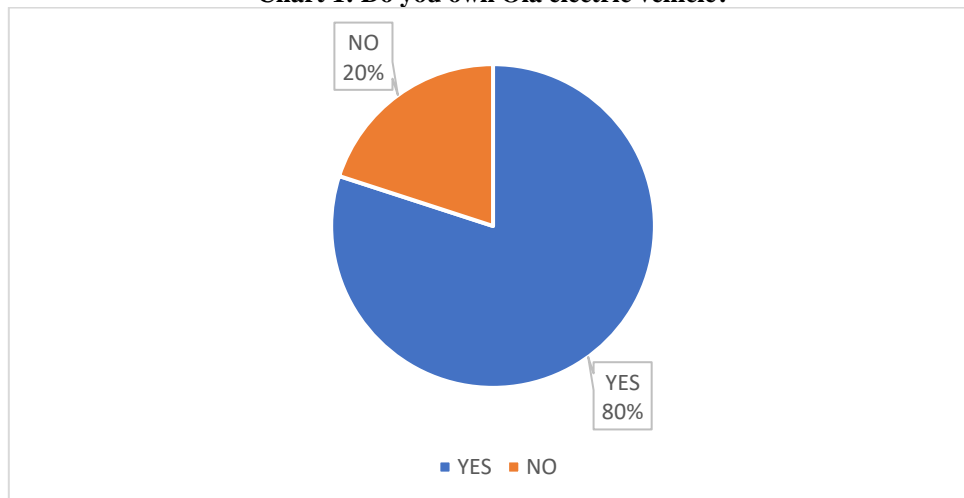
Table 1: Do you own Ola electric vehicle?

Response	No of Respondents	Percentage
Yes	80	80%
No	20	20%
Total	100	100%

ANALYSIS

From the information presented in the table above, it becomes clear that a significant portion of participants, constituting 80%, do possess Ola electric vehicle, whereas a minority, amounting to 20%, reported not possessing Electric vehicles.

Chart 1: Do you own Ola electric vehicle?



INTERPRETATION

As observed in the data depicted in the chart above, majority of individuals have ownership of Ola electric vehicle, while a smaller proportion does not possess but they have ride the EV as test drive, friends or family members. This



can be attributed that the relatively recent adoption of electric vehicles by the customer in the market as compared to traditional fuel engine vehicles.

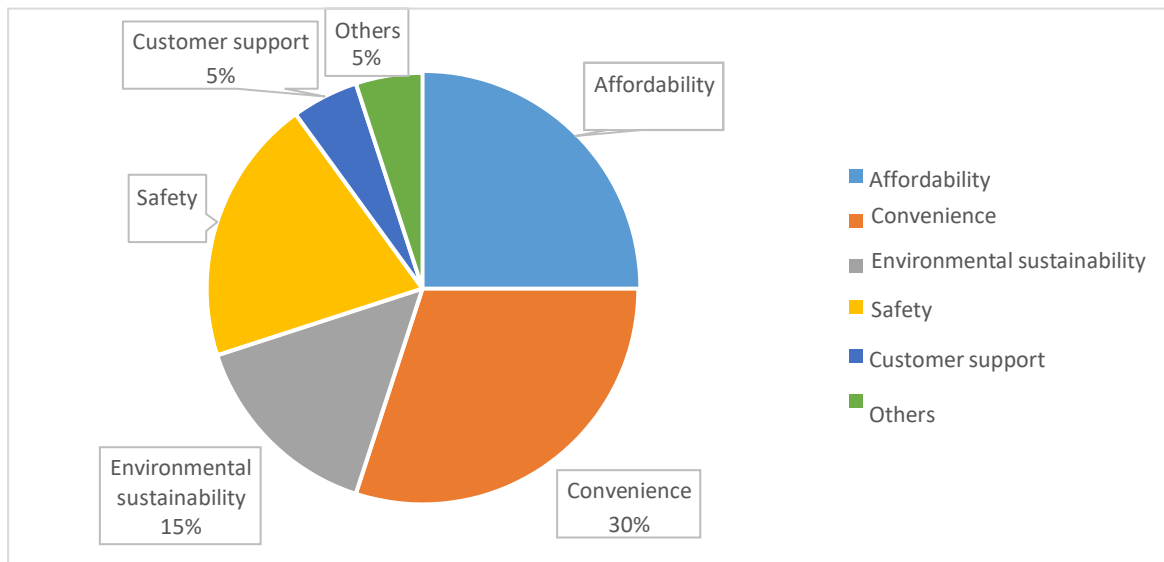
Table 2: What factors influenced your decision to choose Ola electric vehicles?

Response	No of Respondents	Percentage
Affordability	25	25%
Convenience	30	30%
Environmental sustainability	15	15%
Safety	20	20%
Customer support	5	5%
Others	5	5%
Total	100	100%

ANALYSIS

From the above table, the 30% of respondents are highest percentage of choosing Ola electric vehicles due to convenience. The 25% are closely followed by affordability. The 5% are least influential factors for this decision were customer support and others.

Chart 2: What factors influenced your decision to choose Ola electric vehicles?



INTERPRETATION

From the above chart, Convenience stands out as the primary consideration, suggesting a preference for easy and hassle-free transportation. Affordability closely follows, reflecting the importance of cost-effective options. Safety and environmental sustainability both play significant roles respectively, indicating that users are conscious of both personal safety and the ecological impact of their choices.

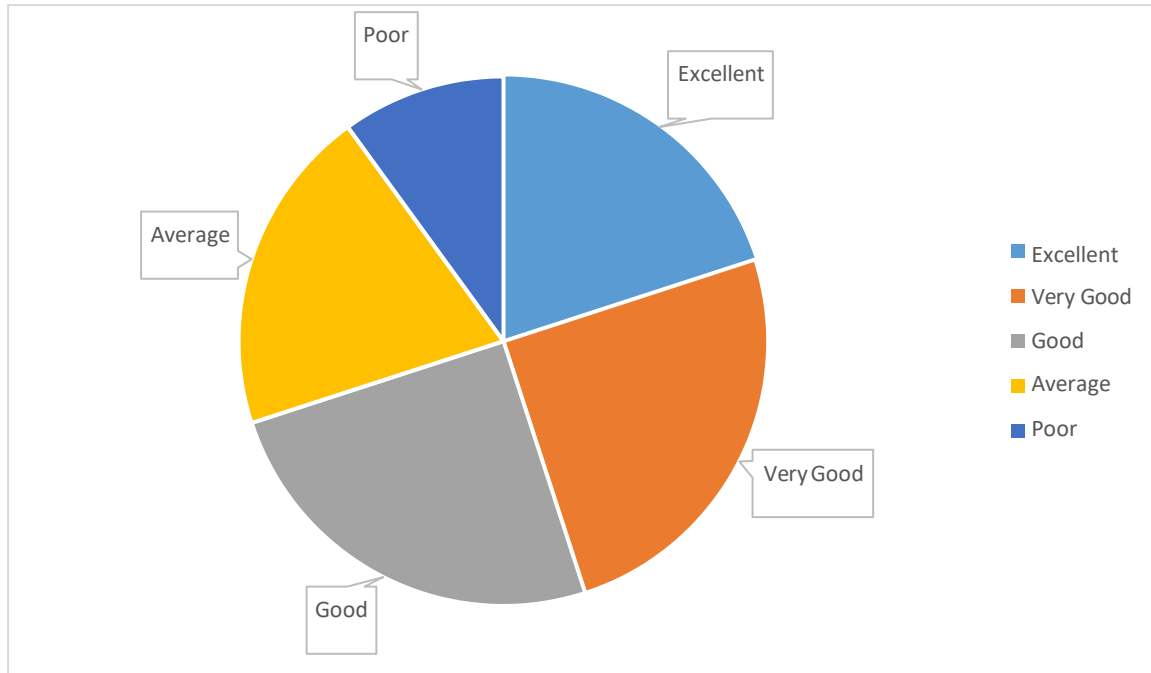
Table 3: How would you rate the overall experience of using Ola electric vehicles?

Response	No of Respondents	Percentage
Excellent	20	20%
Very Good	25	25%
Good	25	25%
Average	20	20%
Poor	10	10%
Total	100	100%

ANALYSIS

From the above table, it is evident that half of the respondents found the experience of using Ola electric vehicles to be between Very Good to Good, accounting for 50% of the feedback. A considerable 20% felt it was either Excellent or Average. A smaller proportion, 10%, rated their experience as Poor.

Chart 3: How would you rate the overall experience of using Ola electric vehicles?



INTERPRETATION

From the above chart, a majority of users have a favorable view of Ola electric vehicles rating them as Good to Excellent. The minority, are expressed dissatisfaction, which signifies areas of potential improvement for the brand.

Table 4: How would you rate the Performance of Ola electric vehicle in Nelamangala?

Factors	Excellent	Very good	Good	Average	Poor	Total	Ranking
Comfort	5*5	28*4	30*3	24*2	13*1	288	V
Speed	8*5	35*4	25*3	18*2	14*1	301	III
Mileage	10*5	30*4	25*3	20*2	15*1	300	IV
Style and design	15*5	20*4	30*3	25*2	10*1	305	II
Safety	12*5	28*4	30*3	20*2	10*1	312	I
Availability Of spareparts	8*5	22*4	30*3	25*2	15*1	283	VI

Grand total = 1789

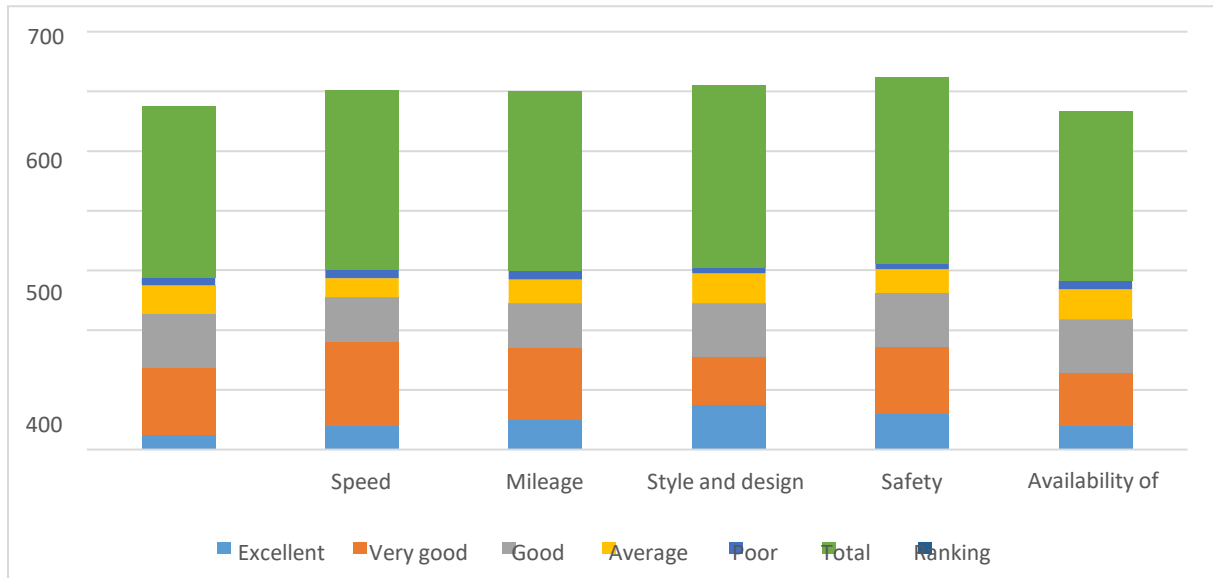
Comfort	288/1789	0.1609
Speed	301/1789	0.1628
Mileage	300/1789	0.1676
Style and design	305/1789	0.1704
Safety	312/1789	0.1743
Availability of spare parts	283/1789	0.1581

ANALYSIS

From the above table the Ola electric vehicle's performance is ranked as follows, safety stands out with a top score of 312, reflecting its excellent performance in this aspect style and design receive a strong score of 305, indicating well-received aesthetics and design choices mileage and speed both attain a good score, with 300 and 301 respectively, showcasing acceptable performance levels. Comfort and availability of spare parts exhibit room for enhancement, scoring 288 and 283 respectively



Chart 4: How would you rate the Performance of Ola electric vehicle in Nelamangala?



INTERPRETATION

From the above chart, The Ola electric vehicle's performance in Nelamangala showcases strong safety and style aspects, securing the top rank for safety and the second position for style and design. While speed and mileage are also notable, comfort and availability of spare parts fall behind in the ranking.

Table 5: How would you rate the behavior and professionalism of Ola showroom / servicecentre in Nelamangala?

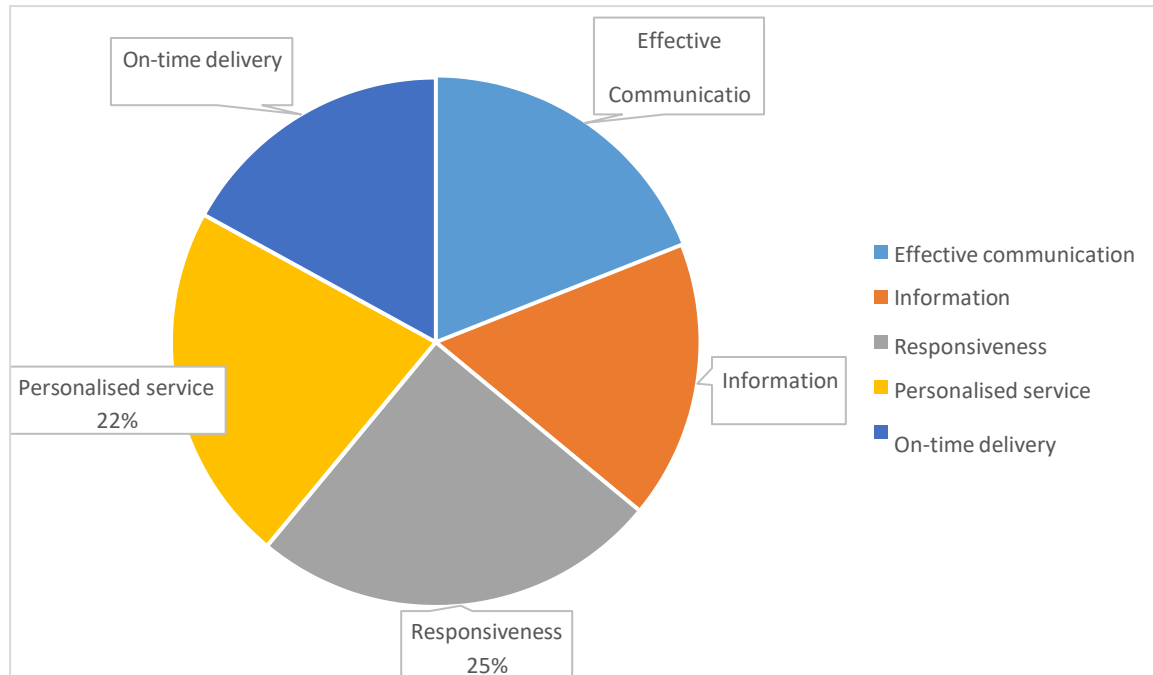
Response	No of Respondents	Percentage
Effective communication	19	19%
Information	17	17%
Responsiveness	25	25%
Personalized service	22	22%
On-time delivery	17	17%
Total	100	100%

ANALYSIS

From the above table, the 25% of "Responsiveness" was rated the highest by the respondents. In contrast, 17% of both "Information" and "On-time delivery" received the least votes, each accumulating.



Chart 5: How would you rate the behavior and professionalism of Ola showroom / servicecentre in Nelamangala?



INTERPRETATION

From the above chart, it suggests that while customers value the responsiveness of the Ola showroom/service center in Nelamangala, there seems to be room for improvement in areas of information dissemination and ensuring on-time delivery.

CORRELATION

Hypothesis 1:

H0: There is no significant relationship between income level and ownership of EV.

H1: There is significant relationship between income level and ownership of EV.

Nonparametric Correlations

			Correlations	
			Income	Do you own Ola electric vehicle (EV)?
Spearman's rho	Income	Correlation Coefficient	1.000	.159
		Sig. (2-tailed)	.	.114
		N	100	100
	Do you own Ola electric vehicle (EV)?	Correlation Coefficient	.159	1.000
		Sig. (2-tailed)	.114	.
		N	100	100

INTERPRETATION

Since the correlation coefficient is 0.159, it suggests a positive monotonic correlation, but the value is relatively close to 0. This indicates a weak positive relationship between "Income" and "Do you own Ola electric vehicle (EV)?" However, this correlation is not statistically significant, as the significance value (p-value) of 0.114 is greater than the common threshold of 0.05.



ANOVA

Hypothesis 2:

H0: There is no significant relationship between Ola EV and like to recommend others.H1: There is significant relationship between Ola EV and like to recommend others.

Descriptive

Would you recommend Ola electric vehicles to others?

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Excellent	20	2.3000	1.26074	.28191	1.7100	2.8900	1.00	5.00
Very Good	25	2.5600	1.35647	.27129	2.0001	3.1199	1.00	5.00
Good	25	2.8800	1.30128	.26026	2.3429	3.4171	1.00	5.00
Average	20	3.5000	1.73205	.38730	2.6894	4.3106	1.00	5.00
Poor	10	3.8000	1.54919	.48990	2.6918	4.9082	1.00	5.00
Total	100	2.9000	1.48732	.14873	2.6049	3.1951	1.00	5.00

ANOVA

Would you recommend Ola electric vehicles to others?

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25.400	4	6.350	3.116	.019
Within Groups	193.600	95	2.038		
Total	219.000	99			

INTERPRETATION

Asymp (p value) = 0.019 Level of significance = 0.05 (P value 0.019 < LOS = 0.05)

As level of significance is greater than p value, alternative hypothesis is accepted and null hypothesis is rejected.

In this case, with an F-statistic of 3.116 and a significance level (Sig.) of 0.019, you would typically reject the null hypothesis. This suggests that there is a statistically significant difference in the mean recommendation scores among the different groups.Hence, there is significant relationship between Ola EV and like to recommend others.

FINDINGS AND SUGGESTION

The factors influencing Ola EV choice of 30% are convenience and 25% affordability. Overall experience with Ola EV is seen as 70% positive. "Responsiveness" was rated highest by 25% of respondents, while "Information" and "On-time delivery" received the least votes at 17% each. The 45% of respondents are inclined to recommend Ola electric vehicles. Target Audience: With a significant chunk of respondents between 18-37 years, marketing strategies could be tailored to cater more to this age group. With 80% not owning an Ola EV, awareness campaigns about the benefits of ownership or financing options might be beneficial. There's a mixed perception regarding safety. Given the mixed reviews about the professionalism at showrooms, employees' regular training sessions can ensure consistent service quality. Ensuring the quality of vehicles and services can enhance brand reputation. After-Sales Support: Emphasize on post-sale services which can be a significant factor for many potential buyers.

CONCLUSION

In conclusion, the study's findings provide valuable insights into the preferences and perceptions of Ola EV users in Nelamangala. The commendable ratings for comfort levels underscore Ola's commitment to providing a satisfying passenger experience, which should be consistently maintained. Addressing the mixed opinions on affordability through flexible pricing strategies, such as loyalty programs and discounts, can enhance Ola's appeal to a wider audience. Regular feedback surveys and proactive measures to address affordability concerns will contribute to overall customer satisfaction



and retention. By adopting a well-rounded approach that accounts for varied usage patterns and affordability preferences, Ola can solidify its position and continue to thrive in Nelamangala's electric vehicle market, ensuring a sustainable and customer-centric future.

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