

A STUDY OF PEER-GROUP INFLUENCE ON POST-PURCHASE DECISION OF ELECTRIC VEHICLE CONSUMERS IN AMRAVATI CITY

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Abstract:

The rapid diffusion of electric vehicles (EVs) in India has shifted scholarly attention from purchase intention to post-purchase behaviour. Post-purchase decisions such as satisfaction, loyalty, purchase intention, and word-of-mouth communication are increasingly shaped by social interactions and peer-group influence. This study examines the impact of peer-group influence on post-purchase decisions of electric vehicle consumers in Amravati City, a semi-urban market where interpersonal communication plays a dominant role. A descriptive research design was adopted, and primary data were collected from 100 electric vehicle users using a structured Likert scale questionnaire. Descriptive statistics and correlation analysis were used to analyse the relationship between peer influence and post-purchase behaviour. The findings reveal that peer-group influence has a significant positive impact on customer satisfaction and purchase intention. Positive peer feedback reinforces confidence and loyalty, whereas negative peer discussions lead to dissatisfaction and hesitation toward repeat purchases. The study highlights the importance of social validation in sustaining EV adoption beyond the purchase stage and provides implications for marketers, dealers, and policy makers.

Keywords: Peer-group influence, Post-purchase behaviour, Electric vehicles, Customer satisfaction, purchase intention

Introduction:

In the contemporary business environment, consumer decision-making has shifted from an individual activity to a socially influenced process. With the growth of digital communication and social networks, consumers increasingly rely on opinions and experiences shared by peers such as friends, family, and colleagues. These peer groups not only influence

purchase decisions but also shape post-purchase perceptions, especially for high-involvement and innovative products where uncertainty continues even after purchase.

The electric vehicle (EV) industry is one of the fastest-growing sectors in India, driven by rising fuel prices, environmental concerns, and government initiatives like the FAME scheme. While metropolitan areas have higher adoption, semi-urban cities like Amravati are emerging as key markets where consumer decisions are strongly influenced by interpersonal communication and word-of-mouth. Post-purchase behaviour, including satisfaction, loyalty, and purchase intention, is particularly important in the EV context due to factors such as technological complexity, high investment, and reliance on charging infrastructure.

Understanding peer-group influence in the post-purchase stage is essential for sustaining EV adoption. Positive peer feedback can enhance satisfaction and loyalty, while negative experiences may lead to dissatisfaction and hesitation toward future purchases. Despite extensive research on EV adoption, limited studies focus on post-purchase behaviour, especially in semi-urban contexts. Therefore, this study examines how peer-group influence affects post-purchase decisions of EV consumers in Amravati city, providing insights for improving customer retention and promoting sustainable mobility.

Research Problem and Objectives of the Study

Consumer behaviour plays a crucial role in the long-term success of electric vehicles (EVs) in the growing mobility market. While the adoption of EVs is increasing due to rising fuel costs, environmental awareness, and government support, companies face challenges in ensuring customer satisfaction and encouraging repeat purchases after the initial adoption. Post-purchase behaviour is influenced not only by product-related factors such as performance, cost, and infrastructure, but also by social factors, particularly peer-group influence. In socially connected markets like Amravati, opinions and experiences shared by friends, family, and social networks significantly shape consumers' perceptions, satisfaction levels, and future purchase decisions. However, limited research exists on how peer influence affects post-purchase behaviour of EV users, creating a gap in understanding consumer retention and loyalty in this segment. This study aims to analyse the impact of peer-group influence on post-purchase decisions of electric vehicle users and provide insights to improve customer satisfaction and purchase behaviour.

The present research study aims to accomplish the following objectives:

- To understand how peer groups influence post-purchase decisions of electric vehicle users in Amravati.
- To examine how peer-group feedback affects customer satisfaction after purchasing EVs.
- To study the impact of peer influence on purchase intentions of electric vehicles.

Review of Literature

Peer influence in consumer behaviour, particularly in the context of electric vehicles. Manca et al. (2020) examined how peer attitudes influence consumer choice behaviour toward electric vehicles by developing a theoretical and empirical model. Their findings revealed that individuals' preferences are significantly shaped by the opinions and behaviours of their social groups, highlighting that consumer decisions are socially influenced rather than made in isolation. Similarly, Ozdemir et al. (2020) investigated the effects of trust and peer influence on corporate brand–consumer relationships and loyalty. Their study found that positive peer discussions and endorsements strengthen emotional trust and connection with a brand, which in turn leads to increased customer loyalty and repeat purchases, demonstrating that peer influence extends beyond initial purchase decisions to post-purchase satisfaction and attachment. Khan et al. (2016) further explored peer influence on young adults' product purchase decisions and identified that peer groups strongly affect purchasing behaviour, particularly for socially visible products. The study categorized peer influence into normative influence, where individuals conform to group expectations, and informational influence, where consumers rely on peers for product-related knowledge, both of which significantly impact purchase intentions and brand preferences. In the context of online consumer behaviour, Rahmania et al. (2023) analysed how social and peer influence affect e-commerce purchase intentions among students using structural equation modelling. Their findings indicated that both forms of influence positively shape consumer attitudes toward online platforms, with peer influence having both direct and indirect effects on purchase intention. Focusing on post-purchase experience, Narendiran and Vetrivel (2024) studied electric vehicle owners in Chennai and identified key factors influencing satisfaction, such as purchase price, charging infrastructure, maintenance costs, battery performance, and after-sales service. The study emphasized that post-purchase experience plays a crucial role in shaping overall consumer perception and behaviour, with peer discussions contributing to satisfaction and influencing future decisions. In contrast, Yegin and Ikram (2021), through an extended Theory of Planned Behavior, found that factors such as environmental concern, green trust, and perceived

behavioural control strongly influence electric vehicle purchase intentions, while peer influence has a comparatively weaker role during the purchase stage. However, the study suggests that peer influence may become more significant in the post-purchase phase by affecting satisfaction, loyalty, and word-of-mouth communication. The literature indicates that peer influence is an important determinant of consumer behaviour across different stages of the decision-making process. While substantial research has focused on pre-purchase behaviour, there is limited empirical evidence on the role of peer influence in post-purchase behaviour, particularly in the electric vehicle sector. This gap highlights the need for further research to understand how peer-group interactions influence satisfaction, loyalty, and purchase intentions, which the present study seeks to address.

Research Methodology

This study adopts a descriptive research design to systematically examine how peer groups influence the post-purchase decisions of electric vehicle users in Amravati city. The design is suitable for identifying and explaining relationships between peer influence and key behavioural outcomes such as customer satisfaction, loyalty, and purchase intentions. A structured sampling design has been implemented to ensure reliable and representative data collection. The universe and population of the study consist of electric vehicle users in Amravati, with the sampling unit including individuals aged 14 years and above. A sampling frame is prepared using lists obtained from EV sellers, and a sample size of 100 respondents is selected. The study employs a probability sampling method, specifically simple random sampling, to provide equal selection chances and minimize bias.

Data for the study is collected from both primary and secondary sources to ensure comprehensive analysis. Primary data is gathered through a structured questionnaire administered via personal interviews, incorporating socio-demographic and psychographic variables along with Likert scale measures to assess peer influence and post-purchase behaviour. Secondary data is obtained from research journals, industry reports, official publications, and relevant online sources to support the study framework. The collected data is analyzed using descriptive statistics such as percentages, averages, and frequency distribution, along with correlation analysis to examine relationships between variables. Graphical representations like charts and graphs are used for clarity. However, the study is limited by its one-year duration and its geographical focus on Amravati city, which may restrict the generalizability of the findings.

Analysis and Interpretation of Data

1. Analysis of Demographic Profile of Respondents

Table 1: Table showing of Demographic Profile wise classification of respondents

Sr. No	Category	Subgroup	Percentage (%)
1	Gender	Male	53%
		Female	47%
2	Age Group	Below 20 yrs	3%
		21 yrs – 30 yrs	70%
		31 yrs – 40 yrs	20%
		41 yrs – 50 yrs	6%
		Above 50 yrs	1%
3	Education Level	SSC	3%
		HSC	7%
		Graduation	27%
		Post Graduation	42%
		Other	21%
4	Occupation	Student	33%
		Service	10%
		Business	11%
		Self - Employed	18%
		Others	28%
5	Monthly Income	Below ₹20,000	27%
		₹20,001 - ₹40,000	40%
		₹40,001 - ₹60,000	23%
		₹60,001 - ₹80,000	8%
		Above ₹80,000	2%

Interpretation:

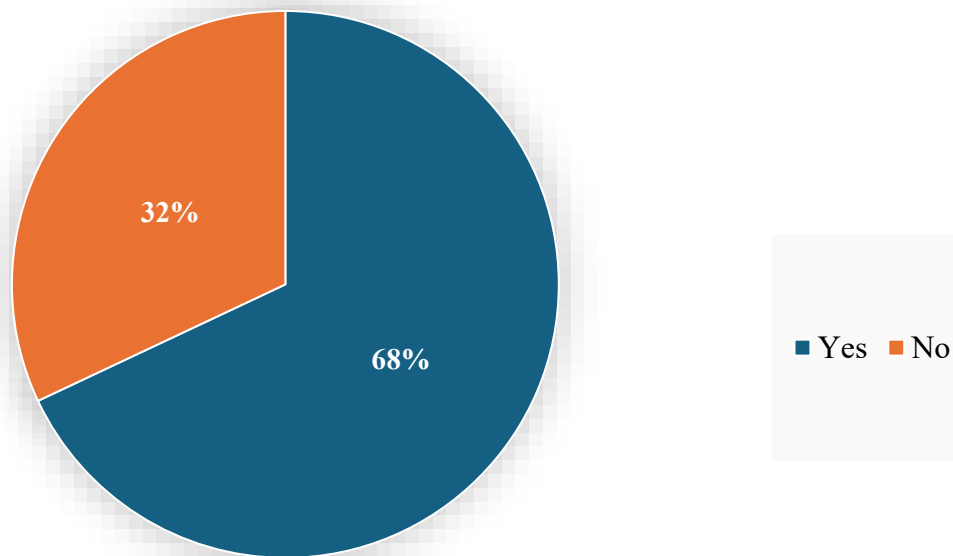
The Demographic data show a balanced gender distribution with a slight male majority (**53%**) and a strong representation of young respondents aged 21–30 years (**70%**). Most participants are well-educated, with a majority being postgraduates (**42%**) and graduates (**27%**), and are primarily students (**33%**). Additionally, a large proportion (**40%**) belongs to the middle-income group (₹20,001–₹40,000).

2. Analysis of Influence of Friends and Family on EV Purchase Decision

Table 2: Table showing of respondents about Friends or Family Members Owning an EV Before Purchase

Friends or Family Members Owning an EV Before Purchase	Number of respondents	Percentage %
Yes	68	68
No	32	32
Total	100	100

Graph No.2 Chart Shows Friends or Family Members Owning an EV Before Purchase



Interpretation:

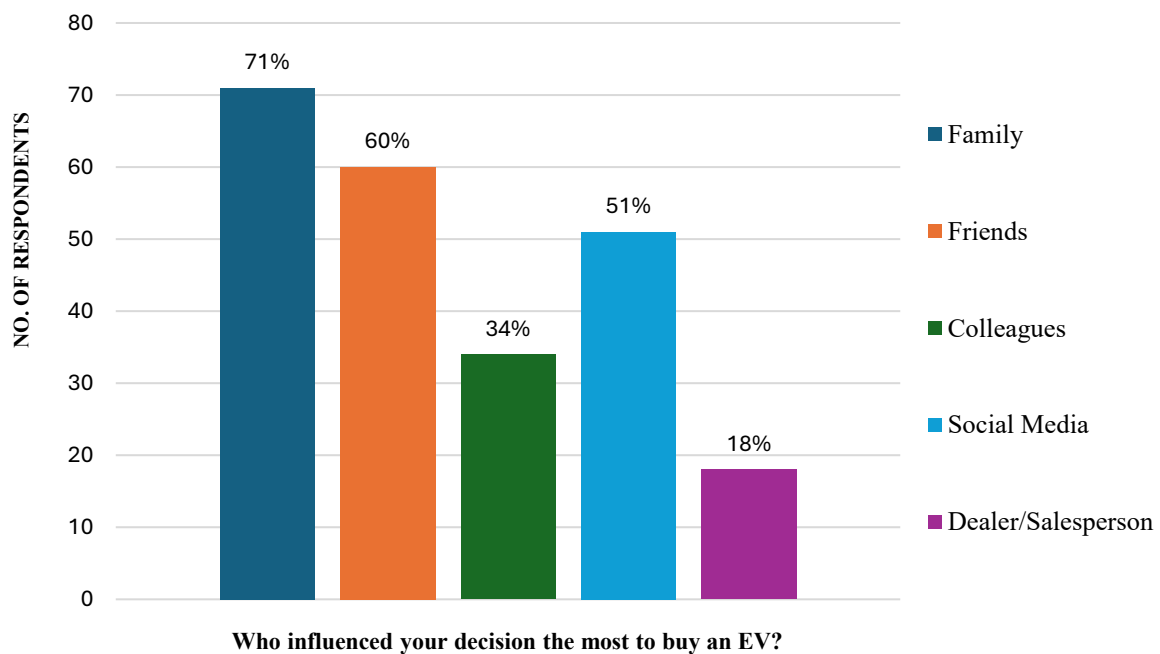
The data reveals that a majority of respondents (68%) had friends or family members who owned an electric vehicle before their purchase, indicating a strong presence of peer influence in the decision-making process. This suggests that prior exposure to EV ownership within social circles plays a significant role in building awareness, trust, and confidence among potential buyers. On the other hand, 32% of respondents did not have such exposure, reflecting a comparatively lower level of peer influence in their purchase decisions.

3: Analysis of respondents about Who influenced your decision the most to buy an EV?

Table No. 3: Respondents about Who influenced your decision the most to buy an EV

Who influenced your decision the most to buy an EV?	Number of respondents	Percentage %
Family	71	71%
Friends	60	60%
Colleagues	34	34%
Social Media	51	51%
Dealer/Salesperson	18	18%
Total	100	100%

Graph No 3: Respondents about Who influenced your decision the most to buy an EV?



Interpretation:

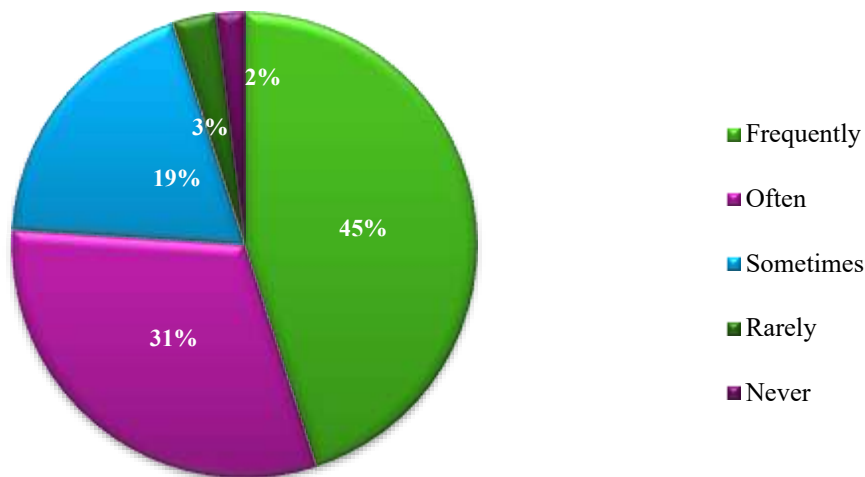
From the above data analysis, the study shows that 71% of the respondents were influenced by family, 60% by friends, 34% by colleagues, 51% by social media, and 18% by dealer or salesperson in their decision to buy an electric vehicle. This indicates that family has the highest influence on the purchase decision of EVs among the respondents.

4. Analysis of respondents about How often do you discuss your EV experience with your peers?

Table No. 4: Respondents about How often do you discuss your EV experience with your peers

How often do you discuss your EV experience with your peers?	Number of respondents	Percentage %
Frequently	45	45%
Often	31	31%
Sometimes	19	19%
Rarely	3	3%
Never	2	2%
Total	100	100%

Graph No. 4: Respondents about How often do you discuss your EV experience with your peers?



Interpretation:

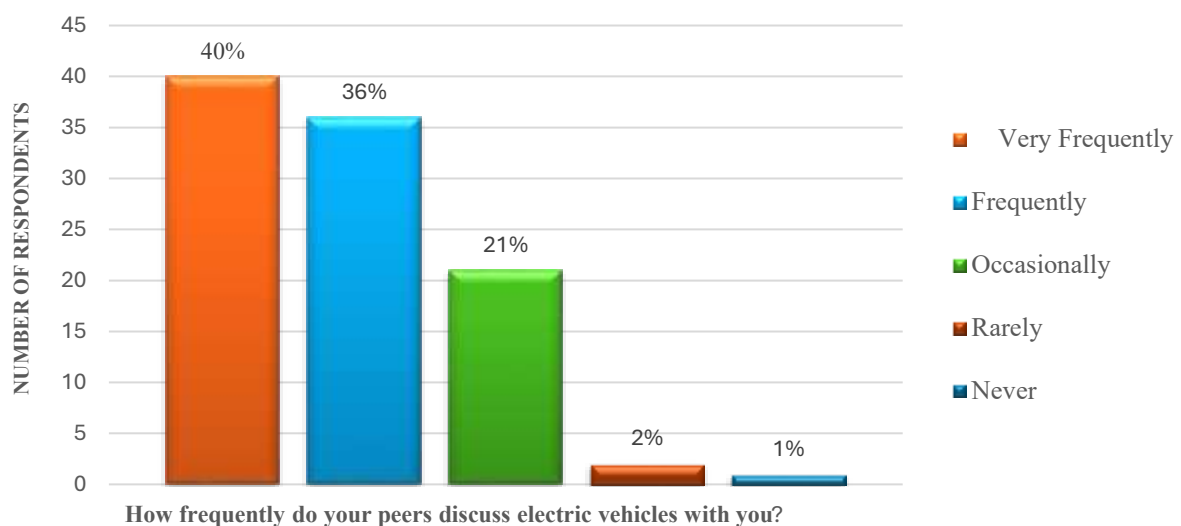
From the above data analysis, the study shows that 45% of the respondents frequently discuss their EV experience with their peers, 31% often discuss, 19% sometimes discuss, 3% rarely discuss, and 2% never discuss their EV experience. This shows that most respondents actively share their EV experiences with others.

5. Analysis of respondents about How frequently do your peers discuss electric vehicles with you?

Table No. 5: Respondents about How frequently do your peers discuss electric vehicles with you

How frequently do your peers discuss electric vehicles with you?	Number of respondents	Percentage %
Very Frequently	40	40%
Frequently	36	36%
Occasionally	21	21%
Rarely	2	2%
Never	1	1%
Total	100	100%

Graph No. 5: Respondents about How frequently do your peers discuss electric vehicles with you?



Interpretation:

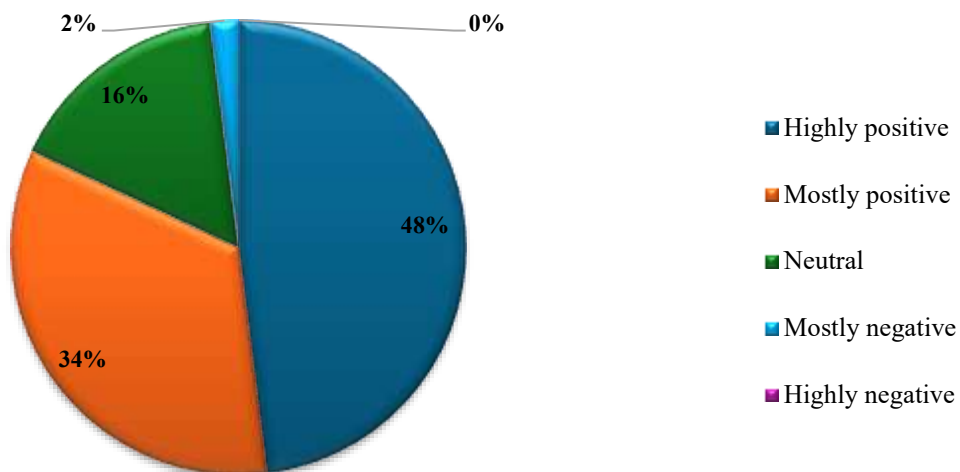
From the above data analysis, the study shows that 40% of the respondents' peers very frequently discuss electric vehicles with them, 36% frequently discuss, 21% occasionally discuss, 2% rarely discuss, and 1% never discuss electric vehicles. This shows that electric vehicles are commonly discussed among peers.

6. Analysis of respondents about What type of feedback do you mostly receive from your peers about your EV?

Table No. 6: Respondents about What type of feedback do you mostly receive from your peers about your EV

What type of feedback do you mostly receive from your peers about your EV?	Number of respondents	Percentage %
Highly positive	48	48%
Mostly positive	34	34%
Neutral	16	16%
Mostly negative	2	2%
Highly negative	00	00%
Total	100	100%

Graph No 6: Respondents about What type of feedback do you mostly receive from your peers about your EV?



Interpretation:

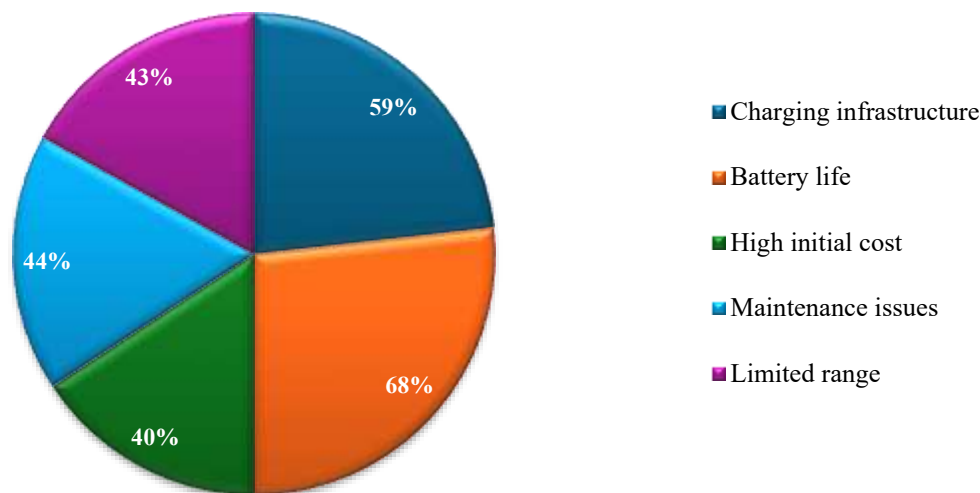
From the above data analysis, the study shows that that 48% of the respondents receive highly positive feedback from their peers about their EV, 34% receive mostly positive feedback, 16% receive neutral feedback, 2% receive mostly negative feedback, and none of the respondents receive highly negative feedback. This shows that most respondents receive positive feedback about their electric vehicles from their peers.

7. Analysis of respondents about What is the biggest problem you face after purchasing an EV?

Table No. 7: Respondents about What is the biggest problem you face after purchasing an EV

What is the biggest problem you face after purchasing an EV?	Number of respondents	Percentage %
Charging infrastructure	59	59%
Battery life	68	68%
High initial cost	40	40%
Maintenance issues	44	44%
Limited range	43	43%
Total	100	100%

Graph No 7: Analysis of respondents about What is the biggest problem you face after purchasing an EV?



Interpretation:

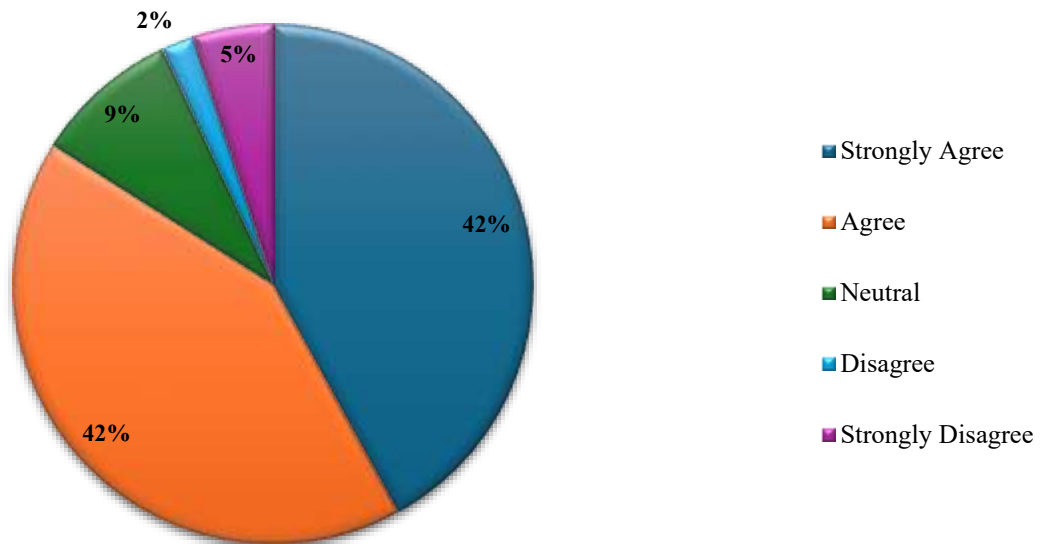
From the above data analysis, the study shows that 59% of the respondents face problems related to charging infrastructure, 68% face issues related to battery life, 40% face problems due to high initial cost, 44% face maintenance issues, and 43% face limited range problems after purchasing an EV. This shows that battery life is the biggest problem faced by the respondents after purchasing an electric vehicle.

8: Analysis of respondents about Discussions with friends in fluence my future purchase intentions.

Table No. 8: Respondents about Discussions with friends in fluence my future purchase intentions.

Level of Agreement	Number of respondents	Percentage %
Strongly Agree	42	42%
Agree	42	42%
Neutral	9	9%
Disagree	2	2%
Strongly Disagree	5	5%
Total	100	100%

Graph No. 8: Respondents about Discussions with friends in fluence my future purchase intentions.



Interpretation:

From the above data analysis, the study shows that out of 100 respondents, 42% strongly agree, 42% agree, 9% are neutral, 2% disagree, and 5% strongly disagree. This shows that the majority of respondents agree or strongly agree with the given statement.

Conclusions, & Suggestions:

After conducting the research data analysis, the following conclusions, suggestions and recommendations were drawn by the researchers:

The study reveals that electric vehicle consumers in Amravati city are significantly influenced by peer groups in their post-purchase behaviour. The majority of respondents reported that interactions with family, friends, and social networks play an important role in shaping their satisfaction, confidence, and future purchase intentions. Positive peer feedback emerges as a key factor reinforcing customer satisfaction and loyalty, while negative discussions contribute to dissatisfaction and hesitation regarding repeat purchases. Family members are identified as the most influential group, followed by friends and social media, indicating that interpersonal relationships have a stronger impact than formal marketing channels. Additionally, most consumers actively engage in discussions about their EV experiences, suggesting a high level of social interaction and information sharing among users.

The findings further indicate that while consumers generally have a positive outlook toward electric vehicles, there are certain challenges that affect post-purchase satisfaction. Issues such as battery life, charging infrastructure, maintenance concerns, and limited driving range are identified as major problems faced by users. Despite these challenges, a large proportion of respondents receive positive feedback from peers, which helps in maintaining a favourable perception of EVs. Moreover, discussions with peers significantly influence future purchase intentions, highlighting the importance of word-of-mouth communication in sustaining EV adoption. Overall, the results suggest that peer influence, combined with product-related factors, plays a crucial role in shaping post-purchase behaviour of EV consumers.

Based on the findings, it is recommended that electric vehicle manufacturers and marketers focus on leveraging peer-group influence as a strategic tool for enhancing customer satisfaction and promoting repeat purchases. Companies should encourage positive word-of-mouth by creating customer engagement programs, referral schemes, and community platforms where users can share their experiences. Since family influence is particularly strong, marketing strategies should be designed to target family decision-making units. Additionally, improving product performance, especially in terms of battery life and charging infrastructure, is essential to reduce negative feedback and enhance customer satisfaction. Policymakers should also invest in expanding charging facilities and promoting awareness campaigns to

address consumer concerns and support EV adoption. Finally, maintaining transparency, providing reliable after-sales service, and facilitating easy access to information can help build trust and strengthen long-term customer relationships in the electric vehicle market.

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