

A Study of Consumer Perception And Purchase Intention of Electric Vehicles

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Abstract- *It exhibits an investigation on purchaser chance towards their buy choice to purchase electronic vehicles in India. Knowing about different parts of shopper purchasing procedure can encourage organizations fundamentally when creating systems to build their piece of the overall industry. Depending on two system: upgrading the consumer loyalty and furthermore this paper expects to build up the exactly test a calculated model of buyer chance to buy vehicle. It specifies results from decline examination, which uncovered positive connection between the said variables with buy choice. This availability of multiple brands and many models increases the choice available to the consumer but also makes the decision process more complex and adds up to the perceived risk in the buying process of the car. Perceived risk represents consumer uncertainty about loss or gain in a particular transaction. The conclusion is that the preference towards the car with the respondents was with driving comfort with the electronic vehicles and the Tata customers disagree a lot towards staff adequately trained in SCM practices with the dealer, Ford customers disagree a lot towards adequate product flow facility structure, Renault customers disagree a lot towards satisfaction with power and leadership structure, Maruthi customers disagree a lot towards satisfaction with risk and reward structure and Mahindra customers disagree a lot towards satisfaction with management methods.*

Keywords- Multiple brands, Perceived risk and Satisfaction

I. INTRODUCTION

Buyers often have a range of error about the product they want to buy. This error is because of the perceived risk that felt by the customer in the evaluation, acquisition, usage and disposal of the product they intend to buy. Customer conduct is the exercises individuals embrace when getting, expending and discarding items and administrations. The significance of understanding buyer purchasing conduct also, the ways that the how the client decision their items and administrations can be critical for fabricates and specialist organizations as this furnishes them with aggressive advantage over its rival in a few angles. The idea of "purchasing conduct" is of prime significance in advertising and has developed throughout the years. It is imperative to

comprehend buyer-purchasing conduct as it assumes a fundamental job in creating an effect on buy of items. The human needs are boundless and dependably anticipate to an ever-increasing extent. Vehicle Models are no special case to this conduct. This lead to consistent adjustments of Car Models and its highlights and today we see another model coming into the market essentially each quarter. The market is a critical spot to think about the conduct of customers and furthermore give valuable bits of knowledge what a shopper requires in an item. It is just through research that an organization will most likely examination the purchasing conduct of buyers. "As one of the estimations of the execution of the quality administration framework, the associations will screen data identifying with client discernment about whether the association has met client prerequisites. For instance, they may utilize the learning got through concentrate the customer purchasing conduct to set their procedures towards advertising the correct items and administration to the correct group of onlookers of reflecting their requirements and needs.

STATEMENT OF PROBLEM

Consumers are considered to be the king for every companies and the problem is to know about the buying decision process based on supply chain management to know the perception of consumers towards various brands.

OBJECTIVES OF THE STUDY

- To study about the demographic profile of the respondents
- To study about the buying decision process of customers towards purchasing electronic vehicles.
- To study about the problems of the supply chain management of Automobile companies towards supplying the electronic vehicles.
- To provide outcomes which are helpful for the performance of the supply chain management for automobile companies.

SCOPE OF THE STUDY

Consumer behaviour is the study of individuals, groups, or organizations and all the activities associated with the purchase, use and disposal of goods and services, including the consumer's emotional, mental and behavioural responses that precede or follow these activities. Consumer behaviour emerged in the 1940s and 50s as a distinct sub-discipline in the marketing area. In order to succeed in today's dynamic and rapidly evolving marketplace, marketers need to know everything about consumers - what they need, what they think, how they work, how they spend their money and time. They need to identify the influencing forces that affect consumer decisions. The study will help the company to know about the perception of customers about the brand and the importance to be given in area to develop in future period of time to sell their electronic vehicles.

HYPOTHESIS USED FOR THE STUDY

H0₁: There is no relationship between age and importance towards price of the car

H0₂: There is a significant difference between brand willing to purchase and acceptance towards practices and process of supply chain management system with auto mobile companies

II. RESEARCH METHODOLOGY

Type of research: It is descriptive type of research.

Sampling technique:

Convenient sampling: This type of sampling is used when sampling of the population becomes hard

Sample Size: 300 Respondents and the respondents are those who are customers for Automobile companies.

Data Collection Method:

There are two types of data collection methods available:-

- 1) Primary Data Collection Method.
- 2) Secondary Data Collection Method.

Primary Data Collection Method.

Primary data are those that are obtain by the user for fulfilment their purpose. I have taken Primary Data through e-mail triggering to the Automobile companies in Coimbatore region at all levels to get more reliable information. I also collected primary data by filled questionnaire by the employee

of company this data helped me to justify the statements that have made in this project.

Secondary Data Collection Method.

The Secondary Data is that which is already collected and stored or we can say already saved or ready data by others. I got secondary data from the journals, records, newspapers, magazines, articles, internet etc. I collect secondary data by referring some specimen of company and by referring some books and web sites of company from internet.

Weighted Average Method

To estimate and compare the mean values using rating score, for this purpose the qualitative data is converted into quantitative one using 3 point, 4 point and 5 point scaling technique. Here 5 point rating scale is used by assigning:

5. For Strongly Agree 4. For Agree 3. For neither agree nor disagree 2. For Disagree 1. For Strongly Disagree

Statistical Tools Used: Simple percentage analysis, Chi-square analysis, One way-Anova, Rank correlation and Factor analysis

LIMITATIONS OF THE STUDY

- The sample size is limited to 300 as the respondents are customers.
- There may be a bias in the primary data collected from the respondents.
- Some respondents hesitated to answer to the survey questionnaire.

III. ANALYSIS AND INTERPRETATION

Demographic Variable	Particulars	Frequency	Percent
Age	Below 25	80	26.7
	26-35	184	61.3
	Above 35	36	12
	Total	300	100
Gender	Male	252	84
	Female	48	16
	Total	300	100
Educational qualification	Schoolings	82	27.3
	Under graduate	34	11.3
	Post graduate	32	10.7
	Others	152	50.7
	Total	300	100

Interpretation

The above table shows about the age of the respondents were out of 300 respondents 26.7% are below the age group of 25, 61.3% are between 26-35 years of age and 12% are above 35 years of age. 84% are male and 16% are female. 27.3% are from schoolings, 11.3% are under graduates, 10.7% are post graduates and 50.7% have completed other degrees. 25.3% are knowing about electronic vehicles through their friends, 16.7% are knowing about electronic vehicles through car magazines, 20% are knowing through dealers, 15.3% are knowing through car shows and 22.7% are knowing through TV advertising.

Perception Towards Purchasing a Car

Demographic Variable	Particulars	Frequency	Percent
Source of Information while purchasing the car	Friends & Colleagues	76	25.3
	Car magazines	50	16.7
	Dealers	60	20
	Car shows	46	15.3
	TV advertising	68	22.7
	Total	300	100
Brand willing to purchase by the respondents	Ford	70	23.3
	Tata	22	7.3
	Maruti	28	9.3
	Nissan	56	18.7
	Renault	94	31.3
	Mahindra	20	6.7
	Others	10	3.3
	Total	300	100
Color preferred while purchasing the car	Black	82	27.3
	White	106	35.3
	grey	58	19.3
	Others	54	18
	Total	300	100

Interpretation

The above table shows about the source of information for buying your car were out of 300 respondents 25.3% are knowing about electronic vehicles through their friends, 16.7% are knowing about electronic vehicles through car magazines, 20% are knowing through dealers, 15.3% are knowing through car shows and 22.7% are knowing through TV advertising. 23.3% are willing to purchase Ford, 7.3% are willing to purchase Tata, 9.3% are willing to purchase Maruti, 18.7% are willing to purchase Nissan, 31.3% are willing to purchase Renault, 6.7% are willing to purchase Mahindra and 3.3% are willing to purchase other brands. 27.3% are preferring black, 35.3% prefer white, 19.3% are preferring grey and 18% prefer other colors. It shows that most of the respondents are preferring white.

Importance Towards Price of the Car

	Frequency	Percent
Very important	74	24.7
Important	46	15.3
Neutral	44	14.7
Not important	46	15.3
Very unimportant	90	30.0
Total	300	100.0

Interpretation

The above table shows about importance towards price of the car were out of 300 respondents 24.7% said as very important, 15.3% said as important, 14.7% said as neutral, 15.3% said as not important and 30% said as very unimportant. It shows that most of the respondents said that its very important to look at price of the car.

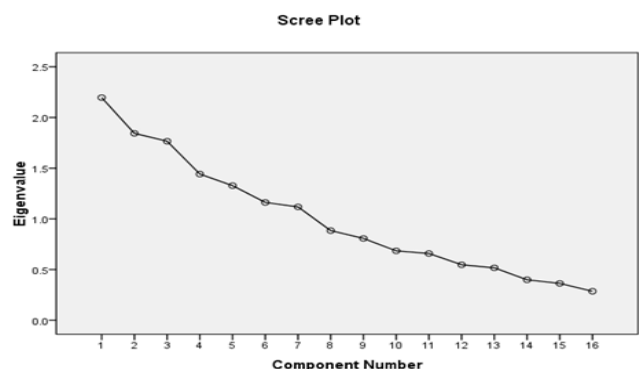
IV. FACTOR ANALYSIS

LEVEL OF IMPORTANCE TOWARDS CHOOSING THE electronic vehicles BY CUSTOMERS

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.878
Bartlett's Test of Sphericity	Approx. Chi-Square	305.144
	df	120
	Sig.	.000

The KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) value is at 0.878 which is greater than 0.5.

Screen plot for level of importance towards choosing the electronic vehicles by customers



Rotated Component Matrix for level of importance towards choosing the electronic vehicles by customers

	Component						
	1	2	3	4	5	6	7
Importance towards price of the car	-.095	.715	.366	-.046	.169	-.092	.118
Importance towards fuel consumption of the car	.723	-.180	.004	.105	.253	.025	.102
Importance towards driving comfort of the car	.172	.085	.229	.743	-.012	.239	-.246
Importance towards exterior design	.700	.061	.091	-.165	.167	.105	-.178
Extraction Method: Principal Component Analysis.							
Rotation Method: Varimax with Kaiser Normalization.							
a. Rotation converged in 12 iterations.							

Based on the components rotated the common factors above 0.5 are taken for decision making process. The factors are price of the car, fuel consumption of the car, driving comfort of the car and exterior design of the car.

REGRESSION

Comparison Between Age and Acceptance Towards Various Factors Related to Public Purchase Decision in Automobile

Model		Coefficients				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.903	.391		4.872	.000
	Acceptance towards procurement of car from dealers on schedule	.001	.036	.003	.029	.977
	Acceptance towards supply of finished product to customer on time	.029	.037	.076	.795	.429
	Acceptance towards staff adequately trained in SCM practices with the dealer	-.090	.037	-.237	-2.408	.018
	Acceptance towards adequate product flow facility structure	-.008	.036	-.021	-.225	.822
	Acceptance towards effectiveness of ERP integration with the dealer	.074	.037	.193	2.021	.046
	Acceptance towards satisfaction with power and leadership structure	.016	.036	.042	.436	.664
	Acceptance towards satisfaction with risk and reward structure	.016	.040	.041	.397	.693
	Acceptance towards appropriate Culture and attitude towards SCM	-.016	.039	-.042	-.410	.682
	Acceptance towards satisfaction with management methods	-.033	.039	-.084	-.845	.400
a. Dependent Variable: Age						
	R	0.798				
	R square change	0.693				

Interpretation

The above table shows about the relationship between age and acceptance towards various factors related to public purchase decision in automobile. The R square change shows that the factors age and factors related to public purchase decision in automobile are having a correlation of

69.3% which shows that the factors compared are moderately correlated. It depicts that the factors there is a relationship between age and acceptance towards procurement of car from dealers on schedule (0.001), supply of finished product to customer on time (0.029), effectiveness of ERP integration with the dealer (0.074), satisfaction with power and leadership structure (0.016), and satisfaction with risk and reward structure (0.016) are directly proportional towards age of the respondents.

V. FINDINGS

- Maximum of the respondents are from the age group between 26-35.
- Most of the respondents are male in our survey.
- Maximum of the respondents are have completed other degrees.
- Most of the respondents know about car through friends and colleagues.
- Maximum of the respondents are willing to purchase Renault.
- Most of the respondents are preferring white.
- Maximum of the respondents are earning between 8 lakhs to 10 lakhs.

VI. SUGGESTIONS

- It has been discovered that informal exchange diminishes the social and time chance. Positive verbal exchange happens just when present clients are very happy with their vehicles.
- The purpose of contact for forthcoming purchasers is the merchants. It is discovered that business official have an enormous job to decrease physical hazard, practical hazard, money related chance and mental hazard. Consequently, deals and promoting administrators at the merchant end ought to be very much prepared to answer all questions of clients.
- Manufacturers should make accessible offices like ABS (Assisted slowing mechanism), safety belts for back seats, kid lock, invert sensor even in low end vehicles as respondents who lean toward vehicle for family utilization have a higher seen dread for components of utilitarian hazard
- They distinguished there are a few kinds of dangers that can depress shoppers from making a decision or postponing the buy choice. By appropriate utilization of hazard, decrease factors, the apparent hazard can be diminished.
- Thus makers ought to give satisfactory significance to components of saw chance and in every one of their

action should attempt to have steps that decreases the apparent hazard

VII. CONCLUSION

This examination has found out the specific hazard that is powerful for a specific component of perceived risk. This should help the makes to reduce the hazard to diminish the apparent danger of the client. The edge level and increment the opportunities to buy of more vehicles, the legislature on its part ought to enhance framework. Which will additionally enhance or expand the market, the organizations ought to create advertising correspondence all through nation that depict the contributions as significant to buyer required esteem and objectives.

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