



## CONSUMER BEHAVIOUR ON PASSENGER CAR PURCHASES DECISION:AN EMPIRICAL STUDY

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### Abstract

In recent days Modern Andhra Pradesh and CRDA (Capital Region Development Authority) region is witnessing a change in consumerism. The market is now predominantly consumer driven. The focus is shifting for product based marketing to need based marketing. Consumer is given many options to decide. Passenger car segment is no exception to this general trend. An effective market communication is imperative for reaching the target audience. So it is important that we study the consumer perceptions and behaviour of the car owners which will give us feedback on how marketing strategies can be worked. CRDA, is located in the central part of Andhra Pradesh, has a progressive and growing market for cars. This area was selected for this study. Pre-testing was done by an interview schedule which was developed and administered to a convenient sample of twenty five car owners. A simple random sampling technique was adopted in the study to select the sample respondents. As the size of the universe is restricted, the study has been conducted on the respondents who are the owners of all the segments of passenger cars. Factor analysis is employed to identify the key factors responsible for the consumers' purchase of cars and level of satisfaction after purchase. Cluster analysis has been used to identify the consumers with similar tastes and preferences with respect to purchase of car. The study throws light on various features that the manufacturers should concentrate on to attract the prospective buyers. This study concludes that consumer behaviour plays a vital role in marketing cars and there is more scope for extensive research in this area.

**Keywords:** Behaviour, Consumerism, Consumer Driven, Marketing Communication, Target Audience, Consumer Perception.

### INTRODUCTION

Human beings in general, are complex creatures who often do not seem even to know their own minds. It is seldom easy, and sometimes impossible, to generalize about human behaviour. Each individual is a unique product of heredity, environment and experience. Predicting such a strange behaviour of people is a difficult and complicated task, filled with uncertainties, risks, and surprises. Accurate predictions can yield vast fortunes and inaccurate predictions can result in the loss of millions of naira. Today, business around the world recognizes that "the consumer is the king". Knowing why and how people consume products helps marketers to understand how to improve existing products, what types of products are needed in the market place, or how to attract consumers to buy their products. The era of liberalization, privatization and globalization has brought changes in society and life style of people.

Marketers can justify their existence only when they are able to understand consumers' wants and satisfy them. The modern marketing concept for successful management of a firm requires marketers to consider the consumer as the focal point of their business activity. Although it is important for the firm to understand the buyer and accordingly evolve its marketing strategy, the buyer or consumer continues to be an enigma- sometimes responding the way the marketer wants and on other occasions just refusing to buy the product from the same marketer. For this reason, the buyer's mind has been termed as a black box, which should be opened by the seller to be a successful marketer. The study of consumer behaviour also includes an analysis of factors that influence purchase decisions and product use. Understanding how consumers make purchase decisions can help marketing managers in several ways. For example, if a manager knows through research that fuel mileage is the most important attribute for a certain target market, the manufacturer can design the product to meet that criterion. If the firm cannot change the designing the short run, it can use promotion in an effort to change consumer's decision making criteria. For example, an automobile manufacturer can advertise a car's maintenance- free features while downplaying fuel mileage.

### LITERATURE REVIEW

Mandeep Kaur and Sadhu (2006) attempted to find out the important features which a customer considers while going for the purchase of a new car. The study covers the owners of passenger cars living in the major cities of Lagos. The respondents perceive that safety and comfort are the most important features of the passenger car followed by luxuriousness. So the manufacturers must design the product giving maximum weightage to these factors. Chidambaram and Alfred (2007) postulates that there are certain factors which influence the brand preferences of the customers. Within this framework, the study reveals that customers give more importance to fuel efficiency than other factors. They believe that the brand name tells them something about product quality, utility, technology and they prefer to purchase the passenger cars which offer



high fuel efficiency, good quality, technology, durability and reasonable price. Satya Sundaram (2009) analyzed how the competition makes the automobile manufacturer to launch at least one new model or variant of the model every year. This survey also pointed out that diesel cars are becoming popular in India and the announcement of reductions in excise duties by the government has helped to some extent to boost the demand. Clement Sudahakar and Venkatapathy (2014) studied the influence of peer group in the purchase of car with reference to Coimbatore district. It was also found that the influence of friends is higher for the purchase of small sized and mid sized cars. Brown et al (2007) analyzed the consumers' attitude towards European, Japanese and the US cars. The country of origin plays a significant role in the consumers' behaviour. The brand name, lower price and distributor's reputation completely have a significant impact on the sales of passenger's car. However, the present study differs from the above, in that, the buyer behaviour in CRDA Region in Andhra Pradesh is sought to be analyzed here. The scope and the area of the study are unique in nature.

### **STATEMENT OF PROBLEM**

Due to emergence of globalization and liberalization there is a stiff competition among the variety of car industries which are focusing attention in capturing the CRDA Region in Andhra Pradesh markets. Cars though considered as luxury once, now occupies a part of day- to day life and has become a necessity. Andhra Pradesh and CRDA region which is selected for the study is one of the main growing markets for car manufacturers. People who were not ready to spend their money on luxuries have now changed their attitude that "Yesterday's luxuries are today's necessities". To be a successful marketer it is absolutely essential to read the minds and perceptions of the prospective buyers of cars. In addition to the above, the due weightage which is given by the government for the growth of passenger car industry and the involvement of the consumers in the selection of a particular brand of car have also made the researchers to undertake a study on the passenger car industry with special reference to the perceptions, behaviour and satisfaction of owners of cars.

### **OBJECTIVES OF THE STUDY**

The purpose of this research is to study the behaviour of consumers, their importance in the aspects of lifestyle, perception of product attributes and level of satisfaction. Hence, the study is aimed at the following objectives.

1. To evaluate car owners' perception and behaviour pertaining to the purchase and use of cars.
2. To identify and analyze the factors influencing the purchase of cars.
3. To analyze the level of satisfaction among the respondents and to identify the switch over brand option, if any and
4. To make suggestions in the light of the findings of the study.

### **METHODOLOGY**

Before beginning to carry out the present study, the researchers initially conducted a pilot study in order to find out the feasibility and the relevance of the study. The present study is based on the perceptions, behaviour and satisfaction of the consumers for passenger cars. Sources of the primary and secondary data are discussed. The researchers has used interview schedule for the purpose of collecting primary data. It took four months for the researchers to complete the process of collection in person. As the universe of the study is large, the researchers have decided to select sample respondents by adopting the simple random sampling technique. The secondary data have been collected from the companies' bulletins, annual reports and websites. Further, the researchers has used national and international journals in the field of management, as well as marketing, business magazines, business dailies, referred textbooks in marketing management as well as consumer behaviour and academic studies conducted in the related areas for the purpose of building a strong conceptual background including the review of literature for the study.

### **SAMPLING DESIGN**

This study was conducted among the car owners residing at Andhra Pradesh and CRDA region. A simple random sampling technique was adopted in the study to select the sample respondents. As the size of the universe is restricted, the study has been conducted on the respondents who are the owners of all the segments of passenger cars. A total of 350 interview schedules were prepared and out of this, only 327 interview schedules were filled up and collected. A scrutiny of these schedules led to the rejection of 27 interview schedules on account of incomplete responses. Thus 300 completed interview schedules were used for the present study. Data were collected through an interview schedule regarding perception of the respondents on usage of cars. The collected data are analyzed through descriptive statistic tools such as percentage, mean, median and standard deviation have been used to describe the profiles of consumers, preferred product attributes and level of satisfaction. The ANOVA, t-Test and F- test have been used to test the significant differences between the groups of respondents in their perception and satisfaction for selected independent variables. Correlation analysis has been used to establish the relationship between the factors which influenced the purchase and the factors which favoured the level of satisfaction.

Factor analysis is employed to identify the key factors responsible for the consumers' purchase of cars and level of satisfaction after purchase. Cluster analysis has been used to identify the consumers with similar tastes and preferences with respect to purchase of car.

### DATA ANALYSIS AND INTERPRETATIONS

Nowadays, car has become a necessity and forms a part of life. Therefore, there is a significant scope to examine the perception and purchase behaviour of the consumers of cars. The study is restricted. Andhra Pradesh and CRDA region. Which is economically the richest area. Due to their increasing purchasing power, the people of this area have started to buy cars for business or personal use or the prestige and maintenance of social status. Knowledge of the buying behaviour of the different market segments helps a seller to select their target segment and evolve marketing strategies to increase the sales. Advertisers and marketers have been trying to discover why consumers buy and what they buy. This study tries to analyze the influence of perception in the consumers' mind and how this information can be used successfully by marketers to gain entry into the minds of the consumers. The scope of this research has a very good future.

The results of the analysis of the collected data are presented below:

**Table 1: Average ratings for the influencing factors**

S/no	Factors	Mean	Standard deviation	Median	Rank
1.	Driving comfort	3.5500	1.1247	4.0000	1
2.	Fuel economy	3.3667	1.0275	3.0000	2
3.	Availability of spare parts	3.3167	1.1078	3.0000	3
4.	Price	3.3067	1.0816	3.0000	4
5.	Pick up	3.3033	0.9562	3.0000	5
6.	Attractive model	3.2867	1.2767	3.0000	6
7.	Road grip	3.2733	1.0076	3.0000	7
8.	Brand image	3.1733	1.2227	3.0000	8
9.	Internal space	3.1033	1.1476	3.0000	9
10.	After sales service	3.0533	1.0492	3.0000	10
11.	Maintenance cost	3.0333	1.0144	3.0000	11
12.	Status symbol	2.9933	1.3111	3.0000	12
13.	Latest technology	2.9100	1.2572	3.0000	13
14.	Resale value	2.4100	1.0920	2.0000	14

Source: Field survey, 2015.

"Driving comfort" indicates that most of the respondents have given their responses in the category of "moderate influence" and "more influence". The factors of fuel economy, availability of spare parts, price, pick up, attractive model, road grip, brand image, internal space, after sales service and maintenance cost with their obtained mean values indicate the most of them have favoured for "moderate influence". The obtained mean values 2.9933, 2.9100 and 2.4100 for the factors status symbol, latest technology and resale value, which are close to the scale value of "moderate influence" indicating that these factors moderately influenced the respondents in their purchase decision.

### FACTOR ANALYSIS- FACTOR INFLUENCING PURCHASE

The general purpose of factor analysis is to find a method of summarizing the information contained in a number of original variables into a smaller set of new composite dimensions (factors) with minimum loss of information. It usually proceeds from the correlations matrix formed out of the selected variables included in the study. The appropriateness of the factor model can be calculated from this. Next, factor extraction, the number of factors necessary to represent the data and the method of calculating them must be determined. At this step, how well the chosen models fits the data is also ascertained. Rotation focuses on transferring the factors to make more interpretable and following this, scores for each factor can be computed for each case. These scores are then used for further analysis. For our study, it is interesting to study the factors which can be derived out of several variables which contribute in influencing the purchase of a car. There are 14 variables under the heading "factors influencing purchase". These variables were subject to correlation analysis first.

**Table 2: Correlation Matrix**

variables	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14
Price	-	.458	.260	.134	.021	-.116	.040	-.085	.048	.136	.190	-.168	.212	.097
Fuel economy	-	-	.273	.248	.136	.076	.199	.119	.247	.220	.258	-.015	.118	.127
Driving comfort			-	.239	.433	.261	.077	.283	.249	.361	.348	.238	.275	.080
Maintenance cost				-	.222	.081	.167	.165	.184	.265	.250	.040	.196	.116
Attractive model					-	.565	.182	.575	.424	.213	.217	.197	.166	.044
Status symbol						-	.313	.407	.257	.140	.098	.245	.051	-.100
Resale value							-	.310	.285	.159	.111	.092	.095	.003
Latest technology								-	.524	.215	.199	.204	.092	.011
Brand image									-	.381	.347	.223	.130	.137
Pick up										-	.674	.313	.287	.228
Road grip											-	.297	.321	.255
Internal space												-	.304	.193
After sales service													-	.587
Availability of spare parts														-

Source: Field survey, 2015

Correlation matrix for the variables from “price” to “availability of spare parts” (totally 14 items) was analyzed initially for positive inclusion in factor analysis.

**Table 3: KMO and Bartlett’s Test**

Kaiser- Meyer- Olkin measure of sampling Adequacy		.747
	Approx. Chi-Square	1211.497
Bartlett’s Test of Sphericity	Degrees of freedom	91
	Sig.	xx

Bartlett’s test of sphericity is used to test whether the correlation matrix is an identity matrix. The test value (1211.497) and the significance level (p.01) which are given above indicate that the correlation matrix is not an identity matrix, i.e, there exists correlations between the variables. Kaiser-Meyer- Olkin (KMO) measure of sampling adequacy or KMO measure is closer to 1, and then it is good to use factor analysis. If the KMO is closer to 0, then the factor analysis is not a good idea for the variables and the data. The value of test statistic is given above as 0.747, which means the factor analysis for the selected variables is found to be appropriate to the data. The Principal Component Analysis (PCA) is used to extract factors. The PCA is a method used to transform a set of correlated variables into a set of uncorrelated variables (here factors) so that the factors are unrelated and the variables selected for each factor are related.

**Table 4: Component Matrix**

Variables	Component Matrix			
	1	2	3	4
Pick up	.670	.255	-.133	-.481
Road grip	.659	.327	-.113	-.451
Brand image	.656	-.207	.043	-.067
Attractive model	.653	-.444	.059	.161
Driving comfort	.626	.057	.145	-.110
Latest technology	.605	-.506	.022	.105
After sale service	.492	.472	-.359	.451
Maintenance cost	.437	.149	.233	.030
Resale value	.394	-.259	.203	.278
Status symbol	.479	-.590	-.007	.145
Availability of spare parts	.332	.534	-.412	.458
Price	.227	.522	.594	.108
Fuel economy	.430	.294	.588	.070
Internal space	.451	-.056	-.582	-.127

Source: Field survey, 2015

These are all coefficients used to express a standardized variable in terms of the factors. These coefficients are called factor loadings, since they indicate how much weight is assigned to each factor. Factors with large coefficients ( in absolute value) for a variable are closely related to that variable. These are all the correlations between the factors and the variables, since all the factors are uncorrelated with each other. Hence the correlation between variable” pick up” and factor 1 is 0.670. Thus the factor matrix is obtained and presented in the above table. Most factors are correlated with many variables. Since the idea of factor analysis is to identify the factors that meaningfully summarize the sets of closely related variables, the rotation phase of the factor analysis attempts to transfer initial matrix into one that is easier to interpret. It is called the rotation of the factor matrix.

### BRAND OF CAR AND INFLUENCING FACTORS

Tables five and six bring out the ANOVA results for significant difference between the various brands of cars possessed by the respondents and the factors which influenced the purchase of those brands among the respondents.

**Null Hypothesis:** There is no significant difference between the difference brands of cars owned by the respondents and the factors which influenced the purchase of that specific brand of car.

**Table 5: Average scores of the influencing factors for different brand of car**

Brand of car	N	Influencing factor							
		External	SD	Technical	SD	Cost	SD	Service	SD
Hyundai	42	16.02	4.21	13.50	3.12	9.71	1.95	6.48	1.94
Maruthi	108	13.11	3.96	12.71	2.98	10.42	2.53	6.71	2.26
Fiat	22	14.36	4.62	12.36	2.92	9.86	2.27	5.82	1.47
Nissan	49	16.31	3.90	13.78	2.84	9.08	2.02	6.35	1.68
Ford	44	15.30	4.58	13.18	3.13	9.18	1.83	5.93	1.59
Toyota	35	15.86	4.84	14.34	3.24	8.94	1.92	6.11	1.57

Source: Field survey, 2015

**Table 6: ANOVA on the influencing factors for different brand of car**

Satisfaction factors	Sources of variation	Sum of squares	Degree of freedom	Mean square	f-value	Table value	Sig.
External	Between groups	536.000	5				
	Within groups	5284.587	294	107.200	5.964	3.080	××
	Total	5820.587	299	17.975			
Technical	Between groups	106.475	5				
	Within groups	2692.655	294	21.295	2.325	2.245	×
	Total	2799.130	299	9.159			
Cost	Between groups	106.670	5				
	Within groups	1413.517	294	21.334	4.437	3.080	××
	Total	1520.187	299	4.808			
Service	Between groups	30.639	5	3.596			
	Within groups	1073.291	294	6.128	1.679	2.245	NS
	Total	1103.930	299	3.651			

Source: Field survey, 2015; NS -Not Significant; (× Denotes 5% level of significance), (×× Denotes 1% level of significance)

The above table outlines the brand of car possessed by the respondents namely Hyundai, Maruthi Fiat, Nissan, Ford and Toyota including brands of General motors, Skoda, Ford, Honda motors. From the above table, it is clearly known that the calculated value of the influencing factor “service” of 1.679 is less than the table value of 2.245 at 5% level of significance. Therefore, the above formulated null hypothesis is accepted with respect to service only. It is inferred that there is no significant difference between the brand of car and the influencing factors with respect to service. It is seen that the “f” values of 5.964 and 4.437 for the influencing factors external and cost are much higher than the table values. Therefore, the proposed null hypothesis is rejected at 1% level of significance and it is concluded that there is a highly significant difference between brand of cars with respect to external features of the car and the cost of car among the respondents.



It is also observed that the “f” value of 2.325 for the influencing factor “technical” is higher than the table value of 2.245. Hence the above stated null hypothesis is rejected at 5% level of significance and it is concluded that there is significant difference between the brand of car and the influence of technical features of car on the purchase of a particular brand.

The analysis of influencing factor “external” highlights the respondent of Nissan brand with the highest mean value of 16.31. They think that Nissan brand is a successful one in effectively influencing the respondents on the purchase with respect to external features of car. The car owners of Toyota with less mean value of 13.11 feel that external features is less successful than the other brands in increasing interest in purchasing Toyota brand.

The analysis of influencing factor “technical” indicates the respondents of various brands of General motors, Skoda, Honda with the highest mean value of 14.34. They feel that the above brands are successful in influencing the respondents on their purchase with respect to the technical features of car. The Fiat car owners with the least mean value of 12.36 perceive that the technical features are not successful in creating interest in the purchase with respect to Fiat owners.

The analysis of influencing factor “cost” represents the respondents of Maruthi brand with the highest mean value of 10.42. They judge that Maruthi brand is much successful in effectively influencing the respondents on the purchase of car based on cost. It is also highlighted that the owners of other brands like General motors, Skoda, Honda with least mean value of 8.94 think that “cost” is not successful in creating interest in the purchase of these brands.

The analysis of influencing factor “service” discloses the respondents of Toyota brands with the highest mean value of 6.71. They perceive that Toyota brand is very much successful in effectively influencing the respondents on purchase with respect to the services available in the usage of cars. The car owners of Fiat with least mean value of 5.82 judges that service factor is not encouraging the respondents in the purchase of Fiat brand.

## CONCLUSION

Consumer behaviour consists of human behaviour that goes in making purchase decisions. An understanding of the consumer behaviour enables a marketer to take marketing decisions which are compatible with its consumer needs. There are four major classes of consumer behaviour determinants and expectations, namely, cultural, socio-economic, personal and psychological. The socio-economic determinants of consumer behaviour consist of age, marital status, occupation, education, income, family size etc. Realizing the importance of passenger car industry in the present economic situation, the researcher has analyzed the perceptions, and behaviour of consumers related to this product. It is rightly said ; yesterday’s luxuries are today’s necessities. Hence in this digital world, car is no longer a luxury. From the discussions made in the previous chapters, there are certain product attributes which are identified in the study as influencing the purchase decision and satisfying the consumers. The growth in the population of CRDA and Andhra Pradesh and the increasing number of middle class consumers has attracted the attention of car manufacturers and marketers. The manufacturers and marketers who study the behaviour of consumers and cater to their needs will be successful. It may be concluded that consumer behaviour has a greater role to play in the era of economic activities for which a necessary survey and research should be conducted in an efficient manner.

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