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### **Consumer Opinion and Behaviour: A study with special reference to car owners in Alwar district (Rajasthan)**

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#### **ABSTRACT**

In recent days India is witnessing a change in consumerism. The market is now mainly consumer driver. The focus is shifting for product based marketing to need based marketing. Consumer is given many options to make a decision. Passenger car segment is no omission to this general trend. An effective market communication is crucial 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. Alwar district in Rajasthan State, which is in the northern part of India, has a progressive and growing market for cars. This down was selected for this study. Pre-testing was done by an Interview schedule which was developed and administered to a convenient sample of twenty two 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. A total of 500 Interview schedules were prepared and out of this, only 300 interview schedules were filled up and collected. Data were collected through an interview schedule regarding perception of the respondents on the usage of cars. The following tools were used in testing the hypotheses and in the analysis of the data. Descriptive statistical 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. 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 like age, sex and income. Chi-Square test has been used to test the association between the consumer demographic characteristics and preferred product attributes and satisfaction. Multiple regression analysis has been used to study the influence of income and lifestyle on overall satisfaction level of the respondents. 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. 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 wide research in this area.

**KEY WORDS:** - Consumer Perception and Behaviour, Passenger cars, Factors affect for Purchase decision.

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## **INTRODUCTION**

Human beings, in general, are multifaceted creatures who often do not seem even to know their own minds. It is rarely easy, and sometimes impossible, to generalize about human behavior. Each individual is a unique product of genetics, environment and experience. Predicting such a strange behavior of people is a difficult and complex task, filled with worries, risks, and surprises. Accurate predictions can yield vast fortunes and inaccurate predictions can result in the loss of millions of rupees. 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 period of liberalization, privatization and globalization has brought changes in society and lifestyle of people. Marketers can rationalize their existence only when they are able to understand consumer’s 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 a mystery - 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 redesign the product to meet that criterion. If the firm cannot change the design in 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 feature while downplaying fuel mileage.

### ***Indian Car Passenger at present and Profile of the study area***

The Indian Automobile Industry has got a incredible market potential. With the growth of population and change in their pattern of life style as a result of urbanization, there has been a rapid increase in demand for Indian automobiles. The purpose of this chapter is to survey the growth of Automobile Industry in India and their role in economic development and to bring out the profile of the study area. The entire discussion has been divided into three main sections. The first section

traces the growth of Automobile Industry. The second section discusses origin, growth and other aspects of Passenger Car Industry. The third section gives a brief profile of the study area. The Indian Automobile Industry has flourished like never before in the recent years. This unusual growth that the Indian automobile industry has witnessed is a result of a major factor namely, the improvement in the living standard of the middle class and an increase in their disposable incomes. Moreover, the liberalization steps, such as, relaxation of the foreign exchange and equity regulations, reduction of tariffs on imports, and refining the banking policies initiated by the Government of India, have played an equally important role in bringing the Indian Automobile Industry to great heights. The increased demand for Indian automobiles has resulted in a large number of multinational auto companies, especially from Japan, the U.S.A., and Europe, entering the Indian market and working in collaboration with the Indian firms. Also, the institutionalization of automobile finance has further paved the way to sustain a long term high growth for the industry. The Future Growth Drivers like higher GDP Growth,

India's huge geographic spread – mass transport system, increasing road development, Increasing disposable income with the service sector, cheaper (declining interest rates) and easier finance schemes, replacement of aging four wheelers, graduating from two wheelers to four wheelers, increasing dispensable income of rural agricultural sector, growing concept of second vehicle in urban areas<sup>1</sup>. The Indian market is valued at INR 19,000 crore to INR 24,000 crore, of which roughly 30 per cent comprises spurious parts. CV, which include multi-axle vehicles, LCVs, buses and trailers account for roughly 22 per cent of this market (INR 4,500-5,500 crore), with Maharashtra, Tamil Nadu, Gujarat and Kerala accounting for over 40 per cent. The car market is estimated at INR 6,000-7,000 crore (34 per cent of the market) with Maharashtra, Andhra Pradesh, Delhi and Tamil Nadu cumulatively accounting for about 40 per cent of the share. The two - wheeler market is the largest at INR 10,000 crore to INR 11,000 crore, or 44 percent of the market, and Tamil Nadu, Maharashtra, Gujarat and Uttar Pradesh constitute close to 45 per cent of the market. This market is also expected to grow the fastest, given the strong growth in new sales (more than 15 per cent per year) and the large volume of two-wheelers entering the vintage for aftermarket parts (2 to 12 years). With the population of automobiles in India exceeding 110 million and growing at the rate of 12% p.a. the automotive aftermarket business in India is poised for an immense growth. There are tremendous opportunities in Automotive Services, Maintenance and Aftermarket Products. Some of the specific trends in the aftermarket business in India

### ***Statement of the Problem***

Due to the appearance of globalization and liberalization there is a rigid competition among the variety of car industries which are focusing attention in capturing the Indian markets. Cars though considered as luxury once, now occupies a part of day-to-day life and has become a necessity. Alwar, 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 researcher to undertake a study on the passenger car industry with special reference to the perceptions, behaviour and satisfaction of owners of cars.

### **REVIEW OF LITERATURE**

As per Kotwal (2009), face off buyers now prefer to have cars with the space, comfort and luxury of a mid size saloon or sedan. With the growing affluence and technological advancement, there develops a certain maturity in taste, as evidenced by the growing popularity of the Indian Hatchback market.<sup>2</sup>

Clement Sudhakar and Venkatapathy (2009) 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.<sup>3</sup>

White (2004) discussed the factors that affect car-buyers' choices and comments that people expect to haggle with dealers over price and to receive substantial rebates or incentives as well as low-interest payment plans. He pointed out that with an increase in multi-car households, car dealers and advertisers needed to target the right audience, taking into account the pester power of children and the importance of life stage. Despite the fact that women are the primary buyers of most new cars, he admits that the motor trade has traditionally been contemptuous of women's role in the car-buying process.<sup>4</sup>

In the car industry, which is predominantly driven by the product characterization, classification and orientation, establishing a long-term relationship is being considered to be essential marketing strategy at all distribution levels. Thus, customer knowledge and relationship building,

through constantly addressing their needs, are considered to be vitally important selling ingredients to contribute to a car dealer's competitive advantage, as ascertained by Chojkacki (2000)<sup>5</sup>

Sharma and Patterson (1999) stated that car dealers were implementing a strategy to position themselves, more effectively in the market place than before, by means of continuous improvement of quality maintenance through services delivery packages, as car dealers are increasingly being confronted by demanding and technologically knowledgeable consumers, shortened product model lifecycles, intensified competition and fragmented market segments.<sup>6</sup>

Sagar et al. (2004) discussed, as to how the Indian car industry has advanced technologically, driven by a confluence of factors such as intense competition, demanding consumer preferences, government policies (especially tightening emission standards), and the global strategies of the various players. They elaborate that cars manufactured in India are based on designs, incorporating advanced technologies, that are often comparable with those available globally and Indian car exports are also growing.<sup>7</sup>

However, the present study differs from the above, in that, the buyer behaviour in Alwar Rajasthan is sought to be analyzed here. The scope and the area of the study are unique in nature.

## **OBJECTIVE OF STUDY**

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

1. Comparative study of Maruti Suzuki and other relative brands in the same category.
2. Customer preference toward selecting the brand and cars.
3. Comparative study of marketing strategies of different companies in the same segment.
4. To check the brand preference of customer towards four wheelers.
5. To check the customer satisfaction level.
6. To know which particular four-wheeler have more image in the Market.

## **SCOPE OF THE STUDY**

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 to Alwar District of Rajasthan, which is economically the richest district famous for vegetables exported to other parts of the country, mainly for the onion and mustard seed supply. The district has industrial estates such as Alwar, Bhiwadi, Shahjahanpur, and Neemrana where companies such as Ashok Leyland, Pepsi, Parryware, Kajaria Ceramics and Honda Motors have manufacturing plants. Due to their increasing purchasing power, the people of this district have started to buy cars for business or personal use or the prestige and maintenance of social status. Alwar District with a population of 3,671,699 is a potential market for all consumer products and services. 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.

## **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 the 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<sup>8</sup>. Further, the researchers has used national and international journals in the field of management, as well as marketing, business magazines, referred text books in marketing management as well as consumer behaviour and academic studies conducted in the related areas for the purpose of building a strong theoretical background including the review of literature for the study.

### ***Sampling Design***

This study was conducted among the car owners residing at Alwar District, Rajasthan. A Simple Random sampling technique was adopted in the study to select the sample respondents. As the size of the universe is limited, the study has been conducted on the respondents who are the owners of all the segments of passenger cars. A total of 330 Interview schedules were prepared and out of this, only 300 interview schedules were filled up and collected. A scrutiny of these schedules led to the rejection of 30 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 statistical 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 like age, sex and income. The Chi-Square test has been used to test the association between the consumer demographic characteristics and the preferred product attributes and satisfaction. Multiple regression analysis has been used to study the weightage of income and lifestyle on the overall satisfaction level of the respondents. Correlation analysis has been used to establish the relationship between the factors which weightage 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. group analysis has been used to identify the consumers with similar tastes and preferences with respect to purchase of car.

## ANALYSIS AND INTERPRETATION OF DATA

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

Table 1: Average rating for the weightage factor (Item Statistics)

S.no	Variable	Mean	Std. Deviation	Rank
1	Price	4.3467	.63337	1
2	Suggestion from Family members	4.3067	.80506	2
3	Family need	4.1300	.61184	7
4	Status symbol	3.6033	.82559	19
5	Brand name	4.1700	.76357	6
6	Income level	4.0833	.71980	9
7	Festival season	3.4367	.87667	26
8	Special family Programme	3.1733	.86745	29
9	Family friends	3.3500	.81427	28
10	Government rules regulations	3.7833	.95188	16
11	Import duties	3.5500	1.09766	22
12	Advertisement and promotion	3.9600	1.12366	12
13	After sale service	4.0800	.98836	10
14	Installment facility	3.7100	1.11806	18
15	Insurance Facility	3.4700	1.05172	25
16	Location of car dealer	3.5700	.96343	21
17	Home delivery	3.9067	1.14994	13
18	Credit card acceptance	3.8500	1.04777	14
19	Information provided by salesperson	3.6800	1.06523	20
20	Availability of variety of cars under one roof	3.4000	1.04737	27
21	Information provided b vatiuous car magazine	3.5200	.99309	24
22	Mileage	4.1767	1.04679	5
23	Power	4.0767	.98013	8
24	Looks	3.8333	1.10285	15
25	Safety	3.5467	1.10085	23
26	Car accessories	3.7333	.97230	17
27	Availability of spare parts	4.2200	.97713	4
28	Availablity of service station	4.0033	1.02314	11
29	Technology	4.2200	.72111	4
30	Overall satisfied	4.2633	.53065	3

Since Indian Automobile market is continuously in the prowl of surging as a major car manufacturer, people are purchasing car as there is increase of income of common people as well as change in tastes and preferences of consumers. It is important for the car manufacturers and car dealers to be able to



understand the different factors affecting the extent in car purchasing behaviour. The factor analysis results indicate that factor 1 which consists of after sale service, power, credit card acceptance, import duties imposed by government, instalment payment facility, information provided by salesperson, looks are affecting the car purchasing behavior. People are more conscious about the on the spot information provided about various cars who serves according to the needs and wants of the customer. The type of technology used, power credit card acceptance also affects the most on car purchasing decision. While impact of advertisement promotion, insurance facility, availability of variety of cars under one roof ,safety, mileage, home delivery facility ,suggestion from family members is seen as second most affecting driver (factor 2) of purchase of cars. Factor 3 includes location of the car dealer shop, information provided by various car related magazine, availability of service stations, car accessories, and technology affects customer's car purchase decision. This shows that importance of location of car dealer shop, technology, service stations, and the information provided by various car related magazine by car manufacturer. Factor 4, includes Price of the Car; Government policy and regulation governed by government are also the important factor for the consumers to purchase a car . Factor 5 shows festival season and take suggestion from family members and family friend before finalize the decision for purchasing the car. Factors 6 shows special family programs/events like Anniversary, Birthday; considerable factor for buy a car. Factor 7 includes status symbol and family need factor for influencing the purchasing the car. While income level and brand name , easy availability of spare parts is seen as 8 and 9 most affecting driver factor .

Overall, customers are satisfied with that cars they use but they also want to satisfied a various internal and external factors like extra care facilities, location of the shops, various information provided by car dealers, advertisement and print media promotions, features of the car in all are contributing in making car purchasing behaviour of customers.

### ***Factor Analysis – Factors 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<sup>9</sup>. The appropriateness of the factor model can also 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 model fits the data is also ascertained. Rotation focuses on transforming the

factors to make them 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 cars. There are 30 variables under the heading factors influencing purchase. These variables were subject to correlation analysis first.

Table No. 2: Inter- Item Correlation Matrix

<b>Inter-Item Correlation Matrix</b>								
	q1	q2	q3	q4	q5	q6	q7	q8
q1	1.000	-.124	-.117	-.069	.058	.413	.118	-.268
q2	-.124	1.000	.007	.304	.051	.325	.246	-.076
q3	-.117	.007	1.000	.533	-.234	-.123	.137	.039
q4	-.069	.304	.533	1.000	.118	-.006	-.130	.096
q5	.058	.051	-.234	.118	1.000	.455	-.051	.415
q6	.413	.325	-.123	-.006	.455	1.000	.281	-.023
q7	.118	.246	.137	-.130	-.051	.281	1.000	.014
q8	-.268	-.076	.039	.096	.415	-.023	.014	1.000
q9	-.405	.106	.345	-.061	-.171	-.130	.399	.037
q10	-.502	-.061	.250	.035	-.027	-.330	-.043	.183
q11	-.088	-.192	.157	-.087	-.008	-.122	-.157	-.192
q12	-.121	.380	.008	.149	-.203	.004	-.070	-.250
q13	.127	-.006	.077	.117	.150	.052	-.230	-.063
q14	.053	.029	-.028	-.016	.179	.105	.020	.104
q15	.277	.402	-.023	.200	.142	.293	.161	-.049
q16	.097	.089	.169	.033	.000	.119	.124	-.155
q17	-.167	.374	.017	.130	-.279	-.088	-.052	-.316
q18	-.108	-.112	.187	.055	-.039	-.112	-.234	-.233
q19	.026	.041	-.018	-.031	.116	.057	.036	.002
q20	.209	.390	-.008	.169	.065	.209	.159	-.088
q21	.042	.063	.197	.020	-.051	.089	.119	-.233
q22	.084	.471	.006	.294	-.054	.100	-.015	-.155
q23	.124	-.034	.123	.182	.170	.038	-.195	-.090
q24	.169	.092	-.062	.059	.236	.169	.082	.027
q25	.336	.429	-.121	.203	.219	.377	.164	.002
q26	.270	.173	.081	.064	.129	.256	.129	-.052
q27	.076	.148	-.076	.050	.048	.107	.032	-.073
q28	.086	.112	.005	-.050	.158	.140	.043	.063
q29	.103	.062	.049	.012	.005	.055	.059	-.067
q30	.016	.030	-.199	-.089	.186	.065	-.291	.118

Continued:- Inter-Item Correlation Matrix								
	q9	q10	q11	q12	q13	q14	q15	q16
q1	-.405	-.502	-.088	-.121	.127	.053	.277	.097
q2	.106	-.061	-.192	.380	-.006	.029	.402	.089
q3	.345	.250	.157	.008	.077	-.028	-.023	.169
q4	-.061	.035	-.087	.149	.117	-.016	.200	.033
q5	-.171	-.027	-.008	-.203	.150	.179	.142	.000
q6	-.130	-.330	-.122	.004	.052	.105	.293	.119
q7	.399	-.043	-.157	-.070	-.230	.020	.161	.124
q8	.037	.183	-.192	-.250	-.063	.104	-.049	-.155
q9	1.000	.254	.203	-.058	.061	.156	-.025	.192
q10	.254	1.000	.198	.208	.043	.035	-.128	.069
q11	.203	.198	1.000	.021	.665	.441	.091	.313
q12	-.058	.208	.021	1.000	.184	.265	.486	.240
q13	.061	.043	.665	.184	1.000	.551	.305	.240
q14	.156	.035	.441	.265	.551	1.000	.381	.368
q15	-.025	-.128	.091	.486	.305	.381	1.000	.250
q16	.192	.069	.313	.240	.240	.368	.250	1.000
q17	.028	.266	.028	.872	.107	.158	.418	.305
q18	.128	.276	.712	.276	.819	.454	.098	.241
q19	.230	.073	.500	.210	.539	.913	.362	.380
q20	.047	-.020	.081	.474	.237	.345	.904	.270
q21	.200	.113	.341	.234	.220	.311	.204	.885
q22	-.120	.022	-.152	.791	.161	.261	.590	.182
q23	.012	.004	.598	.103	.891	.530	.228	.244
q24	.117	-.089	.421	.148	.528	.875	.408	.335
q25	-.117	-.234	-.017	.396	.224	.347	.907	.194
q26	.139	-.084	.204	.116	.290	.384	.336	.838
q27	-.005	-.107	-.060	.182	.048	.108	.267	.023
q28	-.114	.069	.052	.198	-.050	.211	.154	.439
q29	-.183	.094	-.022	.312	-.100	.108	.150	.348

Continued:- Inter-Item Correlation Matrix								
	q9	q10	q11	q12	q13	q14	q15	q16
q1	-.405	-.502	-.088	-.121	.127	.053	.277	.097
q2	.106	-.061	-.192	.380	-.006	.029	.402	.089
q3	.345	.250	.157	.008	.077	-.028	-.023	.169
q4	-.061	.035	-.087	.149	.117	-.016	.200	.033
q5	-.171	-.027	-.008	-.203	.150	.179	.142	.000
q6	-.130	-.330	-.122	.004	.052	.105	.293	.119
q7	.399	-.043	-.157	-.070	-.230	.020	.161	.124
q8	.037	.183	-.192	-.250	-.063	.104	-.049	-.155
q9	1.000	.254	.203	-.058	.061	.156	-.025	.192
q10	.254	1.000	.198	.208	.043	.035	-.128	.069
q11	.203	.198	1.000	.021	.665	.441	.091	.313
q12	-.058	.208	.021	1.000	.184	.265	.486	.240
q13	.061	.043	.665	.184	1.000	.551	.305	.240
q14	.156	.035	.441	.265	.551	1.000	.381	.368
q15	-.025	-.128	.091	.486	.305	.381	1.000	.250
q16	.192	.069	.313	.240	.240	.368	.250	1.000
q17	.028	.266	.028	.872	.107	.158	.418	.305
q18	.128	.276	.712	.276	.819	.454	.098	.241
q19	.230	.073	.500	.210	.539	.913	.362	.380
q20	.047	-.020	.081	.474	.237	.345	.904	.270
q21	.200	.113	.341	.234	.220	.311	.204	.885
q22	-.120	.022	-.152	.791	.161	.261	.590	.182
q23	.012	.004	.598	.103	.891	.530	.228	.244
q24	.117	-.089	.421	.148	.528	.875	.408	.335
q25	-.117	-.234	-.017	.396	.224	.347	.907	.194
q26	.139	-.084	.204	.116	.290	.384	.336	.838
q27	-.005	-.107	-.060	.182	.048	.108	.267	.023
q28	-.114	.069	.052	.198	-.050	.211	.154	.439
q29	-.183	.094	-.022	.312	-.100	.108	.150	.348
q30	-.229	.199	.101	.248	.164	.067	.131	.019

Continued:-Inter-Item Correlation Matrix								
	q17	q18	q19	q20	q21	q22	q23	q24
q1	-.167	-.108	.026	.209	.042	.084	.124	.169
q2	.374	-.112	.041	.390	.063	.471	-.034	.092
q3	.017	.187	-.018	-.008	.197	.006	.123	-.062
q4	.130	.055	-.031	.169	.020	.294	.182	.059
q5	-.279	-.039	.116	.065	-.051	-.054	.170	.236
q6	-.088	-.112	.057	.209	.089	.100	.038	.169
q7	-.052	-.234	.036	.159	.119	-.015	-.195	.082
q8	-.316	-.233	.002	-.088	-.233	-.155	-.090	.027
q9	.028	.128	.230	.047	.200	-.120	.012	.117
q10	.266	.276	.073	-.020	.113	.022	.004	-.089
q11	.028	.712	.500	.081	.341	-.152	.598	.421
q12	.872	.276	.210	.474	.234	.791	.103	.148
q13	.107	.819	.539	.237	.220	.161	.891	.528
q14	.158	.454	.913	.345	.311	.261	.530	.875
q15	.418	.098	.362	.904	.204	.590	.228	.408
q16	.305	.241	.380	.270	.885	.182	.244	.335
q17	1.000	.224	.229	.520	.242	.767	.086	.106
q18	.224	1.000	.481	.119	.310	.067	.799	.372
q19	.229	.481	1.000	.385	.363	.276	.543	.908
q20	.520	.119	.385	1.000	.224	.582	.188	.371
q21	.242	.310	.363	.224	1.000	.124	.254	.339
q22	.767	.067	.276	.582	.124	1.000	.195	.275
q23	.086	.799	.543	.188	.254	.195	1.000	.575
q24	.106	.372	.908	.371	.339	.275	.575	1.000
q25	.326	.016	.338	.857	.158	.583	.246	.469
q26	.091	.128	.402	.319	.802	.267	.295	.439
q27	.146	-.020	.110	.247	.037	.273	.087	.121
q28	.145	-.109	.151	.136	.406	.234	-.040	.164
q29	.255	-.080	.061	.140	.367	.325	-.057	.084
q30	.205	.143	.049	.099	.044	.193	.154	.087

Continued:- Inter-Item Correlation Matrix						
	q25	q26	q27	q28	q29	q30
q1	.336	.270	.076	.086	.103	.016
q2	.429	.173	.148	.112	.062	.030
q3	-.121	.081	-.076	.005	.049	-.199
q4	.203	.064	.050	-.050	.012	-.089
q5	.219	.129	.048	.158	.005	.186
q6	.377	.256	.107	.140	.055	.065
q7	.164	.129	.032	.043	.059	-.291
q8	.002	-.052	-.073	.063	-.067	.118
q9	-.117	.139	-.005	-.114	-.183	-.229
q10	-.234	-.084	-.107	.069	.094	.199
q11	-.017	.204	-.060	.052	-.022	.101
q12	.396	.116	.182	.198	.312	.248
q13	.224	.290	.048	-.050	-.100	.164
q14	.347	.384	.108	.211	.108	.067
q15	.907	.336	.267	.154	.150	.131
q16	.194	.838	.023	.439	.348	.019
q17	.326	.091	.146	.145	.255	.205
q18	.016	.128	-.020	-.109	-.080	.143
q19	.338	.402	.110	.151	.061	.049
q20	.857	.319	.247	.136	.140	.099
q21	.158	.802	.037	.406	.367	.044
q22	.583	.267	.273	.234	.325	.193
q23	.246	.295	.087	-.040	-.057	.154
q24	.469	.439	.121	.164	.084	.087
q25	1.000	.365	.280	.168	.151	.188
q26	.365	1.000	.118	.451	.327	.046
q27	.280	.118	1.000	.053	.036	-.067
q28	.168	.451	.053	1.000	.829	.325
q29	.151	.327	.036	.829	1.000	.311

Continued:- Inter-Item Correlation Matrix						
	q25	q26	q27	q28	q29	q30
q1	.336	.270	.076	.086	.103	.016
q2	.429	.173	.148	.112	.062	.030
q3	-.121	.081	-.076	.005	.049	-.199
q4	.203	.064	.050	-.050	.012	-.089
q5	.219	.129	.048	.158	.005	.186
q6	.377	.256	.107	.140	.055	.065
q7	.164	.129	.032	.043	.059	-.291
q8	.002	-.052	-.073	.063	-.067	.118
q9	-.117	.139	-.005	-.114	-.183	-.229
q10	-.234	-.084	-.107	.069	.094	.199
q11	-.017	.204	-.060	.052	-.022	.101
q12	.396	.116	.182	.198	.312	.248
q13	.224	.290	.048	-.050	-.100	.164
q14	.347	.384	.108	.211	.108	.067
q15	.907	.336	.267	.154	.150	.131
q16	.194	.838	.023	.439	.348	.019
q17	.326	.091	.146	.145	.255	.205
q18	.016	.128	-.020	-.109	-.080	.143
q19	.338	.402	.110	.151	.061	.049
q20	.857	.319	.247	.136	.140	.099
q21	.158	.802	.037	.406	.367	.044
q22	.583	.267	.273	.234	.325	.193
q23	.246	.295	.087	-.040	-.057	.154
q24	.469	.439	.121	.164	.084	.087
q25	1.000	.365	.280	.168	.151	.188
q26	.365	1.000	.118	.451	.327	.046
q27	.280	.118	1.000	.053	.036	-.067
q28	.168	.451	.053	1.000	.829	.325
q29	.151	.327	.036	.829	1.000	.311
q30	.188	.046	-.067	.325	.311	1.000

Correlation matrix for the variables from price to satisfaction (totally 30 items) was analyzed initially for possible inclusion in Factor Analysis.

TABLE 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.696
Bartlett's Test of Sphericity	Approx. Chi-Square	13240.694
	Df	630
	Sig.	.000

Bartlett's test of sphericity is used to test whether the correlation matrix is an identity matrix. The test value (13240.694) 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 statistics is given above as 0.696, which means the factor analysis for the selected variables is found to be appropriate to the data. The Principal Components 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<sup>10</sup>. 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 Q19 (information provided by sales person mention in table No.1 ) and factor 1 is .745 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.



Table No.4: Component Matrix

Component Matrix <sup>a</sup>									
	Component								
	1	2	3	4	5	6	7	8	9
q19	.745	-.366	-.140	-.036	.093	.135	-.330	-.244	-.014
q24	.744	-.269	-.330	-.042	.079	.139	-.214	-.254	-.006
q14	.731	-.331	-.197	-.033	.029	.199	-.289	-.274	-.009
q15	.720	.428	-.129	-.248	.150	.028	.001	.031	.234
q20	.701	.413	-.011	-.230	.185	.019	-.068	.033	.245
q25	.683	.490	-.275	-.241	.099	.058	.014	.014	.175
q26	.646	.010	-.157	.576	.084	-.072	.152	.025	-.187
q13	.625	-.554	-.120	-.309	-.093	-.078	.187	.141	.007
q22	.620	.516	.300	-.260	-.087	.001	.024	-.145	-.083
q23	.615	-.547	-.143	-.274	-.089	-.082	.252	.048	-.040
q12	.568	.357	.550	-.228	-.167	-.068	-.105	.043	-.065
q11	.440	-.699	.052	-.002	-.061	-.118	-.015	.153	.129
q18	.513	-.665	.200	-.254	-.103	-.152	.111	.204	.015
q2	.323	.507	.128	-.132	.288	.166	.085	.320	-.235
q17	.524	.339	.638	-.200	-.094	-.112	-.152	.061	-.060
q10	.037	-.258	.600	.050	-.089	.449	-.078	.179	.116
q1	.181	.233	-.587	.066	-.099	-.513	.181	-.109	.284
q5	.130	.014	-.565	-.021	-.188	.542	.167	.245	-.208
q6	.237	.337	-.558	.091	.086	.008	.130	.443	-.081
q21	.587	-.138	.156	.636	.062	-.169	.097	.111	-.151
q16	.617	-.086	.113	.628	.070	-.131	.091	.081	-.153
q28	.359	.245	.036	.619	-.419	.205	.016	-.119	.067
q29	.318	.313	.184	.536	-.449	.076	.054	-.186	.170
q30	.225	.071	.053	-.048	-.675	.239	-.017	.300	.186
q9	.088	-.288	.278	.193	.655	.207	-.251	.160	.022
q7	.049	.246	-.119	.315	.619	.053	-.242	.164	.272
q8	-.156	-.043	-.217	.008	-.015	.817	.034	-.140	.044
q4	.178	.126	.173	-.213	.213	.241	.765	-.237	-.073
q3	.066	-.194	.380	.153	.423	.110	.585	-.172	.273
q27	.236	.237	-.070	-.148	.104	-.066	-.073	-.234	-.533
Extraction Method: Principal Component Analysis.									
a. 9 components extracted.									

**Anova Technique age group and influencing factors**

Table 5 & 6 give the results of the ANOVA conducted to test for significant difference if any, between the respondents of different age groups on the various influencing factors.

**Null Hypothesis:** The average scores of influencing factors among the respondents of the different age groups do not differ significantly.

**Table 5: average scores of the influencing factors for different age groups**

Age Group	N	Influencing Factor							
		External		Technical		Cost		Service	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
< 18 years	21	15.48	4.18	12.39	3.84	9.87	2.43	6.23	2.29
18-25 years	75	15.00	4.28	13.13	2.84	9.67	2.24	6.57	1.88
26-35 years	129	14.60	4.50	13.34	2.95	9.78	2.29	6.27	1.79
36-50 years	48	14.74	4.41	13.49	3.09	9.55	2.19	6.35	2.01
> 51 years	27	14.34	4.72	13.34	2.99	9.71	2.25	6.45	1.93

**Table 6: Anova on the influencing factors for different age groups**

Factor	Sources of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F - Value	Table Value	Sig.
External	Between Groups	29.059	4	7.265	.370	2.402	NS
	Within Groups	5791.528	295	19.632			
	Total	5820.587	299				
Technical	Between Groups	28.885	4	7.221	.769	2.402	NS
	Within Groups	2770.245	295	9.391			
	Total	2799.130	299				
Cost	Between Groups	2.961	4	.740	.144	2.402	NS
	Within Groups	1517.225	295	5.143			
	Total	1520.187	299				
Service	Between Groups	4.437	4	1.109	.298	2.402	NS
	Within Groups	1099.493	295	3.727			
	Total	1103.930	299				

Source: Calculated from Primary Data

NS - Not Significant

The Analysis of Variance test is applied to test for significant difference among the different age groups for each influencing factor separately. The results of the ANOVA are given in the above table. It is found from the results of ANOVA that influencing factors – external, technical, cost and service do not differ significantly among the respondents of the different age groups. Hence, the null hypothesis with respect to all the four influencing factors is accepted.

**Occupational Status and Influencing Factors**

Table 7 & 8 analyze for the existence of any significant difference between the various occupational status and the influencing factors.

**Null Hypothesis:** The average scores of influencing factors among the respondents of the different occupational status do not differ significantly.

**TABLE 7: Average scores of the influencing factors for different occupational status.**

Occupational Status	N	Influencing Factor							
		External		Technical		Cost		Service	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Business	91	14.91	4.55	13.57	3.09	9.40	2.07	6.42	1.89
Employed in Government Service	47	14.00	4.92	12.29	2.90	9.91	2.73	6.53	1.83
Employed in Private Organization	86	15.34	3.74	13.13	3.08	10.38	2.63	6.02	2.12
Student	57	13.63	4.53	12.75	3.26	9.63	2.41	5.88	1.96
House Wife	19	14.44	4.27	13.75	2.38	10.81	1.52	6.69	2.12

Source: Calculated from Primary Data

The below table highlights the results of the ANOVA for different occupational status of respondents on the influencing factors. The calculated F values of 0.784, 1.543, 2.040 and 1.026 for the External, Technical, Cost and Service factors are insignificant. Therefore, the stated hypothesis has been proved.

TABLE 8 : ANOVA on the influencing factors for different occupational status

Factor	Sources of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F - Value	Table Value	Sig.
External	Between Groups	91.923	6	15.321	.784	2.140	NS
	Within Groups	5728.663	293	19.552			
	Total	5820.587	299				
Technical	Between Groups	85.731	6	14.289	1.543	2.140	NS
	Within Groups	2713.399	293	9.261			
	Total	2799.130	299				
Cost	Between Groups	60.967	6	10.161	2.040	2.140	NS
	Within Groups	1459.220	293	4.980			
	Total	1520.187	299				
Service	Between Groups	22.706	6	3.784	1.026	2.140	NS
	Within Groups	1081.224	293	3.690			
	Total	1103.930	299				

### Brand of Car and Influencing Factors

Tables 9 & 10 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.

Table No.9: average scores of the influencing factors for different Brand of car

Brand of Car	N	Influencing Factor							
		External		Technical		Cost		Service	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Hyundai	57	16.02	4.21	13.50	3.12	9.71	1.95	6.48	1.94
Maruti Suzuki	186	13.11	3.96	12.71	2.98	10.42	2.53	6.71	2.26
Tata	29	16.31	3.90	13.78	2.84	9.08	2.02	6.35	1.68
Mahindra and Mahindra	28	15.30	4.58	13.18	3.13	9.18	1.83	5.93	1.59

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

**Table 10: Anova on the influencing factors for different brand of car**

Satisfaction Factor	Sources of Variation	SS	Degrees of Freedom	Mean Square	F - Value	Table Value	Sig.
External	Between	536.000	5	107.200	5.964	3.080	**
	Groups	5284.587	294	17.975			
	Within	5820.587	299				
	Groups						
	Total						
Technical	Between	106.475	5		2.325	2.245	*
	Groups	2692.655	294	21.295			
	Within	2799.130	299				
	Groups			9.159			
	Total						
Cost	Between	106.670	5		4.437	3.080	**
	Groups	1413.517	294				
	Within	1520.187	299				
	Groups			21.334			
	Total			4.808			
Service	Between	30.639	5		1.679	2.245	NS
	Groups	1073.291	294				
	Within	1103.930	299				
	Groups			6.128			
	Total			3.651			

(\* Denotes 5% level of significance) (\*\* Denotes 1% level of significance)

The above table outlines the brand of car possessed by the respondents namely Hyundai, Maruti Suzuki, Tata, Mahindra & Mahindra. 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 the brand of cars with respect to External feature 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 respondents of Tata Brand with the highest mean value of 16.31. They think that Tata Brand is a successful one in effectively influencing the respondents on the purchase with respect to External features of car. The car owners of Maruti with least mean value of 13.11 feel that external features is less successful than the other brands in creating interest in purchasing Maruti Brand.

The analysis of influencing factor Technical indicates the respondents of various brands Of Tata Motors with the highest mean value of 13.78. They feel that the above brands are successful in influencing the respondents on their purchase with respect to the technical features of car. The Maruti Suzuki car owners with the least mean value of 12.71 perceive that the technical features are not successful in creating interest in the purchase with respect to Maruti Suzuki car owners

The analysis of influencing factor Cost represents the respondents of Maruti Brand with the highest mean value of 10.42. They judge that Maruti brand is much successful in effectively influencing the respondents on the purchase of car based on Cost. It is also highlighted that the Tata Motors car owner with least mean value of 9.08 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 Maruti Brands with the highest mean value of 6.71. They perceive that Maruti 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 Mahindra & Mahindra with least mean value of 5.82 judges that Service factor is not encouraging the respondents in the purchase of M&M brand.

## **SUGGESTIONS**

1. Through proper advertisements and sales promotion activities car companies find the place in the mind of customers.
2. Car manufacturer's use celebrity endorsement for strongly influence the customers.
3. Car manufacturer's can develop the social interaction programme through which they interact with their customers and their friends and family members.
4. Car dealer give more installment payment facility and tie up with some good financial institutions.
5. Today's scenario many nuclear families are growing so the car manufacturer analyze the need,

want, taste, preference of the customer and design the product .

6. Try to introduce loyalty and service level improvement programs.
7. Launch more information exchange programs between car manufacturer, dealer, wholesaler and showroom owners.
8. Improve the service quality through offering different service level such as: - basic, extended, premium services
9. Apart from mileage car companies should also focus on the looks and style of the cars which could attract consumers
10. Very few companies or better to say there is only one or two company in Indian market using the safety or security as its USP. This concern is hardly exploited in India and should be looked into this.

## **CONCLUSION:-**

From this research study, the researcher concludes that the overall satisfaction of the customers regarding all car companies is at good. 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 India 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 furnish to their needs will be successful. It may be concluded that consumer behaviour has a greater role to play in the LPG era of economic activities for which a necessary survey and research should be conducted in an efficient manner.

Yet there are some aspects as noted in recommendation companies need to focus on improve the quality level of their services, develop the loyalty program between dealer and customers, customers and car companies. So if company focus on these aspects, there is no doubt about company will get success in satisfying customers and thereby maintaining long term healthy relationship. This research has solved problem aspect regarding customer satisfaction.

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