A Study of Consumer Preferences and Satisfaction for Pre Owned Cars in Pune City

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Key Words:

1. Consumer preference
2. Satisfaction
3. Pre owned car

Abstract

Purpose : The study was conducted to analyze the consumer preference while buying a pre owned car and to study the customer satisfaction for various factors related to purchase decision.

Design : A descriptive study in Pune city was conducted using sample of 600 pre owned car customers and aspirants. Snow ball sampling techniques was used to contact pre owned car customers and aspirants.

Findings : Descriptive statistical analysis based on the ratings revealed customer give more preference to Economic factor, Information & Promotions factor and Test drive experience. There exists a difference for importance given to various factors influencing pre owned car buying decision between pre owned car customers and aspirants.

INTRODUCTION

Indian Pre owned car industry

At present, the Indian used car market is worth 2.5 million units per year. Industry sources believe that the second hand car market could reach the 8 million units mark by the end of 2017 with a Compound Annual Growth Rate (CAGR) of 22 per cent (www. Team-BHP.com)

The demand drivers of the automobile segment includes, increase in income levels and thus purchasing power, availability of a wider range of products, availability of low-cost finance, gradual shift to higher segment vehicles, rapid urbanization & emergence of tier 2 cities / non metros, decrease in vehicle changeover time.

The present study made a systematic attempt to understand and analyze the consumer preferences and factors influencing pre owned car purchase decision in Indian context. Pre owned car purchase decision is a complex process and is influenced by factors related to individual person and factors related to marketing mix strategies implemented by the company

LITERATURE REVIEW

The used car market is the perfect example of the Lemon market as studied and stated by the various researchers, where there is limited information available about the quality of the car sold and therefore buyer of used car

always find himself as cheated. Among the various literature that through lights on this concepts of Lemon are, Bond (1982, 1984), in his study tried to compare the frequency of maintenance done on new and used trucks purchased. He says in the lemon market the good quality will not get good price and therefore the truck owners will not sell that truck and therefore only average quality Trucks are sold in such market. George Akerlof (1970) in his study discussed about the term Lemon in the second hand goods market. It expresses that the buyer has less information about the quality of the goods he is buying than a seller.

Cutler (2005) in his study mentions that certified cars get high price than the non certified cars. Jin, Kato, and List (2006) in their study showed certification not only gives idea about quality of product but also provide additional information to the buyer. Ippolito and Mathios (1990) in their study says certification provides the information to the buyer about the unobservable characteristics of the car such as risk aversion. Information search is found to the best strategy in reducing the risk buying the used car (Gabbott 1991).

Dharmaraj (2008) using survey of 712 car owners said, in overall it is the all round ability of the car brands, viz, reliability, safety, technology, value for money, high resale value, high mileage, maintenance cost, quality, comforts, durability, etc., that prove to be decisive factors of choice. Andreas Herrmann, et. al. (2007) studied effect of price fairness on customer satisfaction in automobile purchase. By surveying 246 car customers German car dealer they found that customer satisfaction is directly influenced by price of the product

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RESEARCH GAP

There is no research work done using a comprehensive list of factors together which influence the consumer purchase decision. Researcher did not come across any literature on the factors influencing pre owned car purchase decision in Indian context. Current study tries to close these gaps.

Objectives of the study:

Following objectives were developed for the study.

1 To study consumer preference for buying preowned car.

2. To study the difference in opinion between pre-owned car customers and the aspirants for the importance given to various factors influencing purchase decision

3.To study association between the customer's demographic factor i.e. family income and the purchase motives.

4.To study the difference between the customer satisfaction and importance given to various factors influencing their purchase decision.

RESEARCH METHODOLOGY

Scope of the study:

The scope of the study was defined at two levels i.e. Product level and Geographic level.

Product Scope: The study was carried out for pre owned cars only.

Geographical scope : The geographical scope of the study was restricted to Pune city located in Maharashtra state.

Research Design

The descriptive study was carried out to identify the consumer preference and to study the relationships and influence of different variables while purchasing the pre owned car.

Sources of Data

Researcher used both secondary and primary data sources. Secondary data sources included literature from various marketing journals, text books, company's promotional literature, automobile related magazines, dealers record and product related information booklet and promotional inputs, information available on company website and independent website, etc.

Primary source included survey of pre owned car aspirants and customers in Pune city, sales executives and managers from the company owned certified car outlets and private car sales dealers in Pune city.

SAMPLING PLAN

Population: for this study population includes pre owned car customers and the aspirants of pre owned car who are planning to purchase pre owned car in short period of time in Pune city. To get the exact list of population there were two major sources of information. One was the customer list available with the pre owned car dealers and the second source was the information available with the statistical department of Pune Regional Transportation Office (RTO). When the researcher approached the pre owned car dealers, the dealers were quite reluctant. Then researcher approached the Pune Regional Transport office The statistical department of Pune RTO office did not have such separate list of pre owned car customers. Hence the exact population of pre owned car owners in Pune city was not known.

For pre owned car aspirants, the list could have been prepared by compiling the "enquiry" register of dealers, however this was not available to the researcher for the reason stated above.

Sampling Unit: The sampling unit for the study comprised of pre owned car customers and the pre owned car aspirants in Pune city.

Sampling Frame: when there is no known population the sampling frame was also not possible to prepare and hence no sampling frame was available for the study.

SAMPLING METHOD

The entire population was divided in terms of non overlapping and mutually exclusive four geographical strata of Pune city with the help of map, viz. Eastern zone, Western zone, South zone and North zone. Geographical distribution of sample ensured that the estimates are made with equal accuracy in different parts of the region.

As the sampling frame was not available the best method for data collection used was snow ball sampling (Cooper and Schindler 2007). The exponential non-discriminative snow ball sampling method was used by a researcher as it was very difficult to identify and locate the potential subjects in the city. Researcher used the pre owned car customers that he knew and few from the list provided by his friends/colleagues as a first node. The same were contacted first for getting the response. These respondents were then asked for the assistance to help identify the other pre owned car customers that they know.

In similar way the pre owned car aspirants from different strata were identified. Also some of the pre owned car aspirants were contacted at the dealers showroom when

they had come for the inquiry and to see the pre owned cars at dealers showroom.

Sample size : Tinsley and Tinsley (1987) recommend that the ratio of respondents to number of items should be in the range of 5 — 10. The researcher took the average of these two which comes out to be 7.5. With this guideline, the highest sample size works out to three hundred with 40 variables selected for the final survey. To include these two different group of respondent, the total six hundred sample was divided equally into two sub groups i.e. 300 in each group namely pre owned car customers (those who currently own or use a pre owned car) and pre owned car aspirants (those who are eligible to buy, currently do not own or use a pre owned car but are planning to buy one shortly).

Scale development

The scale was developed using various factors identified from the different sources i.e. secondary sources, focus group interview and in-depth personal interview of pre owned car customers and aspirants and thirdly interview of industry experts. Secondary sources like automotive magazines, product brochures, websites of manufacturer and pre owned car sellers were referred. Reference books and journals of consumer buying behavior were used for theoretical inputs and structural framework of the research. Focus group discussion of pre owned car aspirants and customers, interview of industry experts such as dealer's representative and company representatives, were the two primary sources.

Final list of factors was then prepared using triangulation method for the development of questionnaire which was used for the survey and for further analysis. DeVellis (2003) recommends that the pool be reviewed by experts. The researcher approached three pre owned car marketing specialists and academicians who reviewed the list for the relevance of the items, their clarity and conciseness. The final 40 items included in the scale are mentioned in the table No.1

Reliability and Validity of Questionnaires

It was observed that the Cronbach's alpha for the questionnaire for pre owned car customer was 0.771 which was acceptable. The Cronbach's alpha of the questionnaire for pre owned car aspirants was observed and it was 0.897 which was also acceptable and hence researcher concluded that the same questionnaire can be administered for the further study.

Convergent validity and discriminant validity was tested using statistical software i.e AMOS.

Convergent validity : As the variance explained (VE) was greater than 0.5, Construct reliability (CR) was greater than 0.7, the scale passed the convergent validity test.

Discriminant Validity : As the chi-square difference test was significant with p-value less than 0.05, the scale passed the test of discriminant validity.

DATA ANALYSIS

1] Exploratory Factor Analysis :

The Kaiser – Meyer – Olkin measure of sample adequacy is 0. 546, indicating that the present data is suitable for principle component analysis (the minimum acceptable value is 0.5). similarly the Bartlett's test of sphericity is highly significant (0.000) indicating sufficient correlation between variables.

The first solution of exploratory factor analysis with Varimax rotation in 25 iterations resulted into a model of 12 factors with 38 items converged into it. To make the factor size manageable for data analysis and to reduce the factors with single item, exploratory factors analysis was again conducted with the number of factors forced selected to 10, 9, 8 and 7. Factor model with 7 factors was found to be the best with most of the items with similar construct loading on the same factor. This model with 7 factors explained 65.7715 (~66%) of total variance. Factors with factor loading less than 0.5 were not considered and were eliminated. Thus the final factor model had 23 factors retained with factor loading more than 0.5 and seventeen factors were thus eliminated from the final factor model.

Table no.2, explains the rotated component matrix and the seven factors identified for the further analysis.

Examining the contents of these items, factor 1 was labeled as "Product factor". Factor 2 was labeled as "Information & Promotions factor". Factor 3 was labeled as "Test drive experience factor". Factor 4 was labeled as "Place factor". Factor 5 was labeled as "Accessories factor". Factor 6 was labeled as "Specific car history factor". Factor 7 was labeled as "Economic factors".

Table 1: Rotated component matrix

Sr. No.	Scale Items
1	Size of the car.
2	Mileage of the car (i.e. Km per Lit).
3	Driving comfort.
4	Stylish look/Appearance of the car.
5	Color of the car.
6	Engine power (cc).
7	Brand name/ Brand Image.
8	Age of the car.
9	Availability of accessories in the car (e.g. CD player, AC, etc.)
10	Extent of physical damage (Internal and External) to the car.
11	Extent of color damage.
12	Safety features (child lock, remote lock, etc.) available in the car.
13	Number of times the car was sold previously.
14	Legal formalities (availability of original document, no police case, no accident case, etc.).
15	Area of previous registration of the car.
16	Sufficient front and back leg room.
17	Good conditioned/maintained interiors of car.
18	Advance technology features in the car.
19	Quality check/certification done by dealer/company.
20	Price of the car.
21	Good resale value of the car.
22	Low maintenance cost of the car.
23	Low priced and easy availability of the spare parts.
24	Availability of low Interest car loan facility.
25	Extra warranty and free servicing from company/dealer.
26	Availability of more number of dealers/service stations of the company in the city.

27	Good pre and post sale service provided by the dealer.
28	Nearest location of dealer and service station from your residence.
29	Product information and promotional factor done by the company.
30	Information provided by sales person at dealer's showroom.
31	Information available in magazine/news paper.
32	Information on internet/Independent web site.
33	Information and suggestions given by friends/family members/ office colleagues.
34	Information provided by professionals like private garage mechanic.
35	Advertisement of car done on TV/Radio/hoarding.
36	Personal test drive experience of the car.
37	Self /Private mechanic quality checking of the car.
38	Previous owner's professional background (Doctor, Army Person, Lawyer, Teacher, etc.).
39	Company name/ Company image.
40	Country of origin of the car (For Example: Germany, India, Japan etc.).

Table 2: Rotated component matrix

Variable	Factor	1	2	3	4	5	6	7
Color of the car	Product Factor	0.807						
Stylish look/appearance of the car		0.71						
Engine power (cc)		0.57						
Brand name/ Brand Image		0.626						
Sufficient front and back leg room		0.676						
Product advertisement and promotion done by the company	Information & Promotions factor		0.605					
Information provided by sales person at dealer's showroom			0.528					
Information available in magazine/news paper			0.619					

Item	Factor							
Information on Internet/Independent web Site	Information & Promotions factor		0.524					
Advertisement of car done on TV/Radio/hoarding			0.619					
Personal test drive` experience of the car	Test drive experience factor			0.673				
Driving comfort	Place factor				0.647			
Availability of more number of dealers/ service stations of the company in the city					0.506			
Legal formalities (Availability of original document, no police case, no accident case, etc.)					0.518			
Availability of accessories in the car (e.g. CD player, AC, etc.)	Accessories factor					0.619		
Safety features (Child lock, remote lock, etc.) available in the car						0.592		
Extent of color damage	Specific car history factor						0.635	
Previous owners professional background (Doctor, Army Person, Lawyer, Teacher, etc.)							0.571	
Extent of physical damage (Internal and External) to the car							0.615	
Number of times the car was sold previously							0.519	
Area of previous registration of the car							0.57	
Price of the car	Economic factor							0.524
Low maintenance cost of the car.								0.588

Extraction Method: Principal component analysis   a. 7 components extracted.

Assessing the consumer preference for the factor influencing preowned car purchase decision:

Consumer preference analysis was done using a descriptive statistical analysis based on the ratings given to the seven factors by pre owned car customers and aspirants.

(At 1 level of 2 responses are considered therefore minimum is 2 and at 7 levels 2 responses are considered

therefore maximum is 14)

The factor 'Economic factor has the highest mean value, meaning the respondents have given highest rating to this factors and hence it is the most preferred factor amongst all.

Factor 'Specific car history' stands second in the ranking as it has received the second highest rating from the

Table 3 : Consumer preference

Ranking of various factors				
Factors	Mean	Minimum	Maximum	Ranks
Economic factor	11.80	2	14	1
Specific car history	11.61	2	14	2
Place factor	11.60	2	14	3
Product factor	11.25	2	14	4
Test drive experience	11.24	2	14	5
Information & promotion factor	11.21	2	14	6
Accessories factor	11.17	2	14	7

Table 4 : Hypothesis Test results

Sr.No.	Purpose	Hypothesis	Test applied	Test Result	Remark
1	To study the difference between the customer satisfaction and importance given to various factors influencing their purchase decision.	Ho: "There is No difference between the satisfaction and importance given to the various factors by the pre owned cars customers"	Paired sample T-test	P value <0.05. Null hypothesis rejected	There is difference between the satisfaction and importance given to the various factors by the pre owned cars customers
2	To study the difference in opinion between pre-owned car customers and the aspirants for the importance given to various factors influencing purchase decision	Ho: There is No difference in the importance given for various factors by the pre owned car aspirants and the customers	Independent sample T-test	P value <0.05. Null hypothesis rejected	There is a difference in the importance given for various factors by the pre owned car aspirants and the customers.
5	To study whether there is a association between the customer's demographic factor i.e. family income and the purchase motives.	Ho: "There is No association between the family income and purchase motives	.Chi-square Test	P value <0.05. Null hypothesis rejected	There is an association between the family income and purchase motives.

respondent. Factor 'Place factor 'is ranked third followed by factor 'Product factor' ranked fourth.

Factors 'Test drive experience and 'Information & promotion factor' ranked fifth and sixth respectively. These two factors also differ by margin in their mean values but are less on preference scale than the first four factors.

The seventh factor 'Accessories factor is last in the preference scale and has got the seventh rank. The difference in the mean values between 2nd and 3rd and similarly between 4th and 5th factors is not very high on the scale they differ with a small margin which implies that all these factors are on similar scale when it comes to buying preference for pre owned car.

It is observed from the analysis that the difference in the mean values is high between third and the fourth factor. After that the difference between the factors becomes small. This suggest that the economic factor, specific car history factor and place factor are the three important factors that have major influence on their decision process than rest of the factors while purchasing the pre owned car.

HYPOTHESIS TESTING

Following table shows the Null hypothesis developed, statistical test used and the test results.

Findings : All hypothesis test results were statistically significant. The result of hypothesis testing revealed that;

1] There is a difference in the importance given for various factors by the pre owned car aspirants and the customers.

2] There exist a association between the customer's demographic factor i.e. Family Income and the purchase motives.

3] There is difference between the customer satisfaction and importance given to the various factors which influence their purchase decision.

CONCLUSION

Consumer preferences analysis revealed economic factor as the most preferred factor with the highest mean value, budgetary constraints while buying a pre owned car could be the probable reason for this. Economic factor is followed by specific car history, place factor and product factor. The reason for product factor being placed at fourth rank could be that, the pre owned car is used for few years by the present owner and hence new customer has low expectations from the product performance. Test drive experience, Information & promotion factor and accessories factor were ranked fifth, sixth and seventh respectively.

Present study examined the customer expectations and satisfaction for various factors influencing customer's pre owned car decision. The analysis revealed that for all factors i.e. product factor, information and promotional factor, test drive experience factor, place factor, accessories factor, specific car history factor and economic factors; customer satisfaction was more than the expectation.

When tested for the difference in opinion on the different factors influencing pre owned car purchase decision. It was observed that pre owned car aspirants gave more importance to factors like product factors, test drive experience, place factor and accessories in the car as compared to the pre owned car customers. This suggests that aspirants believes on self experience and hence they took the test drive before purchasing the car and also they are more interested in extra features, good physical condition of the car along with the accessories in the car.

When customers with different family Income were studied for their association with purchase motive, it was observed that there is a significant association between the purchase motives and family income level.

LIMITATION OF THE STUDY

The study was restricted to Pune city only. However the population of the city exceeds 50 lakh and also due to good educational facilities and better employment opportunities, most of the people from different states in India have come and settled in Pune, producing a good mix of people from different culture, profession, income and educational background.

CONTRIBUTION TO INDUSTRY

Study has following contribution to the pre owned car industry;

1] The result of the study can help the pre owned car company managers in developing better marketing mix strategies.

2] The study can help in designing a better training programme for the salespersons to improve their performance, ultimately leading to increase in revenue and profit generation for the company.

3] The above mentioned developments will help in making customer happier and satisfied which is an ultimate goal for an organization.

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