Factors Influencing Consumer Preferences – An Exploratory Study

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ABSTRACT

The present research paper makes an attempt to explore and analyse various factors affecting consumer preferences for car brands. A structured questionnaire consisting of 15 statements was prepared and was got filled from 150 respondents of Jalandhar District to examine the influential motivations behind purchase decisions of two popular competitive car brands Hyundai and Maruti Suzuki. The exploratory factor analysis using Principal component analysis based on orthogonal varimax rotation was performed on 15 variables to extract the variables. KMO and Bartlett's test of spherecity are used to check the adequacy of sample. KMO value in present study is found to be 0.703 indicating adequate sample size. Bartlett's test chi-square is found to be 274.093 with sig value .000 indicating that present sample has significant correlation matrix to conduct factor analysis. The present study extracts five factors affecting consumer preferences for purchase decisions of passenger cars as five components have Eigen value greater than unity and total variance accounted by these five factors is 70.024%. Consumer preferences for car brands depends upon characteristics of car, marketing strategies opted by Car Company, variables affecting purchase decisions, the role of technical working aspect of cars and Brand image.

Key Words: Consumer Preferences, Factors, Factor Analysis, Cars

1. INTRODUCTION

In today's modernized, globalised and commercialized world, the principle of caveat emptor or 'let the buyer aware' has given way to the principle of 'Consumer is King' as the consumer wants maximum satisfaction from consumption of goods and services. Consumers differ in taste, preferences, habits, choices and hence it becomes necessary for manufacturers to understand diversified needs, desires of consumers and produce products and services accordingly. In earlier times there was close contact between producers and consumers which enabled them to understand the consumers. But today's complex nature and form of business organizations have made it impossible to have such close contacts. The little contact between producers and consumers now days often results in failure of marketing strategies and innovations (Cooper, 1993) and hence arises the need of theories of consumer brand preferences which emphasize on role of complexity, compatibility, product characteristics in determining brand preferences. Consumer brand preferences are influenced by a number of factors like brand equity, marketing mix elements, product characteristics (Rogers, 1995; Tornatzky and Klien, 1982; Mason, 1990; Chernev, 2003). The relative importance of each factor depends upon value of goods and services under consideration. Researchers and scholars have identified and explored plethora of factors affecting consumer preferences like product attributes (Simonson, 1994; Romaniuk, 2003; Singh et al., 2005; Bentz and Merunka, 2000); marketing mix variables like prices of products (Baumgartner, 2003; Charlton and Ehrenberg, 1973; Orth et al., 2004; Simonson et al., 1994; Alaverz and Casielles, 2005; Berne et al., 2004; Orth, 2005; Wagner and Taudes, 1986; Chib et al., 2004, Papatla and Krishnamurthi, 1996); Sales promotion techniques like advertisement (Wagner and Taudes, 1986); price cut (Bentz and Merunka, 2000); promotional discount (Bernes et al., 2004; Baumgartner, 2003; Paptala and Krishnamurthi, 1996); brand name (Orth et al., 2004; Charlton and Ehrenberg, 1973; Simonson et al., 1994); personality variables like gender, social class etc. (Fry, 1971). Autos have turned into a crucial piece of our lives and give us speedier, less expensive and more advantageous portability each passing day. The beginning

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of vehicles assembling began in India since 1942 with Hindustan Motors and head auto in 1944 began indigenous creation and the business has made considerable progress from that point forward. Presently, there are a few organizations delivering vehicles especially small cars. For the greater part of the general population, acquiring a car is the second most imperative and costly choice, beside purchase of a house for the general population in India. It is critical to comprehend shopper purchasing conduct for acquiring small cars. With better comprehension of client's observations, organizations can decide the activities required to address the client's issue, distinguish their own particular qualities and shortcomings, stand in correlation to their rivals, graph the future advancement way and change. The small car market changed quickly because of the fierce rivalry and advance innovation, accordingly, it requires the car manufacturers to comprehend the shopper's inclination on time and take quick activities to reflect market changes rapidly. Thus this inspired the authored to lead and conduct present survey to know customer's inclination and preferences of small cars in today's quick changing traveler auto market. The objective of the present paper is to study and explore various factors affecting consumer preferences for two popular competitive car brands Hyundai and Maruti Suzuki.

2. RESEARCH METHODOLOGY AND DATA BASE

The present study focuses to determine the various factors influencing consumer preferences for two popular competitive car brands Hyundai and Maruti Suzuki. For this a survey of 150 respondents was conducted to examine the influential motivations behind purchase decisions of consumers for cars. The data was collected using convenient sampling technique from Jalandhar district. A structured questionnaire was prepared and got filled from 165 respondents, however only 150 questionnaires were correctly filled and used for the purpose of analysis. The questionnaire consisted of 15 statements describing the reasons for consumer preferences for car brands. The level of preferences was asked to be rated by respondents. The response was measured on a 5 point likert scale wherein 1 being the level of least preference and 5 being the level of highest preference. The factors were extracted through the technique of exploratory factor analysis. The exploratory factor analysis using Principal component analysis based on orthogonal varimax rotation was performed on 15 variables reflecting motives for car brand preferences.

3. RESULTS AND DISCUSSIONS

Before the results of factor analysis are analyzed assumptions of factors analysis are tested. For checking the adequacy of data for factor analysis, adequacy of sample size and existence of correlation among variables are tested.

Table 1
Results of KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.703
Bartlett's Test of Sphericity	Approx. Chi-Square	274.093
	Df	105
	Sig.	.000

Source: Author's calculation based on primary data using SPSS

Adequate sample size for factor analysis should be four or five times of the variables taken under consideration. The present study includes the response of 150 respondents for 15 statements which shows adequacy of sample. In addition, the Kaiser-Meyer Oklin (K.M.O) measure has been used to test sample adequacy. KMO values between 0.5 and 1 indicate adequacy of data for use of factor analysis (Hair et al., 2003). Table 1 indicates that KMO value in present study is found to be 0.703 indicating adequate sample size. Table 2 describes the details of codes given to various variables used in the present study.

Table 2
Codes used for the variables affecting consumer preferences

Codes	Variables
X1	Price
X2	Financing
X3	Company's past financial record
X4	Brand name
X5	Word of mouth
X6	Technical Aspect
X7	After sale services
X8	Advertisement
X9	Promotions
X10	Space
X11	Size and shape
X12	Interior
X13	Comfort
X14	Fuel efficiency
X15	Power

For testing the condition of existence of considerable correlation among variables, the correlations are visually inspected. Hair et al. (2003) states that a substantial number of correlations should be greater than .30 and the correlation matrix for the same shows similar results. Table 3 clearly reveals that there are enough correlations coefficients more than 0.3 indicating the suitability of data to perform factor analysis. In addition Bartlett test is used to examine the hypothesis that the variables are uncorrelated in the population i.e. population correlation matrix is identity matrix.

Table 3
Correlation coefficient matrix of variables affecting consumer's preferences

Codes	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15
X1	1.00	.497	.302	.067	.271	.111	.242	.281	.335	.095	.149	.059	.151	.384	.200
X2	.497	1.00	.244	.070	.232	.127	.355	.381	.522	.182	.274	-.012	.189	.221	.047
X3	.302	.244	1.00	.225	.073	.327	.373	.599	.200	.212	.172	.057	.175	.228	.403
X4	.067	.070	.225	1.00	.174	.006	-.099	.327	.000	-.106	.125	.102	-.057	.001	.069
X5	.271	.232	.073	.174	1.00	.368	-.034	.358	.476	.018	.381	-.012	-.025	.126	-.146
X6	.111	.127	.327	.006	.368	1.00	.316	.279	.109	.005	.032	.146	.212	.415	.018
X7	.242	.355	.373	-.099	-.034	.316	1.00	.268	.091	.396	-.053	.113	.403	.380	.274
X8	.281	.381	.599	.327	.358	.279	.268	1.00	.543	.303	.352	.134	.244	.164	.332
X9	.335	.522	.200	.000	.476	.109	.091	.543	1.00	.312	.589	.309	.283	.075	.301
X10	.095	.182	.212	-.106	.018	.005	.396	.303	.312	1.00	.377	.315	.462	.173	.380
X11	.149	.274	.172	.125	.381	.032	-.053	.352	.589	.377	1.00	.288	.349	.026	.259
X12	.059	-.012	.057	.102	-.012	.146	.113	.134	.309	.315	.288	1.00	.485	.257	.411
X13	.151	.189	.175	-.057	-.025	.212	.403	.244	.283	.462	.349	.485	1.00	.500	.503
X14	.384	.221	.228	.001	.126	.415	.380	.164	.075	.173	.026	.257	.500	1.00	.381
X15	.200	.047	.403	.069	-.146	.018	.274	.332	.301	.380	.259	.411	.503	.381	1.00

Source: Author's calculation based on primary data using SPSS

This test finds the overall significance of correlation matrix and provides the statistical probability that correlation matrix has significant correlations among considerable number of variables. Bartlett's test chi-square is found to be 274.093 with sig value .000 indicating that present sample has significant correlation matrix to conduct factor analysis. Principal Component analysis is used for extraction of factors and number of factors to be related is based on latent root i.e. eigen value criterion. An eigen value represents the amount of

variance associated with the factor. Factors with eigen value greater than 1 are considered significant (Hair et al., 2003) and taken in analysis.

Table 4
Total Variance explained by initial Eigen values

Component	Initial Eigenvalues		
	Total	Percentage of Variance	Cumulative Percentage
1	**4.356**	**29.037**	**29.037**
2	**1.998**	**13.323**	**42.360**
3	**1.662**	**11.081**	**53.441**
4	**1.291**	**8.606**	**62.046**
5	**1.197**	**7.978**	**70.024**
6	.973	6.485	76.509
7	.701	4.672	81.181
8	.589	3.929	85.110
9	.514	3.425	88.535
10	.442	2.950	91.485
11	.350	2.335	93.820
12	.326	2.176	95.996
13	.249	1.658	97.654
14	.205	1.368	99.021
15	.147	.979	100.000

Source: Author's calculation based on primary data using SPSS

Table 4 contains the initial eigen values for all components. Perusal of table 3 indicates that five components have eigen value greater than unity and total variance accounted by these five factors is 70.024%. These results are supported by scree plot embodied in figure 1.

Figure - 1

Scree Plot
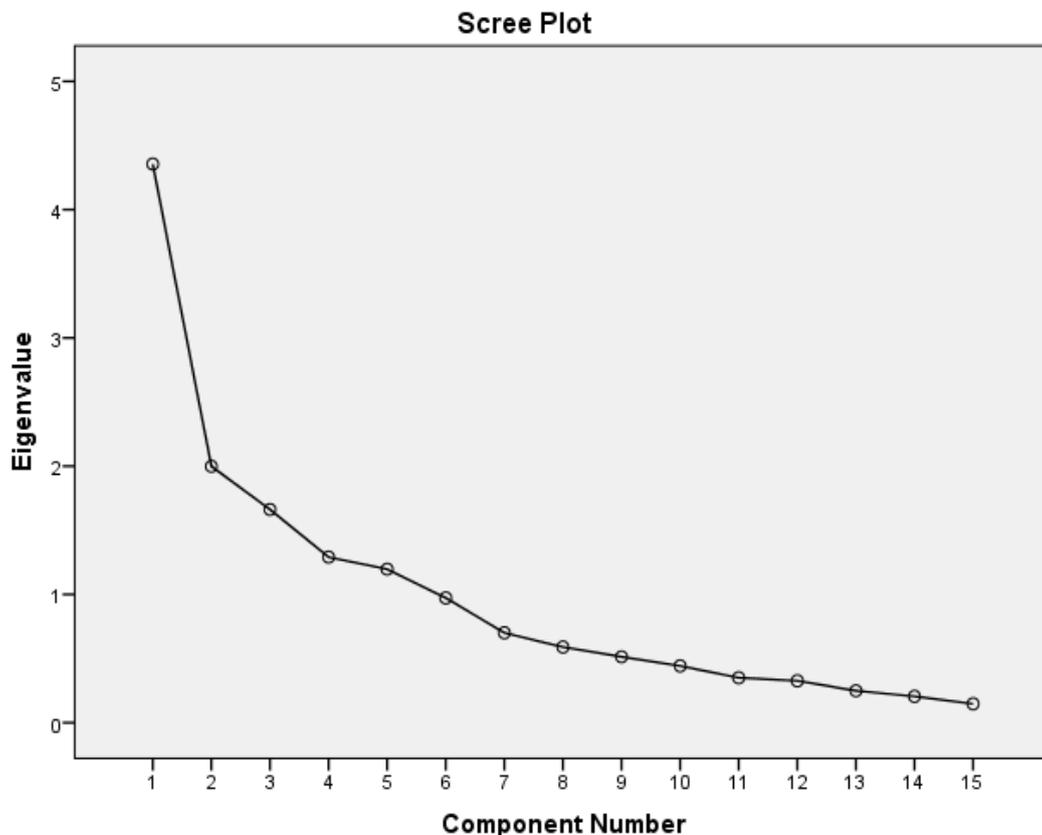
Factor 1 is most significant factor with 29.037% of total variance. Initially the component matrix without rotation is investigated and found that there are many variables having loading on more than one factor. Thereafter, orthogonal varimax rotation has been performed to minimise the number of variables that have high loadings on one factor and to enhance the intrepretability of factors (Hair et al., 2003; Malhotra, 2002). The factor loadings with absolute value greater than 0.45 should be retained (Bhaduri 2002, Sidhu and Vasudeva 2005, Hair et al., 2003). Table 5 contains the data related to factor loadings calculated with the help of orthogonal varimax rotation. Variables space, size and shape, interior and comfort loaded on factor 1; the variables advertisement and promotions loaded on factor 2; price, financing and after sales services loaded on factor 3; technical aspect and fuel efficiency loaded on factor 4 and brand name, word of mouth and company's past financial records loaded on factor 5.

Table 5
Interpretation and labeling of factors using rotated component matrix

Codes	Variables	Factors extracted				
		Car Features	Marketing Strategies	Purchase decisions	Technical working aspect of cars	Brand image
X1	Price			.652		
X2	Financing			.777		
X3	Company's past financial record					.700
X4	Brand name					.770
X5	Word of mouth					.738
X6	Technical Aspect				.853	
X7	After sale services			.605		
X8	Advertisement		.651			
X9	Promotions		.766			
X10	Space	.678				
X11	Size and shape	.747				
X12	Interior	.687				
X13	Comfort	.784				
X14	Fuel efficiency				.688	
X15	Power				.758	

Source: Author's calculation based on primary data using SPSS

Further the factors are labeled according to the variables loaded on that factor. Factor 1 advocates car features. Consumer preferences for car brands depends upon characteristics of car which are size and shape loaded with a factor loading value of .747, comfort loaded with value .784, interior loaded with value .687 and space with value .678.

Second important factor explaining 13.323 percent of the variations and emphasize on marketing strategies opted by car company. This factor contains only two variables namely promotional measures with factor loading value of .766 and advertisement having factor loading value of .651. Third factor explaining 11.08 percent of total variations contains variables affecting purchase decisions. Financing facilities available load with highest factor loading .777 followed by price with factor loading .652 and after sales services with factor loading .605. Fourth factor highlights the role of technical working aspect of cars and explains 8.606 percent of total variations and contains only two variables technical aspect having factor loading .853 and .688 respectively. Fifth factor emphasize on brand image explaining 7.978 percent of total variations. Brand name, word of mouth and company's past financial record load on this factor with factor loadings 0.770, .738 and .700 respectively.

4. SUMMARY AND CONCLUSIONS

The results show that features of cars, marketing strategies opted by companies, policies affecting purchase decisions, technical working aspect of cars and brand image are the factors affecting consumer's brand preferences of small cars. These factors highlight that in today's consumerism world, manufacturers of passenger cars should concentrate on all these factors in their car brands and marketing plans and should find the better ways to improve the quality of product and provide it to consumers at least possible cost so that large volumes of sales can be achieved by companies. Therefore small car producers should focus on these value creating factors so that consumers can get better small cars in the present competitive and dynamic environment.

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