



A STUDY ON PROBLEMS FACED BY CONSUMERS IN BUYING A CAR IN TIRUNELVELI DISTRICT BY USING FACTOR ANALYSIS

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ABSTRACT:

For the recent years, Cars have been an integral part of human life. Owning a vehicle provides more than just convenience. With the advent of autonomous vehicles and advances in technology, the market for mobility is expected to grow. Every auto makers and dealers must address the factors that contribute to customer frustration in buying a car. The presence survey was undertaken to study about the problems faced by the consumers of the car in buying among various brands of cars in Tirunelveli district. In all fifteen Taluks of Tirunelveli district, the car owners were taken and the size of the sample is 385. The aim of the study is to know about the problems faced by the consumers in buying a car is what they expect in advanced of, and after, the purchase of their vehicle.

KEYWORDS : Integral, Convenience, Frustration.

INTRODUCTION

A revolution in Indian automobile sector was expected with the introduction of various brands with various segments. It was thought that to overcome the discomfort of travelling in rain or in the hot sun, on two-wheelers, the car will be preferred, which will have serious implications on the manufacturing of two wheelers and sale of other models of personal vehicles. The consumer might be drawn to a new car by a low advertised price that the base price is for a low- or no-frills model. A consumer can probably find less of a difference between the prices of new cars and two-wheelers when he doesn't want pricey options. Owning a car is a huge investment. In a typical household, it's usually the second biggest expense after housing. And buying a car takes a lot time. Many aspects of experience are also confusing. Improving the experience, starting the moment when a consumer decides to buy a car, is key.

REVIEW OF LITERATURE

Maran (2002) conducted a study on the scenario of small cars segment in Chennai city which deals with the market share and marketing strategy, technical and financial performance of the manufacturers of small cars segment. The study has pointed out that the ancillary industries which supply components to the manufacturers often failed to adhere to the delivery schedule causing production problems. The study has also found that higher maintenance cost of small cars due to inflation, the high cost of spares and components and adverse conditions which prevailed in the town and semi-urban areas led to the postponement of purchase of small cars as the problems faced by the small car owners.

Peeru Mohamed (2002) in his study entitled "The passenger car industry of India: A study of market condition and brand selection" attempted to focus on the market conditions and brand selection of the passenger car owners of Coimbatore district. A sample of 400 car owners was taken from Coimbatore district by adopting the sampling technique of stratified random sampling technique. As such the study is a fact

gathering expedition, assuming the characteristics of both descriptive and exploratory research. The collected data were analyzed with the help of appropriate statistical tools. The study pointed out the problems faced by the consumers of the car are high price, poor quality standards lack of after-sales service increasing fuel cost, non availability of standard quality of spare parts and differing tax rates from State to State.

STATEMENT OF THE PROBLEM

Due to the emergence of globalization and liberalization, there is a cut throat competition among the variety of car industries which are focusing attention on capturing the Indian markets. In Indian car industry, car segments have played a very crucial and significant role due to its economy, efficiency, and effectiveness. Due to the invasion of foreign cars into Indian markets, the pace of competition has hiked. In other words, Brand switching is gaining the momentum. The study focuses on the problems while choosing a car among the people of Tirunelveli city because always consumer says something and does something. There are many companies manufacturing car into the market, must have an idea about thinking of customer on whether, what, how and far whom to purchase the car. Therefore, the research is required to measure the problems faced by the consumer in buying a car.

OBJECTIVES OF THE STUDY

1. To study the problems faced by the consumers of car based on the demographic characters of gender and age in Tirunelveli District.
2. To offer suitable suggestions based on the findings.

RESEARCH METHODOLOGY

The research design applied for this study is analytical and descriptive. Both primary and secondary data were used in this study. Primary data were collected from the car owners from 15 Taluks of Tirunelveli district with an interview schedule. Secondary data were also collected from journals, magazines, periodicals and dailies.

HYPOTHESIS

H₁: There is no significant difference between the gender of the respondents in the problems faced by the consumers of car.

H₂: There is no significant difference between the age of the respondents in the problems faced by the consumers of car.

DATA ANALYSIS

The problems faced by the consumers in buying a car is analysed using factor analysis.

Factorization of Problems Faced by the Consumers of Car

The study throws light on the problems faced by consumers of car in the study area. An attempt was made to analyze the problems faced by consumers when pre, during and post purchasing a car in the study area. Factor analysis was used to construct the factors from the twenty variables of problems of the respondents when purchasing the car for the purpose of analyzing the problems based on the selected demographic profile of the respondents.. Previously, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy; and Bartlett's test of sphericity were used for assumptions the Factor analysis. The details of sampling adequacy and Sphericity of the collected data of the respondents are shown in Table .

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.776	
Bartlett's Test of Sphericity	Approx. Chi-Square	6681.054
	Df	190
	Sig.	.000**

**Significant at .05 level of confidence

The above Table clearly portrays that Kaiser-Meyer-Olkin measure of sampling adequacy value is 0.776, which falls into the range of being great. The correlation matrix was initially examined to determine how appropriate it was for factor analysis. The Kaiser-Meyer-Olkin (KMO) value was 0.776, which is higher than the recommended minimum of 0.6 indicating that the sample size was adequate for applying factor analysis. In addition, the value of the test statistic for sphericity on the basis of a chi-squared transformation of the determinant of the correlation matrix was large. Bartlett's test of sphericity ($Z = 6681.054$) was significant, supporting the factorability of the correlation matrix. Bartlett's test of sphericity was statistically significant ($p < .05$), indicating that the data was likely factorization.

Varimax Orthogonal Rotated Component Matrix

Items	Component				
	1	2	3	4	5
Misleading sources of information	-.868	.166	.089	.166	.269
Do not provide recommended safety options	-.743	.087	.013	.194	.070
Hide the discounts and free accessories	-.739	.045	.426	.197	.068
Hide the entire pre-delivery checklist	.683	.488	.080	.070	.394
Difficult to get an itemized price list	.647	.123	.221	.398	.107
Refuse to go for a comprehensive test drive	.518	.475	.138	.417	.167
Free accessories are of very poor quality	.242	-.806	.319	.043	.067
The prices of accessories for the car are very high	.260	.736	.071	.266	.383
Delays to deliver the new car	.234	-.729	.455	.150	.038
Unwilling to offer an alternative car in the interim	.096	.716	.482	.251	.151
Sell the insurance policy with fat commissions	.430	-.540	.380	.292	.223
Not doing service promptly	.102	.214	.875	.020	.024
Do not send regular intimations	.057	.001	.870	.070	.004
Have not a strong Service Network	.075	.213	.564	.324	.535
Hard to decide what sort of car best meets	.138	.002	.124	.881	.223
Budget preparation for buying a car is very difficult	.310	.005	.166	.736	.439
Difficult to get a loan for buying a car	.069	.251	.076	-.648	.088
Hide the actuality of car finance	.406	.542	.247	-.560	.143
Puzzlement to decide to buy the diesel or petrol car	.038	.173	.079	.354	.824
Puzzlement to buy whether new or used car	.478	.101	.467	.072	.579

Note that the analysis has sorted out the 20 questions relating to the problems of the consumer when pre, during and post buying a car into five groups of items, as shown by the blocked-up items in Table

Factor Analysis of Problems of Consumer of Car

Factor	Problems	Factor Loading	Factor Name
1	Misleading sources of information	.868	Ripping-off before Booking the Car
	Do not provide recommended safety options	.743	
	Hide the discounts and free accessories	.739	
	Hide the entire pre-delivery checklist	.683	
	Difficult to get an itemized price list	.647	
	Refuse to go for a comprehensive test drive in traffic, on open roads and up and down hills	.518	
2	Free accessories are very poor quality	.806	Ripping-off after Booking the Car
	Prices of accessories for the car are very high	.736	
	Delays to deliver the new car	.729	
	Unwilling to offer an alternative car in the interim failure to deliver a new car within a reasonable time	.716	
	Sell the insurance policy with fat commissions	.540	
3	Car Companies are not doing service promptly	.875	Disgraceful Service after Sales
	Car Companies do not send regular intimations	.870	
	Car companies have not a strong Service Network	.564	
4	Hard to decide what sort of car best meets	.881	Oscillation in Financial Affairs
	Budget preparation for buying a car is very difficult	.736	
	Difficult to get a loan for buying a car	.648	
	Hide the actuality of car finance and annual percentage rate (APR)	.560	
5	Puzzlement to decide to buy the diesel or petrol car	.824	Confusion on Decision Making
	Puzzlement to buy whether new or used car	.579	

PROBLEMS OF CONSUMERS ACROSS THE DEMOGRAPHIC CHARACTER OF GENDER AND AGE

Mann-Whitney U Test: Problems of Consumers of Car Based on Gender

Factors	Gender	N	Mean Rank	U	Z	p-value
Ripping-off before Booking the Car	Male	354	193.74	5225	-.800	.424
	Female	31	184.55			
	Total	385				
Ripping-off after Booking the Car	Male	354	192.06	5153	-.912	.362
	Female	31	203.77			
	Total	385				
Disgraceful Service after Sales	Male	354	195.52	4593	-1.609	.108
	Female	31	164.18			
	Total	385				
Oscillation in Financial Affairs	Male	354	191.74	5041	-.899	.369
	Female	31	207.39			
	Total	385				

Puzzlement on Decision Making	Male	354	193.21	5414	-.140	.889
	Female	31	190.65			
	Total	385				

**Significant at .05 level of confidence

Testing of Null Hypothesis H₁

Null Hypothesis	Test	In the Form of	p-value	Decision
There is no significant difference between genders of the respondents in the problems faced by the consumers of the car.	Mann -Whitney U test	Ripping-off before Booking the Car	.424	Retain
		Ripping-off after Booking the Car	.362	Retain
		Disgraceful Service after Sales	.108	Retain
		Oscillation in Financial Affairs	.369	Retain
		Puzzlement on Decision Making	.889	Retain

**Significant at 0.05 level

The Table revealed that the null hypothesis is retained at the 5% level of significance with regard to ripping-off before booking the car, ripping-off after booking the car, disgraceful service after sales, oscillation in financial affairs, puzzlement on decision making due to the p-value is more than 0.05.

Kruskal-Wallis H Test: Problems of Consumers of Car Based on Age

Factors	H	Df	p Value	Mean ranks				
				I	II	III	IV	V
Ripping-off before booking the Car	35.43	4	.000**	209	217	180	182	114
Ripping-off after booking the Car	25.83	4	.000**	155	174	207	167	162
Disgraceful Service after Sales	12.43	4	.014**	262	207	180	211	238
Oscillation in Financial Affairs	105.05	4	.000**	153	129	231	234	126
Puzzlement on Decision Making	53.44	4	.000**	145	147	219	266	277

**Significant at 0.05 level

(I - 30 and below, II - 31 – 40, III - 41 - 50, IV - 51 – 60 and V - Above 60)

Testing of Null Hypothesis H₂

Null Hypothesis	Test	In the Form of	p-value	Decision
There are no significant differences between the age groups of the respondents in the problems faced by the consumers of the car.	Kruskal-Wallis H Test	Ripping-off before Booking the Car	.000**	Rejected
		Ripping-off after Booking the Car	.000**	Rejected
		Disgraceful Service after Sales	.014**	Rejected
		Oscillation in Financial Affairs	.000**	Rejected
		Puzzlement on Decision Making	.000**	Rejected

**Significant at 0.05 level

The Table revealed that the null hypothesis (H_2) is rejected at the 5% level of significance with regard to ripping-off before booking the car, ripping-off after booking the car, disgraceful service after sales, oscillation in financial affairs, puzzlement on decision making due to the p -value is less than 0.05.

FINDINGS

- With the help of factor analysis, the twenty various problems faced by the consumers when pre, during and post buying the car were reduced to five factors such as ripping-off before booking the car, ripping off after booking the car, disgraceful service after sales, oscillation in financial affairs and puzzlement on decision making.
- It is shown that there was no statistically significant difference in the problems such as ripping-off before booking the car, ripping off after booking the car, disgraceful service after sales, oscillation in financial affairs and puzzlement on decision-making between the genders of the respondents.
- The study showed that there was a statistically significant difference in the problems such as ripping-off before booking the car, ripping off after booking the car, disgraceful service after sales, oscillation in financial affairs and puzzlement on decision-making between the age groups of the respondents.

SUGGESTIONS

- From the findings researcher suggest that the demographic characters of gender and aged place an important role. Many customer looking to ensure the car (the vehicle) is good fit to their body and life style. So they can overcome the problems by way of five steps in decision making process, need to decide what to do in many situations which includes problem recognition, information search, evaluation of alternatives, Product choice and post purchase evaluation.

CONCLUSION

The buying process starts when the buyer recognise a problem or need. The need can be triggered by internal or external stimuli. Marketers need to identify the circumstances that trigger a particular need. By gathering information from a number of consumers, Marketers can identify the most frequent stimuli that spark an interest in a product category. They can develop marketing strategies that trigger consumer interest.

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