

Customer Satisfaction And Purchase Behaviour of Tata Nano Cars A Study With Special Reference To Tirupur District



Commerce

KEYWORDS : bioaerosols, bacteria, sewage treatment plant.

Dr. S. KALYANI

ASSISTANT PROFESSOR DEPARTMENT OF COMMERCE GOVT ARTS&SCIENCE COLLEGE, KOMARAPALAYAM

MRS. M.KALAIARASI

RESEARCH SCHOLAR LRG GOVT ARTS COLLEGE FOR WOMEN, TIRUPUR

INTRODUCTION

The automotive industry in India in one of the largest in the world and one of the fastest growing globally. India manufactures over 17.5 million vehicles (including 2 wheeled and 4 wheeled) and exports about 2.33 million every year. It is the world's second large manufacturer of motorcycles, with annual sales exceeding 8.5 million in 2009. India's passenger car and commercial vehicle manufacturing industry is the seventh largest in the world, with an annual production of more than 3.7 million units in 2010. According to recent reports, India is set to overtake BRAZILE to become the sixth largest passenger vehicle producer in the world, growing 16-18 percent to sell around three million units in the course of 2011-2013. In 2009, India emerged as Asia's fourth largest exporter of passenger cars, behind Japan, South Korea, and Thailand.

The car industry of India has come a long way. During its early stage the auto industry was over by the government and the policies were also not favorable. The liberalization policy and various tax relief by the Govt. of the India in recent years have made remarkable Impacts on Indian Automobile Industry. Indian auto industry, which is currently growing at the pace of around 18% per annum, has become a hot destination for global auto player like Volvo, General motors and Ford.

A well developed transportation system plays a key role on the development of an economy and India is no exception to it. With the growth of transportation system the Automotive Industry of India is also growing at rapid speed, occupying an important place on the 'canvas' of India economy.

Today Indian car industry is fully capable of producing various kinds of vehicles and can be divided into 3 broad categories: Cars, two-wheelers and heavy vehicles.

The reason behind the immense growth of the India Car Industry can be attributed to the availability of car loans, affordable rates of interest, smooth repayment facilities and the deductions offered to the customers by the retailers.

STATEMENT OF THE PROBLEM

Role and need of four wheelers have been inevitable in today's modernized world, especially car to meet their urgent requirements conveniently and for prestige. During 20th century more number of entrepreneurs came forwards to engage themselves in automobile industry to satisfy the need of the consumers. In India many entrepreneurs play a key role in the field. At present Tata motors came forward in launching the Nano, as the consumers of Tirupur city (Maximum foreign exchange earner) are highly induced to buy Nano car for their convenience than two wheeler.

OBJECTIVES OF THE STUDY

*To know the awareness of the respondents about Nano car.

*To determine the preference of Nano car compared to two wheeler.

*To know the inconvenience faced by the respondents while using Nano car.

*To analyze the level of satisfaction about nano car.

RESEARCH METHODOLOGY

Research methodology is a way of systematically solving the research problem. In other words it is a science of studying how research is done scientifically. An effective research strategy forms the frame work of the entire research process. It comprised of suitable methods of investigation the nature of instruments the sampling plan and type of data used.

RESEARCH DESIGN

A research design is the arrangement of condition for collection and analyses of data in a manner that aims to combine relevance to the research process with economy procedure. The present study is descriptive nature. It includes survey of different kinds.

DESCRIPTIVE RESEARCH DESIGN

Descriptive research designs which are concerned with describing the characteristics of a particular individual, or of a group. This design is concerned with specific predications, with narration of facts and pre-planned design for analysis. It is structured design thorough out instrument for collection for data. In this study descriptive design has been used to minimize bias and maximize reliability of the evidence collected.

AREA OF STUDY

The study covers the respondents of Tirupur city.

SAMPLING DESIGN

200 respondents have been selected by using convenience sample technique.

SOURCES OF INFORMATION.

Primary data, secondary data were collected for this study.

PRIMARY DATA

Primary data were collected for the first time and it's the fresh data collected by the researcher. In this study primary data was collected by means of an interview scheduled method. It includes both open ended and close ended question.

SECONDARY DATA

The secondary are those which have already been passed through the statistics process. In this study secondary data were collected from the books, magazines, journals, web sites etc.,

STATISTICAL TOOLS FOR ANALYSIS.

- Simple percentage analysis.
- Point analysis
- Rank analysis
- Chi-square analysis
- ANOVA test

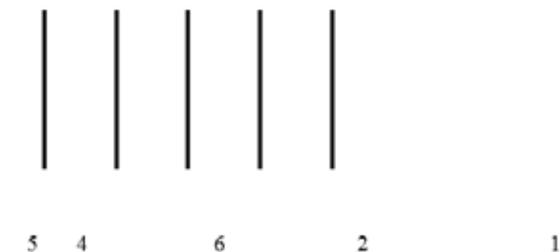
SIMPLE PERCENTAGE METHOD

In this method based on the opinion of the respondents percentage is calculated for the respective scale of factor.

POINT ANALYSIS

The likert scale consists of a member of statements which express a favorable or unfavorable attitude towards the given object to which the respondents are asked to react.

Highly satisfied Satisfied Moderate Dissatisfied Highly Dissatisfied



STEPS.

- The respondents are asked to express their attitude towards the given question.
- The respondents indicated their agreement or disagreement.
- Each response is given a numerical score indicating the favorable and unfavorable.
- The score is totaled to measure the respondent's attitude.
- Formula for point analysis
- Point analysis=total points\number of respondents.

RANK ANALYSIS

In statistics, rank correlation is the study of relationships between different rankings on the same set of items. A rank correlation coefficient measures the correspondence between two rankings and assesses its significance.

CHI-SQUARE TEST

Chi-square test is a non-parametric test .It can be used to determine if categorized data show dependency or not .It can also make comparison between theoretical population & actual data when categories are used.

$$\text{Chi-square} = (E (O_i - E_i)^2) / E_i$$

$$E = (RT * CT) / N$$

O – Observed frequency

E – Expected frequency

Table value is found at 5% level of significance and for the available degree of freedom.

ANALYSIS OF VARIANCE

ANOVA is used when multiple sample test for differences among the means of the populations by examine the amount of variation with in each of these samples, relative to the amount of variation between the samples .In this context ,gender and awareness about Nano car and suitable for long ride & Occupation and fuel efficiency ANOVAs test is applied.

CHAPTER-II

REVIWE OF LITERATURE

"A study on perception of people about Nano car in Jaipur

city". The main objectives of his study to know the level of perception towards Nano car in Jaipur city .He conducted to gain an understanding of what goes in to mind of the customer about "NANO" .To find the perception of people on "NANO" in the JAIPUR city, He used research questionnaires as the research and data collection tools. His study also reveals Tata Motors Limited is India's largest automobile company, with revenues of Rs. 32426 crores (USD 7.2 billion) in 2006-07. It is the leader by far in commercial vehicles in each segment, and the second largest in the passenger vehicles market with winning products in the compact, midsize car and utility vehicle segments. The responses were collected from 300 respondents from various areas of JAIPUR. He had learned lot during the Grand Project on perception of people on Tata's "NANO"

"A case study on impact of Nano car on two wheeler industry". The study reveals some companies think the Nano will replace the two-wheeler market, creating an alternative mode of commercial transport. Others believe the small car will wean away potential Maruthi 800 buyers, convert automatic and gearless scooter owner and prove an attractive alternative to both second -hand car and premium motorcycle customers. But the Real threat from the Nano, they say will begin only when it launches its diesel version, which might be more expensive but is expected to draw in large volumes. Tata motors is expected to produce around 100000 cars in the first year and will ramp up capacity once its plant in Gujarat goes on stream October this year. The Nano is similar to or cheaper than an auto-rickshaw and offers similar mileage. But it provides more safety and has superior technology, so I see the conversion of this market to the Nano

Rishabh Modi "A study on perception of people about Nano car in Jaipur city (2010)" Source: www.scribd.com.

Das Gupta "A case study on impact of Nano car on two wheeler industry", Indian journal of marketing, Volume. IV, 5th edition, 88-102

"A case study on impact of Nano car on two wheeler industry". Nano raises the standing of industrial India to new heights, in the world market. Though the initial price of Nano is Rs. 1 lakh only, the taxes will increase the total initial investment to be made by the consumer. Taxes are open ended without limit. Unless taxes of moderate, the purpose of the project will be defeated .this study reveals Nano car will definitely eat into the two wheeler pie, has a car offers most safety then a two wheeler and its more likely that more and more youngsters and people who have to commute long distance to work, and small families who travel within the city together will find the Nano a safer and more comfortable alternative. It is a very high demand for Nano compare to the actual supply currently; bookings are being taken only for 100% payment with the possibly long waited period. Tata is likely to face more challenges especially in catching up with the demand, as such a product will invoke mass demand hinging pretty close to the demand seen for two wheelers.

"A case study on impact of Nano car on two wheeler industry". Though the impact of the Nano on the two wheeler segment and the used-car segment could be relatively high compared to its impact on the small car segment, this again depends on the performance of the car, how its stabilizes and user reviews of initial performance once it hits the road. In recent times, a host of new product has been launched in the small car segment by popular brand names like Maruthi, Hyundai, Chevrolet and others. The high selling point of the Nano at this point in time is the extremely affordable price tag and the fact that it looks quite fetching in terms of design and gives consumers the snazzy feel of commuting in a hi-tech 'cool' car. It comes with an engine management system, components of which have been designed

by bosh and has safety features like the fuel injection being cut off if you reverse the car too fast and a warning light displayed on dash board with a buzzer chime being set off in case of high engine temperature, engine misfire, over speeding, etc.

7)Pratiba A. Dabholkar, “A case study on impact of Nano car on two wheeler industry (2010)” www.scribd.com

8)Malhotra N.K, “A case study on impact of Nano car on two wheeler industry (2011)” Indian journal of marketing, vol. V, 7th Edition,50-58.

CHI-SQUARE ANALYSIS

CHI-SQUARE TEXT

RELATIONSHIP BETWEEN INCOME LEVEL AND SATISFACTION OF NANO CAR

Null Hypothesis (Ho)

There is no significant relationship between Income Level and satisfaction of Nano car.

Alternative Hypothesis (H_a)

There is a significant relationship between Income Level and satisfaction of Nano car.

TABLE NO: 1

Age group	SATISFACTION LEVEL					Total
	Highly satisfied	Satisfied	Moderate	Dissatisfied	Highly dissatisfied	
Below Rs. 1000	6	5	2	2	4	19
Rs. 10000-20000	16	9	5	7	5	42
Rs. 20000-30000	30	14	12	8	12	76
Above Rs. 30000	28	10	6	6	13	63
Total	80	38	25	23	34	200

Degrees of freedom : (r-1) (c-1) = (4-3) (3-1) =6

Level of significant : 5%

Able Value : 12.592

Calculated Value : 11.428

Therefore the calculated value is less than table value .Hence hypothesis is accepted .So there is no significant relationship between Income Level and satisfaction of nano car.

CHI-SQUARE TEXT

RELATIONSHIP BETWEEN AGE GROUP AND THE FEATURE OF NANO ATTRACTION

Null Hypothesis (Ho)

There is a no significant between age group and the feature of Nano attraction.

Alternative Hypothesis (H_a)

There is a significant relationship between age group and feature of Nano attraction.

TABLE NO: 2

Age group	Feature				Total
	Mileage	Design	Interior space	Price	
Below 20 years	2	1	2	2	7
20-30 years	10	20	16	22	68
30-40 years	32	10	16	39	97
Above 40 years	12	6	2	8	28
Total	56	37	36	71	200

Degrees of Freedom : (r-1) x (c-1)

: (4-1) x (4-1)

: 9

Level of significant : 5%

Table Value : 16.919

Calculate Value : 20.11

Therefore the calculated table value is greater the table value. Hence hypothesis is rejected. Hence there is a significant between age group and the feature of nano car attraction.

4.5 ANOVA TEXT

GENDER AND SOURCES OF INFORMATION

NULL HYPOTHESIS

There is no significant difference between gender and sources of information about nano car.

TABLE: 3

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	133	1.1128	0.31752	0.2753	1.0583	1.1672	1	2
2	42	1.0952	0.2971	0.04584	1.0027	1.1878	1	2
3	25	1	0	0	1	1	1	1
Total	200	1.095	0.29395	0.02079	1.054	1.136	1	2

ANOVA

	Sum of squares	Df	Mean square	F	Sig.
Between Groups	.268	2	.134	1.558	.213
Within Groups	16.927	197	.086		
Total	17.195	199			

The test of ANOVA between of gender and awareness about Nano car shows an F value of 1.558 .the significant value .213 is greater than .05 so null hypothesis is rejected at 5% level significant and conclude that there is a significant difference between gender and sources of information about Nano car.

OCCUPATION AND FUEL EFFICIENCY

NULL HYPOTHESIS

There is no significant difference between occupation and the opinion about fule efficiency.

TABLE NO: 4

Descriptive

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	58	1.8621	0.8.455	0.10564	1.6505	2.0736	1	4
2	83	1.5181	0.94173	0.10337	1.3124	1.7237	1	4
3	31	2.6129	0.91933	0.16512	2.2757	2.9501	1	4
4	18	2.0556	0.99836	0.23532	1.5591	2.552	1	4
5	10	2.8	0.78881	0.24944	2.2357	3.3643	2	4
Total	200	1.9	0.98736	0.06982	1.7623	2.0377	1	4

ANOVA

	Sum of squares	df	Mean square	F	Sig.
Between Groups	36.481	4	9.120	11.290	.000
Within Groups	157.519	195	.808		
Total	194.000	199			

The test of ANOVA between occupation and fuel efficiency shows an F value of 11.290 .The significant value .0000 is less than .05 shows the null hypothesis is accepted at 5% level of significance and concludes that there is no significant difference between occupation and opinion about fuel efficiency.

CHAPTER-V

FINDINGS, SUGGESTIONS & CONCLUSION

FINDINGS

Simple percentage

- Majority (48.5%) of the respondents are the age group between 30-40 years.
- 90.5% of the respondents are male
- It is found that, 48.5% of the respondents are studied up to college level.
- 38% of the respondents are under the income group of Rs. 20000-30000 category.
- Majority (44%) of the respondents are business man.
- 66.5% of the respondents know Nano car through advertisements.
- Majority 72% of the respondents opined that the Nano car is suitable for low class.
- 87% of the respondents opined that the two wheeler sale is normal after launching Nano car.
- 41.5% of the respondents informed Nano is good in fuel efficiency.
- It is found that 67.5% of the respondents choose Nano car for long ride.
- Majority 83.5% of the respondents opined that Nano car is safety while compared with two wheeler.
- 58.5% of the respondents have informed that the maintenance cost is low.
- Most of the respondents (i.e.) 49% of the respondents attract Nano for its mileage.
- 96.5% of the respondents say the Nano is designed and built for India's local weather and road conditions.
- 91.5% of the respondents are satisfied with the maintenance support given by the Nano car company.
- Most of the respondents 60% of the respondents opined that the Nano car can be used as a taxi.
- Majority 76.5% of the respondents say that low storage space is the main inconvenience while using the Nano car.
- 89% of the respondents have purchased the Nano at normal price.
- It is found that 46% of the respondents are highly satisfied

in price.

- Majority 41.5% of respondents are satisfied with the mileage of Nano car.
- 51% of the respondents are satisfied with the design of Nano car.
- It is found that 43% of the respondents are satisfied with the interior space of Nano car.
- 36% of the respondents are satisfied with the safety of Nano car.
- Majority 46% of the respondents are satisfied with the maintenance cost Nano car.
- 41.5% of the respondents are satisfied with nano car while compared to two wheeler.
- It is found that 48.5% of the respondents suggested that new mobile to be provided.
- Majority 74% of the respondents has recommended the Nano car to friends and relatives.

Point analysis

- Consumers are satisfied with the price of Nano car.
- Consumers are satisfied with the mileage of Nano car.
- Consumers are satisfied with the design of Nano car.
- Consumers are satisfied regarding the interior space of Nano car
- Consumers are satisfied regarding the safety of Nano car.
- Consumers are satisfied regarding the maintenance cost of Nano car.

Rank analysis

- Price scored 651 points and placed in the first rank for the preference of Nano by the respondents.

Chi-square test

- There is no significant relationship between Income Level and satisfaction of Nano car.
- There is a significant relationship between age group and feature of nano car attraction of the respondents.

ANOVAs

- There is a significant relationship between different gender and sources of awareness about Nano car.
- There is no significant relationship between occupation and opinion about fuel efficiency of Nano car.

SUGGESTIONS

- Features of Nano car has to be improved in terms of size & comfort.
- Consumers perceived qualities like fuel efficiency & safety to be improved.
- The Manufactures has to provide provision for accessories like Radio, Air-conditioning etc.,
- The manufactures has to take necessary steps to reduce the engine noise while using the car.
- To attract more consumers, the company has to provide the price offers.

CONCLUSION

NANO which was originally launched as a Rs11lakh car was given a huge makeover using expensive metals to make it India's most cheapest car, The Tata Nano small car is possibly India's most preferred car among the consumers.

There is a great scope for the nano car in Tirupur city. It was found that majority of the respondents a

The study is an attempt to focus consumer perception towards Nano car in Tirupur city .Through this study the researcher has identified that is satisfied with the Nano car. Most of the respondents buy the Nano car for its style/appearance, convenience, fuel efficiency and maintenance.

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