

# Perception of Indians Regarding Comfort Level in Different Car-Sizes

Dr. Rohit Markan,

Principal, Vidya Sagar College of Management & Technology, Patiala, India.

**Abstract:** This research paper studied and evaluated that how Indian people perceive the comfort level about their cars, regarding their usage and expenditure on them along with the size of the car. In Indian society now a day's cars are not only considered as a medium of transportation of people but also a status symbol. Bigger the size of car you have more you have an esteem in society. In this study we tried to find that what were the factors involve when a common Indian car owner sees in his/her cars apart from the interior and looks of the car. As interior and looks were checked before the buying of car but when he/she was using it on road how they feel comfortable in it. It was expected that bigger the size of car owner will have high attitude towards his car but surprisingly it was not so in this study. But it was found income level do effect the factor that which type of car you own. Also, Scatter diagram analysis for multiple regression equation was performed for few variables to check which variable were affecting the scoring rate of the respondents.

**Keywords:** Comfort level, esteem, interior, usage and expenditure.

## I. INTRODUCTION

An automobile, motor car is a wheeled motor vehicle used for transporting passengers, which also carries its own engine or motor. Most definitions of the term specify that automobiles are designed to run primarily on roads, to have seating for one to eight people, to typically have four wheels, and to be constructed principally for the transport of people rather than goods. With the advancement of science and technology, Automobile Industry has been improved. This industry moved from its traditional stage to a new track. In traditional time we had steam & combustion engine and today's scenario is that we are about to use Hybrid cars.

The Indian auto industry is one of the largest in the world with an annual production of 21.48 million vehicles in FY 2013-14. The automobile industry accounts for 22 per cent of the country's manufacturing gross domestic product (GDP). An expanding middle class, a young population, and an increasing interest of the companies in exploring the rural markets have made the two wheelers segment (with 80 per cent market share) the leader of the Indian automobile market. The overall passenger vehicle segment has 14 per cent market share. India is also a substantial auto exporter, with solid export growth expectations for the near future. Various initiatives by the Government of India and the major automobile players in the Indian market is expected to make India a leader in the Two Wheeler and Four Wheeler market in the world by 2020.

### A. Market Size

Sales of commercial vehicles in India grew 5.3 per cent to 52,481 units in January 2015 from a year ago, according to Society of Indian Automobile Manufacturers (SIAM). Sales of cars also grew for a third month in a row to 169,300 units in January 2015, up 3.14 per cent from the year-ago period. Car market leader Maruti Suzuki India witnessed 8.6 per cent higher sales at approximately 118,551 units in February 2015, out of which 107,892 were sold in domestic market and 10,659 units were exported. Hyundai Motor India Ltd (HMIL) reported a 2.4 per cent growth in total sales at 47,612 units in February, compared with 46,505 units in the same month last year. In the two-wheeler segment, Hero MotoCorp witnessed sales of 484,769 units in February 2015. TVS Motor Co posted 15 per cent higher sales at 204,565 units against 177,662 units. Bajaj Auto sold a total of 243,000 two and three-wheelers segment.

### **B. Investments**

To match production with demand, many auto makers have started to invest heavily in various segments in the industry in the last few months. The industry has attracted foreign direct investment (FDI) worth US\$ 12,232.06 million during the period April 2000 to February 2015, according to the data released by Department of Industrial Policy and Promotion (DIPP). Some of the major investments and developments in the automobile sector in India are as follows:

DSK Hyosung has announced to set up a plant in Maharashtra and is planning to add 10-15 dealerships in the next financial year (FY 15-16) mostly in the tier-II cities and introduce more models in the 250cc segment. Germany-based luxury car maker Bayerische Motoren Werke AG's (BMW) local unit has announced to procure components from seven India-based auto parts makers. Mahindra Two Wheelers Limited (MTWL) has acquired 51 per cent shares in France-based Peugeot Motorcycles (PMTM). Suzuki Motor Corp is planning to sell the automobiles made in the Gujarat plant, in Africa. Tata Motors Ltd, India's largest automobile maker, will sell trucks in Malaysia, Vietnam and Australia to strengthen its presence in the Asia-Pacific region.

### **C. Government Initiatives**

The Government of India encourages foreign investment in the automobile sector and allows 100 per cent FDI under the automatic route. Excise duty on small cars, scooters, motorcycles and commercial vehicles was reduced in February last year to 8 per cent from 12 per cent to boost the 'Make in India' initiative of the Indian government.

Some of the major initiatives taken by the Government of India are:

- Under the Union budget of 2015-16, the Government has announced to provide credit of Rs 850,000 to farmers, which is expected to boost the tractors segment. The government is aligning to ensure that at least one family member is economically strong to support the

family. This is expected to improve the sentiments of entry-level two-wheelers.

- The Government plans to promote eco-friendly cars in the country i.e. CNG based vehicle, hybrid vehicle, and electric vehicle and also made mandatory of 5 per cent ethanol blending in petrol.
- The government has formulated a Scheme for Faster Adoption and Manufacturing of Electric and Hybrid Vehicles in India, under the National Electric Mobility Mission 2020 to encourage the progressive induction of reliable, affordable and efficient electric and hybrid vehicles in the country.
- The Automobile Mission Plan for the period 2006–2016, designed by the government is aimed at accelerating and sustaining growth in this sector. Also, the well-established Regulatory Framework under the Ministry of Shipping, Road Transport and Highways, plays a part in providing a boost to this sector.

### **D. Road Ahead**

India is probably the most competitive country in the world for the automotive industry. It does not cover 100 per cent of technology or components required to make a car but it is giving a good 97 per cent, highlighted Mr Vicent Cobee, Corporate Vice-President, Nissan Motor's Datsun. The vision of AMP 2006-2016 sees India, "to emerge as the destination of choice in the world for design and manufacture of automobiles and auto components with output reaching a level of US\$ 145 billion; accounting for more than 10 per cent of the GDP and providing additional employment to 25 million people by 2016. The Japanese auto maker Maruti Suzuki expects the Indian passenger car market to reach four million units by 2020, up from 1.8 million units in 2013-14.

**References:** Media Reports, Press Releases, Department of Industrial Policy and Promotion (DIPP), Automotive Component Manufacturers Association of India (ACMA), Society of Indian Automobile Manufacturers (SIAM), Union Budget 2014-15

The **automobile industry** in India is the ninth largest in the world with an annual production of over 2.3 million units in 2008. In 2009, India

emerged as Asia's fourth largest exporter of automobiles, behind Japan, South Korea and Thailand. Generally, Indian Cars have been categorized according to sizes like *Small Cars*, *Mid-Size Car* and *Sport Utility Vehicles (SUV)*. In small cars category includes Maruti 800, Zen Estilo, Nano, Indica, Hyundai i10 etc. Mid size cars such as Honda Accord, Esteem, Ford Icon, Swift Desire, and Accent and SUVs such as Scorpio, Xylo, Endeavour, Tavera etc.

Different perceptions regarding comfort level of cars have been received from people. It depends on the cars preferred by the person having their source of employment and income and utility level along with expenditure on their four wheels. Comforts level also includes smoothness, boot space, seats, cooling & heating system etc inside the cars. Income plays a vital role in choosing the cars. Most of the people are willing to buy cars according to their income source.

In this research paper study was conducted regarding problem of determining how people perceive and evaluate the comfort level while using their personal cars classified among Small, Mid size and SUV's. Survey was conducted among 65 respondents in cities of Ambala, Rajpura, Patiala and Chandigarh. While conducting this survey we have been indulging in various activities like asking people regarding their income level, average usage, average expenditure on cars and scoring of their attitudes was done regarding their own cars.

## II. REVIEW OF LITERATURE

Manish Kumar Srivastava, A.K. Tiwari [1], had studied the behavior of consumers for A3 segment vehicles such as Honda City and SX4 in a particular region Jaipur. The data was collected from 100 respondents, 50 each from Honda City and Maruti SX4. The respondents were considered from various backgrounds like Gender, Occupation, and income class. Customer purchase parameters were considered for study are Price, Safety, Comfort, Power & Pickup, Mileage, Max Speed, Styling, After Sales Service, Brand Name and Spare Parts Cost. Based on above parameters and the analysis was made in this revealed that, while purchasing A3 segment car Customer give

much importance to Safty, Brand Name and seating and driving comfort. Also word of mouth publicity and advertisements in car magazines are more effective communication medium for promotion of Cars.

Prasanna Mohan Raj [2], studied the factors influencing customers brand preference of the economy segment SUV's and MUV's. The data collection was made through direct interaction and customer intercept survey using questionnaire. Descriptive analysis was used to transform data into understand format and factor analysis was used for identification of factors influencing customer preference. Study findings shows that the preference of a given brand can be explained in terms of six factors namely Product reliability, monetary factor, trendy appeal, frequency of non-price promotions offered, trustworthiness and customer feeling or association towards brand. There is need for marketers to take these factors into consideration when crafting product innovations in the SUV segment of Automobile market.

Nikhil Monga, Bhuvender Chaudhary, Saurabh Tripathi [3], this research attempts to answer some of the questions regarding brand personality of selected cars in India by conducting the market research. This personality sketching will help in knowing what a customer (or a potential customer) thinks about a given brand of car and what are the possible factors guiding a possible purchase. Similarly, the idea of measuring the customer satisfaction will serve the same purpose of determining the customer perception. Thus, by measuring the willingness of exciting users of a car to recommend it to others will help the car manufacturers to check out the entire customer Buying Behavior. The study shows that brand perception is something which starts building up before a car is purchased and goes on with its use and is reflected in the recommendations. The customer makes to his acquaintances for the same car. Also it is seen that the customer might not be using the car still he holds the perceptions about it. Brand personality of a car is enforced by the sellers in the mindsets of the customers and customers reacts to it by forming their perception about the

car and this reflects in the overall brand image of the car. So brand image and brand personality complement each other and the brand perception aids the building of brand images. As per the study findings, dealers play a very important role in building up the brand perceptions of the cars.

Samin Rezvani, Goodarz Javadian Dehkordi, Muhammad Sabbir Rahman [4], this paper reviews the country of origin and different variables that influence consumer purchase intention, also highlight the relationship of variables and customer purchase intention. Study demonstrate that people care about which country products come from and where they are made and consider these factors when evaluating the quality of product. Stereotypes of country and the preferences of customers, influence the purpose intention. Political system, culture and the economy of the country can be a cause of sensitivity to people. There are many factors that have an impact on consumer purchase intention. Research and methodologies have shown that even when consumers can evaluate all the intrinsic product characteristics by expressing the product, the effect of extrinsic cues has more influence on consumer product evaluation. Country of origin is one of the extrinsic cues; in addition, there is no doubt that country of origin has considerable influence on the purchase intention process.

K.Vidyavathi [5], the study throws light on various aspects that the manufactures should concentrate on to attract the prospective buyers. The demand for the small Automobile segment is increasing because of the growing number of nuclear families as well as parking problems. Hence the manufactures should find out the needs, wants, tastes and preferences of consumers in order to design the products. Also fuel economy and driving comfort are the most important parameters followed by availability of spares and their price.

Balakrishnan Menon, Jagathy Raj V.P.[6], study findings shows that due to price difference in Gasoline and Diesel, about one third of the car owners were having diesel vehicles. The research results showed that about one seventh of car for the city drive for family usage, while using the second car for office and business usage. Foreign brand

cars show clear preference in the Kerala car market. Also it was observed that in the information gathering and consumer purchase initiation stage, TV commercials on car models and brands, search on internet website of the manufacturer and visit to dealers / distributors were the prime sources where customers gathers information on car models.

Ramita Verma, Shubhkamana Rathore [8], studied the luxury car segment of India. Researches and studies have revealed that the luxury car market is growing at a steady speed of 25% per annum with more and more numbers of luxury cars entering Indian car market. Luxury cars are preferred by HNI (High Net worth Individuals). HNI wants to differentiate themselves from crowd for various reasons. Change in attitude of the customer accounts for the sudden acceleration in the Luxury car Market in India, as the emphasis has been shifted from price consideration and affordability to design, quality and pleasure. Study also throws light on market drivers of luxury cars like

- Political-government taxation, business sentiments, import-export policies, government stability.
- Demographical factors like Consumer trends, Income growth, spending power.
- Customer requirements such as status symbol, indulgence, technological factors.
- Socio cultural factors such as Lifestyle and preferences of people which impact their choice of types of automobiles. Social norms that impact the decision to own and use automobiles versus other means of transport.

#### **Objectives of the study:**

1. To evaluate the comfort level among different size cars.
2. To study the expenditure by consumer along with the size of the car.
3. To study the factors involved apart from the interior and looks of the car by the Indian consumer.

### III. RESEARCH METHODOLOGY

Exploratory and descriptive research design was used for the study. The data was collected with personal investigations involving original field interviews from the consumers. The study of the relevant literature was also useful in this study. Sampling technique used was non- probability purposive and convenience sampling. A structured questionnaire was designed on the basis of data generated from the various literature studies. The final tested questionnaire, written in English (being only the medium of communication) was hand – delivered to 70 respondents. But only 61 of the respondents filled and returned their filled questionnaires. Various statistical techniques were used for the analysis of the data i.e. Scaling Technique, Linker Scale , Scatter Diagram, Regression analysis.

#### A. Scope of the study

The sampling unit was the Consumers in Patiala, Chnadigarh, Ludhiana working as professionals and businessmen.

#### B. Data Processing Methodology

Firstly the returned filled up questionnaires were edited one by one to detect and eliminate errors relating to their accuracy, uniformity and completeness. Cross examination was done for the incomplete portions of the questionnaires left out by the respondents and for the respondents who could not give certain remarks on some portions of the questionnaires. All in competencies were re-examined with the aid of interviews and observation techniques. The questionnaires were arranged organizationally and master sheet was created after scoring of the responses. Finally the data were entered in the excel sheet of Microsoft office. For proper statistical analysis and Descriptive analysis R Software & SPSS Software was used.

### IV. RESULTS AND ANALYSIS

**Table 1**

Number of Responses (61)					
		Small Car (20)	Mid Size Car (27)	SUV (14)	
	Male	17	22	14	
	Female	03	04	00	
	Age Group (average)	24 – 55 (38yrs)	25 – 24 – 70 (38 yrs)	24 – 58 (40 yrs)	
<b>Employed</b>	Govt. Employee	0	5	0	
	Business Class	6	13	12	
	Private Sector	12	9	1	
	Others	2	0	1	

#### Interpretation

In this research study total of 61 respondents were analyzed to evaluate the comfort level among different size cars. Among 61 respondents majority were of mid-size cars as compared to small and SUV's. Also, mainly there were male respondents for all car sizes whereas very few responses were available from the females. On comparison on the behalf of age group it was found that all size cars have same range of age groups i.e. 24 – 55 yrs. But in case of employment sector it was found SUV's were mainly owned by business class as it was predicted because being very expensive cars and also expensive in terms of maintenances, it can only be afford by business class. Whereas, in case of mid-size cars almost all the categories of employed class were having them, but it was also found that all the responses from Govt employees came about mid size cars, reason being now days govt employees are getting more incentives and pay packages so that's why they might afford these cars. Small-cars trend was found most common

among private sector employees and also among Business class.

**Table 2**

		Small Car	Mid-Size Car	SUV
<b>Average</b>	Drive (per/day Km)	0 – 30 Km	0 – 60 Km	Above 60 Km
	Service Stations	1 – 2 times	1 – 2 times	1 – 2 times
	Amount Spent	Rs 1,000 – 5,000	Rs 1000 – 5,000	Above Rs 5,000
	Monthly Income	Rs 20,000 – 50,000	Rs 20,000 – 50,000	Rs 50,000 above
<b>Average</b>	Attitude Score	16	18	19
<b>Range</b>		14 - 22	16 - 23	16 - 22

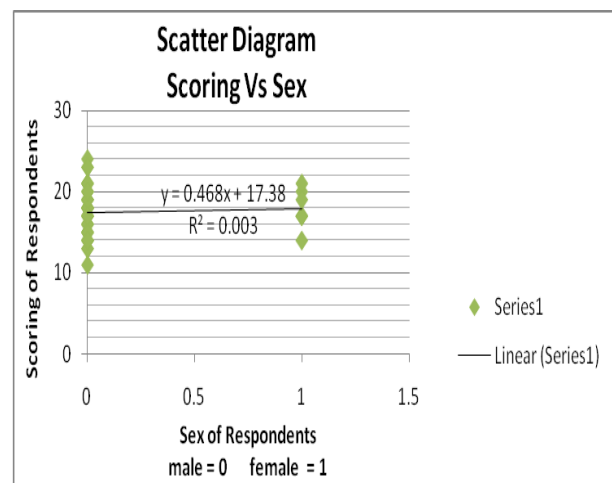
Analysis of table 2 showed as the size of cars were getting bigger there average usage also increased per day in terms of driving i.e. SUV covers around more than 60 Km/day as compared to other size cars. But in terms of services all size cars on average visited once or at the maximum twice to the services stations in last six months. As already discussed for above table again it was found that on average SUV’s were handled by those category whose monthly income fall in group of more than Rs 50,000 whereas owners of small and mid size cars fall in monthly income category of Rs 20,000 – 50,000. Similarly, the amount spent on these different cars by their owners found to be maximum in case of SUV’s i.e. above Rs 5,000 whereas it was in between Rs 1,000 – 5,000 for other category of cars.

Then in last, we calculated the attitude score of each individual regarding his/her car by asking some questions like *count some disadvantage of your car* if his attitude was strong towards his/her car response will be negative towards this question.

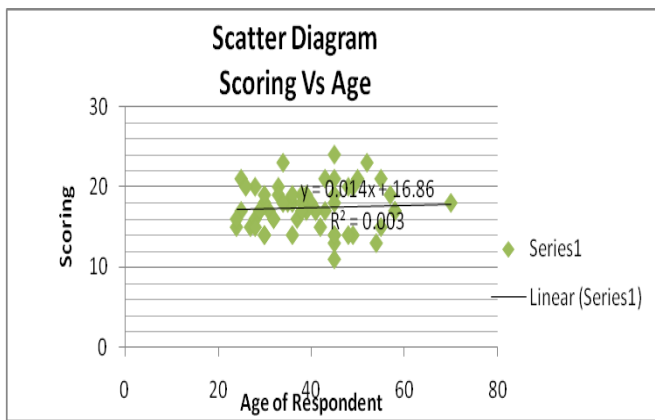
Similarly other questions were like *would you suggest this car to someone else or would you like to buy it once more if got a chance*. In above table we evaluated average and range attitude score for each category of cars from their owners. It was found maximum score average was for SUV category as compared to little less but almost similar for other sizes of cars. Whereas in terms of range score it was almost similar for the entire three category.

In last part of analysis we calculated that which factors do affect the scoring level regarding the attitude as it was believed that higher scoring level was proportional to comfort level in cars. Thus, we created initial regression equation believing the factors like *height, age, sex* effect the scoring level among respondents. To analysis we plotted the scatter diagram between each independent and dependent variable *score* and if there was any trend that variable was included in final equation of regression otherwise if no trend was there it was removed. Thus, we started with initial equation with,

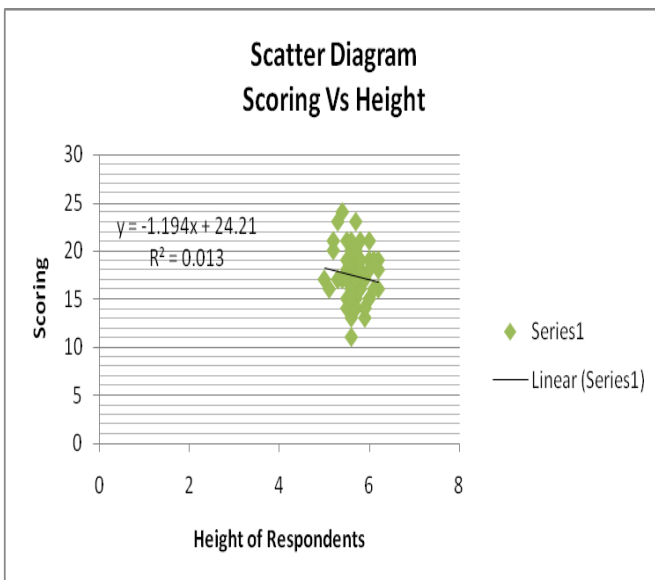
$$f(\text{Score}) = f(\text{sex}) + f(\text{age}) + f(\text{height})$$



The adjacent graph gives the scatter diagram view of Scoring of Respondents and Sex level. On analysis of graph from trend equation also it was clear that there were no trend among both the variables. Even on shifting from one level to other in sex level still no trend was visible. So we excluded that variable from the regression equations.



The adjacent graph gives scatter diagram view of Scoring and age of the respondents. Again on analysis there was no trend was visible among both the variables.



The adjacent scatter diagram gives the view between scoring and height of the respondents and there were negative trend available in this graph. Thus with the increment in height there were decrement in scoring rate of the respondents.

$$score = -1.194(height) + 24.21$$

The above equation gives the relationship between both the variables i.e. on average there were score of 24 for each respondent but with each increment of one inch in height score was getting decremented for each respondent by approximated value one.

Thus the final equation we left with after the scatter analysis was

$$score = -1.194(height) + 24.21$$

## CONCLUSION

Thus in this study we had concluded that as the income group of individuals were getting in higher range they prefer to buy big size cars and they were not even hesitate to spend too much on their cars. As compared to all categories of employment only business class have high income flow that's why, SUV were found mostly in this category. Moreover there usage was also maximum in terms of per day driving whereas in other categories they were normal office goers so there average usage was also less. In case of attitude scoring surprised results were found that almost similar score was found for the owners of all three category of cars. As it was expected earlier that there might be higher score with respect to the size of car but it was not so in this study. Also, on scatter diagram analysis of few variables it was found that the comfort level of cars or the scoring of the individual were affected by the height variable and in negative trend.

## References

1. Balakrishnan Menon, Jagathy Raj V.P [7], Dominant partial Least square factors of consumer behavior of passenger cars, Asian Journal of Management Research Vol.3, Issue-1, pp.83-99,2012.
2. Balakrishnan Menon, Jagathy Raj V.P [8], Model Development and Validation for Studying Consumer Preferences of CarOwners, IJMT Vol.2, Issue 5, pp. 148-173, May 2012.
3. K.Vidyavathi [6], Customer Life Style Influence of Consumer Behavior with Reference to Automobile Industry in Chennai, Zenith International Journal of Multi disciplinary Research Vol.2, Issue 4, pp. 37-50, Apr 2012.
4. Manish Kumar Srivastava, A.K Tiwari , A Study of Behavior of Maruti SX4 and Honda City

Customers in Jaipur, Pacific Business Review Quarterly Referred Journal.

5. M.Prasanna Mohan Raj , Jishnu Sasikumar, S.Sriram, A Study of Customers Brand Preference in SUVs and MUVS: Effect on Marketing Mix Variables, International Referred Research Journal Vol.-IV, Issue-1, pp. 48-58, Jan 2013.
6. Nikhil Monga, Bhuvender Chaudhary, Car Market and Buying behavior-A study on Consumer Perception, IJRMEC Vol.2, Issue-2, pp. 44-63, Feb 2012.
7. Ramita Verma, Shubhkamana Rathore [3], PEST Analysis for Indian Luxurious Car Market, IJMSSR Vol. 2, No.1 pp.22-26, Jan 2013.
8. Samin Rezvani, Goodarz Javadian Dehkordi, Muhammad Sabbir Rahman, A Conceptual study on the country of origin effect on consumer purchase intention, Asian Social Science Vol. 8, No.12, 2012 pp. 205-215.