Pre And Post Purchase Behavior Of Buyers Towards Mahindra Two-Wheelers

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Abstract:
The two-wheeler industry today is facing a big challenge that is beyond short-term interest like profits and revenues. The competition among the two-wheeler makers is growing day-by-day. The Indian two-wheeler industry wants to know the product features and design which satisfies the buyer expectations. The present study helps to know the important criteria that a buyer looks from the two-wheeler. The study has been undertaken to identify the factors which influenced the buyers in making the purchase decision regarding Mahindra two-wheelers and rank them to pinpoint the factor(s) which influenced most. For this purpose the researcher has identified and listed out most important 20 characteristics of Mahindra two-wheelers. The study concluded that engine capacity, safety, riding comfort, mileage and pick up are the top five important product characteristics which influenced the buyers at time of taking purchase decision. The buyers have dissatisfied with mileage/fuel economy, pick-up, self-starter facility, resale value, availability of spare parts, after sales service and tyre quality.

Keywords: Automotive industry, Mahindra two-wheelers and Pre and post purchase behaviour.

Introduction
For the past 50 years, most of the automotive manufacturing activities were concentrated in the USA, Japan and European countries. Though these countries account for a significant share in the production, more and more volume of production comes from other parts of the world, like China, India and Korea. Around three-fourth of the global production was carried out in top 10 producing countries in 2009. Of these, Japan, USA and China cumulatively constituted over 40 per cent of global production. The last decade has experienced a growing level of motorization, as reflected by the production of automobiles. According to International Organization of Motor Vehicle Manufacturers (OICA), in the year 2007, the turnover of the world automotive industry was estimated at Euro 2 trillion, with production of 73 million vehicles.

Indian Automotive Industry
The Indian automotive industry has attained a substantial growth and become one of the largest manufacturing sectors in India over the past two decades. The Automobile industry in India is swiftly growing with an annual production of over 2.6 million vehicles and vehicle volume is expected to rise greatly in the future. In the past years, the production and manufactured systems in the Indian automotive industry have revolutionized. Today’s market with names like Tata Motors, Maruti Udyog and Mahindra & Mahindra and international biggies like Toyota, General Motors, Hyundai, Ford and BMW has created standards where there is no room for complacency. Also India’s capability to produce spare parts of international standards for the domestic and global automotive markets has given it an upper hand from other competitors.

As of 2009-10, India is home to 40 million passenger vehicles and more than 2.6 million cars were sold in India, making the country the second fastest growing automobile market in the world. According to the SIAM, annual car sales are forecast to increase up to 5 million vehicles by 2015 and more than 9 million by 2020. By 2050, the country is expected to top the world in car volumes with approximately 611 million vehicles on the nation's roads.

The Automotive industry in India is one among the largest in the world and fastest growing globally. Table 1 show that India manufactures over 17.92 million vehicles during the year 2010-11. India's passenger car and commercial vehicle manufacturing industry is the seventh largest in the world, with an annual production of more than 3.74 million units in 2010-11.
Table 2 shows the automobile domestic sales in India. The total number of vehicles sold including passenger vehicles, commercial vehicles, two and three wheelers whereas in 2010-11 was 15.51 million compared to 7.24 million in 2003-2004. The Indian automobile sales increases year after year and witnessed over 10% growths. Sales of vehicles were impacted during 2007-08 and 2008-09 due to the global economic slowdown during the year. However, there were increases in the number of vehicles sold in 2009-10 and 2010-11 as compared to 2007-08 and 2008-09.

Automobile Exports

India's automobile exports have grown consistently and reached $ 4.5 billion in 2009, with United Kingdom being India's largest export market followed by Italy, Germany, Netherlands and South Africa. India's automobile exports are expected to cross $12 billion by 2014. According to New York Times, India's strong engineering base and expertise in the manufacturing of low-cost, fuel-efficient cars has resulted in the expansion of manufacturing facilities of several automobile companies like Hyundai Motors, Nissan, Toyota, Volkswagen and Suzuki.

In 2010-11, India emerged as Asia's fourth largest exporter of passenger cars, behind Japan, South Korea, and Thailand. Table.3 show that during the year 2003-04 Indian automobile sector has exported 4.79 lakh automobiles and the export trend continues. During 2010-11 the total automobiles exported from India touches 23.39 lakh vehicles. It shows that within 7 years Indian automobile sector has exported automobiles 5 times than that of the year 2003-04.

In nutshell the Indian automobile industry has attained a substantial growth and become one of the largest manufacturing sectors in India over the past two decades. India has always been one of the biggest destinations of automobile majors throughout the world. Indian automobile industry is the:

- Fourth largest commercial vehicle market in the world
- Eleventh largest passenger car market in the world
- Second largest tractor manufacturer in the world
- Expected to become the world’s third largest automotive market by 2030, behind only China and the US.
- Very big and a potential hub for a lot of market leaders elsewhere in the world to come and invest.

Indian Two-wheeler Market

Two-wheelers are the biggest contribution to the automotive industry. Foreign collaborations play a major role in the growth of the Indian two-wheeler market, and most of them are with Japanese firms. Foreign firm have already taken initiatives to own their two-wheeler subsidiaries in India. Table 4 shows the Indian two-wheeler production, sales and export.

India is the world’s second largest manufacturer of motorcycles, with annual production exceeding 13.37 million units in 2010-11 and a compounded annual growth rate of 11% during 2003-11, the Indian two-wheeler industry has definitely been one of the stars of the country’s economy. According to the Society of Indian Automobile Manufactures (SIAM) report, sales in the domestic markets increased to 11.79 million units in 2010-11 from 9.37 million units in 2009-10. Export of two-wheelers vehicles increased from 1.14 million units in 2009-10 to 1.54 million units in 2010-11.

Importance of the study

The two-wheeler industry, today, is facing a big challenge that is beyond short-term interests like profits and revenues. The competition among the bike makers is growing day-by-day. The Indian two-wheeler industry wants to know the product features and design which satisfies the customer expectations. For knowing consumer taste and preferences, consumer oriented survey place an important role in understanding the customer’s demand. The present study helps to know the important criteria the consumer looks from the product.
Review of literature

There are only limited studies which are directly related to the study concerned. The researcher has made an attempt to present a brief review of the literature available, which consists of reports submitted by various committee reports, articles and technical papers published in the journals, magazines, and websites in the related area.

Loudon and Della Bitta (1984) in their book “Consumer behavior: concepts and applications” viewed that “the consumer behaviour is the decision process and physical activity which the individuals engage in evaluating, acquiring, using or disposing of goods and services”. Lallin (1989) studied the consumer behaviour and price perception and found that “nearly 50% of consumers correctly identified the real status of the brand purchased, a proportion closely comparable to the percentage of consumers who could correctly recall the purchase price of the brand”.

Dr. Saravanan, S., Dr. Panchanathan, N. and Dr. Pragadeeswaran, S. (2009) have conducted a study on “Consumer behaviour towards show-room service of two wheelers with reference to Cuddalore district” and concluded that “companies have to give more concentration on improving the brand image of their products”. Dr. K. Mallikarjuna Reddy, K (2009) conducted a study on “Consumer Behaviour towards Two-Wheeler Motor Bikes” in the twin cities i.e. Hyderabad and Secunderabad. The researcher has concluded that “Hero Honda is ruling the market and finding favour with the consumers. Yamaha and TVS are far below the expectations of the consumers based on mileage per litre of petrol”.

Balakrishnan Menon and Dr. Jagathy Raj V.P, (2011) conducted a research on “Conceptualisation of Model for Studying Consumer Purchase Behaviour of Passenger Cars”. The researcher has developed a model for consumer purchase behaviour based on his secondary literature analysis and primary data collected through the depth interview of car customers, dealers and car financing agencies.

Statement of the Problem

Most of the buyers have a dilemma in buying two-wheeler because; there are so many domestic and international brands. Each and every brand has its own advantages and disadvantages. This study has been undertaken to know the factors which influenced the buyer in making the decision regarding purchase of Mahindra two-wheelers. Also know whether the buyer has satisfied with those factors which induced them to purchase.

Objectives of the study

The major objective of this research is to know the buyer’s preferences and buyer’s satisfaction with regard to Mahindra two-wheelers. The following are the objectives of the present study:
1. To study the nature and status of automobile sector in India.
2. To elucidate the profile of the selected two-wheeler industry.
3. To study the factors, which influences the buyer’s decision towards Mahindra two-wheelers?
4. To identify the importance criteria that buyers looks from the Mahindra two-wheelers.
5. To assess the level of post purchase satisfaction among the buyers of Mahindra two-wheelers.
6. To offer suitable suggestions.

Research Hypothesis

To achieve the objectives of the present study, the researcher has tested the following hypothesis.

Hypothesis 1: There is no significant difference in usage of Mahindra two-wheelers among male and female respondents.
Hypothesis 2: There is no significant relationship between Income and Mode of purchase among the respondents.
Hypothesis 3: There is no significant relationship between model and level of satisfaction among the respondents.
Methodology

a. Sample size

Samples of 50 buyers have been drawn for this study to form 20% of the population (i.e. 250 units). Samples are selected at random from four models from the list of addresses provided by the Mahindra two-wheelers dealer in Kumbakonam.

b. Sources of Data

The study is based on both Primary Data as well as Secondary Data. Primary Data have been collected from the Mahindra two-wheelers owners as well as from the dealer. For this purpose, two interview schedules i.e., one for the proprietors of Mahindra two-wheelers and the other for dealers have been prepared, pre-tested and modified to obtain necessary information relating to the research.

Regarding the Secondary Data, the researcher has relied on published and unpublished reports and records from various agencies of the Government of India, two-wheeler Associations and other resources. Relevant data have been collected from books, journals, company records and from reliable websites, etc.

c. Tools of Analysis

The collected information has been processed both manually and with the help of computers also. Statistical tools like Percentage Analysis, Chi-square test, Correlation Analysis, F test, and Ranking Analysis, etc. have been applied in this study.

Limitation of the study

The following are the limitation of the present study.

1) This study has conducted only in Kumbakonam town area.
2) The total number of sale of Mahindra two-wheelers before the commencement of study is 250 only. Hence the study has been conducted with limited number of samples i.e. 50 to represent 20% of the total population.

Summary of Findings and Suggestions

The present study is focuses on pre and post purchase behaviour of buyers towards Mahindra two-wheelers in Kumbakonam. The approach adopted in this study is basically analytical and descriptive in nature. Before deciding on the broad approach / methods of analysis for the present study, relevant literature on the research methodology and research studies related to the pre and post purchase behaviour has been reviewed. The major objective of this research is to know the buyer’s preferences and buyer’s satisfaction with regard to Mahindra two-wheelers.

I. Pre Purchase Behaviour

In light of the objectives presented in the first chapter, the researcher has designed the questionnaire and field data have been collected from the respondents to study the buyer’s preferences towards Mahindra two-wheelers.

1. Table 5 shows that both male and female respondents purchased Mahindra two-wheelers considerably.
2. Table 6 shows the relationship between age and gender of the respondents. More than 75% of the respondents those who have purchased Mahindra two-wheelers are in the age group of 20-30 and 30-39 years. Both male and female in the age group of 20-29 have mostly preferred Mahindra two-wheelers.
3. Table 7 shows that DURO is the most preferred model among all the respondents.
4. It is found from the table 8 that respondents in the age group of 20-29 preferred flyte, Kine and Duro. Rodeo is popular in the age group of 30-39.
5. Most of the respondents have purchased Mahindra two-wheelers for the use of all family members. Table 9 shows the usage of Mahindra two-Wheelers by the respondents.
F-test

The researcher has interested to know that for whose usage the Mahindra two-wheelers have been purchased by the respondents statistically and applied ‘F’ test with the following null hypothesis.

\[ H_0 = \text{There is no significant difference in usage of Mahindra two-wheelers among male and female respondents.} \]

From the above analysis is observed that ‘F’ test $2.58 (v_1 = 5.1), (v_2 = 5.1)$ which is less than the table value of ‘f’ at 5% level. The hypothesis is accepted. Hence, there is no significant difference in usage of Mahindra two-wheelers among male and female respondents.

6. It is observed from the table 10 that respondents those who have income below Rs. 20,000 and spent below Rs.20,000 preferred all the models but respondents those who have income above Rs. 20,000 preferred Duro, Rodeo and Kine only.

7. It is observed that out of 29 male respondents studied, 11 (38%) of them are highly influenced by their friends and 9 respondents have been influenced by their relatives. But in the case of 21 Female respondents surveyed, 11 (52%) of them are highly influenced by their family to purchase Mahindra two-wheeler.

8. It is evident from the table 12 that installment offer and price-off are the most influencing factors among the respondents irrespective of their income and expenditure.

9. Out of 50 samples studied 64% (32) of the respondents have purchased the Mahindra two-wheelers by cash and only 36% (18) of the respondents studied have purchased the Mahindra two-wheelers by credit. It is also observed from the table 13 that monthly income of the respondent did not influence much on mode of purchase of Mahindra two-wheelers.

Chi-Square Test

Chi-Square test has been conducted to test whether two or more attributes are associated or not.

\[ H_0 = \text{There is no significant relationship between Income and Mode of purchase among the respondents.} \]

Calculated value is $\{(X)^2 = \frac{(o-e)^2}{e}\} = 0.75$. Table value @ 5% level of satisfaction is 12.8. Since the calculated value is less than the table value, the null hypothesis is accepted. It is proved that there is no significant relationship between Income and Mode of purchase among the respondents.

10. It is learned from the table 14 that engine capacity, safety, riding comfort, mileage and pick up are the top five important product features, which are considered while purchasing Mahindra two-wheelers. Resale value, credit facility, availability of spare, new technology and price are not having much importance at the time of taking purchase decision. The product feature ‘Engine capacity’ stood at top (1st rank) among the 20 listed important product features while taking purchase decision and the feature ‘resale value’ stood at last (20th rank).

II. Post Purchase Behaviour

The buyer’s satisfaction is a function of the closeness between the buyers’ expectations and the product’s perceived performance. If performance falls short of expectations, the customer is disappointed; if it meets expectations, the customer is satisfied; if it exceeds expectations, the customer is delighted. These feelings make a difference in whether the customer buys the product again and talks favorably or unfavorably about it to others. The following are the post purchase response made by the select respondents.

To measure the level of post purchase satisfaction among the respondents, the researcher has applied 5 point scaling technique. The respondents have been asked to express their level of post purchase satisfaction by choosing any one criterion among five criteria i.e. Highly satisfied, Satisfied, Neutral, Dissatisfied and Highly dissatisfied against each characteristics.
1. Table 15 exhibits the level of post purchase satisfaction among the respondents. The product feature ‘Brake’ stood at top (1\(^{st}\) rank) among the 20 listed important product features while taking purchase decision and the feature ‘resale value’ stood at last (20\(^{th}\) rank).

2. Out of the 50 respondents studied 13 (26\%) have made complained and 37 (74\%) have didn’t made any complaints. It is inferred from the table 16 that majority of the buyers have satisfied with the performance of Mahindra two-wheelers.

3. Out of 50 samples studied, 26\% of the respondents have opined that the performance of Mahindra two-wheelers is excellent. Forty two per cent of the respondents studied have said that the overall performance of Mahindra two-wheelers is good. None of them have responded as bad. It is observed form the table 17 that majority of them (82\%) have expressed about overall performance is good.

**Chi-Square Test**

\[ H_0 = \text{There is no significant relationship between model and level of satisfaction among the respondents.} \]

Calculated value is 1.36 \[ (X)^2 = (o-e)^2/e \]. Table value @ 5\% level of satisfaction is 24.99. Since the calculated value is less than the table value, the null hypothesis is accepted. Hence there is no significant relationship between model and level of satisfaction among the respondents.

4. It is observed that majority of the existing customers (40\%) have preferred to buy Mahindra two-wheelers again. Twenty eight per cent have opined that they are willing to buy Hero Honda and 14\% preferred TVS motor cycles. The table 18 and chart 1 show the relationship between income and subsequent purchase of two-wheeler.

5. Table 19 shows the models recommended by the respondents to their known persons. The present study reveals that 68\% of the existing buyers have expressed that they will definitely recommend to other interested person or groups. Only 14\% of the respondents have said that they will not recommend Mahindra two-wheelers. Majority of the respondents prefer to recommend DERO and RODEO.

6. Table 20 shows the relationship between gender and their recommendation. It is observed that out of 29 male respondents studied 21 of them have expressed that they will recommend the Mahindra two-wheelers to others. It is noticed that out of 21 female respondents interviewed 13 of them have expressed that they will recommend the Mahindra two-wheelers to others. It is inferred that majority of the existing user of Mahindra two-wheelers willing to buy another Mahindra two-wheelers and two-third of the existing users are willing to recommend Mahindra two-wheelers to their colleagues, friends and relatives.

**III. Dealer’s Response**

A coin has two sides. To understand the customers taste and preferences it is not enough to study the customers alone but also study the dealer opinion to know the buyers behaviour during the course of purchase and after purchase.

1. The dealer has expressed that more than 75\% of the enquiry turns into sales.

2. The dealer has opined that price-off and exchange offer is the most popular sales promotion technique among the buyers of Mahindra two-wheelers.

3. The dealer has requested to rank the same product features which influence the buyers at the time of taking purchase decision on the basis of his experience with the buyers. The researcher has sought the dealer’s rank to study the correlation between responses made by the dealer as well as buyers. It is observed from the table 21 that there is a close relationship between the responses made by the dealer and buyers. The dealer has viewed ‘Engine Capacity’, ‘Safety’ and ‘Riding Comfort’ are the top three influencing factors which influences purchase decision of Mahindra two-wheelers.
Spearman’s Rank Correlation

The researcher has interested to know the correlation between ranks made by the buyers and dealer regarding the important characteristics which influences buyers’ preference to purchase Mahindra two-wheelers. For this purpose the researcher has applied Spearman’s Rank Correlation to identify the positive or negative correlation between rank made by the buyers as well as dealer. The Spearman’s rank correlation indicates that there is a low degree of positive correlation between the rank made by the buyers and dealer regarding buyers’ preferences while buying Mahindra two-wheelers.

4. The researcher has interested to study the buyers’ post purchase satisfaction with the help of dealer’s opinion. For this purpose the researcher has offered the same 20 listed characteristics to measure the level of post purchase satisfaction of buyers’. The dealer has requested to rank the listed characteristics and express the level of satisfaction enjoyed by the buyers which he observed and experienced during the post purchase period. To measure the relationship between ranks made by buyers as well as dealer the researcher has applied Spearman’s Rank Correlation. Table 22 shows the ranking the level of post purchase satisfaction with respect to different features which influenced the buyers to buy the Mahindra two-wheelers.

5. The Spearman’s rank correlation indicates that there is a moderate degree of positive correlation between the rank made by the buyers and dealer with regard to post purchase satisfaction of buyers.

6. Table 23 shows the relationship between buyers’ and dealer’s opinion regarding level of purchase satisfaction. The researcher has studied the closeness of the opinion offered by the dealer as well as buyers with respect to level of post purchase satisfaction. The dealer’s opinion and buyers’ opinion are similar in respect of nine characteristics viz. Mileage/Fuel economy, Pick-up, Brake, Comfort, and Availability of spare parts, Tyre quality, Resale value, Customer relationship and Time taken for service. The dealer and buyers have disagree with the eleven characteristics viz. Price, Brand name, Model, Self starter facility, Safety, Design/Graphics, Engine power, Convenient to handle, Insurance facility, Installment facility and After sales service. The present comparison reveals that both buyers and dealer does not have closeness of the opinion with regard to even 50% of listed characteristics with respect to level of post purchase satisfaction.

Suggestions

1. By the Mahindra two-wheelers buyers
   The following are the important suggestions offered by the Mahindra two-wheelers buyers.
   a. The company shall try to increase the mileage of the vehicle
   b. Reduce the weight. Female respondents expressed that it is very difficult for them to handle the vehicle at time of parking.
   c. Price of the vehicle is somewhat higher than the competitors’ vehicle hence it shall also to be slashed.
   d. Introduction of new technology rich models and also make adequate stock of all models of Mahindra which are not still available in Kumbakonam
   e. Battery life of the vehicle is poor. It needs to be improved.

2. By the Mahindra two-wheeler Dealer
   The following are the important suggestions offered by the Mahindra two-wheelers dealer.
   a. Mahindra 2 Wheelers Company shall have to offer sufficient training to sales executives of the dealers to promote the brand and to attract more sales.
   b. Mahindra 2 Wheelers Company shall have to develop new models with more features to meet the competition from international producers like Honda, Suzuki, etc.
   c. Mahindra 2 Wheelers Company shall have to encourage dealer’s promotional activities and also offer suitable financial support.
   d. Mahindra 2 Wheelers Company shall have to promote the brand image by frequent advertisement through Television, Newspaper and Magazines, etc.
3. By the Researcher

On the basis of the study the researcher has made the following suggestions.

1. Mahindra 2 Wheelers Company shall take necessary promotional efforts to attract customers above the age group of 20-29.

2. Mahindra 2 Wheelers Company shall introduce new models for higher income segment. It should take necessary steps to make all the models available in all dealers selling point.

3. The two-wheelers Company shall come up with new models which is suitable for family use.

4. Mahindra 2 Wheelers Company and the dealer may continue installment offer and price-off to increase the sales.

5. Respondents have opined that engine capacity, safety, riding comfort, mileage and pick up are the five top most important characteristics, which are considered at the time of taking purchase decision. Hence, the two-wheelers company should give special consideration to the above product characteristics to keep-up sales and its reputation.

6. Majority of the respondents have dissatisfied about Mileage/Fuel economy, Pick-up, Self-starter facility, Resale value, Availability of spare parts, After sales service and Tyre quality. Mahindra 2 Wheelers Company shall take necessary steps to remove such dissatisfaction among the customers. More importantly it shall give due importance to increase the resale value of the two-wheelers.

7. Mahindra 2 Wheelers Company shall try to solve the following complaints lodged by majority of the buyers. Delay in solving such problems may increase the dissatisfaction among the buyers and affects the subsequent sales.

a. Central stand kit problem with regard to Duro,

b. Digital meter consumes more power,

c. Very low mileage when compared to other similar popular two-wheelers,

d. Very frequent starting trouble,

e. Late start and sudden pick up, and

f. Spare parts are not available in the local automobile stores.

Conclusion

India is a developing country with enormous potential. The domestic economy is now growing at around 9-10% per annum and India's GDP is set to double over the next decade in percentage terms. The Indian domestic automotive market expanding swiftly as incomes rise and automotive credit becomes more widely available.

Modern two-wheeler industry is consumer oriented. To attract new customers and retain the existing customers the two-wheeler producers should market the product with features the ultimate customer expects. Indian two-wheeler market is flooded with new and innovative products, customer expects their favoured producer to produce their favoured products. If the producer fails to fulfil the expectations of the customer he can’t get new customer and retain the existing customer and this customer orientation is applicable to Mahindra 2 Wheelers Company too.

Mahindra may consider all product characteristics a customer expects from it. The present study indicates what the customers expects from Mahindra 2 wheelers and what difficulties the customers are facing while using the two-wheelers? Mahindra & Mahindra is new to the two-wheeler segment but not new to the automotive industry. It is a major automobile manufacturer of utility vehicles, passenger cars, pickups, commercial vehicles and tractors. It has its own customer base, brand loyalty and reputation. Hence, Mahindra 2 Wheelers Company designs the suitable business strategies to overcome such problems and capture the major share in the automobile market in future.

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