EXECUTIVE SUMMARY

The year 2006 has witnessed stiffer competition in automobile industry due to the entrance of some foreign players like the Audi, Bentley ,Porsche , Rolls-Royce and Nissan. These companies have launched their models in different segments , to meet the ever increasing demand in the Indian automobile industry. The two-wheeler industry also awaits the introduction of Harley Davidson in a year or two, now Suzuki is selling its bikes under separate entity.

Auto aficionados, may well declare 2004 the year of cars and two wheelers, especially after the recent drops in prices following the excise duty revision .With the new budget launched in 2006 more provisions have been given to manufacturers and excise duties have been considerably reduced. Around 40 launcher that include brand new models and a string of their variants are set to make an entry on the Indian roads through the year. Coming on the heels of relatively placid spell in 2002, Indian auto makers are looking forward for new segments and markets. The attention will be trained on new car introductions in the compact B segment, mid size C segment and the premier luxury category. The industry will also get to watch Marutis better to check further depletion of market share of its original small car, M-800 and Korean giant Hyundai strategy to retain and grow on its successes last year. The industry also has watched the success of Maruti Swift in compact sized cars. Fiat will be banking on the diesel variant of its world car Palio to support its dream of becoming a key player in the Indian market. As things stand, Hyundai is perhaps the most upbeat among car companies, having been the only player, to report positive growth in all three segments where it has a foot print in the domestic market. After a 23 percent jump in total sales last year, it expects to climb up by another 10 percent in 2004 and rollout at least 1,50,000 cars which includes around 25,000 cars on the export block. Hyundai shift from A segment to B segment cars will continue in 2004, which will help Hyundai maintain its high rate of growth. Ford India, subsidiary of the second largest car maker in the world, is also eyeing a better response from the market this year. The American company did not see any growth in 2002. However, it expects to move up its domestic numbers from 15,000 cars to 20,000 by December 2004 on the back of its new Josh machine. IKON NXT (Executive class segment). The car market is moving up from A to B and C as aspiration level rise, Ford Fusion is also making waves as a mini SUV, Ford Endeavour is the luxury SUV, which is all set in the Indian markets, though not a high selling car, but has to be refined a bit to improve sales. Ford Fiesta is the mid size car recently launched by the company in the year 2006 .The attention will also be shifted on Ford Mondeo which has done very well in the US.

The second car from the Tata Engineering stable, the mid size Indigo is also expected to make its mark. The company is expecting to sell around 900 - 1000 cars a month. In 2004 it had beaten market expectations by topping sales in the C segment beating Hyundai Accent, the leader in this segment till now. Maruti is also banking on better numbers this year, especially for the diesel variant of Esteem and Wagon-R, the compact car whose sales have been rising month on month. The Grand Vitara, the top end SUV from the Suzuki fold , was one of the good cars launched in SUV section, it is an attempt by the company to change its products with the changing customers needs. Mahindra & Mahindra has done well in the SUV segment as Scorpio has seen improvement in sales in the recent years.

The world No.1 General Motors shares the buoyant mood of fellow manufacturers in India and expects a five to six percent growth this year by entering into compact, luxury and premium segments. The Open Corsa has seen the numbers improve in 2003 over 2002, a process which it expects to accelerate their year especially with introduction of a more economical hatchback variant. General Motors now has Chevorlet brand coming under it, this has further increased the competition in Indian markets as the company is able to deliver some of the excellent cars like Chevorlet Optra in the mid size segment and Chevorlet Travera in MUV segment. Now all eyes are set on its latest introduction of Chevorlet Aveo as the company expects a lot from this mid size vehicle. Toyota has done well in C++ segment by introducing Corolla, though not too contemporary in looks but is known for performance. The car which topped sales for some 35 years in Japan is expected to step up competition for Skoda Octavia, which is ruling this segment. Hyundai is also likely to jump into the fray with Elantra at an attractive price point to further intensify action in the upper mid size sedans another segment which car makers are setting will grow faster in 2007.

Hyndai has come up with new brands like the Tucson and Terracan to tap the SUV segment recently .The markets that are not yet covered by the various Indian car manufacturers are MUV (Multi utility vehicle), sports utility vehicle, and luxury segments. Diamler Chrysler has also introduced its cars like the E-class, C-class and S-class . These cars are targeted to capture the luxury segment. And the company also has a promising career in India, with more people now shifting towards having luxury cars and esteem looks .From the above it is clear that car manufacturers are aiming towards only metro cities but are neglecting rural markets which have potential to grow.

The two wheeler industry is also anticipating 10 - 15 percent growth this year. While the shift from scooters, mopeds and scootererettes to motor cycle may continue, the promise of newer more peppy models in the scooter segment is likely to stem the tide and throw up better growth opportunities for this segment. A steady stream of new models, more power and better mileage have been key drivers of increase in motor cycle sales in the country. Last year, the total two wheeler market did an estimated 4.25 million units that includes 2.9 million units from motorcycle alone. The next biggest share goes to scooters of 7,00,000 followed by mopeds at 3,50,000. Interestingly, while the sale of geared scooter have been dropping by 15 - 20 percent, the automatic scooter numbers have been climbing by some 20 - 30 percent. Last year this segment grew by an impressive 60 percent. The automatic scooters and digital starting ignition of motor cycles like Bajaj Pulsar DTST 150 cc and 180 cc will continue to improve. But only very few players are in the rural market, only Hero Honda with its CD 100, Kawasaki AT, Bajaj, TVS are the few players that are dominating the rural market for two wheeler segment with many new launches this year promises much for those looking to buy a vehicle, still then there huge untapped markets of India automobile industry.

STATEMENT OF THE PROBLEM:

The Indian automobile industry is undergoing a stiff competition, with a large number of domestic and international manufacturers are pushing each other to capture market proof costly for the industry. And to avoid this automobile manufacturers have to find out new segments and markets that are not yet explored. Though India is the fifth largest automobile manufacturer in the world, penetration level in the country is very low, especially in case of passengers cars. This opens huge opportunity for the automobile companies.

HYPOTHESIS

The method for hypothesis testing used here is the $\chi 2$ test.

This method is used to find out whether the fuel cell vehicle is preferred by all age group or it is liked equally by all age group.

NEED FOR THE STUDY

The main purpose of this study is to find out untapped markets of automobile industry or searching or finding out those segments that are not explored by automobile industry

OBJECTIVES:

1. Identify the various segments in the automobile industry and find out the untapped markets which have the potential to grow
2. This study can give an insight of various competitors in the industry as well help in recognizing the customers preference of attributes in various segments
3. To recommend for the development of untapped markets and also study the impact of external forces like government , technology on market development.

SCOPE OF STUDY

This study of untapped markets of Indian automobile industry is limited to only two wheeler and four wheeler vehicle segments and is carried out only in India, Bangalore. This study is conducted with help of the automobile dealers and distributors of Bangalore and this study is also extended to rural areas of India and other metro cities of India

SUMMARY OF FINDINGS

1. The demand for geared vehicles was greater than the non geared vehicles and maximum share of purchasing by the businessmen . B-segment cars were the most preferred by businessmen because of their cheap prices and durability
2. Maximum purchase of cars was done by the people belonging to income group of (20,000-30,000)
3. Four stroke vehicles were preferred to that of two stroke vehicles and multi-utility vehicles had a greater demand to that of sports utility and executive cars
4. Diesel was the preferred fuel with 42 people out of 100 opting for this fuel, the other opinions were ,24 people opted fuel electric vehicles, followed by 16 persons opting for petrol and 13 opted CNG as the preferred automobile fuel.
5. It was found that out of 100 respondents , 42 people bought new vehicles because the previous one was old. And only 23% had the feeling of buying entirely new vehicle and 13% bought new vehicles because of hike in their incomes.

INTRODUCTION

INTRODUCTION TO THE STUDY

Indian automobile industry is slowly evolving with time. Earlier it was dominated by a handful of players in each segment. It was Hindustan Motors and Premier Automobiles that dominated the car segment, though Maruti Udyog Limited hogged the limelight just before the economic liberalization. And Bajaj Auto dominated the two and three wheeler segments., As a result of liberalization, new players have entered the market and brought in new technologies that changed the automobile landscape altogether.

Today, the automobile segment consists of international players like Ford, GM, Hyundai, Honda, Bentley , Audi , Diamler Chrysler, Rolls Royce , Nissan and Daewoo in the car segment, and in the two wheeler segment, Honda, Suzuki, Escort Motors, TVS Motors, and Kawasaki. The automobile market represents a highly competitive market with each player trying to capture as much market share as possible by entering into new markets, new segments and market niches. The ushering of international players into the national league has brought in world-class technology, which is beneficial both for manufacturers and customers. The technology transfer has forced the domestic players to adopt international practices and standards.

Similarly, the entry of foreign players has opened up new frontiers for the Indian consumers. While the customers in the pre-liberalization era had limited choice and few products, of late, the range of products and choices available have increased. Irrespective of the segment, wider choice is enabling customers to opt for latest brands and most importantly those that suit their purchasing power. For example, a customer willing to buy a car in the range of Rs.4 - 7 lakhs can choose from a range of domestic and international brands. At the same time the industry is carrying the burden of intense competition and facing the danger of market saturation, so that why the players in the industry should find out new segments and markets that are not yet discovered and explored. These developments would make the industry to achieve real global standards.

Along with the industry, other sectors directly dependent on it for their growth are also experiencing exponential growth. The fact that auto components industry grew at a CAGR of 26% during the last 10 years itself indicates the robust growth of the industry.

The real challenge for the industry is to become a truly global industry and to enhance its growth by penetrating into new segments and untapped markets where it has the potential to grow. Growth apart, the industry should aim at achieving international standards in business innovation, technology and service

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Now the shift is towards making hybrid cars, these cars have proved their worth in some advanced countries. The automobile industry also has to find some alternative fuels in the coming future. A ray of hope exists recently as the Ethanol has shown some signs of becoming a good fuel , this again needs a lot of improvement and the research still continues in this direction.

The Indian two wheeler industry is set to become more competitive as most of the strategic alliances have broken and the foreign players are operating independently. In this situation it becomes more important for all the players to understand the needs of the customer. The Indian two-wheeler industry has come up a long way from being a tightly Government controlled industry to a highly competitive one encouraging foreign players participation. Approximately 5.4 million units of two wheelers are sold every year in India, making it one of the largest two-wheeler markets in the world. India has an average of 27 two-wheelers per 1000 making it highest in Asia. The origin of two-wheeler industry can be traced back to 1948, when Bajaj Auto Ltd. Started importing and marketing Vespa scooters in India. Shortly , afterwards Enfield India Ltd. Started its manufacturing operations in India. Delicensing of the sector in the early 1980s completely changed the structure of the two- wheeler industry. With the new players entering the market, the choice of consumers started to widen. During the period of 1993-1999, the two-wheeler industry grew at a CAGR(Compound annual growth rate)of 14.6% which was largely due to the contribution of the motorcycle segment, which grew at a CAGR OF 24.3% compared to that of 11% for scooters. Presently, the two-wheeler market in India is oligopolistic market with 3 major players controlling more than 80% of the market share. The leader being Hero Honda, a joint venture between Hero Group of India and Honda motors of Japan.

REVIEW OF LITERATURE

The automobile industry is one of the major sector influencing our economic growth. It provides business opportunities to more than 10,000 channel partners including dealers and service centers and employs over 5 lakhs people both directly and indirectly. The overall growth of the industry was 11% during 2002-2003 with two wheeler registering a growth of 6% and passenger vehicles 35%. The automotive component segment grew by 17% in 2003-2004 and was worth Rs.200 billion. During 2004-2005 it was expected that the sales of passenger cars will be over 1 million units while for two wheeler it will about 6 million units, three wheeler at 3 lakh units and commercial vehicles of 1 - 2 lakh units. The automotive component segment is portended to reach US 2.5 billion dollars by 2010.

2.1 OPPORTUNITIES

Though India is the fifth largest automobile manufacturer in the world, penetration level in the country is very low, especially in the case of passenger cars. This opens a huge opportunity for the automobile companies changing demography also adds to the increasing demand for the vehicles. The liberalization of Indian economy in 1991 has increased the income level of the urban population leading to change in lifestyle. This has pushed the demand for two wheeler and passenger cars. Even the aspiration of rural population have undergone a sea change. Rising consumerism has increased the sales of vehicles in the rural areas.

On the other hand, public transport system has failed to keep space with rising urban population. Poor public transport facility forces people to opt their own vehicle instead of waiting hours for a bus and then find it to be overcrowded. The availability of cheap credit has also provided a big boost to the automobile sector. Almost all the banks and finance companies have a range of credit schemes to choose from. The automobile companies have also tied up with most of them to promote the sales of their products. We even find zero percent interest rates in some cases.

Indian automobile industry has also made a substantial investment in research and development which was almost absent earlier. This has helped in upgrading the technology and at the same time reduced production cost. This provides good opportunities for Indian manufacturers. Bajaj, Tata motors and Hyundai are taking the lead in exporting vehicles to South America and Europe.

2.2 EMERGING TRENDS

In the backdrop of huge opportunities, the industry has some challenges to face. Lack of adequate infrastructure has so far eluded the automobile sector from their expected growth. Urban roots are overcrowded with vehicles and a lot of rural areas are still awaiting road connectivity, companies have to penetrate rural India for their sales growth. But in view of farmers fluctuating income, thanks to frequent draughts and floods, it is hard to persuade them to buy a vehicle. Then there is a problem of a problem of distribution network in far-flung places. Due to inadequate connectivity, building a dealer network and delivering the vehicle at farmers doorsteps is a tedious job.

Shorter product life cycle also forces the companies to continuously invest in product development and technology. Though this brings opportunity in disguise by promoting repeat purchases, it requires good brand building exercise and serious fan following. This involves heavy investment and is a long term process. The automotive industry is plagued with over capacity in India forcing manufacturers to reduce prices. This is adversely affecting their margins.

The automobile companies are defining and redefining their target customers. The segment have been further divided into various sub-segments and vehicles are designed and priced accordingly. Vehicles are not only an object of necessity these days but they are states symbols and portray the owners attitude. This has made manufacturers launch a product catering to the requirement of each category. Today women and youth have become the fastest growing customer base, which has promoted the companies such as Bajaj, TVS and Honda to launch two wheelers targeting them.

The customer is now well informed and demands value for money. He wants a vehicle fitted with latest technology equipment at competitive price and good after-sales-service. Companies are giving equal importance to services as they play a vital role in building customer loyalty. The government initiative to reduce import tariffs on completely built units (CBU) and second hand cars is also giving nightmares to the automobile manufacturer. To honor WTO agreements, India will have to open door for these vehicles making the survival of domestic manufacturer tougher.

There are many issues to be tackled by the automobile industry but the opportunities are immense which will make it successfully face the challenges and continue to be at the forefront in the next decade as well.

2.3 PURPOSE OF THE STUDY

(a) The main purpose of this study is to find out untapped markets of automobile industry or searching or finding out those segments that are not explored by automobile industry.

(b) This study would give the consumer to think about greater range of product choices.

(c) This study would give an idea to the players in automobile industry mainly in two wheeler and four wheeler segment to expand their market size and market share.

(d) This study would give an idea top the players in automobile industry to avoid cut throat competition by penetrating into new markets.

(e) This study would also help in knowing the customers preference of attributes and segments.

(f) Towards the fulfillment of MBA degree under Bangalore University.

2.4 BACKGROUND OF THE STUDY:

The Indian automobile industry was dominated by a handful players till 1990. In the four wheeler segment, it is Maruti, Tata Motors and Hindustan Motors who are the major players and Bajaj, Vespa are the major players in the two wheeler segment but after economic liberalization new players and international players like Suzuki, Piaggio, TVS Motors, Hero Honda, Honda Motors, GM, Ford, Hyundai, Daewoo, Escort Motors, Fergusson entered the industry making it more competitive with entry of such big international players the market of two wheeler and four wheeler segment of Indian automobile industry become highly competitive and now at the verge of cut-throat competition. Such stiff competition may prove very costly to the industry in form of declining profits of players or company in the market. Each of the company are scrapping for a market share by entering into new segments and offering new models and brands, but this wouldn't help them until the players in the two wheeler segment and four wheeler segment searches and explores the untapped markets and new segments that is not yet explored. Such exploration and identification of segments by automobile manufacturers would all the Indian consumer to enjoy increased range of products and choices.

This study undertaken with an aim to find out and identify the new market segments and untapped markets of automobile industry or the markets that is not explored by automobile manufacturers where it has the potential to grow.

DESIGN OF THE STUDY

3.1STATEMENT OF THE PROBLEM:

The Indian automobile industry is undergoing a stiff competition, with a large number of domestic and international manufacturers are pushing each other to capture market proof costly for the industry. And to avoid this automobile manufacturers have to find out new segments and markets that are not yet explored. Though India is the fifth largest automobile manufacturer in the world, penetration level in the country is very low, especially in case of passengers cars. This opens huge opportunity for the automobile companies. Changing demography also adds to the increasing demand for vehicles. The liberalization of Indian economy in 1991 has increased the income level of the urban population leading to change in lifestyle and all these turnout to be a challenge to the industry and forcing it to find out untapped markets. The Indian Automobile industry lacks in scientific research, it has to come up with more hybrid cars, electronic, fuel cell and also cars which run on alternative fuels. The industry has also ignored the potential of rural areas which also needs to be given special attention.

3.2SCOPE OF STUDY

This study of untapped markets of Indian automobile industry is limited to only two wheeler and four wheeler vehicle segments and is carried out only in India, Bangalore. This study is conducted with help of the automobile dealers and distributors of Bangalore and this study is also extended to rural areas of India and other metro cities of India. So this study is not applicable to Bangalore but also other cities and rural areas of India.

3.3 NEED FOR THE STUDY

(a) The main purpose of this study is to find out untapped markets of automobile industry or searching or finding out those segments that are not explored by automobile industry.

(b) This study would give the consumer to think about greater range of product choices.

(c) This study would give an idea to the players in automobile industry mainly in two wheeler and four wheeler segment to expand their market size and market share.

(d) This study would give an idea top the players in automobile industry to avoid cut throat competition by penetrating into new markets.

(e) This study would also help in knowing the customers preference of attributes and segments.

(f) Towards the fulfillment of MBA degree under Bangalore University.

3.4 OBJECTIVES OF STUDY

(a) Identifying market segments of automobile industry.

(b) Finding out various untapped markets of Indian automobile industry.

(c) Whether such markets really exists, "If' how it will put an impact on Indian automobile industry.

(d) Does technology creates market itself.

(e) Find out the role of government in developing markets for automobile industry.

(f) To find out the factors effecting the sales of two wheeler and four wheelers.

(g) To know the competition level in Indian automobile industry.

(h) Consumer preferences and likings of new design, models and brands of different manufacturer.

(i) To study the multi utility vehicle market in India.

(j) To study the sports utility vehicle market in India.

(k) Identifying luxury and executive segments in automobile industry of passenger cars.

3.5 SAMPLE DESIGN

The basic idea of sampling is that by selecting some of the elements in a population, we may draw conclusions about the entire population. A population element is the subject on which the measurement is being taken.

A sample of 100 respondents is taken while doing this research work. These respondents are all belong to upper middle class people with average income ranging from 6.2 lakhs to 8.5 lakhs annually. All the individuals of the population are residing at Bangalore currently.

WHY SAMPLE?

The economic advantage of taking a sample rather than a census are massive. Consider the cost of taking census, why should we spend thousands of rupees interviewing and distributing questionnaire all peoples belonging to upper middle class with average income of more than 6 lakhs annually, if we can find out what we need to know by asking only few hundred.

The sample is taken with an aim to find out the demand and preference of consumers towards CNG version vehicles, or LPG version vehicles or diesel version vehicles or petrol version vehicles.

3.6 DEFINITION OF POPULATION

The population involves all the individuals belonging to upper middle class or with income more than 6 lakhs annually. They might be car holders or desiring to purchase new cars.

Another population involves college going students both male and female of age between 18 - 25. All the students belong to Bangalore pursuing their career at different colleges of Bangalore.

PARAMETERS OF INTEREST

The above population are undertaken for this research study to know the preferences of the population - (upper middle class) to purchase a CNG version four wheeler or LPG version or diesel or petrol version vehicles.

The second category of population undertaken for the study to find the demand of sports utility vehicles and sports bikes among college going students.

3.7 SAMPLE SIZE

Sample size of 100 respondents are taken for this study, for representing each population category.

3.8 SAMPLE TECHNIQUE ADOPTED

Convenient sampling : It is one of the methods used in non probability sampling. In this scheme , a sample is obtained by selecting "convenient" population elements In these cases , even if a random approach is used for identifying the units, the scheme will not be considered as simple random sampling.

3.9 SOURCES OF DATA

Data types collected for the study are nominal data, ordinal data, interval data and ratio data.

Datas are classified into two heads Primary data and Secondary data for this study.

3.10 PRIMARY DATA

This chapter is about the problems and techniques of finding and using data already collected by others. More specifically, the chapter describes the nature of these data sources and how to use them. We classify information sources into primary and secondary tapes.

Primary data are collected by you and agents known to you. Studies made by others for their own purposes represent secondary data to you.

SOURCES OF PRIMARY DATA

While conducting the research study, I collected various information and primary data myself from various sources through

(a) Personal interviewing

(b) Telephone interviewing

(c) Self-administered surveys

Personal Interview

Personal interview is a two-way conversation or face to face interaction initiated by an interviewer to obtain information from a respondent. While conducting this study I interviewed many individuals those who having four wheelers and two wheelers as well as interviewed many dealers and distributors of two wheeler and four wheeler. The difference in roles of interviewer and respondent are pronounced. They are typically strangers, and the interviewer generally controls the topic and pattern of discussion. The consequence of the event are usually insignificant for the respondent. The respondent is asked to provide information and has little hope of receiving any immediate or direct benefit from this cooperation. Yet the interview is carried off successfully, it is an excellent data collection.

There are real advantages and clear limitations to personal interviewing. The greatest values lies in the depth of information and detail that can be secured. It for exceeds the information secured from telephone and self administered studies, via intercepts, mail surveys or computer. And another advantage of such personal interview it costs very low than other methods of collecting.

Primary Data

Under this study research only individual with income of 6 lakhs annually and with income range between 2 - 3 lakhs, 4 - 5 lakhs, students, dealers, distributors and individuals yet to purchase vehicles are interviewed.

Telephone Interviewing

In this study telephone is very helpful in arranging personal interviews and screening large population for unusual types of respondents. Through the help of telephone I was able to collect information about the automobile industry markets and its segments and about the markets into which the industry can enter.

Self Administered / Surveys

The self administered questionnaire has become ubiquitous in modern living. While evaluating the demand for CNG and LPG, solar system technology vehicles, I, adopted this self administered surveys by setting questionnaire myself and distributed these questionnaire printouts to my friends, relatives, strangers, job holders, students of various colleges and to Bangalore based distributors and dealers and factory outlets of automobile companies.

List of dealers in automobile sector at Bangalore from whom primary data as well as secondary data are collected, as well as information collected through personal interviewing and telephone interviewing.

3.11 SOURCES OF SECONDARY DATA

The secondary data relating to this study is collected from various sources such as internet, newspaper publication, magazines, library, commercial ads prints and articles written in various business magazines. These secondary data relates to sales data, CNG vehicle version, finance scheme of various banks for sanctioning loans for the purchase of automobile (two wheeler or four wheeler), demand of sports utility vehicle and executive segment vehicle demand over past 8 years.

List of Data Sources

(a) Internet
(b) College Library
(c) Newspaper
(d) Auto magazines
(e) Business motoring articles
(f) Documents and brochure from dealers
(g) Documents from CNG and LPG supplier

3.12 FIELD WORKGROUP

Much of what we know comes from observation. We notice customer purchasing vehicles at outlets and distributor house, as well as the government role and intervention in the automobile industry and its impact and effect of government policies on the automobile sector. While undertaking this study, I observed the rural areas infrastructure and transportation facility that are currently available.

Observation qualifies as scientific inquiry when it is specifically designated to answer a research question, is systematically planned and executed, uses proper controls, and provides a reliable and valid account of what happened. The versatility of observation makes it an indispensable primary source method and a supplement of other methods. Many academics have a limited view of observation relegating it to a minor technique of field data collection. This ignores its potential for forging business decisions and denies its historic stature as a creative means to obtain primary data. We said that research designs are classified by the approach used to gather primary data. We can observe or we can communicate so observation is an appropriate method for data collection. It also contrasts those conditions with ones we are familiar with from the communication modes - personal interview, telephone interview and self administered survey. Beside collecting data visually observation involves listening, reading, smelling and touching.

3.13 OPERATIONAL DEFINITIONS IN THE STUDY

Sampling

Sampling is that by selecting some of the elements in a population we can draw conclusion about the entire population.

Population

A population is the total collection of elements about which we wish to make some inferences.

Segment Marketing

A market segment consists of group of customer who share a similar set of wants.

Niche Marketing

A niche is more narrowly defined group seeking a distinctive mix of benefits.

Consumer Surplus

The amount of pay for a good indicates the amount of utility he derives from that good.

Product Hierarchy

Each product is related to certain other products. The product hierarchy stretches from basic needs to particular items that satisfy those needs.

Time Series

In a time series data is presented with regard to time.

Spatial Series

When data are presented with reference to space they are called spatial series.

Histograms

Columns or rectangles are erected over class interval and the height of the rectangle is proportional to the frequency.

Tabulation

Classification is the process by which data is arranged into classes according to a principle.

3.14 LIMITATION OF THE STUDY

The biggest limitation of this study is the time, I have to conducted this study by giving time to my studies as well as to the research study. The real difficulty and limitation of arised while conducting this study when field work was undertaken by me while conducting field work, I have to meet four wheeler and two wheeler distributor and factory outlets, some of them do not cope with me as well as they also hesitated to provide sales datas and information about the segments that are not yet touched by the automobile industry but has the potential.

Though this study depends more on secondary data sources, but somehow I managed to collect primary data by conducting a survey or market survey, to know the demand for CNG, electronic and LPG version automobiles, while conducting this survey, I faced difficulty to choosing a sample out the population as defined in this study. While conducting this survey, many of respondents are not very cooperative, only few of them come up to answer the questionnaire that I have distributed to them. Most of the respondents of the sample taken are employees, and it is very difficult for them to give time to me.

(1) There are some research limitations of the observational method. The observer normally must be at a scene of the event when it takes place, yet it is often impossible to predict where and when the event will occur.

(2) Observation is a slow of expensive process that requires either human observers or costly surveillance equipment.

(3) A third limitation of observation is that its most reliable results are restricted to information that can be learned by overt action or surface indicators.

(4) Research environment is more likely suited to subjective assessment and recording of data than to controls and quantification of events. Even when sample size are small, the observation records can be disproportionately large and difficult to analyze.

(5) Observation is limited as a way to learn about of the past. It is similarly limited as a method by which to learn what is going on in the present as some distant place. It is also difficult to gather information on such topics as intentions, attitudes, opinions or preferences.

3.15 OVERVIEW OF THE REPORT

This study on untapped markets of Indian automobile industry was taken with an objective to find out the geographical markets and the product segment that has been not explored by Indian automobile industry. Take the example of electronic car or fuel cell cars and bikes that has been not fully explored or topped by the industry players. There are only few players of the industry engaged in production of electronic cars. 'REVA' is the only auto company producing electronic cell cars, these cars run only on the charged battery without fuel. With the increasing prices of fuel year to year, the consumers or buyers are taking more interest in such new version electronic cars and bikes. For this purpose this study was undertaken to find out the consumers needs regarding cars and bikes, to identify the consumers who are willing to buy new innovative products of automobile industry, and the markets where the automobile industry has the full potential to penetrate or enter.

The aim of the study is achieved by collecting information from secondary sources, such auto magazines like Business Standard, the motoring, auto overdrive, the past sales figure over 5 years of major players of the industry. Also able to get much more information from internet by visiting websites like www.bsmotoring.com, www.clearinghouse.com, etc. While the primary data is collected by taking a sample of 100 units from the population. Here the population are the individuals with income between 15,000 - 20,000 per month and who are willing to purchase or buy a car or bike. Mainly the population is middle class social stratification. While collecting data from primary sources, questionnaire are prepared and distributed among the sample units, such questionnaire are set to know the demand trends of the four wheeler segments and two wheeler segment.

A field work was undertaken by visiting different auto distributors and auto company outlets belonging to both two wheeler and four wheeler. And this visits are made to collect information and data from the distributors and retailers. The total collection of both primary data and secondary data are done at Bangalore.

While conducting this study lot of difficulties are faced in collecting the secondary data from the distributor as well as the manufacturers of automobiles located at Bangalore. Money also become a prime factor of limitation while conducting this study. Lot of money was spent in collecting primary data.

Introduction: consists of the scenario of the industry currently, it gives a clear picture of the existing competition. This also shows the opportunities for both the two-wheeler as well as the four-wheeler industries.

Design of the study: as we know this is a planned exploratory research, due to the nature of problem and objectives. This study is also done with the help of hypothesis to know whether it holds good or not.

This chapter also explains to you about the sampling technique adopted and the sample size used. It also explains about how various data are collected. It also includes the limitation of the study. It also includes the statement of the problem, through which the whole study is directed.

Profile of the industry: gives a clear picture of the latest statistics of the car sales, and it also shows the graphical representation of major players of both two-wheeler and four-wheeler. This also helps as a guide to know the latest vehicles in the industry.

Analysis and interpretation: This chapter deals with interpretation given for the various data collected through the questionnaire, and the graphs are drawn according to sales for ease in understanding the results.

Findings, suggestion and conclusion: The last topic is about the conclusions and recommendations which can be made from the inferred data. Various suggestions are given which can be made use by the automobile industry , to trap the different segments and also to make more scientific research in the direction of electric vehicles.

PROFILE OF INDUSTRY

Indian automobile industry is slowly evolving with time. Earlier, it was dominated by a handful players in each segment. It was Hindustan Motors and Premier Automobiles that dominated the car segment, though Maruti Udyog Limited hogged the limelight just before the economic liberalization. And Bajaj Auto dominated two wheeler segments. As a result of liberalization new players have entered the market and brought in new technologies that changed the automobile landscape altogether.

Today, the automobile segment consists of international players like Ford, GM, Hyundai and Honda in the car segment and in the two wheeler segment, Honda, Suzuki, Escort Motors and TVS Motors. The automobile market represents a highly competitive market with each player trying to capture as much market share as possible. The ushering of international players into the national league has brought in world class technology, which is beneficial both for the manufacturers and customers. The technology transfer has forced the domestic players to adopt international practices and standards.

Similarly, the entry of foreign players has opened up new frontier for the Indian consumers. While the customers in the pre-liberalization era had limited choice and few products of late, the range of products and choices are available have increased. Irrespective of the segment, wider choice is enabling customer to opt for latest brands and most importantly those that suit their purchasing power. At the same time because of intense competition, the customer service provided by the players has improved tremendously these developments are making the industry achieve global standards. In fact, some of the international players are setting their manufacturing bases in India and exporting to other emerging markets.

Along with the industry, other sectors directly dependant on it for their growth. The fact that auto components industry grew at a CAGR of 26% during the last 10 years itself indicates the robust growth of the industry.

The real challenge for the industry is to become a truly global industry. Growth apart, the industry should aim at achieving international standards in business innovation, technology and service.

Auto aficionados may well declare 2004 the year of cars and two wheeler, especially after the recent drop in prices following the excise duty revision.

Around 40 new launches that include brand new models and a string of their variants are to set to make an entry on the Indian roads through the year. Coming on the heels of a relatively placid spell in 2002, Indian auto makers are looking forward to some fast faced action. The attention will be trained on new car introductions in the compact B-segment, mid-size C-segment sedans and the premier luxury category. The industry will also get to watch Maruti's battle to check further depletion of market share of its original small car, M-800 and Korean giant Hyundai's strategy to retain and grow on its successes last year. Fiat will be banking on the diesel variant of its world car Palio to support its dream of becoming a key player in the Indian market. As things stand, Hyundai is perhaps the most upbeat among car companies, having been the only player to report positive growth in all three segments where it has a footprint in the domestic market. After 23 percent jump in total sales last year it expects to climb up by another 10% in 2004 and rollout at least 1,50,000 cars which includes around 25,000 cars on export block. It ended 2003 domestic and international sales at over 1.11 lakh units. Hyundai Motor India President B.V.R.Subbu says the shift from A to B segment cars will continue in 2004, which will help Hyundai maintain its high rate of growth. While there is no official comment on it. Hyundai is said to be considering the launch of GetZ, a car in the B++ segment towards end of the year. Also on the cards, trade sources say, is the introduction of Elantra, a car to checkmate Toyotas top selling
Corolla car.

Ford India, subsidiary of the second largest car marker in the world, is also eyeing a better response from the market this year. The American company did not see any growth in 2003. However it expects to move up its domestic numbers from 15,000 cars to 20,000 by December 2003 on the back of its new Josh machine IKON NXT.

More interestingly, this growth in numbers will be powered largely by the south and the west where its market shares are expected to creep up by a few percent. Also on the cards from Ford is an all new car in the third quarter of 2003 in a segment where it does not have any foothold now.

The second car from the Tata Engineering stable the mid size Indigo is also expected to make its mark. The company is expecting to sell around 900 - 1000 cars a month. In January it has beaten market expectations by topping sales in the C-segment beating Hyundai Accent, the leader in this segment till now. Maruti is also banking on better number this year, especially for diesel variant of Esteem and Wagon-R, the compact car whose sales have been rising month on month. The Grand Vitara, the top end SUV from the Suzuki fold set to be rolled out shortly, is also expected to raise the company spirits and improved footfalls into its dealership.

The world No.1 General Motors shares the buoyant mood fellow manufacturers in India, and expects a five-six percent growth in this year. The Opel Corsa has seen the numbers improve in 2003 over 2002, a process which it expects to accelerate this year, especially with the introduction of a more economical hatch back variant.

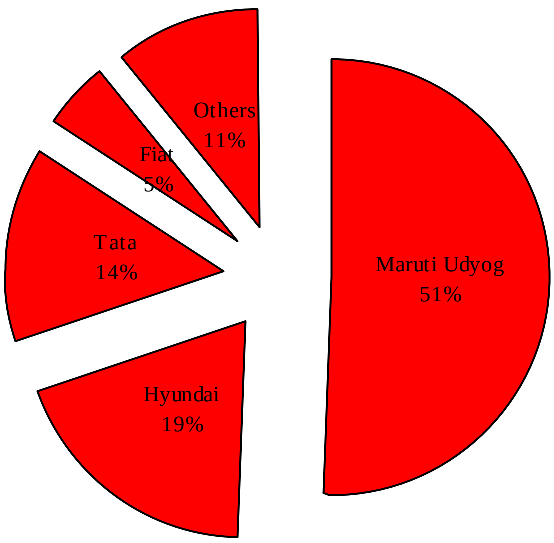
The car maker has just brought out its premium segment saloon Opel Vectra in the market, and is targeting a sale of around 1,000 units this year, similar to the number being aimed at by Toyota for its luxury offering Camry. Toyota is meanwhile gearing up to rev up the market with its recent launch in the C++ segment Corolla. The car, which has topped sales for some 35 years in Japan, is expected to set up competition for Skoda Octavia which is ruling this segment. Hyundai is also likely to jump into the fray with Elantra at an attractive price point to further intensify action in the upper mid-size sedans, another segment which car makers are betting will grow faster in 2004.

The two wheeler industry is also anticipating 10 - 15 percent growth this year while the shift from scooters, mopeds and scooterettes to motorcycles may continue, the promise of newer more peppy models in the scooter segment is likely to stem the fide, and throw up better growth opportunities for this segment. A steady stream of new models, more power and better mileage have been key drivers of increase in motor cycles sales in the country. The motor cycle segment will continue to gallop in 2003 and grow by over 30 percent. Its share of the two wheeler market, presently pegged at 70 - 75 percent will only stabilize once it reaches 80 - 85 percent. Last year, the total two wheeler market did an estimated 4.25 million units that includes nearly 2.9 million units from motorcycles alone. The next biggest share goes to scooters at 7,00,000 followed by mopeds at 3,50,000. Interestingly, while the sale of general scooters has been dropping by 15 - 20 percent, the automatic scooter numbers have been climbing by some 2 - 30 percent. Last year, this segment grew by an impressive 60 percent.

Statistics of cars sales:

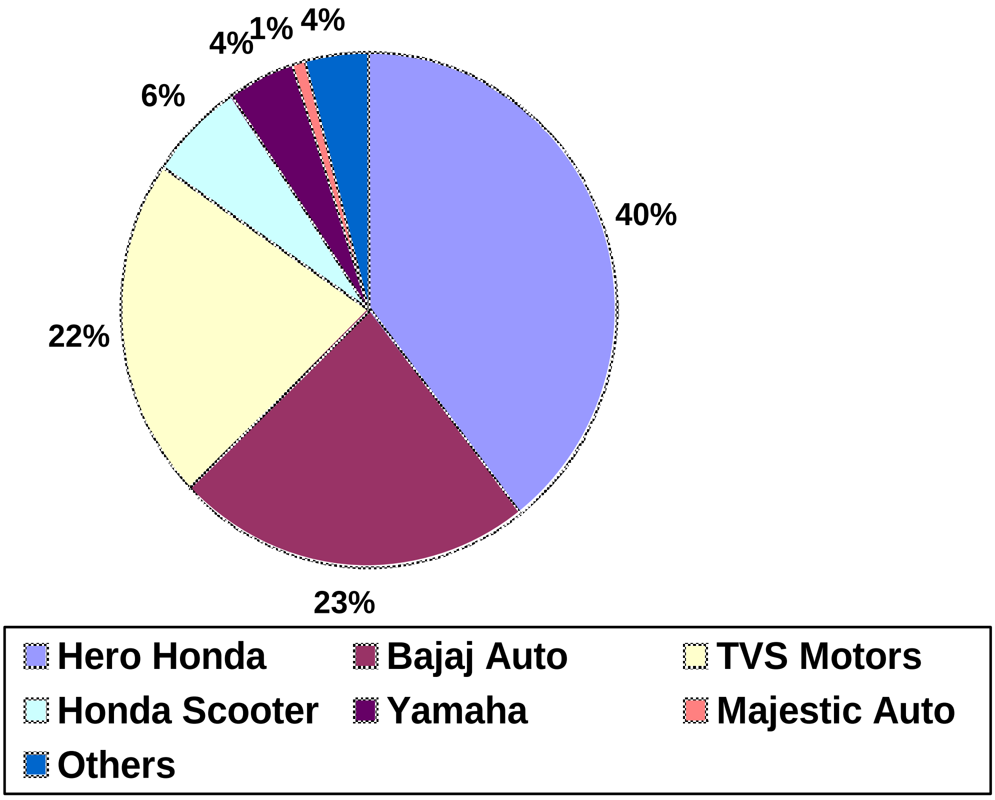
Month	Maruti Udyog	Fiat India	Hyndai Motors	Tata Engg	Ford India	General Motors	Hindustan Motors	Honda Siel	Diamler Chrysler India	Toyota Kirloskar	Skoda Auto	Total
Jan- 04	38140	867	12546	11084	1914	1458	1557	2606	32	1070	601	71875
Dec-03	28892	810	6229	5309	2128	1625	1014	2706	62	864	550	50189
Nov-03	31044	740	11056	8304	1598	1245	1214	1631	115	818	401	58166
Oct-03	28060	915	11320	9485	1717	1253	1036	1267	117	785		55955
Sep-03	27023	1153	10950	10008	2030	1991	1238	834	192	926		56345
Aug-03	25054	681	11050	9382	1651	1698	1222	1441	113	885		53177
July-03	31342	962	11133	9707	1425	1925	998	1039	170	1099		59800
Jun-03	24540	1131	11941	8735	1331	1067	1148	1208	151	777		52029
May-03	30894	1204	8900	8755	1133	889	1178	1198	130	885		55166
Apr-03	21376	739	9050	6533	1022	776	1020	1277	60	653		42506

Major players in Indian four-wheeler industry



SIAM 2003-04

Major Players in Indian two-wheeler industry



SIAM 2003-04

The two-wheeler industry has seen in the past the shift of consumer preference from scooters to bikes. Mileage is the key element in the selection of bikes. Automatic gear scooters have had good demand in 2005-06, Honda Activa has done well in this segment. Also Scooty doing well in the lighter category , Pulsar DTSi doing well for Bajaj in terms of sales. Hero Honda Splendor is looked upon like legend in Indian two –wheelers , it is still doing well with its latest version of Super Splendor. Now the latest introduction of Kinetic Blaze in ungeared segment and TVS Apache in 150cc segment of bikes might definitely have an impact on the sales of respective segments, as the makers of these have expectations from the two.

Bajaj Avenger was an attempt by the Bajaj Auto in the cruiser section, this vehicle had limited success. Bajaj CT100 , TVS Star City ,LML CRD , Hero Honda Dawn were some of the newly introduced vehicles in 100 cc segment of the bikes. With customers demanding for more power, 150 cc segment is expected to grow in the coming years.

MAJOR AUTO COMPONENTS IN INDIAN MARKETS COMPANIES OPERATING IN TWO WHEELER SEGMENT

Sl. No.	Company	Models Launched
1.	Hero Honda	Achiever,CD100/SS/CDDawn,KarizmaSplendor/ Splendor+/passion+,super splendor/Glamour, Pleasure,CBZ Star
2.	Bajaj Auto	Avenger ,Bajaj CT 100, Discover, Discover 112,, Pulsar180 DTSi,Pulsar 150 DTSi,WaveDTSi,Platina, Platina DX.
3.	Honda	Activa/Dio,Shine,Eterno,Unicorn
4.	Kinetic	Boss EX, Boss115/Velocity,GF 170City/Laser,Nova4s/135,Blaze, Zoom ZX,Kine,KineticKing
5.	TVS	Centra,Fiero F2/Fx, Scooty Pep/Pep +, Victor GX,Victor GLX/Edge,Apache,Star/Star City
6.	LML	CRD 100, Freedom/ Prima110/125,LML Graptor/ Beamer
7.	Yamaha	Crux, Fazer /DLX ,Libero G5
8.	Suzuki	Heat
9.	Royal Enfield	Bullet 500, Bullet Electra, Thunderbird, Bullet Machismo, Bullet 350

AUTO COMPANIES OPERATING IN FOUR WHEELER SEGMENTS

Sl.	Company	Models Launched

No.		
1.	Diamler Chrysler	Mercedez Benz C200 Kompressosr/C220 CDI, Mercedez Benz E200k/E240/E270 CDI,Mercedez Benz S 350L
2.	Fiat India	Fiat PalioNV/1.6/1.9D,Petra,Adventure
3.	Ford India	Ford Ikon1.6/1.3/1.8D,Fusion,Ford Eneavour,Fiesta 1.4/1.4d/1.6
4.	General Motors India	Opel Corsa Sail 1.4/1.6,Opel Corsa1.4/1.6/swing1.6,Chevorlet Aveo 1.4/1.6,Chevorlet Optra 1.6/1.8,Chevorlet Forester,Chevorlet Travera
5.	Mistubishi	Lancerf LX,1.5/1.8,Pajero 2.8
6.	Hindustan Motors	Ambassador
7.	Honda Seil Cars India	Honda City, Honda Accord2.4/V6,Honda CR-V
8.	Hyndai Motor India	Santro Xing 1.1, Accent/ Viva1.6/1.5 Crdi,Elantra 1.8GLS,/2.0 Crdi,Getz,Sonata Embera,Terracan,Tucson
9.	Mahindra & Mahindra	Scorpio2.6/Turbo/Rev116/CRDe, Bolero/Invader/BoleroXLS
10.	Maruti Udyog	Maruti 800/Omni,Maruti Versa,Baleno/ Altura,Alto LX,Swift,Esteem,Zen,Wagon R,SuzukiGrand vitara XL-5,Gypsy
11.	Skoda Auto India	Skoda Octavia,2.0 petrol/1.8 TRS/1.9TDi/TDiauto,SkodaSuperb, Laura
12.	Tata Motors	Indigo/Marina,Indica V2,Sumo Victa/Spacio,Safari/Dicor.
13.	Toyota Kirloskar motors	Innova,Corolla,Camry,Land Cruiser Prado.
14.	Rolls-Royce	Phantom

15.	Porsche	Boxster,Cayenne,911
16.	Nissan	X-Trail
17.	BMV	X 5, 5 series,7 series
18.	Audi	TT,A6,A8
19.	Bentley	Arnage, Continental GT,Flying Spur
20.	Maini	Reva

From the following information, we would view how competitive is the Indian automobile industry and its market. The number of players and the models launched justifies the nature of competitiveness among the players in the industry. Every year there are about 20 to 30 new launches of models of both two wheeler and four wheeler. But the leader in the two wheeler segment is Bajaj Auto with its wide variety of models or product and this company is topping the sales over past 12 years while the leader in the four wheelers segment is Maruti Udyog and its collaboration with Suzuki added more to its strength and thus making Maruti Udyog the 1st Indian company to produce wide range of products targeting all class segment within the Industry.

The automobile industry during the first four months of this fiscal registered a growth of 4.93% and scooterette / scooter and mopeds registered a negative growth of 5.69% and 21.69% respectively compared to the same period previous year. The total two wheeler units sold by all players during this period has been 1,645,660 compared to 1,568,310 in the previous year. The last four months have shown that two wheeler segment is growing owing to good monsoon and low interest finance schemes backed by some new models being launched during this period.

The two wheeler industry backed by the growth in motorcycle segment is growing at a steady pace. The new launches in the future are likely to fuel growth of this segment further.

ANALYSIS AND INTERPRETATION

5.1 INTRODUCTION TO ANALYSIS

After the data is systematically collected, it is edited to ensure that the collected data is free from errors. The edited data is then classified into groups or classes to analyze the information.

Classification is the procedure of arranging data into sequences and groups according to their common characteristics or separating them into different related parts.

The classification adopted for the study is the primary data and secondary data, which was gathered from the respondents.

Tabulation is the one of the most important devices for presenting data in a condensed and readily comprehensible form. Tabulation is the systematic presentation of the information contained in the data in noun and columns in accordance with some silent features or characteristics.

Tabulation helps to simplify the data, saves the space makes easy to compare and ensure easy analysis.

After tabulation, the data must be analyzed by using statistical tools. Using the data analysis tools such as bar charts, pie charts, and the analysis done in the study by using the simple percentage method and interpretation.

5.2 DATA ANALYSIS TOOLS USED

The questionnaire was distributed among owners and users of cars and bikes as well among non-users of two wheeler and four wheeler. The questionnaire was also distributed among the two wheeler and four wheeler dealers of Bangalore City.

The questionnaire was then collected and analyzed. For the analysis, a table was constructed and the data was tabulated.

Pie charts, histograms, bar charts and graphs are constructed and the data was analyzed.

Table 5.1 : SEX WISE CLASSIFICATION

Sex	Response	Percentage
Male	108	90
Female	12	10

The above table indicates that 90% of car users are male and the remaining 10% are female.

Table 5.2 : SEX WISE CLASSIFICATION OF TWO WHEELER SEGMENT

Sex	Response	Percentage
Male	92	75
Female	32	25.8

Source : Survey Data

ANALYSIS AND INTERPRETATION OF DATA

It was observed that Out of 100 respondents 75% of the two wheeler users were male and 25.8% of two wheeler users were female. Hence, the demand for geared vehicles was more than the non geared vehicles.

Figure - 1 : SEX WISE CLASSIFICATION

For Four wheeler

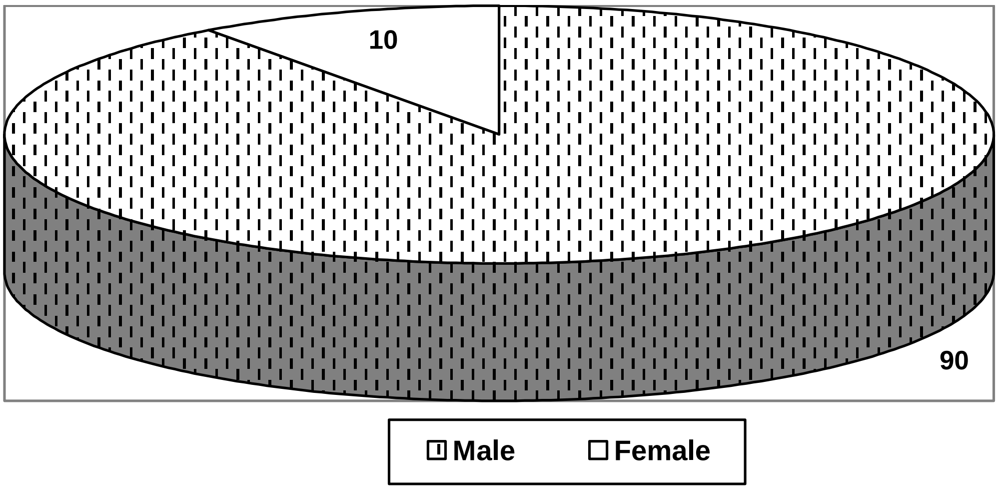


Figure - 2 : SEX WISE CLASSIFICATION

For Two Wheeler

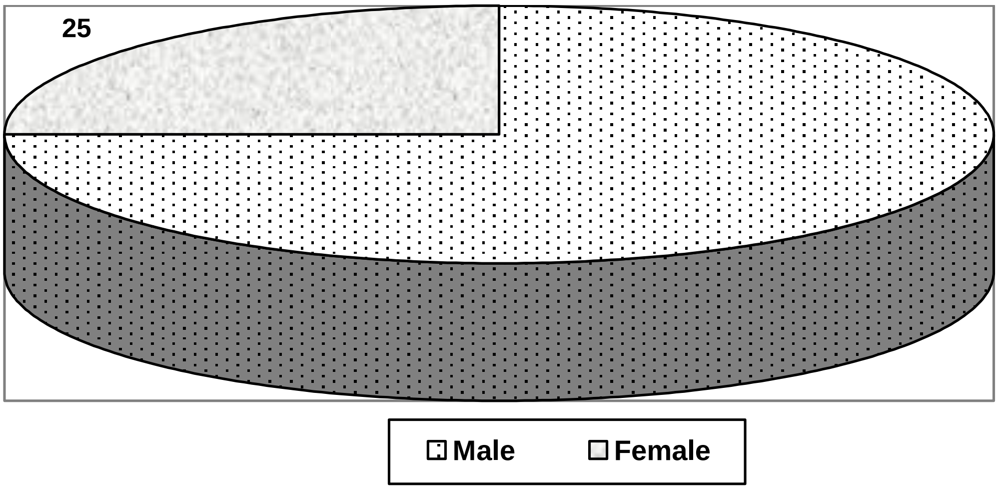


Table 5.3 : PROFESSION WISE CLASSIFICATION

Profession	Response	Percentage
Government / Private Service	15	15
Business	70	70
Professional	15	15

Source : Questionnaire

ANALYSIS AND INTERPRETATION OF DATA

The above table indicates that 15% of customers were Government / Private service holders. Business customers were carrying maximum share of 70% and professional were 15%. Hence, compact-B segment cars was the most preferred and benefited by the business people.

Figure - 3 : PROFESSION WISE CLASSIFICATION

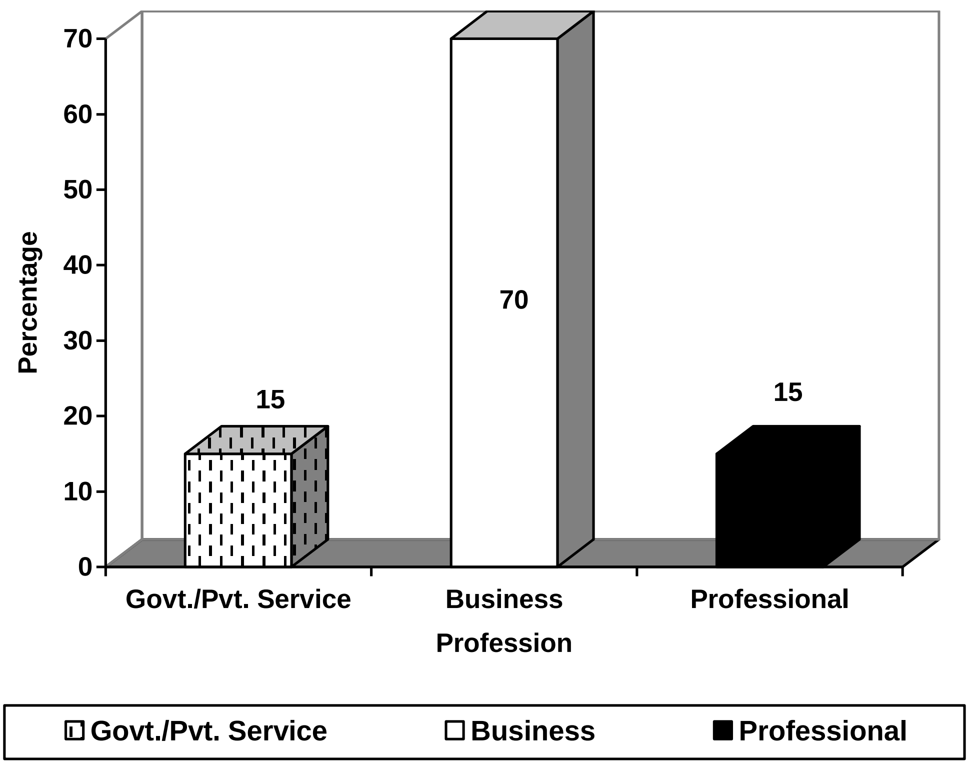


Table 5.4 : CLASSIFICATION OF CONSUMERS ON BASIS OF INCOME FOR FOUR WHEELER SEGMENT

Income per month	Response	Percentage
50,000 - 40,000	17	17
40,000 - 30,000	21	21
30,000 - 20,000	43	43
20,000 - 10,000	22	22

Source : Questionnaire

ANALYSIS AND INTERPRETATION

The above table indicates that 17% of the car users belonged to income group of (50,000 to 40,000 per month) and 21% belonged to income group of (40,000 - 30,000) per month. And 43% belonged to income group of (30,000 - 20,000) per month. And 22% of consumers belong to income group of (20,000 - 10,000) per month.

Figure - 4 : INCOME PER MONTH OF CONSUMERS OF FOUR WHEELER

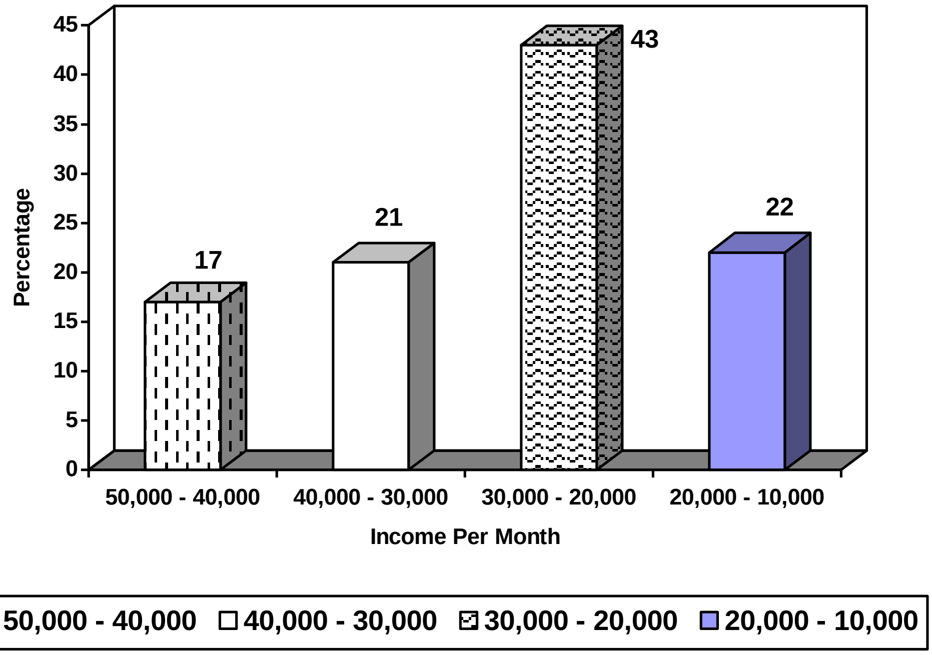


Table 5.5 : CUSTOMERS PREFERRING THE TYPE OF FOUR WHEELER SEGMENT MOST

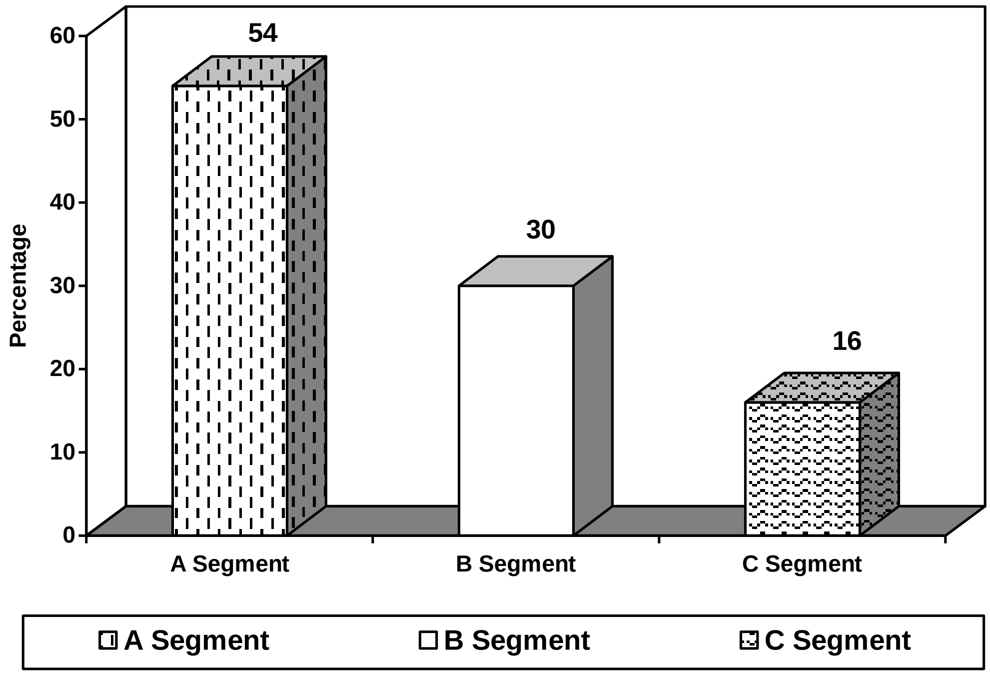
Sl. No.	Category	Response	Percentage
1	Mini	11	11
2	Compact	43	43
3	Mid Size	30	30
4	Exclusive	9	9
5	Premium	5	5
6	Luxury	2	2

Source : Questionnaire

ANALYSIS AND INTERPRETATION

The researcher has observed that 43% of customers preferred compact segment because compact segment cars were reasonable to purchase, as they are consistent with the income of middle class people. While the demand for luxury segment is very low with 2% only.

Figure - 5 : CUSTOMERS PREFERENCE FOR TYPE OF CAR SEGMENT



X axis	Four wheelers classified into three categories according to their length as per the Society for Indian Automobile Manufacturers (SIAM)
Y axis	Representing the demand of the three segments of passenger cars.
Source	SIAM annual journal.

Table 5.6 : PERCENTAGE OF CUSTOMER PREFERRING TWO STROKE AND FOUR STROKE BIKES

Type	Response	Percentage
Two Stroke	32	32
Four Stroke	68	68

Source : Questionnaire

ANALYSIS AND INTERPRETATION

It was found that the demand for four stroke bikes was more in the market than two stroke bikes. About 68% of customer are willing to purchase four stroke bikes.

Figure - 6

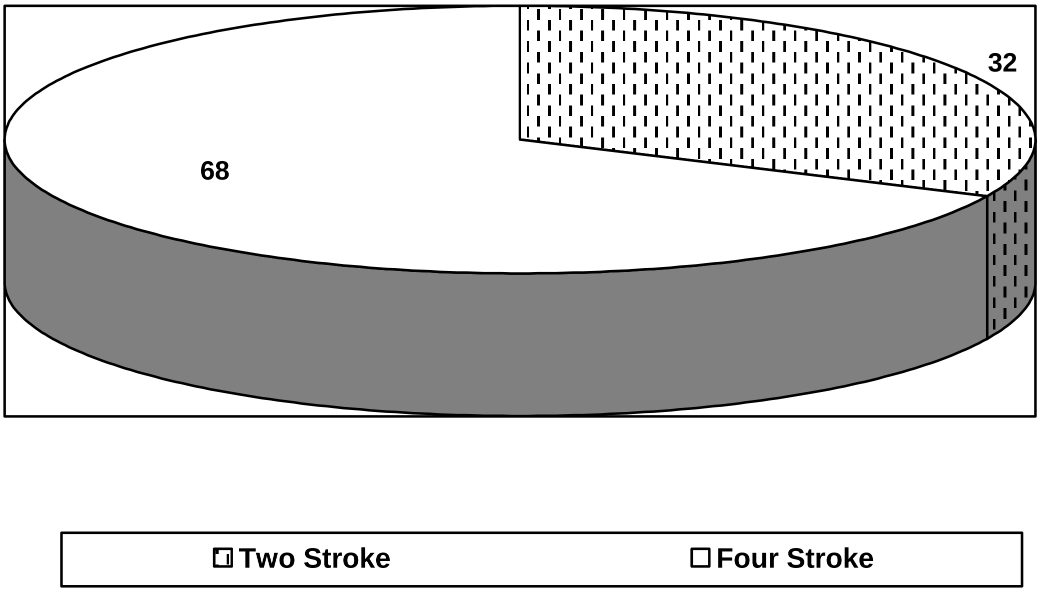


Table 5.7 : MEMBERS IN THE FAMILY

Members	Response	Percentage
Upto 4	59	59
Upto 6	31	31
Upto 8	8	8
10 and Above	2	2

Source : Questionnaire

ANALYSIS AND INTERPRETATION

In the survey it was noticed that 59% of the consumers family had upto 4 members, 31% of the consumers had upto 6 members, 8% of consumers had upto 8 members and only 2% of the consumers had 10 and above.

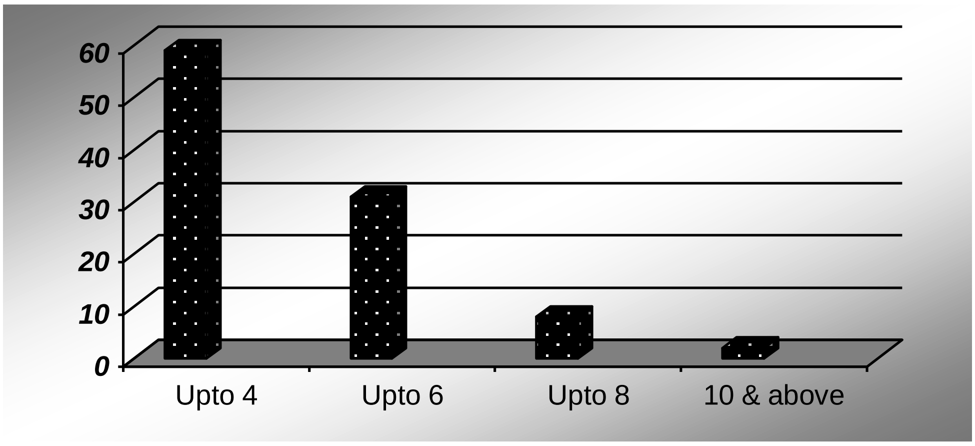


Fig 7 : Percentage showing number of members in a family owning a car

Table 5.8 : CUSTOMER PREFERRING

(i) MULTI-UTILITY VEHICLE SEGMENT

(ii) SPORTS-UTILITY VEHICLE SEGMENT

(iii) EXECUTIVE VEHICLE SEGMENT

Vehicle Segment	No. of Customers	Percentage
Multi-Utility	46	46
Sports-Utility	12	12
Executive	42	42

Source : Questionnaire

ANALYSIS AND INTERPRETATION

The researcher had found that ,46% of customers preferred multi-utility vehicles while only 12% of customer preferred sports utility vehicle and 42% of customer preferred executive segment. This indicates that the demand for multi-utility vehicle was very high and thus had a wide market.

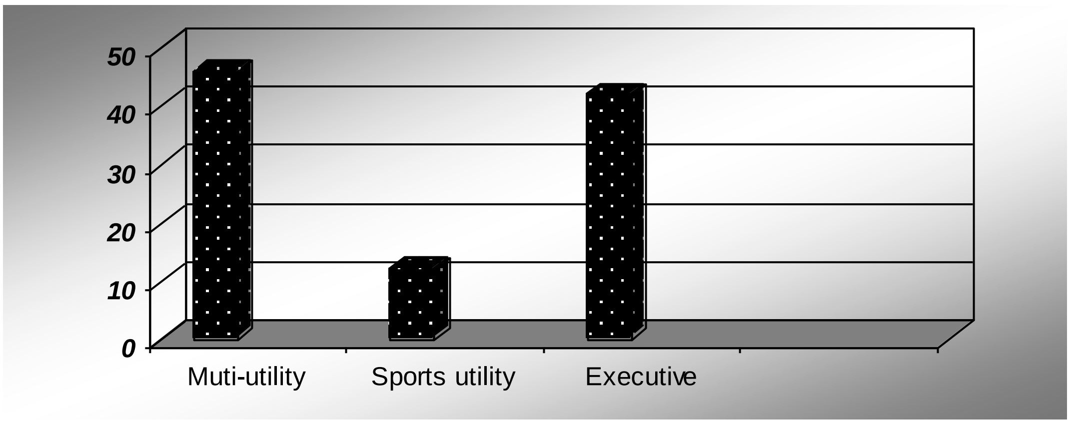


Fig 8 : Customers preference for different segment vehicles

Table 5.9 : CONSUMER PREFERENCE OF FOUR WHEELERS ON BASIS OF TYPE OF FUEL ON WHICH THEY RUN

Sl. No.	Type of Fuel	Customer	Percentage
1	Petrol	16	16
2	Diesel	42	42
3	LPG	1	1
4	CNG	13	13
5	Fuel Cell Electric	28	28

Source : Survey Data

ANALYSIS AND INTERPRETATION

It was observed that 42% of customer preferred diesel and 28% preferred fuel cell electric battery powered four wheeler. The demand for diesel version vehicles was more because of its low price.

Figure - 9: PERCENTAGE OF CUSTOMER PREFERRING FOUR WHEELER ON BASIS OF TYPE OF FUEL ON WHICH THEY RUN

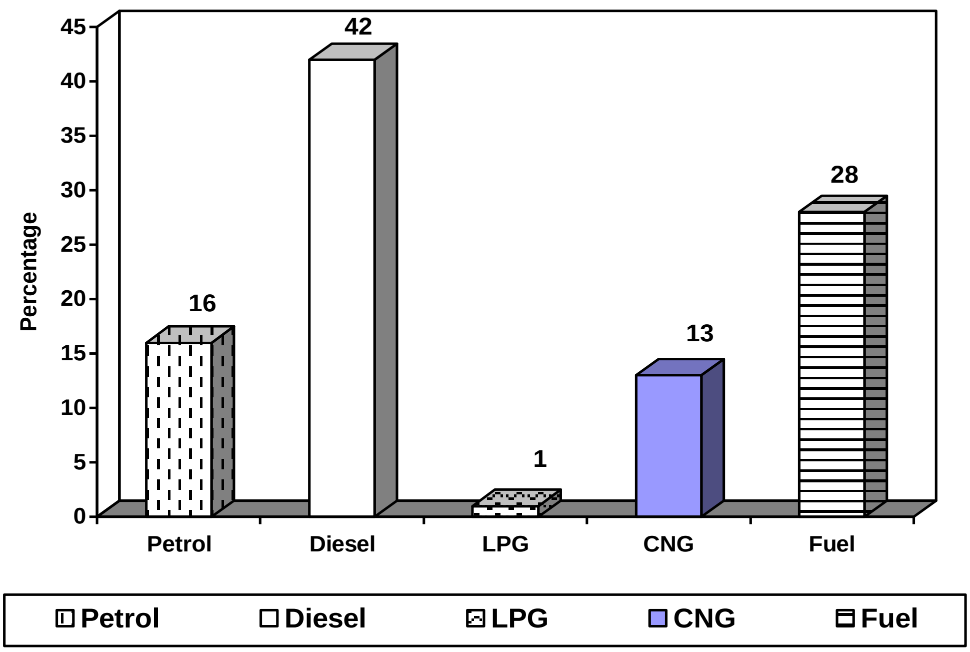


Table 5.10 : DECESIVE FACTORS IN MAKING CHOICE OF FUEL CELL PROTOTYPE CAR

Factors	Responses	Percentage
Easy Maintenance	16	16
Vehicle Outlook	6	6
Foreign Touch	0	0
Fuel Economy	41	41
Low Price	28	28
Eco-friendly	9	9

Source : Questionnaire

ANALYSIS AND INTERPRETATION

This process involves the comparison of the evaluation criteria, which was the specification of the products and brands with the characteristics of the alternatives. 41% of the car users preferred fuel cell cars because of its fuel economy and 28% for its low price and 16% its easy maintenance and 9% for its eco friendly nature.

Figure - 10 : DECISIVE FACTOR IN MAKING CHOICE OF FUEL CELL CARS

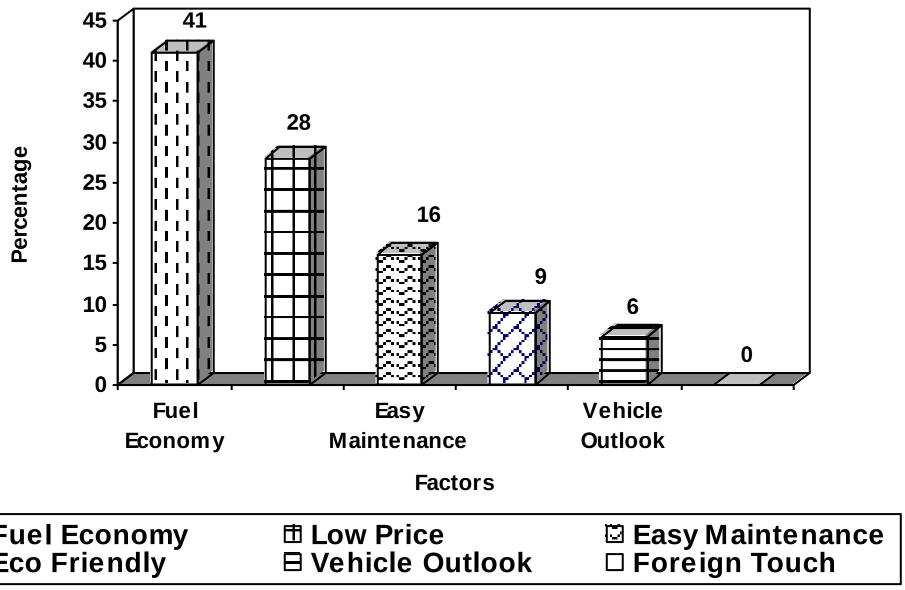


Table 5.11 : REASON FOR BUYING A NEW VEHICLES

Reasons	Response	Percentage
Previous one was old	42	42
Desire for new	23	23
Dissatisfied with previous one	16	16
Increase in income	6	6
Traveling distance more	13	13

Source : Questionnaire

ANALYSIS AND INTERPRETATION OF DATA

It was observed that, 42% of the customer bought their vehicles (two wheeler or four wheeler) because the previous one was old, 23% of the customer preferred entirely new vehicles because of their performance and outlook. This showed the consumers attitude towards new vehicles. 16% of the customer purchased their vehicle due to dissatisfaction with previous one and 13% because of the increased income.

Figure - 11 : REASONS FOR BUYING A NEW CAR

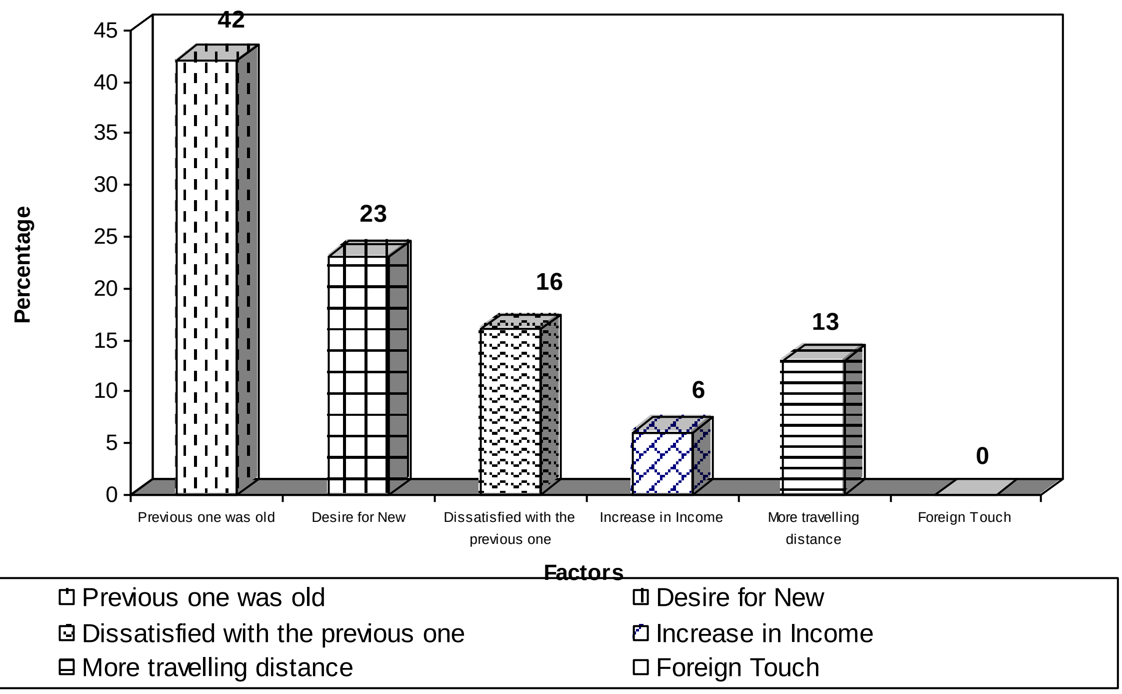


Table 5.12 : PERCENTAGE OF CUSTOMER PREFERRING MODE OF STARTING A VEHICLES IN TWO WHEELER SEGMENT

Start Mode	Response	Percentage
Kick Start	3	3
Digital Starting Ignition	69	69
Automatic electric start	28	28

Source : Questionnaire

ANALYSIS AND INTERPRETATION

The above table clearly states that the most of the two wheeler users wanted digital starting ignition, about 69% preferred digital starting ignition and 28% of customers preferred automatic electric start and just only 3 percent of customer preferred kick start. The demand for digital starting and automatic electric start was high because customers of two wheelers felt more ease and convenience in starting the vehicles with these devices rather that kick start.

FIG 12 : CUSTOMERS PREFERENCE FOR THE MODE OF STARTING IN TWO-WHEELERS

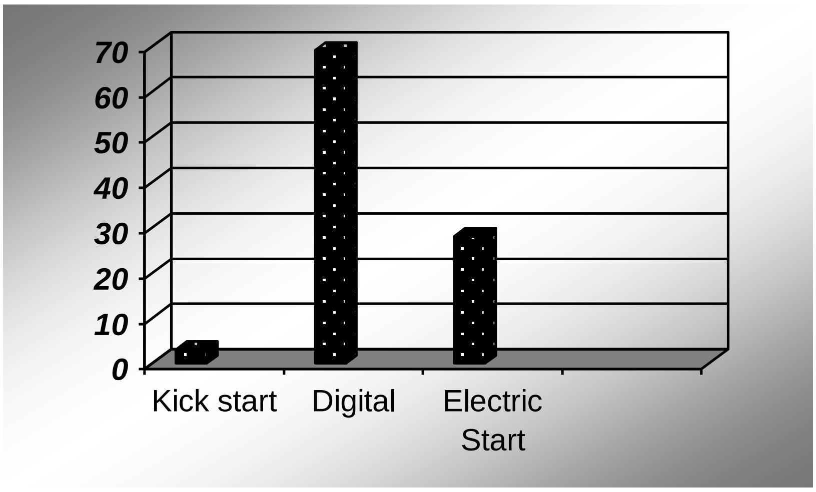


Table 5.12a : PERCENTAGE OF CUSTOMER WHICH PREFERRED THE FACTORS THE MOST IN PURCHASING TWO WHEELER AND FOUR WHEELER

Sl. No.	Factors	No. of Customers	Percentage
1.	Easy to use	4	4
2.	Durability	10	10
3.	Wheel base	6	6
4.	Brand image	8	8
5.	After sales service	18	18
6.	Good mileage	18	18
7.	Road grip	7	7
8.	Pick up	5	5
9.	Reliability	6	6
10.	Consistency	2	2
11.	Safety	16	16

Source : Survey Data

ANALYSIS AND INTERPRETATION

It was found that 18% of the customers wanted good mileage, 18% of the customers wanted after sales service, 16% of customers wanted safety, 16% of customers wanted durability and 5% of customers wanted pick up.

Table 5.13 : PERCENTAGE OF CUSTOMER WHICH PREFERRED THE TYPES OF CAR EXTERIORS THE MOST

Sl. No.	Factors	No. of Customers	Percentage
1.	Acrylic sealant	15	15
2.	Mirrors	12	12
3.	Fog lamps	2	2
4.	Eco-friendly exhaust	6	6
5.	Sun films	20	20
6.	Car security system	22	22
7.	Horns and sirens	7	7
8.	Spoiler	4	4
9.	Shatter proof winds screen	12	12

Source : Survey Data

ANALYSIS AND INTERPREATION

20.6% of purchasers of cars wanted good security system, 20% of purchasers of car wanted good and reliable sun films, 15% of customer wanted acrylic sealants, 12% of customer wanted high quality mirrors in their cars, 12% of customer wanted shatter-proof winds screen. This was the response of people when asked about the security systems.

Figure - 13 : PERCENTAGE OF CUSTOMER WHICH PREFERRED THE TYPES OF CAR EXTERIORS THE MOST

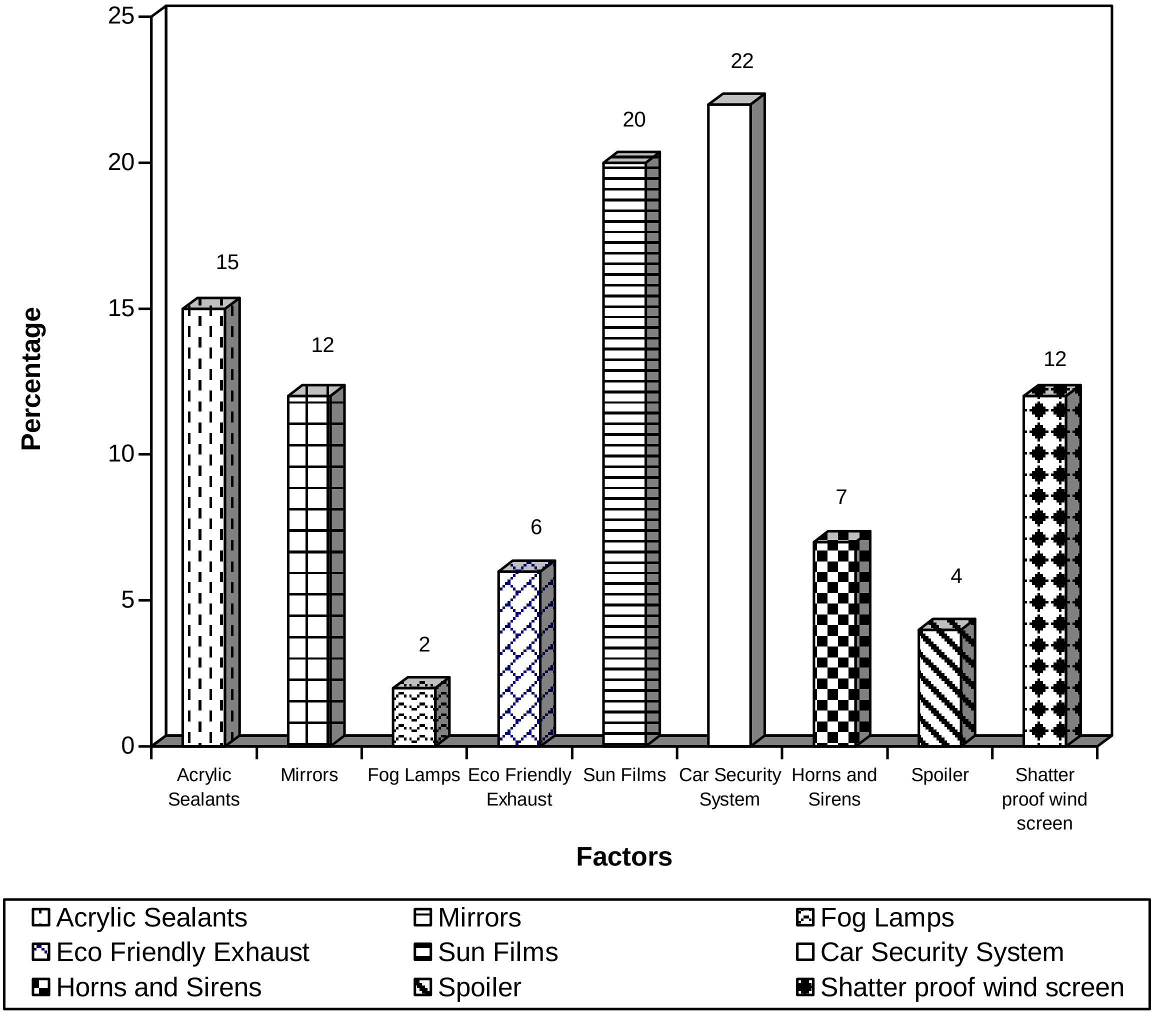


Table 5.14 : PERCENTAGE OF PURCHASE OF CARS PREFERRING SAFETY TOOLS OF CARS

Sl. No.	Factors	No. of Customers	Percentage
1.	Air bags	28	28
2.	Anti lock brakes	12	12
3.	Head restraints	41	41
4.	Safety belts	16	16
5.	Side impact protection	0	0
6.	Child safety features	3	3
7.	Vehicle size and injuries	0	0

Source : Survey Data

ANALYSIS AND INTERPRETATION

It was observed that purchasers of cars were very much concerned about their safety while driving their cars. 41% of customer preferred head restraints, and 28% of purchasers wanted air bags, 16% of purchasers wanted safety belts and 12% of purchasers wanted anti lock brakes. The demand for head restraints is more among the purchasers which indicated that car manufacturers had to design car as per requirement.

Figure - 14 : PREFERENCE OF SAFETY TOOLS OF CARS

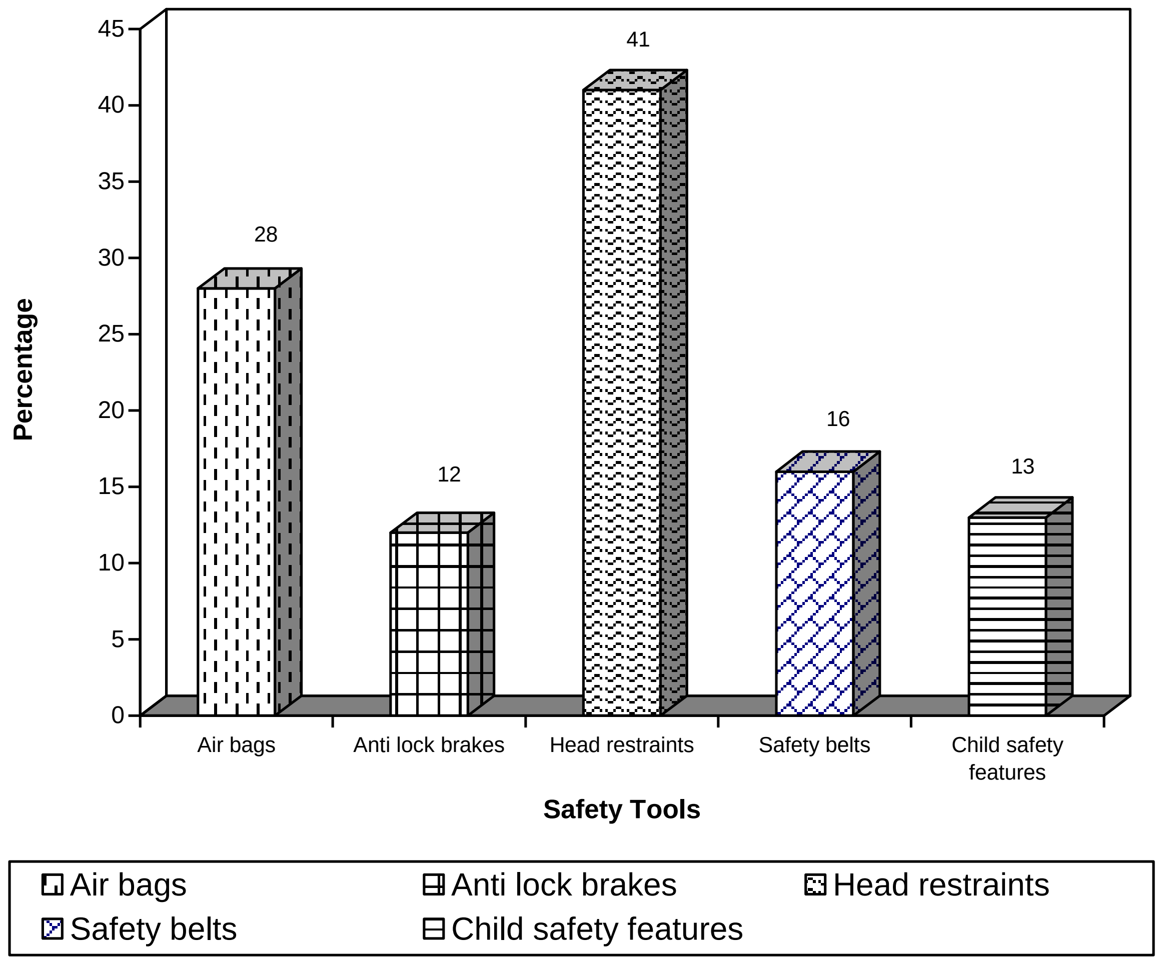


Table 5.14a : PREFERENCE OF VARIOUS AGE GROUP TOWARD FOUR WHEELER SEGMENTS

Sl. No.	Age Group	Segment	Brands
1.	20 - 30	Sports utility segments	Chevorlet Forester, Fiat Adventure,Ford Endeavour,Scorpio, Tata Safari
2.	30 - 40	Executive segments	Corsa,Hyndai Accent,Chevorlet Optra,Ford Mondeo Ikon, Tata Indigo
3.	40 - 60	Multi utility segments	Chevorlet Travera, Maruti Omni,Mahindra Bolero,Tata Sumo, Toyota Innova

Source : Business Standard Motoring

ANALYSIS AND INTERPRETATION

It was found that individuals within age group of 20 - 30 preferred sports utility vehicles and individuals within 30 - 40 preferred executive segment four wheelers most and individuals within age group of 40 - 60 preferred multi utility vehicles.

Table 5.14b : AUTOMOBILE STATISTICS : SALES OF SCOOTER / SCOOTERETTE

Sl. No.	Company	April 2005	July 2005	Percentage
1.	Honda motorcycles Ltd.	88,117	137,641	56.20
2.	Kinetic Engg. Ltd.	15,073	11,586	- 23.13
3.	Kinetic Motor Co. Ltd.	26,643	22,356	- 16.09
4.	LML Limited	12,768	8,830	- 30.84
5.	Majestic Auto Ltd.	1,716	527	- 62.29
6.	TVS Motors Co. Ltd.	57,758	75,006	29.86
	Total	273,837	304,924	- 11.35

Table 5.14c : AUTOMOBILE STATISTICS - SALES OF MOTORCYCLES / STEP THROUGH

Sl. No.	Company	April 2005	July 2005	Percentage
1.	Bajaj Auto Ltd.	307,799	377,870	13.02
2.	Hero Honda Motors Ltd.	591,344	797,698	37.90
3.	Kinetic Engg. Ltd.	11,698	13,158	12.78
4.	LML Limited	68,437	25,329	- 38.93
5.	Majestic Auto Ltd.	7,677	2,771	- 62.99
6.	Royal Enfield Motors	230,238	8,063	5.77
7.	TVS Motor Company Ltd.	54,748	178,351	- 22.54
8.	Yamaha Motor India Ltd.	4,488	79,579	45.36
	Total Sales	1,276,399	1,452,789	13.82

Source : Annual Reports of Association of Indian Automobile Manufacturers.

ANALYSIS AND INTERPRETATION

The above table shows that the market for motorcycles is growing at the rate of 13.82 percent. And the demand for motorcycle is increasing at a good steady space.

Table 5.14d : AUTOMOBILE STATISTICS : SALES OF PASSENGER CARS

Sl. No.	Company	April 2005	July 2005	Percentage
1.	Diamler India	511	397	- 22.31
2.	Fiat India Ltd.	4036	2304	- 42.91
3.	Ford India Ltd.	4911	7094	44.75
4.	General Motor India	4657	5919	27.10
5.	Hindustan Motor Ltd.	4356	4437	1.86
6.	Honda India Ltd.	4736	10950	131.50
7.	Hyundai Motors India Ltd.	41027	38490	- 6.18
8.	Maruti Udyog Ltd.	108117	129872	20.12
9.	Skoda Auto India Ltd.	0	2700	-
10.	Tata Motors Ltd.	33730	46941	39.17
11.	Toyota Kirloskar Motor	3436	3721	8.29
Total Passenger Cars		209508	252525	20.53

Source : Annual Reports of Association of Indian Automobile Manufacturers

ANALYSIS AND INTERPRETATION

The above table indicates the passenger car market is growing at a steady pace of 20.53% and will continue to grow.

Table 5.15 : FACTORS TAKEN IN ACCOUNT BY THE CONSUMERS IN DECIDING TO PURCHASE FUEL CELL BIKES

Sl. No.	Factors	No. of Customers	Percentage of Customers
1.	Style	22	22
2.	Pick-up	20	20
3.	Power	5	5
4.	Mileage	48	48
5.	Design	3	3
6.	Size	1	1
7.	Speed	1	1

Source : Survey Data

ANALYSIS AND INTERPRETATION

The researcher has observed that the purchaser of a fuel cell bike, decides to purchase the bike because of its mileage efficiency. The table indicates that 48% of customer preferred a fuel cell bike because of its mileage and 22% for its style, 20% for its pick up and 5% for its power.

Figure - 15 : FACTORS TAKEN IN ACCOUNT BY THE CONSUMERS IN DECIDING TO PURCHASE FUEL CELL BIKES

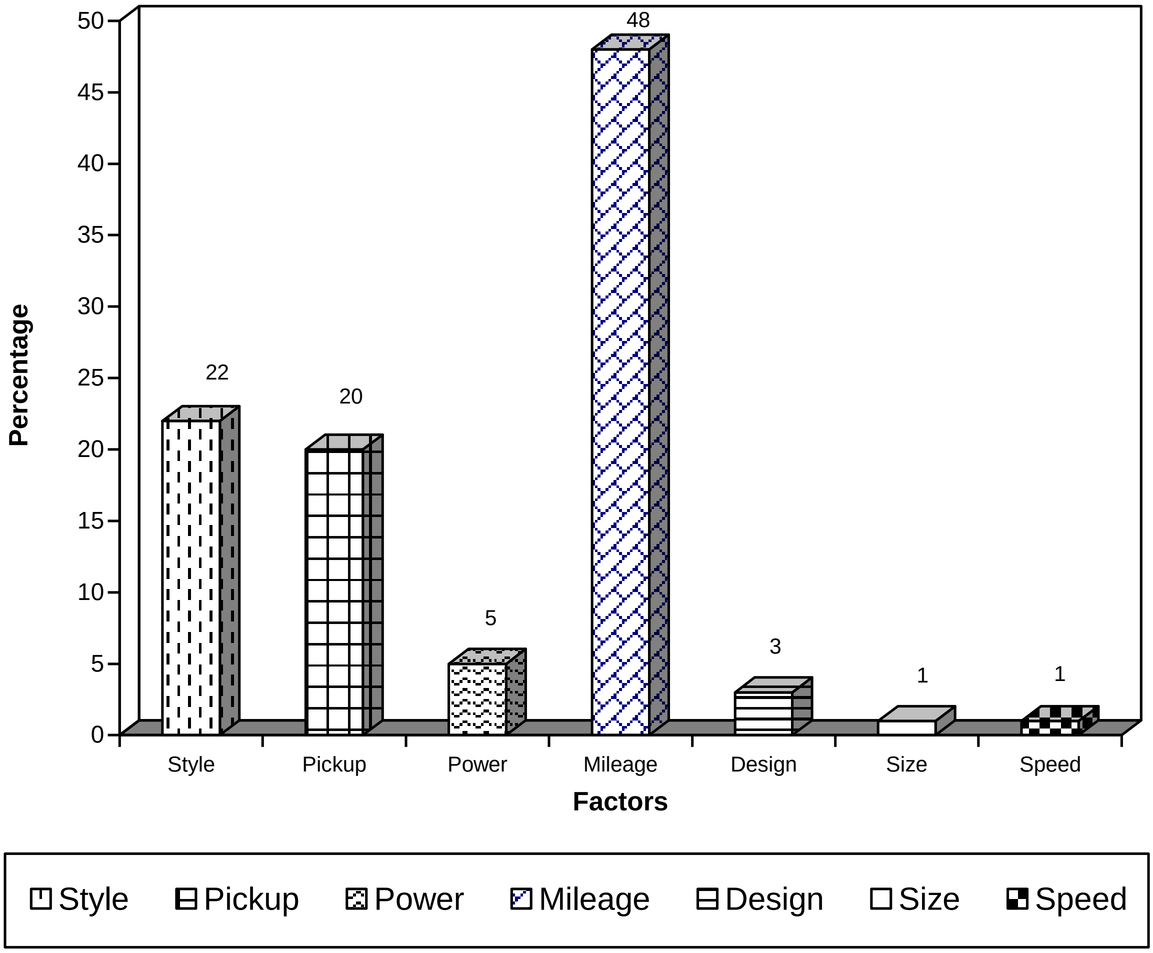


Table 5.16 : PERCENTAGE OF CUSTOMERS PREFERRING 'C' SEGMENT ON MID SIZE SEDAN FOUR WHEELERS

Sl. No.	Sedans	No. of Customers	Percentage of Customers
1.	Corsa	39	39
2.	Esteem LX	14	14
3.	Ikon CLXI	18	18
4.	Indigo GLX	22	22
5.	Fiat Petra	7	7

Source : Survey Data

ANALYSIS AND INTERPRETATION

The above table indicates the demand for mid size segment sedan Corsa is high with 39% customer preferences. And Indigo GLX with 22% and IKON CLXI with 18%, Esteem LX with 14% and the newly launched Fiat Petra with 7%. The demand for C-segment car is found among most the middle class because of its reasonable price.

FIG 16 : PERCENTAGE OF CUSTOMERS PREFERRING C SEGMENT OR MID SIZE SEDAN FOUR WHEELERS

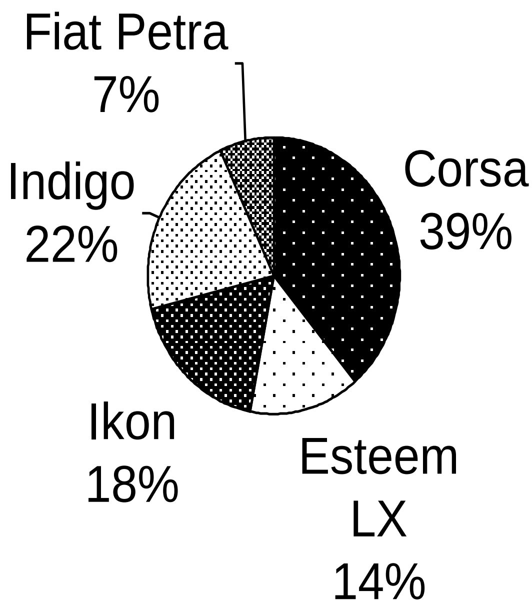


Table 5.17 : PERCENTAGE OF CUSTOMER PREFERRING LUXURY SEGMENT - FOUR WHEELER

Sl. No.	Luxury Brands	No. of Customers	Percentage of Customers
1.	Honda Accord	12	12
2.	Hyundai Elantra	11	11
3.	Mercedes	12	12
4.	Toyota Camry	20	20
5.	Chevorlet Optra	15	15
6.	Skoda Octavia	30	30

Source : Survey Data

ANALYSIS AND INTERPRETATION

Most of the customer demanded Skoda Octavia because of its low price when compared to its competitors. And the demand for the luxury segment cars is found among the customers with earning of six figures. The above table indicates that 30% of customer refer Skoda Octavia in the luxury segment and 20% of customer want Toyota Camry and 12% of customers want Mercedes.

FIG 17 : PERCENTAGE SHOWING CUSTOMERS PREFERENCE FOR DIFFERENT CARS IN LUXURY SEGMENT

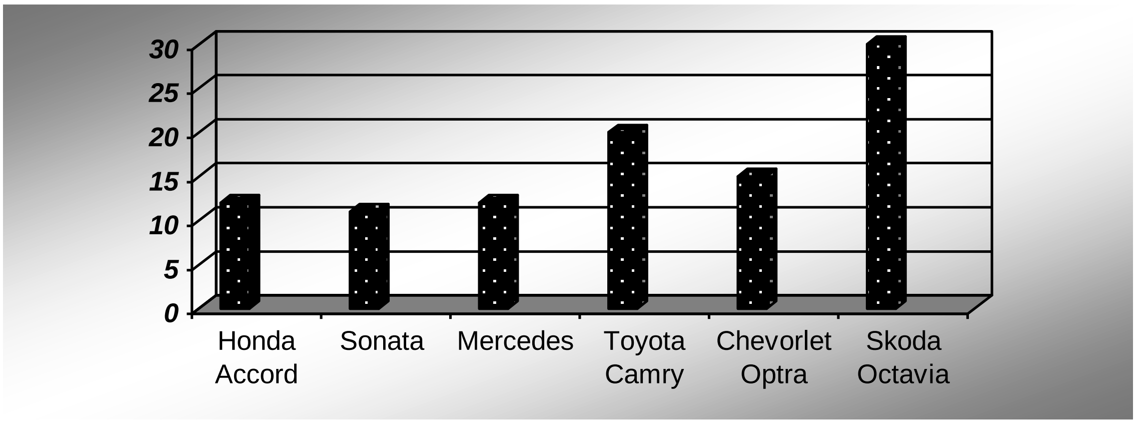


Table 5.18 : HOW LONG YOU INTEND TO KEEP THIS VEHICLE

Period	Responses	Percentage
6 months -1 year	8	8
1 - 2 years	52	52
2 years and above	20	20
Can't Say	20	20

Source : Questionnaire

ANALYSIS AND INTERPRETATION

Out of 100 respondents 8 percent of the owners wanted to keep their vehicle up to one year, 52% of the people said them would keep the vehicle up to two years, 20% respondents that they might keep vehicles two years and above but 20% of the owners responded that they can't say the duration. And thus we would analyze that most of the owners would purchase new vehicles after 2 years probably.

Figure - 18 : HOW LONG YOU INTEND TO KEEP THIS VEHICLE

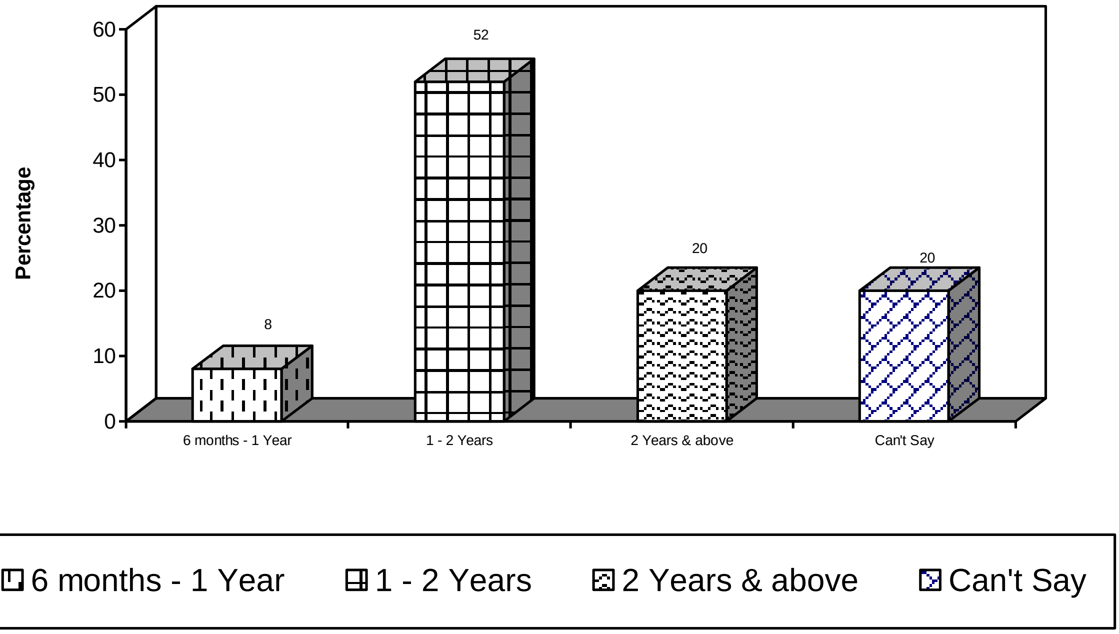


Table 5.19 : DEGREE OF SATISFACTION AND DISSATISFACTON

Degree	Responses	Percentage
Very much satisfied	64	64
Satisfied	20	20
Neutral	16	16
Dissatisfied	0	0

Source : Questionnaire

ANALYSIS AND INTERPRETATION

Here the range between satisfaction and dissatisfaction split into five divisions with neutral included in it. Out of 100 respondents 64% of them were very much satisfied with their vehicle, this shows wide acceptance of the vehicle by most of the customers. 20% of owners are satisfied, 16% were in neutral position but nobody was dissatisfied with their vehicles.

Figure - 19 : DEGREE OF SATISFACTION AND DISSATISFACTION

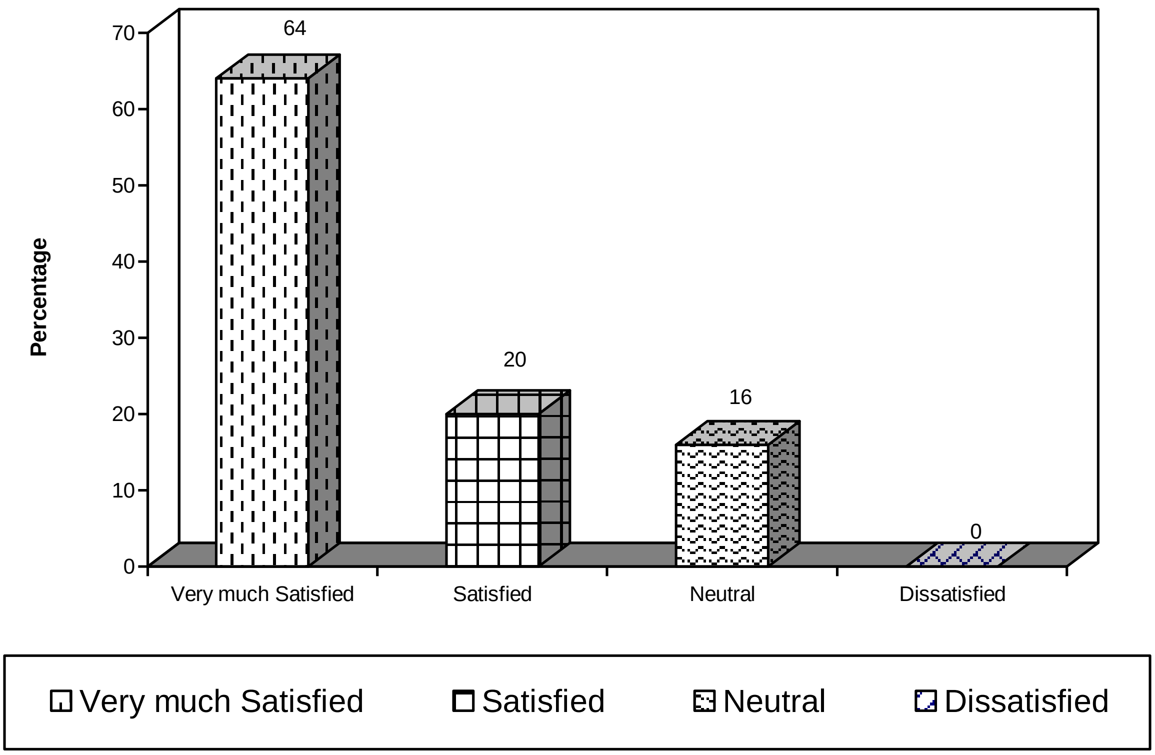


Table 5.20 : INTENTION OF CHANGING TO NEW VEHICLE

Intention	Responses	Percentage
Go in for other small car	61	61
Go in for the same car	23	23
Go in for the big size car	12	12

Source : Questionnaire

ANALYSIS AND INTERPRETATION

Out of 100 respondents 61 percent of the consumers have preferred to go for other new models, while 23 percent of the consumers are satisfied with the existing car and they would go for the same car and 12 percent of customers are not satisfied with their existing car and would like to go for a big size car.

Figure - 20 : INTENTION OF CHANGING TO A NEW VEHICLE

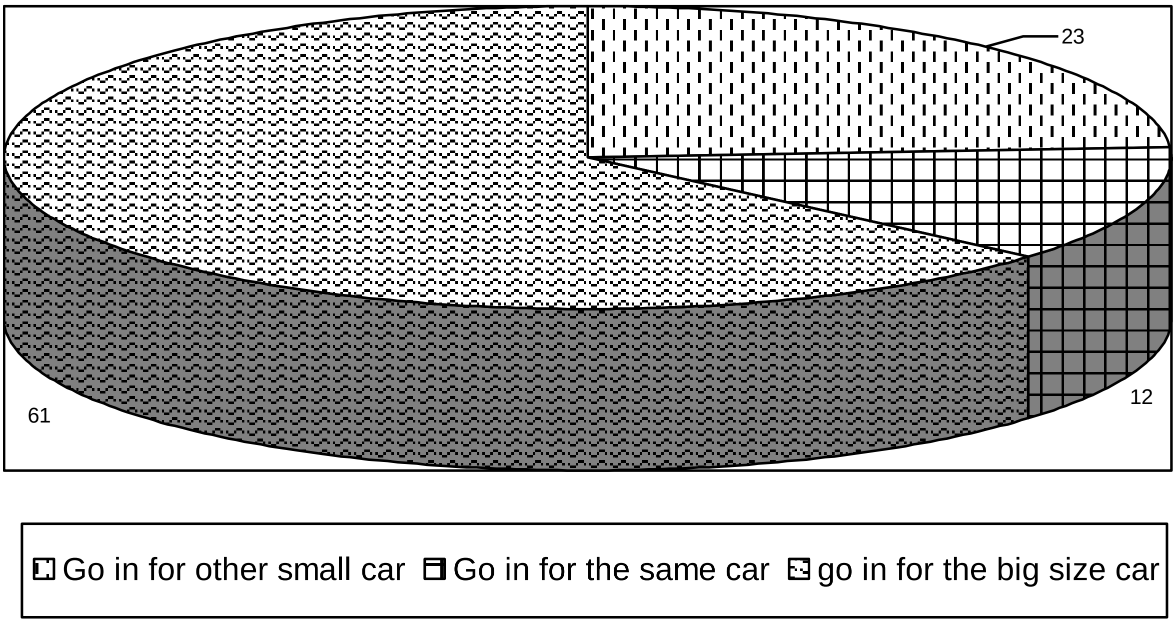


Table 5.21 : CUSTOMERS EXPECTATION FROM THE COMPANY

Sl. No.	Description	No. of Customers	Percentage of Customers
1.	Follow up by the company	15	15
2.	Follow up by the dealers	10	10
3.	Free servicing	42	42.5
4.	Technical details and problems	30	29.5
5.	Others	3	3
TOTAL		100	100

Source : Survey Data

ANALYSIS AND INTERPRETATION

15% customers expected the company to follow up. 10% customers expected the dealers to follow up, 42.5% customers wanted free servicing, 29.5% customers wanted to know about technical details and problems and 35% customers expected some other facilities.

Figure - 21 : CUSTOMERS EXPECTATION FROM THE COMPANY

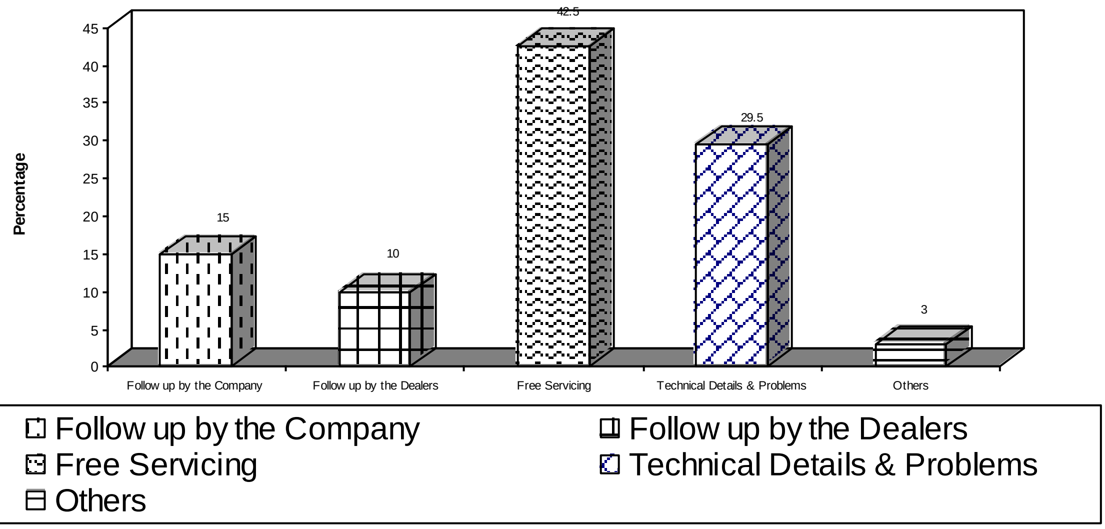


Table 5.22 :Feeling about the Indian roads and infrastructure of the country

Remarks	Response	Percentage
Bad	10	10
Average	40	40
Fair	20	20
Good	10	10
Excellent	0	0

Source : Questionnaire

Analysis and Interpretation:

Only 20% felt that the roads were good, 40% felt the roads were average,10% felt the roads were bad. This clearly gave the indication that the roads need to be developed, which in turn could encourage urban crowd to buy more luxury cars. This would help increase the demand for premium segment and high speed vehicles.

FIG 22 :- FEELING ABOUT THE INDIAN ROADS AND INFRASTRUCTURE OF THE COUNTRY

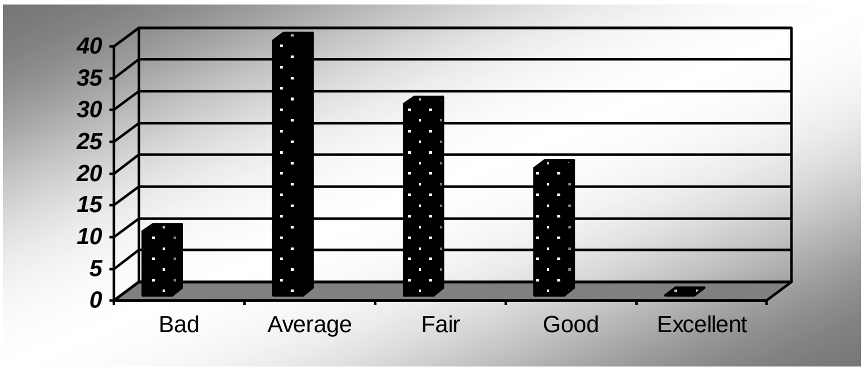


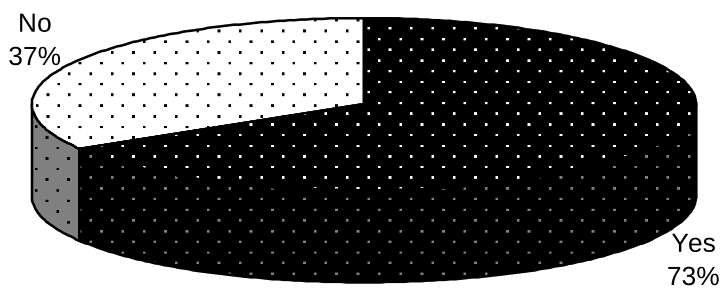
Table 5.23 : Is there good connectivity of roads in rural areas?

Remarks	Response	Percentage
Yes	73	73
No	37	37

Analysis and interpretation:

Out of 100 respondents 37% feel that the road connectivity is bad. This gave a clear picture, that if the connectivity was improved in these areas, then there could have been rise in demand of vehicles. The companies could come up with MUVs in these areas which could have served a farmer in more than one way.

FIG 23 :CONNECTIVITY OF ROADS IN RURAL AREAS



<u>**SALES AND DISTRIBUTION MANAGEMENT**</u>

JOB SPECIFICATION OR PERSON SPECIFICATION FORM

Sl. No.	Specification	Essential	Desirable
1	Intellectual abilities		
	a. General intelligence	√	√
	b. Creativity / Innovative	√	
	c. Judgment		√
2	Motivation	√	
	a. Drive		
	b. Interest		
3	Qualification		
	a. Technical		
	b. Professional		
	c. Job experience		
4	Skills - Technical level, Interpersonal and communication skill		
5	Working condition		
	a. Hours		
	b. Location		

0 - 5 scale and weight

a. Intellectual abilities

b. Motivation

c. People skills

d. Qualification

e. Education

f. Working condition

5.3 HYPOTHESIS TESTING

To find out whether the fuel cell vehicle is preferred by all age group or it is liked equally by all age groups.

H0= Fuel car being a new technology appeals to every age groups

H1= Fuel car being a new technology does not appeal to all age groups.

Number of sample units taken - 100 sample

And the age groups are 20 - 30

30 - 40

40 - 50

50 & above

Age Groups

	20 - 30	30 - 40	40 - 50	50 & above	Total
Liked	5	16	26	3	50
Disliked	14	9	3	2	28
Indifferent	1	4	8	9	22
Total	20	29	37	14	100

Source : Questionnaire

HYPOTHESIS TESTING SOLUTION

AGE GROUPS

	20 - 30	30 - 40	40 - 50	50 & above	Total
Liked	5	16	26	3	50
Disliked	14	9	3	2	28
Indifferent	1	4	8	9	22
Total	20	29	37	17	100

(a) Let us take the hypothesis that the fuel cell vehicle is liked equally by all age groups

Calculating expected frequencies

$$E11 = \frac{50}{100} \times 20 = 10$$

$$E12 = \frac{50}{100} \times 29 = 14.5$$

$$E13 = \frac{50}{100} \times 37 = 18.5$$

$$E14 = \frac{50}{100} \times 17 = 7$$

(b) Let us take hypothesis that the fuel cell vehicle is disliked by all age group.

$$E21 = \frac{28}{100} \times 20 = 5.6$$

$$E22 = \frac{28}{100} \times 29 = 8.12$$

$$E23 = \frac{28}{100} \times 37 = 10.36$$

$$E24 = \frac{28}{100} \times 17 = 3.92$$

(c) Let us take hypothesis that the fuel cell vehicle is indifferent for all age group.

$$E31 = \frac{22}{100} \times 20 = 4.4$$

$$E32 = \frac{22}{100} \times 29 = 6.38$$

$$E33 = \frac{22}{100} \times 37 = 8.14$$

$$E34 = \frac{22}{100} \times 17 = 3.08$$

Expected Frequency

Liked	10	14.5	18.5	7	50
Disliked	5.6	8.12	10.36	3.92	28
Indifferent	4.4	6.38	8.14	3.08	22
Total	20	29	37	14	100

APPLYING χ2 TEST

O	E	O - E	$(O - E)^2$	$(O - E)^2 / E$
5	10.0	- 5.0	25.00	2.5
14	15.6	8.4	70.56	4.52
1	4.4	- 3.4	11.56	2.62
16	14.5	1.5	2.25	0.15
9	8.12	0.88	0.77	0.09
4	6.38	- 2.38	5.66	0.88
26	18.5	7.5	56.25	3.04
3	10.36	7.36	54.16	5.22
8	8.14	- 0.14	0.0196	1.22
3	7	- 4.0	16	2.28
2	392	- 1.92	3.68	0.93
9	3.08	5.92	35.04	11.37

$\sum [(O-E)^2/E] = 33.6$

So, $X^2 = \sum [(O - E)^2 / E] = 33.6$

$V = (R - 1) (C - 1) = (3 - 1) (4 - 1) = 6$

For $V = 6$, X^2 at α 0.05 = 12.6

The calculated value of X^2 is much greater than the table value. The hypothesis does not hold good and we, therefore, conclude that the fuel cell vehicles does not appeal equally to all age groups.

FINDINGS ,SUGGESTION & CONCLUSION

6.1 FINDINGS

1 The demand for geared vehicles was greater than the non geared vehicles and maximum share of purchasing was done by the businessmen . B-segment cars were the most preferred by businessmen because of their cheap prices and durability

2. Maximum purchase of cars was done by the people belonging to income group of (20,000-30,000)

3. Four stroke vehicles were preferred to that of two stroke vehicles and multi-utility vehicles had a greater demand to that of sports utility and executive cars

4. Diesel was the preferred fuel with 42 people out of 100 opting for this fuel, the other opinions were ,24 people opted fuel electric vehicles, followed by 16 persons opting for petrol and 13 opted CNG as the preferred automobile fuel.

5.It was found that out of 100 respondents , 42 people bought new vehicles because the previous one was old. And only 23% had the feeling of buying entirely new vehicle and 13% bought new vehicles because of hike in their incomes.

6. Maximum respondents (69 out of 100 people), were of the opinion that the best mode for starting a two-wheeler is digital ignition system.

7. The most preferred factors for purchasing a two-wheeler or a four wheeler good mileage , after sales service and safety. Out of 100 respondents 18 opted for mileage, 18 for safety followed by 16 people opting for safety belt.

8. Head restraints and air bags were the most preferred safety devices. Of 100 people 41% wanted head restraints, 28% wanted air bags and 16% wanted seat belts.

9. It was observed that scooter sales had reduced, while bike market was growing constantly at a rate of 13.82%, so also passenger market was growing at a rate 20.53%
10. It was found that individuals within age group 20-30 preferred sports utility vehicles while the older people within the age group of 40-60 preferred multi utility vehicles.
11. Most of the purchasers would keep their vehicles for a duration of 1-2 years and 42.5% of the customers wanted free services after the purchase of a vehicle.
12. Only 20% of the respondents felt that the Indian roads are good, and 37% of the people out of 100 think that the connectivity in rural was bad.
13. Fuel cell cars does not appeal equally to all age groups.
14. In decisive factors for making a choice in fuel cell cars , out of 100 people 41% opted for fuel economy , 28% for low price , 16% for ease in the maintenance and 19% for the eco friendliness of the vehicle.
15. In making the choice in the factors for car exteriors ,20% wanted good security system, 18% wanted good and reliable sun films, 13% wanted acrylic sealants , 12% of people wanted high quality mirrors and 11% opted for shatter proof wind screens.

6.2 SUGGESTION

- Though Indian automobile industry is growing at a steady space rate, but strive there are untapped markets within the industry which is to be explored and experimented by the industry players. And they should come forward to tap such a market not only to acquire and retain market share but also for their future growth.

- One of these untapped markets is the fuel cell cars and bikes. These fuel cell cars and bikes already have been launched in developing country like Japan and USA. The only Indian company that is engaged in production of fuel cell cars is Reva - a Bangalore based entity. These fuel cells cars not only save oil consumption but are also very eco-friendly. The demand for such fuel cell cars and bikes will rise because of the rising oil prices which will force the consumers to look for new alternatives.

- The automobile manufacturers should come forward in launching LPG version engine technology and CNG version engine technology. Because liquefied petroleum gas is filled the market leader in alternative fuels for the automotive sector and powers over six million vehicles all over the world. On par with the conversion of three wheelers into bio-fuel mode in the garden city, cars and other vehicles also seem to be speeding towards LPG retrofitment centers to drive home the economical, safe and environment friendly fuel, LPG.

- The car manufacturers should launch more models of multi-utility vehicles and sports utility vehicle on the Indian roads, because of the changing life style of consumers and the car users is making this two segments more attractive.

- Easy finances should be available for the purchase of cars and bikes on loans with low interest payments.

- The government should come forward to develop infrastructure of the country which would add fuel to the growth of Indian automobile sector.

- The automobile manufacturers should concentrate more in producing high fuel efficient and powered vehicles.

- The automobile companies should bring more stylish motorcycles and cars in the market.

- Launch new models of sports utility vehicles.

- Bring changes in car interiors and add new vibrant interior tools like automatic door locking system, central locking system, satellite based navigation system.

- Accelerate the new launches of models in premier luxury segments.

6.3 CONCLUSION

After recent drops in prices following excise duty revision, around forty new launches that include brand new models and a string of their variants are set to make an entry on the Indian roads through the year. Coming on the heels of a relatively placid spell in 2003, Indian auto makers are looking forward to some fast paced action. And the Indian automakers are still in the mood of hunting untapped markets to grasp a market share. Now the Indian auto makers are shifting their eye from standardized markets to new customized rich markets. And this will be possible by knowing the preferences of all ages of consumers. Now the Indian automobile industry is concentrating on new car introduction in the compact B segment, mid size C segment sedans and the premier luxury category, while in two wheeler segment the demand for scooters and scooterette is falling at a fast rate and thus making the two wheelers manufacturers to introduce more models of bikes and motorcycle on the Indian roads.

The rising demand of bikes and motorcycle among the Indian consumers has made the two wheeler segment more attractive for the automobile manufacturers. With frequent launches of new models with unique features, style, power and technology proofs that the auto manufacturers are nearly accelerating their search for new markets. A steady stream of new models, more power and better mileage have been the key drivers increasing motorcycle sales in the country.

The Indian automobile industry is growing a steady space rate but still there are untapped markets in the industry which was hot yet been experimented by the industry players. One of these untapped market of Indian automobile industry is fuel cell cars and bikes. We have read about fuel cell cars in glossy brochures handed out at various international auto shows, and we have seen fuel cell car and bikes on channels like Discovery and National Geographic. Most of the time, it is far-off in the future stuff, which most people wouldn't bother with. But now, fuel cell cars actually seem to be getting closer to reality. And the country's first fuel cell protype car has been developed by the Reva Electric Car Company (RECC), who are based in Bangalore, and who also manufacture Indian only electric (battery powered) car - the Reva hatchback. Fuel cell vehicles are eagerly anticipated the world over, as they have the potential to significantly reduce dependence on dwindling oil reserves, cut emissions and promote massive energy savings. But still only few auto manufacturers have stepped in this segment and thus this segment is still remaining untapped. Future has the demand of such fuel cell vehicles, the rising oil prices and pollution is making the consumers full aware of such vehicles.

In the four wheeler segment the multi-utility vehicle segment with such models as qualis, scarpio, tata sumo and spacio is witnessing searing growth. Its perhaps the most happening segment in the Indian auto mart today. And why not? Which other personal vehicle can be so useful, can carry you, your wife, two kids, dada, dadi may be your dog, if you all wanted to go out together for, say a week end outing.

The amazing rally behind the MUV owes much to at least three factors. One is the acceptance of MUV as an alternative to a passenger car, brought on by changing tastes and newer product offerings. Then the life style changes in Indian society. Long drives and week end outings are becoming common and the large number of joint families. Purchasing a mid-size or 'C' segment car is no more difficult. Given the kind of price war happening in the industry and availability of cheap finances, it makes more sense than ever before to now go in for a lower c-segment car. The declining prices of c-segment and mid size sedans due to price wars and availability of easy finances from banks has made more easier for consumers to purchase a c-segment sedan cars.

The rapidly developing rural and semi urban infrastructure and transport, roads and highways are really opening the markets for the Indian automobile industry. Another untapped market is the rural markets. The growing per capital income of rural population and good roads and highways has made the rural market a attractive segment for the Indian automobile industry. Though most of the motorcycle models launched are mostly targeted towards the urban population requirements and very few motorcycles are targeted towards the rural population requirement.

To tap such untapped markets of the Indian automobile industry by the automobile manufacturers a considerable support is required from the government. The government should come forward and encourage the auto manufacturers to penetrate such markets through removing tax, duties and opening markets for private limited companies and developing the infrastructure of rural areas and semi urban areas.The Indian automobile industry is growing at a good rate and the economy of the country is much favorable to the industry and contributing towards the growth of this industry.

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<u>ANNEXURE AND QUESTIONNARE</u>

STUDY ON UNTAPPED MARKETS IN INDIAN AUTOMOBILE INDUSTRY (TWO WHEELER AND FOUR WHEELER SEGMENT)

Respected Sir,

I am a student of Al-Ameen Institute Of Management Studies, Bangalore I am conducting a survey among the end-user and non-user of cars and bikes to find out the untapped markets of Indian automobile industry and as well as the complete my dissertation as per the university requirements. This survey would help us to understand the needs of the customers and then to offer products as per the customer needs and also to know the markets remaining untapped by the auto sector industry players.

Seeking all your help and cooperation.

Thanking you,

1. Do you possess a two wheeler or four wheeler or both, if so which brand?

__________________________ Vehicle No._____________

2. Do you want to purchase any new vehicle

☐ Yes ☐ No

3. The age group to which you belong

☐ Age 20 - 30

☐ Age 30 - 40

☐ Age 40 - 50

☐ Age 50 - above

4. What is your monthly earning range?

☐ Income 10,000 - Income 20,000

☐ Income 20,000 - Income 30,000

☐ Income 30,000 - Income 40,000

☐ Income 40,000 - Above

5. Number of members in your family.

☐ 2-4 members

☐ 4-6 members

☐ Upto 8 members

☐ 10 members and above

6. What are the factors, which you consider to be important for giving the first preference?

☐ Easy to use ☐ Good mileage

☐ Durability ☐ Road grip

☐ Wheel base ☐ Pick up

☐ ☐

Brand image Reliability

☐ After sales service ☐ Consistency

7. What are the factors, which you consider the most for purchasing a bike or a car.

☐ Pick up ☐ Engine technology

☐ Power ☐ Style

8. Since when are you using a two wheeler?

☐ 1 Year ☐ 2 Year ☐ 3 Years & Above

9. Since when are you using a four wheeler?

☐ 1 Year ☐ 2 Year ☐ 3 Years & Above

10. What kind of engine technology would you prefer on two wheeler?

☐ Two stroke ☐ Four stroke

11. What kind of engine technology would you prefer on four wheeler?

☐ Diesel version engine ☐ Petrol version engine

☐ LPG version engine ☐ CNG version engine

☐ Fuel cell engine technology

12. What are the factors which you consider to be important for giving the first preference in purchasing a four wheeler?

☐ Style ☐ Power

☐ Pick-up ☐ Colour

☐ Car interior design ☐ Car exterior design

☐ Brand image ☐ Mileage

☐ Size ☐ Price

13. Which four wheeler segment you like the most?

☐ Multi-utility vehicle segment

☐ Sports-utility vehicle segment

☐ Luxury primer vehicle segment

☐ Executive class vehicle segment

14. What is the size of car you prefer to purchase?

	Category	Car length	
i)	Mini	3400 mm	☐
ii)	Compact	3401 - 4000 mm	☐
iii)	Mid size	4001 - 4500 mm	☐
iv)	Exclusive	4501 - 4700 mm	☐
v)	Premium	4701 - 5000 mm	☐
vi)	Luxury	5001 mm & above	☐

15. Do you prefer to purchase or use a fuel cell bikes or cars.

☐ Yes ☐ No

16. If yes, why you want to purchase a fuel cell bike or car

____

____

17. What factors you consider the most in preferring a fuel cell vehicle?

☐ Low Emission ☐ No fuel consumption

☐ Eco-friendly ☐ Saves fuel expenses

☐ Price

18. What are the product attributes you liked the most that a vehicle should possess?

Fuel efficiency Low maintenance

☐ ☐

☐ High pick up ☐ Highly stylish

☐ Easy to start ☐ Durable

19. Are you satisfied with the current brands and models of motorcycle and cars that are available in the market.

☐ Yes ☐ No

If no, Why?___________________________________

20. Feeling about the roads in urban areas and infrastructure of the country?

☐ Bad ☐ Good

☐ Average ☐ Excellent

☐ Fair

21. Is there good connectivity of roads in rural areas ?

☐ Yes ☐ No

22. What services do you expect from a company after the purchase?

☐ Follow up by the company

☐ Follow up by the dealers

☐ Free servicing

☐ Technical details and problems

Others ____

LIST OF CAR DEALERS

FIAT Sundaram Automobiles
Post Box No.5358 107

Kasturba Road, Bangalore 560 001
Phone No.080-22213774, 22212547

FORD

Cauvery Ford
No.13, Kanakapura Road
Bangalore 560 062
Phone : 26321941 - 44
Fax : 26321945
Website : www.cauveryford.com

Metro Ford
63, St.Marks Road
Bangalore 560 001
Ph : 25594254
Fax : 25588177
E-mail : metroford@eth.net

GENERAL MOTORS

Garuda Autocraft Pvt. Ltd.
No.29, Lalbagh Road
Bangalore 560 027
Phone : 98450 77393 / 51185
E-mail: opelbang@vsnl.net

HINDUSTAN MOTORS / MITSUBISHI

Southern Motors
No.63, St.Marks oad
Bangalore 560 001
Phone : 25586891 / 25581739
Fax : 25589898

HONDA CARS

Whitefield Motors (P) Ltd.
116, B.Narayanapura
Doorvaninagar, Whitefield Road
Bangalore 560 016
Phone : 285156223 / 4 / 5
Fax : 28510569
Mobile : 9845008060
E-mail : sales@whitefieldhonda.com

HYUNDAI

Advaith Hyundai
32, Residency Road
Bangalore - 560025
Mobile : 9845021509
Phone : 25320883, 25093084
Fax : 28510569

	E-mail : amplgl@vsnl.com
	Trident Hyundai # 1, Lower Palace Orchards Sankey Road Bangalore 560 003 Phone : 23460155 Mobile : 98450 22611 Fax : 23347112 E-mail : trident@bgl.vsnl.net.in
MAHINDRA AND MAHINDRA	
	India Garage No.63, St.Marks Road Bangalore - 560 001 Phone : 25586891
MERCEDES BENZ	Sundaram Motors # 107, Kasturba Road Bangalore - 560 001 Phone : 22213771 Fax : 22273533
MARUTI	Mandovi Motors Pvt. Ltd. 40/4, Lavelle Road Bangalore 560 001 Phone : 22293434 Fax : 4151515 E-mail : mandovi.deal@vsnl.com
	Sagar Automobiles No.39/2, Bannerghatta Road Bangalore 560 029 Phone : 25525335 Fax : 25521176 E-mail: sagar@glasbg01.vsnl.net
	Bimal Auto Agency No.60/2, Mahadevapura Whitefield Road Bangalore 560 048 Phone : 28518282 / 28518944 Fax : 28518940
	Pratham Motors

	No.6, St.Johns Road Bangalore 560 042 Phone : 25548861 Fax : 25544955 E-mail : parathammotors@vsnl.net
	RNS Motors No.2275, Tumkur Road, NH-4 Yeshwantpur Bangalore 560 022 Phone : 23474354 Fax : 23475140 E-mail : rnsmtsb@bgl.vsnl.net.in
SKODA	Tafe Access Limited No.53, St.Marks Road Bangalore 560 001 Phone : 25588255 Mobile : 98450671 E-mail : tal_blr@vanl.net
TATA	Arvind Motors Pvt. Ltd. No.70, 3rd Phase Sarakki Industrial Layout J.P. Nagar 3rd Phase Bannerghatta Main Road Bangalore 560 078 Phone : 26589945 E-mail : amplip@vsnl.com
	Concorde Motors Pvt. Ltd. Plot No.9/8, Division No.63 Opp. Christ College Dairy Circle, Hosur Road Bangalore 560 029 Phone : 25537267 E-mail : suresh@concordemotors.com
	Manipal Motors Pvt. Ltd. No.20, Uniworth Plaza Sankey Road, Place Guttahalli Bangalore 560 020 Phone : 23565222
	Prerana Motors Kantha Court, 132 Lalbagh Road, Bangalore 560 027 Phone : 22245158 E-mail : preranacars@satyam.net.in
TOYATA	Ravindu Toyota

25, Chord Road
Opp. ISKCON Temple
Rajajinagar Industrial Suburb
Bangalore 560 022
Phone : 23477899

Nandi Toyota Motor World Ltd.
46/3A, Kudlu Gate, 7th Mile
Hosur Road, Bangalore 560 063
Phone : 25734646
Fax : 25731875

DEALERS LIST OF TWO WHEELER

BAJAJ

Jatti Motors Limited
73, Basaveshwara Road
Millers Road
Bangalore 560 002
Phone : 22264403

Khivraj Motors
10/2, Kasturba Road
Bangalore 560 001
Phone : 22214753

Popular Motors Corporation
1218, 34th Cross, 4th Block
East end Main (Road), Jayanagar
Bangalore 560 041
Phone : 226647968

HERO HONDA

Majestic Mobikes Pvt. Ltd.

R.V. Road, Bangalore 560 004
Phone : 26606025
E-mail : mmpl1234@vsnl.net

Prakash Motors
No.15, Lalbagh Road
Subbaiah Circle
Bangalore 560 027
Phone : 22233353
E-mail : prakashmotors@vsnl.net

Gautam Motors

No.34, St.Johns road
Amar Jyothi Layout
Bangalore 560 010
Phone : 2335849
E-mail: info@maxmotors.com

KINETIC

Advaith Marketing pvt. Ltd.
40/1, Sri Venkateshwara Mansion
South End Road
Basavanagudi
Bangalore 560 004

Aditya Automation
522/D, 2nd Stage, 1st Block
Dr. Raj Kumar Road
Rajajinagar, Bangalore
Ph : 23328007

Lead Motors
16-A, Millers Road
Vasanthnagar
Bangalore 560 052
Phone : 22260855

TVS MOTORS

Manx Motors
130, Wheeler Road, Cox Town
Bangalore 560 005
Phone : 25486326
Fax : 2548414
E-mail : manxmts@bgl.vsnl.net.in

Orion Motors
518, Bhovannappa Layout
Opp. Hamsa Petrol Bunk
Dharmaram College Post
Bangalore 560 029
Phone : 25524747

The Bharath Automobiles (Agency)
14, J.C. Road
Bangalore 560 002
Phone : 22235898
E-mail : bharathauto@rediffmail.com
Ashwa Motors
2, Ganganagar North
Opp. Govt. Veterinary College

Bangalore 560 027
Phone : 23439868
Fax : 23537933

HONDA SCOOTER

City Honda
63, St.Marks Road
Bangalore 560 001
Phone : 25320623
E-mail : cityhonda@vsnl.net

Silicon Honda
84, R.V. Road
Basavanagudi
Bangalore 560 001

Haiku Honda
No.1, Airport Road, Domlur
Bangalore 560 071
Phone : 25351846

ROYAL ENFIELD BIKES

Agro (P) Ltd.
Lalbagh Road
Bangalore 560 027
Phone : 22241422 / 22241423

Madras Motors Agencies (P) Ltd.
15, J.C. Road
Bangalore 560 002
Phone : 2224836 / 22239221

Tenik Motors
53, C.M.H. Road
Ulsoor, Bangalore
Phone : 25360988 / 25512274