EXECUTIVE SUMMARY

Purpose:

Today lots of competition in two-wheeler industries Faced by marketer, so every marketer must be know the consumer preference about two-wheeler and provide them their want. This research measures the different components of consumer preference, which are help and provide guidance to those decisions.

Research Objectives:

- To find out the attribute which are consider by consumer while purchase two-wheeler.
- To determine the perception of consumer about different Hero-Honda two-wheeler.
- To know the image of Hero-Honda in the mind of consumer.
- To determine the degree of association between the different Hero Honda two-wheeler models and demographic variables with respect to satisfaction.

Design/Methodology/Approach:

This is carried out using descriptive research design incorporating quantitative survey of 180 respondents in Navsari city. Each respondent was personally contacted to fill up the questionnaire**.** Data analysis involved of chi-square analysis tool and t-test for conducting inferential statistics. SPSS software was used to facilitate data analysis.

Findings

- Out of 180 respondents 127 respondents already have two-wheeler, 53 have no two-wheeler it means they first prefer Hero-Honda. out of 127, 36 have Hero-Honda it means they are loyal towards Hero-Honda, and other 91 want to change their two-wheeler.

- Most of respondents are not desire stylish and stunning look, more mileage, less weight & more warranty.

- Most of respondents want to have powerful two-wheeler in affordable price. They also desire better service from dealer.

- Most of respondents perceived that Hero-Honda gives stylish & stunning look, less maintenance, more powerful, and dealer gives more warranty.

- Most of respondents perceived that Hero-Honda is not affordable price and their dealer not give better service.

- There is significant association between age & model, income & model, occupation & model, and also education & model.

- There is strong relation between education & model, and income & model.

- There is no strong relation between age & model, and occupation & model.

Recommendations

- ❖ According to respondents Hero-Honda's dealer not provide better service, so dealer should have to train service provider so that they courteous with their customers.

- ❖ Most of customer can desire better service from dealer, so company can suggest dealers to improve their service and also guideline about service improvement, otherwise directly impact on sells.

- ❖ Most of customer can desire two-wheeler more powerful in affordable price, so marketer can consider those points and improve technology and tri to satisfy customer's desire want.

- ❖ Dealer communicates with customer and gives awareness about unique features of Hero-Honda and also solves their confusion & misunderstanding because most of people have not aware about their unique features.

- ❖ Here, that there strong relation between income and model & education and model. So marketer considers those points and gives advertisement which influences more those consumer.

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INTRODUCTION

CHAPTER 1: INTRODUCTION

Industry Profile[7]

The market of two wheelers is very wide and because of technology, new products (two- wheeler) with new features are introduced day by day. The level of competition is also very high in two-wheeler market. Therefore, because of this competition the companies have to invest much more in research area for survival and success. The invention of the first two-wheeler is a much-discussable issue. "WHO invented the first motorcycle?" this seems like a simple question, but the answer is quite complicated.

Two-wheelers originated from the "safety" bicycle that is the bicycles with front and rear wheels of the same size with a pedal crank mechanism to drive the rear wheel. Those bicycles, in turn origin from high-wheel bicycles. The high-wheelers origin from an early type of pushbike, without pedals, propelled by the rider's feet pushing against the ground. These appeared around 1800, used iron-banded wagon wheels, and were called "bone-crushers," both for their jarring ride, and their tendency to toss their riders.

Edward Butler, an Englishman, built the first motor tricycle in 1884. The first gasoline-engine motorcycle to appear publicly was built by Gottlieb Daimler, of Bad Cannstatt, Germany, in 1885.

Gottlieb Daimler, who later teamed up with Karl Benz to form the Daimler-Benz Corporation is credited with building the first motorcycle in 1885, one wheel in the front and one in the back, although it had a smaller spring-loaded outrigger wheel on each side. It was constructed mostly of wood, the wheels were of the iron-banded wooden-spokes

wagon-type, and it definitely had a "bone-crusher" chassis! This two-wheeler was powered by a single-cylinder Otto-cycle engine, and may have had a spray-type carburetor.

One of this type of machine was demonstrated at fairs and circuses in the eastern US in 1867. The first practical engines and motorcycles were designed by the French and Belgians, followed by British, German, Italian, and American makers.

The popularity of the vehicle increased, especially after 1910. During World War FIRST, the motorcycle was used by all branches of the armed forces in Europe, principally for dispatching. After the war, it enjoyed a sport craze until the Great Depression began in 1929. After World War II, motorcycles are being used for high-speed touring and sport competitions.

During the 1950s with the help of Western Europe and parts of the United States, the development of a new type of vehicle that is light weighted motorcycle is become possible, later on it is known as moped. The first moped Originating in Germany as a 50-cubic-centimetre machine with simple controls and low initial cost, it was largely free of licensing and insurance regulations except in Great Britain.
The more sophisticated motor scooter originated in Italy after World War II, led by manufacture of a 125-cubic-centimetre model. Even with strong competition from West Germany, France, Austria, and Britain, the Italian scooters maintained the leading position in the diminishing market

India is the second largest manufacturer and producer of two-wheelers in the world. It stands next only to Japan and China in terms of the number of two-wheelers produced and domestic sales respectively. This distinction was achieved due to variety of reasons as if restrictive

policy followed by the Government of India towards the passenger car industry, rising demand for personal transport, inefficiency in the public transportation system etc.

The Indian two-wheeler industry made a small beginning in the early 50s when Automobile Products of India started manufacturing scooters in the country. In 1948, Bajaj Auto began trading in imported Vespa scooters and three-wheelers. Finally, in 1960, it set up a shop to manufacture them in technical collaboration with Piaggio of Italy. The agreement expired in 1971.

In the initial stages, the scooter segment was dominated by Automobile Products of India (API), it was later overtaken by Bajaj Auto. Although various government and private enterprises entered the fray for scooters, the only new player that has lasted until today is LML.

Under the regulated regime, foreign companies were not allowed to operate in India. It was a complete seller market with the waiting period for getting a scooter from Bajaj Auto being as high as 12 years. Because of government regulation, foreign companies were not allowed to operate in Indian market. It was a complete seller market with the waiting period for getting a scooter from Bajaj Auto being as high as 12 years.

The first Japanese motorcycles were introduced in the early eighties. TVS Suzuki and Hero Honda brought in the first two-stroke and four-stroke engine motorcycles respectively. The industry had a smooth ride in the 50s, 60s and 70s when the Government prohibited new entries and strictly controlled capacity expansion. The industry saw a sudden growth in the 80s.

The two-wheeler market was opened to foreign competition in the mid-80s. Then the market leaders - Escorts and Enfield - were caught

unaware by the attack of the 100cc bikes of the four Indo-Japanese joint ventures. With the new feature of fuel-efficient low power bikes, demand swelled, resulting in Hero Honda - then the only producer of four stroke bikes (100cc category), gaining a top slot.

The entry of Kinetic Honda in mid-eighties with a barometric scooter helped in providing ease of use to the scooter owners. This helped in inducing youngsters and working women, towards buying scooters, who were earlier, inclined towards moped purchases

In 1990, the entire automobile industry saw a drastic fall in demand. This resulted in a decline of 15% in 1991 and 8% in 1992, resulting in a production loss of 0.4mn vehicles. Excluding Hero Honda, all the major producers suffered from recession. Hero Honda showed a marginal decline in 1992.The reasons for recession in the sector were the constant rise in fuel prices, high input costs and reduced purchasing power due to significant rise in general price level and credit crisis in consumer financing. Factors like increased production in 1992, due to new entrants joined with the recession in the industry resulted in companies either reporting losses or a fall in profits.

Two-Wheelers industries[6]

Honda	Bajaj	Hero Honda	Kinetic	LML	Royal Enfield	Suzuki	TVS	Yamaha
Activa	Wave 125 Dtsi	Pleasure	Kinetic 4s	Crd 100 Sd	Std	Heat	Scooty Pep	Crux S
Dio	Ct 100	CD deluxe	Nova	Freedom Topper	Machismo	Zeus	Star std	Libero G5
Eterno	Platina	Splendor plus	Striker	Freedom prima	Electra		Star city	Gladiator
Shine	Discover	Splendor NXG	Blaze	Beamer	Thunder-bold		Victor Edge	
Unicorn	Pulsar	Passion plus			500 Ex		Victor Glx 125	
	Discover 125	Super splendor					Apache Es	
	Pulsar 150 Dtsi	Glamour						
	Pulsar Dtsi 180	CBZ X-tream						
	Avenger	Achiever						
		Karizma						

TWO WHEELERS PRODUCTION					
Category	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**
Scooters	937506	848434	935279	987498	1020013
Motorcycles	2906323	3876175	4355168	5193894	6201214
Mopeds	427498	351612	332294	348437	379574
Grand Total	**4271327**	**5076221**	**5622741**	**6529829**	**7600801**

TWO WHEELERS DOMESTIC SALES TREND					
Category	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**
Scooters	908268	825648	886295	922428	908159
Motorcycles	2887194	3647493	4170445	4964753	5815417
Mopeds	408263	338985	307509	322584	332741

Grand Total	**4203725**	**4812126**	**5364249**	**6209765**	**7056317**

TWO WHEELERS EXPORTS TREND					
Category	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**
Scooters	28332	32566	53687	60699	83873
Motorcycles	56880	123725	187287	277123	386202
Mopeds	18971	23391	24078	28585	43181
Grand Total	**104183**	**179682**	**265052**	**366407**	**513256**

Growth of the Industry[6]

Today the growth rate of motorcycle industry is very high as compared to few years back. Two wheeler segment as a whole during the year 2004-05 grew by over 15%. This growth has been due to the Government's initiative on rural roads and better connectivity with major towns and cities, improved agricultural performance, upward trend of purchasing power in the hands of rural people. The northward trend of growth among two-wheelers is set to continue in the years ahead.

Motorcycles Sales (Nos.):

2001-02	2002-03	2003-04	2004-05	2005-06
2906323	3876175	4355168	5193894	6201214

Motorcycles account for nearly 80% of the total two wheeler sales in the country. This trend is set to continue as more and more models of two wheelers enter the market. The figures above show the sales of motor cycles over the years.

Company Profile[5]

"Hero", is the brand name used by the Munjal brothers in the year 1956 with the flagship company Hero Cycles. The two-wheeler manufacturing business of bicycle components had originally started in the 1940's and turned into the world's largest bicycle manufacturer today. Hero is a name synonymous with two-wheelers in India today. The Munjals roll their own steel, make free wheel bicycle critical components and have diversified into different ventures like product design.

The basic aim of Hero Group is: "To provide excellent transportation to the common man at easily affordable prices and to provide total satisfaction in all its spheres of activity". The Hero group's vision is to build long lasting relationships with everyone including customers, workers, dealers and vendors also. The Hero Group has a passion for setting higher standards and "Engineering Satisfaction" is the prime motivation, way of life and work culture of the Group. In the year 1984, **Mr. Brijmohan Lal Munjal**, the Chairman and Managing Director of Hero Honda Motors headed an alliance between the Munjal family and Honda Motor Company Ltd. Hero Honda Motorcycles Limited is an Indian manufacturer of motorcycles and scooters. Hero Honda is a joint venture that began in 1984 between the Hero group of India and Honda from Japan.

The manufacturing plant which was estamblishe in dharushera in state of haryana started manufacturing the CD-100 model motorcycle in 1985. the CD-100 was powered b india's first four stoke engine, the unique selling point that put Hero-Honda in the driver's seat in the marketplace. Soon , the CD-100 set the standards for fuel efficiency, pollution control and quality.

Hero-Honda was among the first manufacturers to understand the impact of product differentiation and market segmentation on sales

revenues. Hero-Honda devised three models catering to different segments. The CD-100 bike was excellent pick up for the rural and semi-urban customer for whom cost was critical consideration. The cD-100 was a basic model for urban market. Splendor catered to the middle-class, office-going sedment.

India has finnaly got a world's leader in manufacturing with "no problem" Hero-Honda motors Ltd.(HHM). HHM has attained the distinction of being the largest two-wheeler company in the worldin volume terms, with a new factory on the anvil, it is gearing itself for operation one billion, targeting $ 1 million revenues in 2002-03. next year, we will enter the billionaire's club . the distinction of being the largest two-wheeler company in the worldcame in calender 2001, with sales rocking past the one million mark in the first nine months of the currant fiscal year.this performance was in conjunction with splender, launched in 1995, becoming the world's largest selling bike.after they introduce one by one new models.

The company believes that the synergy between technology, systems, and human resources to provide products and services that meet the quality, performance, and price aspirations of our customers. by doing so, the company is maintain the highest standards of ethics and societal responsibilities, The Hero Honda Motors is constantly innovate their products and processes, and develop teams that keep the momentum going to take the company to excellence in the new millennium. This alliance became one of the most successful joint ventures in India.

Founded:	January 19, 1984
Headquarters:	Haryana ,India
Key people:	Brijmohan Lall Munjal (Chairman and M.D.)
Industry:	Automotive
Products:	Motorcycles, Scooters
Revenue:	App.- 7,536 crores Rs.2004-2005

1.3 Business Growth:

It holds the record for most popular bike in the world by sales for Its Splendor model. Hero Honda Motors Limited was established in joint venture with Honda Motors of Japan in 1984, to manufacture motorcycles. It is currently the largest producer of Two Wheelers in the world. It sold 3 million bikes in the year 2005-2006. Recently it has also entered in scooter manufacturing, with its model PLEASURE mainly aimed at girls. The Hero Group has done business differently right from the start and that is what has helped them to achieve break-through in the competitive two-wheeler market.

The Hero Group's phenomenal growth is the result of constant innovations, a close watch on costs and the dynamic leadership of the Group Chairman, characterized by a culture of entrepreneurship, of right attitudes and building stronger relationships with investors, partners, vendors and dealers and customers.

Vision[3]

"We at Hero-Honda group are continuously striving for synergy between technology system and honors resources to provide products service that meet the quality preference and the price aspiration of the customers while doing so we maintain the highest standard of ethics and societal responsibility, constantly innovate product and process, and develop teams that keeps the momentum going to take the grap to excellence in everything we do."

Mission[3]

"Is what drives Hero-Honda to new height in excellence and help the organization getting a unique and mutually beneficial relationship with all its stake holding.

Literature review[4]

Preference or taste is a concept used in the social science particularly economics, it assumes a real or imagined "choice" between alternatives and the possibility of rank ordering of these alternatives based on happiness, satisfaction, gratification, enjoyment, utility they provide more generally. It can be seen as a source of motivation.
Cognitive sciences individual preferences enable choice of objectives goals. In addition, more consumption of a normal goods is generally (but not always) assumed to be preferred to less consumption.
Preference rank translation is a mathematical technique used by marketers to convert stated preferences in to purchase probabilities that is into an estimate of actual buying behavior.
It takes survey data on consumers' preferences and converts it in to actual purchase probability.

One consumer would in general have different consumption behaviors or preference from another. He may spend money on computers and technical books while the other may spend on two-wheelers.
Availability of this information on consumer preference will be of great value to a marketing company.
E.g. A bank or a credit card company that can use this information to target different groups of consumer for improved response rate or profit.
By the same to key information on consation preference of the residents in one specific region for improved profit.

Therefore, it is very important to have a tool that can help analysis consumers' behavior and forecast the changes in purchase pattern and changes in purchase trend.

According to tray Norcross, London, I believe very strongly that consumers have a right just because it is getting harder to reach consumers does not mean that marketers should be more devious or more forceful in their attempts to reach us.
In fact, quite the opposite, many of us are happy to be contacted with relevant timely, meaningful offers.
However, it is going to be on our terms, no longer victims of aggressive marketing we want to participate in the process with trusted brands and partners. Come and hang out with me here on consumer preference and learn how as a consumer. You can have more control than you thought. How you can research people in an effective and respectful way.

Today as we know that the growth rate of two-wheeler industry is too high and due to the high level of competition each and every company has to introduce new two-wheeler into the market is not a easy task, the preference of the consumer. So that the companies can emphasis more

on that kind of features which the customer are demanding. For this reason we are going to study on personal preference of customer on two-wheeler.

Today all most all products are available for the buyers and also number of alternatives are available while they are taking purchasing decision. The aim of marketer is to meet and satisfy target customer's need and wants. The field of customer preference studies how individual group and organization select, buy use and dispose of goods service, ideas and experience to satisfy their need and desires. So the knowledge of preference is essential for marketers because the customer bring change in to the marketer.

Chapter 2

RESEARCH METHODOLOGY

CHAPTER 2: RESEARCH METHODOLOGY

2.1 Problem Definition:

"The know the preference of the consumer about Hero-Honda two wheeler in Navsari region."

2.2 Research Objectives:

- To know the perception about Hero-Honda two-wheeler in Navsari region.
- To find out the attribute which are consider by consumer while purchase two-wheeler.
- To know the image of the Hero-Honda two-wheeler in the mind of consumer.
- To determine the degree of association between the different Hero Honda two-wheeler models and demographic variables with respect to satisfaction.

2.3 Research Design:

Here, I have selected the Descriptive research design because here we want to study the behavior of customers about two-wheeler.

Sampling Design:
Here non-probability convenience sampling has been used.

Sample Size: The sample size is 200 respondents. However, I have considered 180 sample respondents.

Sampling Unit: The sampling unit has been considering them who can come for inquiry at Metro Motors.

Choice of Survey Method: Here, we have selected the personal interview method for the research.

Research instrument: Questionnaire was used for the purpose of the data collection as the research instrument. Questionnaire consisted of both closed ended questions including rating sculls.

Pre-testing:

It is necessary to check the questionnaire before actual research is done. Therefore pre-testing is done. In this case, pre-testing was done for 15 respondents, after some modification questionnaire was finalized.

Date Collection Method:

The data collection method used is personal interview method. Here the primary data are collected by questionnaire and secondary data are collected from the websites and magazines.

2.4 Data Analysis Tools:

For determining descriptive characteristics, percentage method was used for nominal scale data and mean and standard deviation was used for interval scale data. Further, for determining inferential statistics, chi-square analysis was used for nominal scale and t-tests were used for interval scale. The tool selection was based on the type of data and only that tool was selected which is most appropriate for the particular type of data. For instance, chi-square analysis is most suitable for nominal scale data and t-test is most suitable for interval scale data and hence they were used.

2.5 Limitations of Research:

- The survey work was conducted in Navsari only so, it cannot cover the preference of other area's consumer.
- The sample size taken for the survey work was 200 because of the limited time period.
- There is a chance of mistake in the answer because of the limited knowledge of the respondent.
- This project work is prepared as per my limited under standing of subject.
- Probability sampling was not used due to time and cost constraints and therefore the results cannot be generalized to the population.

Chapter 3

DATA ANALYSIS & INTERPRETATION

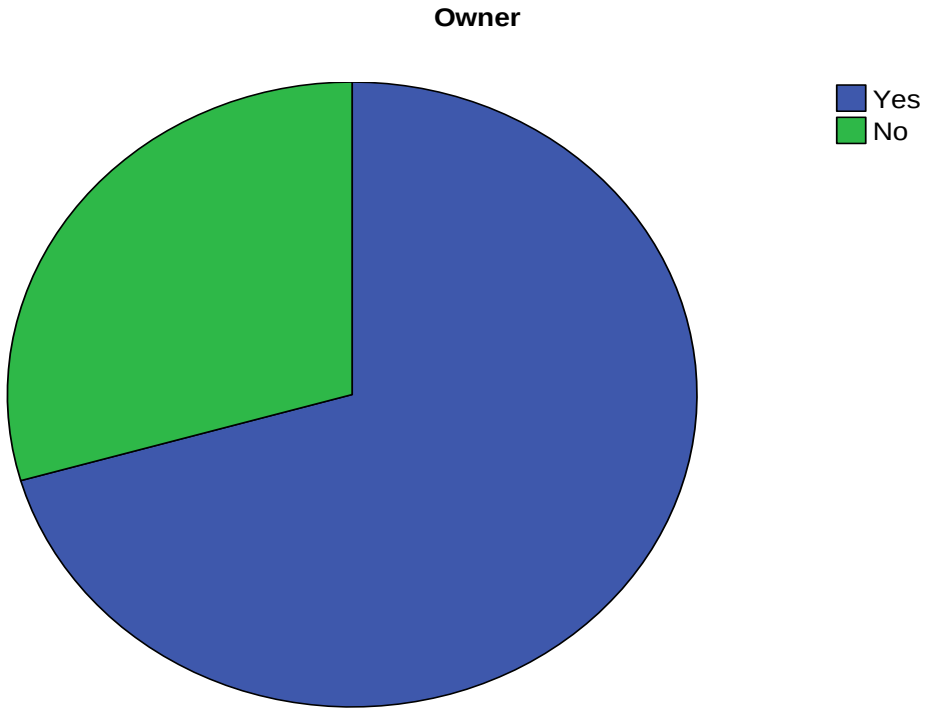
Chapter.3 Data Analysis & Interpretation

Q.1 Do you have two-wheeler?

Purpose-
To know the consumer have two-wheeler or not.

Owner

	Frequency	Percent
Yes	127	70.6
No	53	29.4
Total	180	100.0



Of 180 people interviewed, it is found that 70.6% of people already have two-wheeler, and remaining 29.4% of people have no two-wheeler.

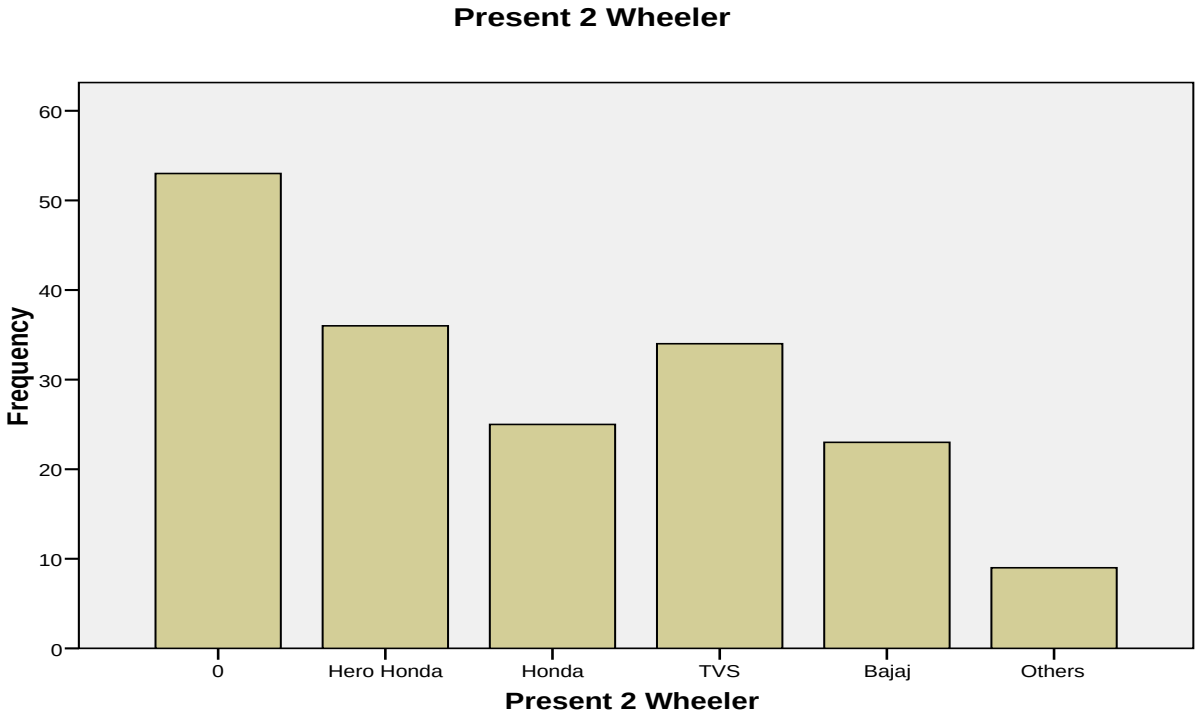
Q.2. Which company's two-wheeler you have ?

Purpose

To know which company's two wheeler consumer

Present two Wheeler

	Frequency	Percent
0	53	29.4
Hero Honda	36	20.0
Honda	25	13.9
TVS	34	18.9
Bajaj	23	12.8
Others	9	5.0
Total	180	100.0



Of 127 (70.6%) people have already two-wheeler, of them 28.35% have Hero-Honda company's two-wheeler,19.68% have Honda company's,26.77% have TVS company's, 18.11% Bajaj company's and remaining 7.1% have other company's two wheeler .

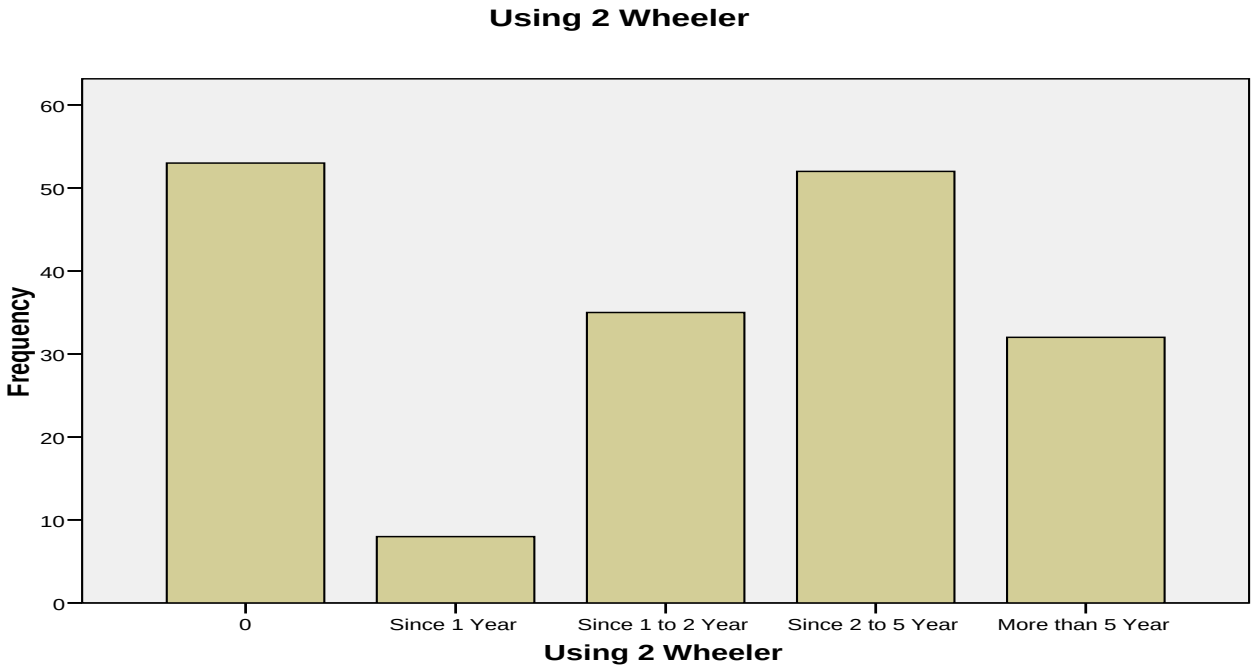
Q.3. Since, How long have being you using two-wheeler ?

Purpose

To know since how long they use two-wheeler.

Using 2 Wheeler

	Frequency	Percent
0	53	29.4
Since 1 Year	8	4.4
Since 1 to 2 Year	35	19.4
Since 2 to 5 Year	52	28.9
More than 5 Year	32	17.8
Total	180	100.0



Of 127 people have already two-wheeler, of them 6.3 % people are using since 1 year , 27.55% people are since 1 to 2 year, 40.94% people are since 2 to 5 year, and 25.20% people are using more than 5 year.

Q.4 Answer the statement related to your opinion with two-wheeler you want.

Purpose

To know feature attribute which are consider when purchasing two-wheeler

4.1. It should be stylish and stunning look .

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that they want to stylish & stunning look in two-wheeler.

Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that they want to stylish & stunning look in two-wheeler.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Looks	180	3.83	1.018	.076

One-Sample Test

	Test Value = 4					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Looks	-2.269	179	.024	-.172	-.32	-.02

Here, one sample t-test is conducted and the p-value is 0.024, less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word, we can say that the customers not agree that they want to stylish & stunning look, it means than they are neutral or disagree desire about stylish and stunning look in two-wheeler.

4.B Two-wheeler should give good mileage.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that they want to mileage in two-wheeler.
Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that they want to mileage in two-wheeler.
H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Mileage	180	4.16	.806	.060

One-Sample Test

	Test Value = 4					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Mileage	2.681	179	.008	.161	.04	.28

Here, one sample t-test is conducted and the p-value is 0.008 less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word, we can say that the customers not agree, it means they neutral or disagree about more mileage.

4.C Two-wheeler should have low maintenance.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that they want to less maintenance in two-wheeler.

Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that they want to maintenance in two-wheeler.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Maintenance	180	4.32	.869	.065

One-Sample Test

	Test Value = 4					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Maintenance	4.972	179	.000	.322	.19	.45

Here, one sample t-test is conducted and the p-value is 0.000, less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word, we can say that the customers not agree about less maintenance, it means that they are neutral or disagree about maintenance.

4.D two-wheeler should have affordable price.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that they want two-wheeler in affordable price.

Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that they want two-wheeler in affordable price.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Price	180	3.87	.916	.068

One-Sample Test

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Price	-1.872	179	.063	-.128	-.26	.01

Here, one sample t-test is conducted and the p-value is 0.063 greater than the significance level value of 0.05, so our null hypothesis is accepted and alternative hypothesis is rejected. In other word, we can say that the customers agree that they want two-wheeler in affordable price.

4.E two-wheeler should be powerful.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that they want to more powerful two-wheeler.

Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that they want to more powerful two-wheeler.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Powerful	180	4.03	.927	.069

One-Sample Test

	Test Value = 4					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Powerful	.482	179	.630	.033	-.10	.17

Here, one sample t-test is conducted and the p-value is 0.630, greater than the significance level value of 0.05, so our null hypothesis is accepted and alternative hypothesis is rejected. In other word, we can say that the customers agree that they want to more powerful two-wheeler.

4.F Two-wheeler should have low weight.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that they want to less weight in two-wheeler.

Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that they want to less weight in two-wheeler.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Weight	180	3.27	1.087	.081

One-Sample Test

	Test Value = 4					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Weight	-8.979	179	.000	-.728	-.89	-.57

Here, one sample t-test is conducted and the p-value is 0.000, less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word, we can say that the customers not agree about less weight, it means that they are neutral or disagree about less weight in two-wheeler.

4.G It's dealer should give better service.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that they want to better service on two-wheeler.

Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that they want to better service on two-wheeler.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Service	180	3.93	.846	.063

One-Sample Test

	Test Value = 4					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Service	-1.146	179	.253	-.072	-.20	.05

Here, one sample t-test is conducted and the p-value is 0.253, greater than the significance level value of 0.05, so our null hypothesis is accepted and alternative hypothesis is rejected. In other word, we can say that the customers agree that they want to better service from company on two-wheeler.

4.H company should give warranty on two-wheeler.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that they want to more warranty on two-wheeler.

Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that they want to more warranty on two- wheeler.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Warranty	180	4.13	.787	.059

One-Sample Test

	Test Value = 4					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Warranty	2.274	179	.024	.133	.02	.25

Here, one sample t-test is conducted and the p-value is 0.024, less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word we can say that the customers not desire more warranty on two-wheeler, it means they are neutral or disagree about warranty.

4.i Two-wheeler should give more resell value.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that they want to more resell value on two-wheeler.

Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that they want to more resell value on two-wheeler.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Resell	180	4.18	.780	.058

One-Sample Test

	Test Value = 4					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Resell	3.153	179	.002	.183	.07	.30

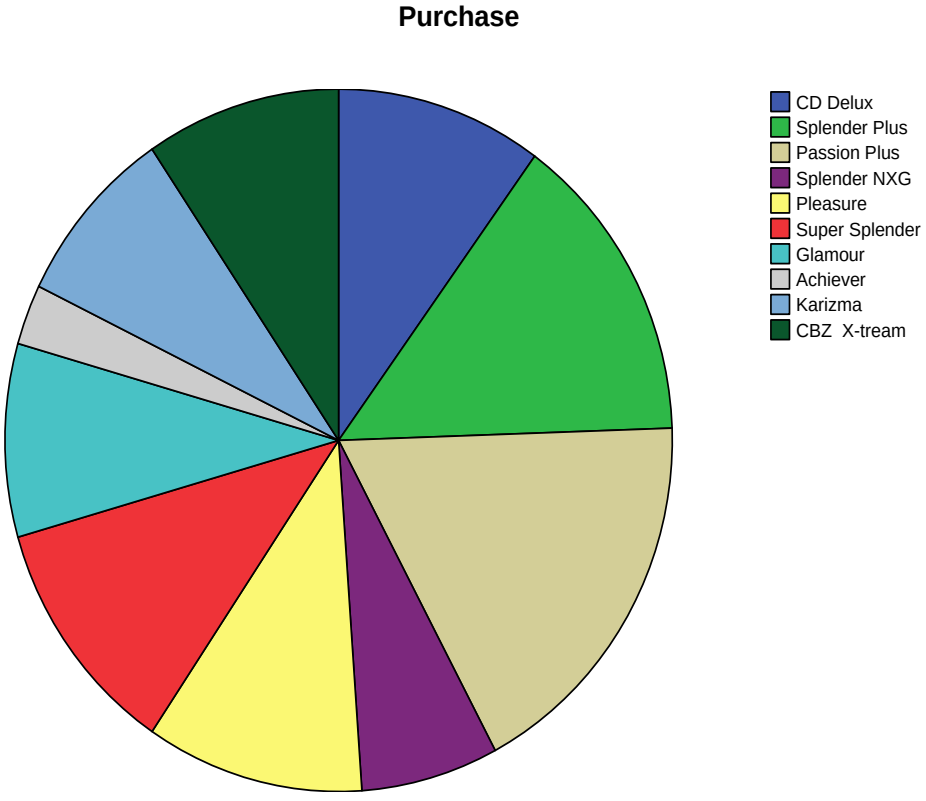
Here, one sample t-test is conducted and the p-value is 0.002, less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word we can say that the customers not desire more resell value on two-wheeler, it means they neutral or disagree about resell value.

Q.5 which two-wheeler does you wants to purchase?

Purchase

	Frequency	Percent
CD Deluxe	18	10.0
Splendor Plus	26	14.4
Passion Plus	32	17.8
Splendor NXG	12	6.7
Pleasure	19	10.6
Super Splendor	20	11.1
Glamour	16	8.9
Achiever	5	2.8
Karizma	15	8.3
CBZ X-tream	17	9.4
Total	180	100.0

In 180 respondents, maximum 32 respondents want to purchase Passion Plus and minimum five respondents want to purchase Achiever.



Purchase * age Crosstabulation

		Age				Total
		18 - 25	26 - 35	36 – 50	Above 50	
Purchase	CD Deluxe	3	8	6	1	18
	Splendor Plus	8	8	6	4	26
	Passion Plus	9	16	6	1	32
	Splendor NXG	5	6	1	0	12
	Pleasure	13	6	0	0	19
	Super Splendor	5	11	4	0	20
	Glamour	5	10	1	0	16
	Achiever	4	1	0	0	5
	Karizma	6	8	1	0	15
	CBZ X-tream	12	4	1	0	17
Total		70	78	26	6	180

Null Hypothesis (H0): There is no significance association between expected frequency and actual frequency.

Alternative Hypothesis (H1): There is significance association between expected frequency and actual frequency.

Significant Level: 0.05

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	49.977	27	.005
N of Valid Cases	180		

Symmetric Measures

	Value	Approx. Sig.
Contingency Coefficient	.466	.005
N of valid cases	180	

Inference:

Explanation of Pearson's Chi-square:

The Chi-square test is carried out at 95% confidence level (0.05 significance level). The Pearson Chi-square value comes out as 0.005**, which** is less than the significance level value of 0.05. It means alternative hypothesis accepted, I can say that there exists a significant association between age group and purchasing of model.

Explanation of Contingency Co-efficient:

The contingency co-efficient measures the strength of the output. If the value is close to zero, there is no strong correlation between two variables. On the other hand, if the value ranges between 0.5 and 1, there exists a strong correlation.

Here, we can conclude that there is no strong correlation between age group and purchasing a model because the value of contingency co-efficient is 0.466.

Purchase * income Crosstabulation

		Income					Total
		Less Than 6,000	6,001 - 12,000	12,001 - 17,000	17,001 - 25,000	Above 25,000	
Purchase	CD Deluxe	10	7	1	0	0	18
	Splendor Plus	5	11	6	3	1	26
	Passion Plus	3	15	7	4	3	32
	Splendor NXG	0	9	2	0	1	12
	Pleasure	0	5	6	5	3	19
	Super Splendor	0	7	5	2	6	20
	Glamour	1	4	5	0	6	16
	Achiever	0	1	1	3	0	5
	Karizma	0	1	1	5	8	15
	CBZ X-tream	0	6	6	2	3	17
Total		19	66	40	24	31	180

Null Hypothesis (H0): There is no significance association between expected frequency and actual frequency.

Alternative Hypothesis (H1): There is significance association between expected frequency and actual frequency.

Significant Level: 0.05

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	110.917	36	.000
N of Valid Cases	180		

Symmetric Measures

	Value	Approx. Sig.
Contingency Coefficient	.617	.000
N of valid cases	180	

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Inference:

Explanation of Pearson's Chi-square:

The Chi-square test is carried out at 95% confidence level (0.05 significance level). The Pearson Chi-square value comes out as 0.000**, which** is less than the significance level value of 0.05. It means alternative hypothesis accepted, I can say that there exists a significant association between monthly income and purchasing a model.

Explanation of Contingency Co-efficient:

The contingency co-efficient measures the strength of the output. If the value is close to zero, there is no strong correlation between two variables. On the other hand, if the value ranges between 0.5 and 1, there exists a strong correlation.

Here, we can conclude that there exist a strong correlation between monthly income and selection of model because the value of contingency co-efficient is 0.617.

Purchase * occupation Crosstabulation

		Occupation					Total
		Student	Businessman	Service man	Farmer	Others	
Purchase	CD Deluxe	1	1	11	4	1	18
	Splendor Plus	2	6	11	4	3	26
	Passion Plus	6	6	16	4	0	32
	Splendor NXG	1	4	5	2	0	12
	Pleasure	10	1	5	1	2	19
	Super Splendor	3	2	10	3	2	20
	Glamour	3	4	7	0	2	16
	Achiever	1	2	2	0	0	5
	Karizma	6	5	3	1	0	15
	CBZ X-tream	9	2	6	0	0	17
Total		42	33	76	19	10	180

Null Hypothesis (H0): There is no significance association between expected frequency and actual frequency.

Alternative Hypothesis (H1): There is significance association between expected frequency and actual frequency.

Significant Level: 0.05

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	55.397	36	.020
N of Valid Cases	180		

Symmetric Measures

	Value	Approx. Sig.
Contingency Coefficient	.485	.020
N of valid cases	180	

Inference:

Explanation of Pearson's Chi-square:

The Chi-square test is carried out at 95% confidence level (0.05 significance level). The Pearson Chi-square value comes out as 0.020**, which** is less than the significance level value of 0.05. It means alternative hypothesis accepted, I can say that there exists a significant association between occupation and purchasing a model.

Explanation of Contingency Co-efficient:

The contingency co-efficient measures the strength of the output. If the value is close to zero, there is no strong correlation between two variables. On the other hand, if the value ranges between 0.5 and 1, there exists a strong correlation.

Here, we can conclude that there is a no strong correlation between occupation and purchasing a model because the value of contingency co-efficient is 0.485

Purchase * education Crosstabulation

		education					Total
		Below HSC	HSC	Graduate	Post Graduate	Others	
Purchase	CD Deluxe	11	7	0	0	0	18
	Splendor Plus	4	13	7	2	0	26
	Passion Plus	6	6	13	6	1	32
	Splendor NXG	0	7	4	1	0	12
	Pleasure	0	7	8	4	0	19
	Super Splendor	0	7	10	3	0	20
	Glamour	1	2	11	2	0	16
	Achiever	0	2	1	2	0	5
	Karizma	0	1	8	5	1	15
	CBZ X-tream	1	2	9	5	0	17
Total		23	54	71	30	2	180

Null Hypothesis (H0): There is no significance association between expected frequency and actual frequency.

Alternative Hypothesis (H1): There is significance association between expected frequency and actual frequency.

Significant Level: 0.05

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	91.751	36	.000
N of Valid Cases	180		

Symmetric Measures

	Value	Approx. Sig.
Contingency Coefficient	.581	.000
N of valid cases	180	

Inference:

Explanation of Pearson's Chi-square:

The Chi-square test is carried out at 95% confidence level (0.05 significance level). The Pearson Chi-square value comes out as 0.000**, which** is less than the significance level value of 0.05. It means alternative hypothesis accepted, I can say that there exists a significant association between Education and purchasing a model.

Explanation of Contingency Co-efficient:

The contingency co-efficient measures the strength of the output. If the value is close to 0, there is no strong correlation between two variables. On the other hand, if the value ranges between 0.5 and 1, there exists a strong correlation.

Here, we can conclude that there exist a strong correlation between Education and purchasing a model because the value of contingency co-efficient is 0.581

Q.6 Answer the statement related to your opinion with Hero-Honda two-wheeler.

Purpose

To know consumer perceptual feature attribute regarding Hero-Honda.

6.A Hero-Honda has stylish & stunning in look.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that Hero-Honda two-wheeler has stylish & stunning look.

Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that Hero-Honda two-wheeler has stylish & stunning look.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Looks	180	4.05	.757	.056

One-Sample Test

	Test Value = 4					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Looks	.886	179	.377	.050	-.06	.16

Here, one sample t-test is conducted and the p-value is 0.377, greater than the significance level value of 0.05, so our null hypothesis is accepted and alternative hypothesis is rejected. In other word, we can say that the customers agree that Hero-Honda has stylish & stunning look.

Q.6.B Hero-Honda gives good mileage.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that Hero-H0nda gives more mileage.
Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that Hero-Honda gives more mileage.
H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Mileage	180	4.04	.890	.066

One-Sample Test

	Test Value = 4					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Mileage	.670	179	.504	.044	-.09	.18

Here, one sample t-test is conducted and the p-value is 0.504, greater than the significance level value of 0.05, so our null hypothesis is accepted and alternative hypothesis is rejected. In other word, we can say that the customers agree that Hero Honda gives more mileage.

Q.6.C Hero-Honda has low maintenance.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that Hero-Honda has low maintenance..
Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that Hero-Honda has low maintenance.
H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.
Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Maintence	180	4.04	.956	.071

One-Sample Test

	Test Value = 4					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Maintence	.624	179	.534	.044	-.10	.19

Here, one sample t-test is conducted and the p-value is 0.534, greater than the significance level value of 0.05, so our null hypothesis is accepted and alternative hypothesis is rejected. In other word, we can say that the customers agree that Hero Honda has low maintenance.

Q.6.D Hero-Honda has affordable price.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that Hero-H0nda has affordable price.
Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that Hero-Honda has affordable price.
H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Price	180	3.71	.948	.071

One-Sample Test

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Price	-4.087	179	.000	-.289	-.43	-.15

Here, one sample t-test is conducted and the p-value is 0.000, less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word we can say that the customers not agree that Hero Honda has affordable price, it means they are neutral or dis agree about affordable price.

Q.6.E Hero-Honda is more powerful.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that Hero-H0nda is more powerful.
Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that Hero-Honda is more powerful.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Powerful	180	4.02	.794	.059

One-Sample Test

	Test Value = 4					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Powerful	.281	179	.779	.017	-.10	.13

Here, one sample t-test is conducted and the p-value is 0.779, greater than the significance level value of 0.05, so our null hypothesis is accepted and alternative hypothesis is rejected. In other word we can say that the customers agree that Hero Honda is more powerful.

Q.6.F Hero-Honda has low weight.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that Hero-H0nda has low weight.
Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that Hero-Honda has low weight.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Weight	180	3.28	1.144	.085

One-Sample Test

	Test Value = 4					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Weight	-8.473	179	.000	-.722	-.89	-.55

Here, one sample t-test is conducted and the p-value is 0.000, less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word we can say that the customers not agree that Hero Honda has low weight, it means they are neutral or disagree.

Q.6.G Hero-Honda dealer provide better service.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that Hero-H0nda's dealer provide better service.
Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that Hero-Honda's dealer provide better service.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Service	180	3.31	1.043	.078

One-Sample Test

	Test Value = 4					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Service	-8.865	179	.000	-.689	-.84	-.54

Here, one sample t-test is conducted and the p-value is 0.000, less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word we can say that the customers not agree that Hero Honda's dealer provide better service. It means they are neutral or disagree.

Q.6.H Hero-Honda gives warranty on two-wheeler.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that Hero-Honda gives warranty on two-wheeler.
Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that Hero-Honda gives warranty on two-wheeler.
H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Warranty	180	3.89	.783	.058

One-Sample Test

	Test Value = 4					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Warranty	-1.904	179	.059	-.111	-.23	.00

Here, one sample t-test is conducted and the p-value is 0.59, greater than the significance level value of 0.05, so our null hypothesis is accepted and alternative hypothesis is rejected. In other word we can say that the customers agree that Hero Honda gives warranty on two-wheeler.

Q.6.I Hero-Honda gives more resells value.

Inference:

Null Hypotheses (Ho): There is no significant difference between the calculated sample mean and hypothesized populations mean (4.00). In other words, we hypothesize that the customers agree that that Hero-H0nda gives more resell value.
Ho: $x = \mu = 4.0$

Alternative Hypothesis (H_1): There is significant difference between calculated mean and hypothesized population mean. In other words, the customers not agree that Hero-Honda gives more resell value.

H_1: $x \neq \mu$,

Statistical Test: One sample t-test is chosen because the measurement of data is interval in nature.

Significance level: 0.05

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Resell	180	4.18	.820	.061

One-Sample Test

	Test Value = 4					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Resell	2.909	179	.004	.178	.06	.30

Here, one sample t-test is conducted and the p-value is 0.004, less than the significance level value of 0.05, so our null hypothesis is rejected and alternative hypothesis is accepted. In other word we can say that the customers not agree that Hero Honda gives more resell value.

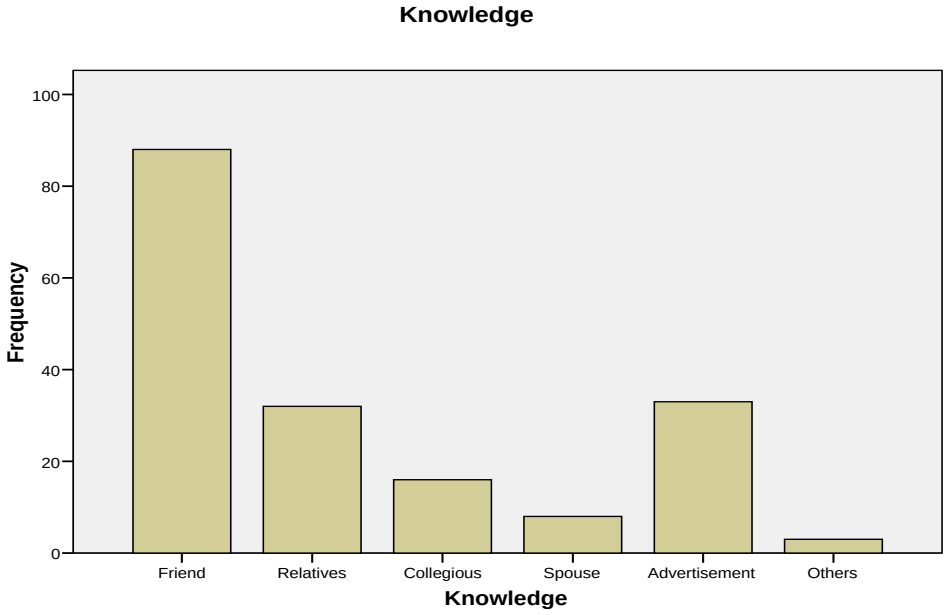
Q.7 From where you came to know about Metro motors ?

Purpose

To know where consumer came to get more information about metro motors

Knowledge

	Frequency	Percent
Friend	88	48.9
Relatives	32	17.8
Collegians	16	8.9
Spouse	8	4.4
Advertisement	33	18.3
Others	3	1.7
Total	180	100.0



Of 180 responders 88 respondents are know (aware) about metro motors thought the friend , and 32 respondents are know thought relative, only 33 respondents are aware about metro motors through advertising ,16 respondents aware through collages, 8 respondents thought spouse and only 3 respondents aware thought other variable.