

# A Study on Consumers Perception towards Mobile Handset

(With Special reference to the Consumers of Bhopal City)

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## Abstract

Mobile today is the most sought after device required by every one for communication and for many other usages. The growth of subscription of mobile phone is very high in India; Particularly Smart phones are in huge demand. Mobile hand set is of different kind's particularly Smart phone and feature phone. People prefer smart phones because of its facility of internet and social media features while they prefer feature phone because of its cost effectiveness. The mobile phone market is creating substantial impact on Indian Economy today. There are more than one billion people in India who have subscribed to mobile phones. The market cap of only India for mobile handset has crossed more than 1 lac crore where market share of smart phone is more than 85 thousands crores and is predicted to cross one lac crore market cap on 2016. This has made grounds for conducting study in this area to know its present and future aspects relating to it.

This study focuses on the views and perception of consumers of Bhopal city towards mobile hand set. For this, primary data is collected through the circulation of pre structured questionnaire designed in a way to collect information for satisfying objectives of the study. The past literature on these aspects has been reviewed for setting hypothesis. A sample size is chosen for obtaining views on features and brand preferences of mobile handsets. In which different income group people of male and female were randomly selected.

The collected data with different variables is analyzed on various aspects to come to conclusion of significance.

**Keywords:** Smartphone, usage, consumer, Income level, Brand.

## I. INTRODUCTION

Mobile communication today is the fastest and the most effective way of communication in the world. It has changed the working pattern of human being in each and every corner of the world. No wonder to say that it is inevitable part in life of everyone to fulfill needs. The technology today has given a sharp edge for making it more demanding. Smart mobile phones are in huge demand because of

its functions through which many works of people are done with less efforts and time. Smart mobile phones are the voice of people now. Presently in India, the total numbers of mobile subscribers are now more than one billion. In the last couple of years, the total numbers of smart phone subscriber have succeeded over the total numbers of feature phone subscriber in mobile communication in India.

It has become security instruments for all, especially for women. Due to effective communication, the boundaries amongst places of different regions in the world are eliminated; boundaries among people of any places, religions are eliminated. With the help of mobile phones any one can be in touch with others 24 by 7. It is becoming ideal for many like old one, teenagers, disabled, female, busy people as it saves time, provides safety & security

A decade back in India, people were less aware about mobile phones but presently the scenario is entirely different, with the growth of Indian economy in the last decade, people are more prosperous, educated, & aware, and on the other hand the telecom sector opened to private and foreign players also.

At present sales volume of feature phone is greater than the smart phone but demand of smart phone is increasing very fast due to providing various features like Face book, Whatsapp, twitter, video call, voice chat, etc. and it is predicted that selling of smart phone will be around 16 crore/year from 2017 while sales of feature phone will fall short of 15 crore.

There are many companies which are providing variety of products and there are around 431 Mobile Hand set brands available in the market in this year but consumers will have more than that option from next year because of launching number of companies in India and make in India concept. Working people and Younger's from urban area are purchasing smart phones mostly and high sales volume is getting because of them but it is increasing very fast in rural area too.

The study focuses on the perception of consumers towards Mobile Handset. As there are different Mobile Handsets available in the market by many different companies providing different features. This situation gives a great potentials to telecom sector, as the market is competitive where number of mobile handset are offered with effective features and there are growing number of consumers with a greater capacity.

## II. OBJECTIVE

1. To identify consumer's perception towards mobile hand set.
2. To identify and analyzing top most preference among product features of mobile handset by the consumers.
3. To identify the brand preference offered by different companies for mobile handset among different income level consumers.
4. To analyses the overall scenario of Mobile handset market.

## HYPOTHESIS:

- 1- There is no association between the brand preference and the income level.
- 2- There is no association between the top most preferred product feature and gender.

## III. REVIEW LITERATURE

Bhatt has mentioned (2008) in his study which was on the Post Graduate Students about usage of mobile, usage duration, need of mobile, the expenses on mobile phones, factors which can influence for buying the mobile phone, side effects of the mobile phone on health on the basis of primary data; It was also indicated that the usage and satisfaction level of mobile phone users differed from company to company.

Mishra and Mahajan, Cheatna while using kano model, studied (2008) that customer satisfaction and dissatisfaction in model handsets can be determined. Kano method is a concept engineering tool that was developed to help design engineers better understand what customers want and don't want. The model was examined on the dynamic consumer behavior and changing preferences of consumers by segregating changing trends in different market sectors.

A report prepared by Market Analysis and Consumer Research Organization indicated on the attitude of teenager towards cellular phones and enumerates the pattern and arrive peculiarities gender wise. The report further examined the way young people relate to the functionality of mobile phones. The study also indicated that majority of users perceive cell phone as the technology that offers convenience and makes their life easier.

A study (2005) was conducted on full mobile telephone history by Farley covered long duration from 1940s to 2005, which explains that how mobile telephones for decades were not an active technology, became the demanding, effective and probably the most important communication tool of people. The study examined that mobile telephony's early and bulky beginnings, commercial mobile telephony began in 1946. The cellular radio concept was published in 1974. But since 1995 mobiles have become low cost, rich in features and used worldwide.

Another study conducted by Sharma and Singla (2009) put focus on the challenges of manufacturing sector of India for telecom equipment, which lags behind telecom services. The study indicated that only 35% of the total requirement for telecom equipment in the country was met by domestic production which was not favorable to long-term sustained growth of the telecom sector. The study also revealed that country is also far behind in R & D spending when compared to other leading countries. On the basis of analysis in the study that India needs to see an increase investment in R&D sector, combined efforts of industry academia government, better quality doctoral education and incentives to entrepreneurs for start-ups in telecom equipment manufacturing.

The study of Sinhas and Wagh (2008) shows the Growth of Cellular Telecom Sector and awareness of Consumer's preferences and choices on the use of cell phone. The study measured 58 choices of consumers and their preferences regarding mobile services and mobile usage. The study further found that majority of the consumers was satisfied with service provided by mobile service provider. The study also shows that the coordination among mobile service providers, manufactures of mobile handsets and users is the important factor as it is relating to the satisfaction of users and the study mentioned that it was lacking among them. The study explains that ultimately, the crucial factor in satisfying requirements of users of mobile phone is the coordination between service providers and mobile phone manufactures. The study also provides varied scope and channelizes the mobile service providers to set background and provide technological breakthrough in such a way so that this should be able to reach to the common man of the country.

## IV. RESEARCH METHODOLOGY

The study is conducted on the consumers of smart phones in Bhopal City. Total 440 sample size was chosen with a different income group of male and female, out of this, 400 replied on the asking. A well designed questionnaire was prepared with relevant questions according to the objectives and hypothesis of the study for collecting primary data from respondents. Various aspects were covered in

the questionnaire like mobile handset features, different brands offering sale of mobile handset, genders and income level of consumers.

A convenient random sampling was adopted for covering the entire market and using income as the basis of selection. The categories that were used in classifying income level are: Middle Lower, Middle, Upper Middle and Upper.

It was also taken into consideration that the respondents should be aware about English language to certain extent and should have some knowledge of functioning of mobile and Internet.

Secondary data has also been collected from various magazines, journals, newspapers and internet to support the objectives to set the analysis done.

**V. ANALYSIS AND INTERPRETATION**

**A. Mobile Handset preference by Genders on the basis of Top most feature of Mobile Handset:**

The following hypothesis was set:

**Null Hypothesis:** There is no association between the top most preferred product feature and gender.

**Alternative Hypothesis:** There is an association between the top most preferred product feature and gender.

**The Usage of Chi Square Formula:**

SN	Observed Frequency	Expected Frequency	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
01	32	33.35	-1.35	1.82	0.054
02	48	47.15	0.85	0.72	0.015
03	50	51.75	-1.75	3.06	0.059
04	45	44.27	0.73	0.53	0.011
05	55	53.47	1.53	2.34	0.043
06	26	24.65	1.35	1.82	0.073
07	34	34.85	-0.85	0.72	0.020
08	40	38.25	1.75	3.06	0.08
09	32	32.72	-0.72	0.51	0.015
10	38	39.52	-1.52	2.31	0.058
					$\sum(O-E)^2/E = 0.428$

$$\chi^2 = \sum (O-E)^2/E$$

The Calculated value of Chi Square is = 0.428

Degree of Freedom is: (C-1) \* (R-1) = (5-1)\* (2-1) =4

Significance Level= 5 %

Critical Value of Chi Square at 5 % significance level and 4 Degree of Freedom is 9.488

The survey was conducted to know the top most preference out of the product features of mobile handset by male and female respondents. The product features taken were Camera quality, Software capacity like processor, RAM, memory etc., physical aspects like shape, size, and weight etc., Usage functions like calling, SMS, contact space, map, social media etc. and price. The table 1.1 shows the above explanation:

**Table 1.1: Top most preference of the product feature by Genders**

S N	Gender	Camera	Software Capacity	Physical aspects	Usage Functions	Price	Row Total
1	Male	32	48	50	45	55	230
2	Female	26	34	40	32	38	170
3	Column Total	58	82	90	77	93	400

As the critical value of Chi Square is more than the calculated value of Chi Square therefore the null hypothesis is accepted in this case, which proves that there is no association between the top most preferred product feature and gender. It shows that gender factor does not impact on the preference of product feature.

**B. Mobile Handset Brand preference by different income group consumers:**

The following hypothesis was set to know the views:  
**Null Hypothesis:** There is no association between the brand preference and the income level.

**Alternative Hypothesis:** There is an association between the brand preference and the income level.

The interest in the study is to know the consumer behavior while taking buying decision for mobile handset in a specific market. The survey was also conducted on the respondents of different income groups to know the preference of different brands of mobile handset offered by different companies. The brands chosen were of two categories, one category caters to premium brand like Samsung and Apple and other category caters to economy brand like Micromax and Lava. It is tried to identify whether it is the income level of the consumers which influences their choice of the brand. The table 2.1 shows the above explanation:

**Table 2.1 Brand Preference by Different Income Group Consumers**

S N	Income Level	Samsung	Apple	Micromax	Lava	Row Total
1	Upper	39	30	23	04	96
2	Upper middle	32	28	29	14	103
3	Middle	28	13	40	25	106

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4	Middle Lower	17	10	38	30
5	Column Total	116	81	130	73

**The usage of Chi Square formula:**

S N	Observed Frequency	Expected Frequency	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
01	39	27.84	11.16	124.54	4.47
02	30	19.44	10.56	111.51	5.73
03	23	31.2	-8.2	67.24	2.15
04	04	17.52	-13.52	182.79	10.43
05	32	29.87	2.13	4.53	0.151
06	28	20.85	-7.15	51.12	2.45
07	29	33.47	-4.47	19.98	0.596
08	14	18.79	-4.79	22.94	1.22
09	28	30.74	-2.74	7.50	0.243
10	13	21.46	-8.46	71.57	3.33
11	40	34.45	5.55	30.80	0.894
12	25	19.34	5.66	32.03	1.656
13	17	27.55	-10.55	111.30	4.039
14	10	19.23	-9.23	85.19	4.43
15	38	30.87	7.13	50.83	1.64
16	30	17.33	12.67	160.52	9.262
					$\sum(O-E)^2/E$ = 52.66

$$\chi^2 = \sum(O-E)^2/E$$

The calculated value of Chi Square is = 52.66

Degree of Freedom is : (C-1) \* (R-1) = (4-1)\* (4-1)=9

Significance Level= 5 %

The Critical Value of Chi Square at 5 % significance level and 9 D.F. is 16.92

As the critical value of Chi Square is less than the calculated value of Chi Square therefore the null hypothesis is rejected in this case and alternative hypothesis is accepted.

**VI. CONCLUSION**

The inference is that brand preference is highly associated with income level. The preference of the brand depends on the income level. Consumers in different income group prefer different brands. Specifically, consumers who cater to upper middle income level and upper income level group prefer premium brands while consumers in lower income and middle-income category prefer economy brands.

Another inference is that different gender has no impact on the preference of product features in the case of purchase decision of mobile handset. The test of hypothesis in this case proves that there is no association between the top most preferred product feature and gender as the calculated value of Chi Square is much less than the critical value of Chi Square.

Based upon these assumptions and test of hypothesis in two different cases, it is tried to know the views and decisions of different genders and different income group of consumers for purchase and usage of mobile handset which is presently a very important tool in everybody’s life in India and in the world.

**REFERENCES**

- [1] Abdalla Nayef Al-Refai, Nor AzilaBtMohd Noor, “The Influence of the Trust on Customer Satisfaction in Mobile Phone Market: An Empirical Investigation of the Mobile Phone Market”, International Journal of Management Research and Review, ISSN: 2249-7196, IJMRR/, Vol. 4, Issue 9, Article No-2/847-860, September 2014, pp.847-860.
- [2] Adhinarayanan, B. and Balanagagurunathan, K., “A Study on Customer Satisfaction towards Reliance Telecom in Tamilnadu with Special Reference to Salem City” International Journal of Research In Commerce and Management, Vol. No.2, Issue No.4, ISSN 0976-2183, April 2011, pp.39-44.
- [3] Amulya, M. and Anand, D “Market Competence of BSNL in the Dynamic Telecom World”, Indian Journal of Marketing, Vol.41, No.6, June 2011, pp.13-21.
- [4] Anantha Raj A. Arokiasamy and Abdul Ghani Kanesanbin Abdullah, “Service Quality and Customer Satisfaction in the Cellular Telecommunication Service Provider in Malaysia” International Refereed Research Journal, www.researchersworld.com, Vol. IV, Issue 2, April 2013, pp.1-9.
- [5] Ashaduzzaman, Md., Sohel Ahmed, S.M. and Moniruzzaman Khan, Md., “Consumer Choice Behavior towards Mobile Phone Operators in Bangladesh”, Journal of Arts, 226 Science and Commerce, E-ISSN 2229-4686, ISSN 2231-4172, Vol. II, Issue No.4, October 2011, pp.30-39.
- [6] Avnish Bansal, “Cell Phones Taking Control of Our Lives”, Electronics for You, 2005, p.34. Balasubramanian, Paterson and.

- Jarvenpaa, S.L, “Exploring the Implications of M-convenience for Markets and Marketing”, Journal of the Academy of Marketing Science, Vol.30(3), 2002, pp.348-361
- [7] Bepko and Charlene Pleger, “Service Intangibility and its Impact on Consumer Expectations of Service Quality”, Journal of Service Marketing,. Vol.14, No.2, 2002, pp.9-26.
- [8] Binu T. John and R. Jubi, “Impact of Mobile Phones on the Life of Fishermen in KeralaA Study with Reference to Thiruvananthapuram District”, Intercontinental Journal of Marketing Research Review, ISSN:2321-0346-Online ISSN:2347-1670-Print, Vol.1, Issue 7 September, 2013, pp.47-51.
- [9] Buvaneswari, R. and Prakash Babu, R., “Study on Consumers Satisfaction towards Mobile Service with Special Reference to Aircel at Mannargudi Town”, Journal of Business Management and Social Sciences Research (JBM&SSR) ISSN No: 2319-5614 Vol.2, No.6, June 2013, pp- 27-30.
- [10] Buvaneswari, R. and Prakash Babu, R., “Study on Customer Satisfaction towards Cellular Service with Special Reference To Aircel at Mannargudi Town”, Journal of Business Management and Social Sciences Research, (JBM&SSR) ISSN No:2319-5614, Vol.2, No.6, June 2013, pp.27-30.