

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR**  
M TECH, INDUSTRIAL & MANAGEMENT ENGINEERING



MBA 633A  
Marketing Research

**Project Report**  
Analysis of Consumer Behavior towards Xiaomi smartphones

**Submitted to:**  
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## **Problem Definition**

The increased fashion of Smartphone usage among the public is the main reason that has added to the interest in research on the topic. People's craze for smartphones is increasing quickly. Therefore, this research aims to find out buyer behavior towards Xiaomi smartphones in Indian Market. The study will help find out why people want to purchase Xiaomi smartphones, what influences people in purchasing them, and what motivates them to make the purchasing decisions.

### **Management Decision Problem:**

- How to influence new customers and retain the existing ones?
- Whether discount offers affect the sales and inclination of consumers towards purchasing?
- Is there any need for the advertising campaign?
- Is there any need to improve the distribution network?
- Is there any need to improve the type of service?

### **Marketing Research Problem:**

- What are the features that are influencing more customers?
- Is price a reasonable factor to purchase a new Xiaomi phone?
- Which platform is better to influence more customers?
- Would the offline distribution channel increase the sale?
- Would after sale service be more effective in the context of purchasing?

## **Approach to the problem**

Responses from both Xiaomi and non-Xiaomi users were recorded in this analysis regarding the factors affecting their buying behavior. The survey was carried out online through google form which was circulated with people from different states of India through different social media platforms. Analysis of user's satisfaction level is given importance to answer management decision problems that could be helpful in improving Xiaomi's market share.

### **Research Questions:**

- Whether the price is an essential factor while purchasing a smartphone?
- Whether after-sales service affects purchasing behavior of consumers?
- Does the amount of discount offered to consumers affect the sales of smartphones?
- Do advertisements/brand ambassadors affect consumers while purchasing a Xiaomi smartphone?
- Do durability and resale value play an important role in switching the currently preferred Xiaomi phone?
- Influence of friends, siblings, social media, or ongoing trends when buying a Xiaomi phone?
- Whether photo shooting, video-calling, and gaming are taken as major functions by users while buying smartphones?

## **Research Design**

Almost all of the problem statements in the questionnaire includes Likert scale analysis to record the satisfaction level of the respondents. The google form was divided into two main sections that records demographic and behavioral information respectively of the users.

## **Survey Design**

While framing the questionnaire all the internal (demographics, lifestyle etc.), external(social status, marketing mix etc.), and psychological factors(consumer's attitude & motivation for buying, interaction with family, friends in making choice of buying etc.) were kept in mind to get better understanding of user's purchasing decisions and all these factors are covered by the research questions to complete the analysis.

## **Pretesting**

Before floating the survey form, pretesting was done with some different people which included batchmate, senior, family member and some acquaintances. Based on their feedbacks, question's wordings and ordering were modified and their reaction to the survey was noted for improvements before circulating among the audience.

## **Sampling Techniques**

The google form was circulated online through different social media platforms to target the audience from various states of India that majorly includes UP, Rajasthan, AP, Bihar etc. hence for which random sampling technique was used and active social media user account is the sampling frame. The sample size collected is 209 which is sufficient for analysis. The demographic information is added in detail in the appendix.

## **Data Analysis and Results**

One sample t-test was used with confidence level equal to 90% and test value equal to 3 to analyse the satisfaction level of users through 5-point Likert scale as well as few subjective questions were asked to analyse behavioral pattern of users.

**Research Ques. 1:** Whether the price is an essential factor while purchasing a smartphone?

Null Hypothesis – Price is not an essential factor in purchasing a smartphone.

Alternate Hypothesis – Price is an essential factor in purchasing a smartphone.

H0:  $\mu \leq 3$

Ha:  $\mu > 3$

### **One-Sample Test**

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	90% Confidence Interval of the Difference	
					Lower	Upper
Whether price is an essential factor while purchasing a smartphone?	5.815	208	.000	.526	.38	.68

Interpretation – p-value is  $< 0.05$ , so we reject our null hypothesis, which means the price is an essential factor in purchasing a smartphone.

**Research Ques. 2:** Whether after-sales service affects purchasing behavior of consumers?

Null hypothesis – after-sales service does not affect the purchasing behavior of consumers.

Alternate hypothesis – after-sales service affect the purchasing behavior of consumers.

H0:  $\mu \leq 3$

Ha:  $\mu > 3$

### **One-Sample Test**

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	90% Confidence Interval of the Difference	
					Lower	Upper
Whether after-sales service affects purchasing behavior of consumers?	1.100	208	.273	.100	-.05	.25

Interpretation – p-value is  $> 0.05$ , so we fail to reject our null hypothesis, which means after-sales service does not affect the purchasing behavior of consumers.

**Research Ques. 3:** Does the amount of discount offered to consumers affect the sales of smartphones?

Null hypothesis – discount is not an essential factor in purchasing a smartphone.

Alternate hypothesis – discount is an essential factor in purchasing a smartphone.

H0:  $\mu \leq 3$

Ha:  $\mu > 3$

**One-Sample Test**

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	90% Confidence Interval of the Difference	
					Lower	Upper
How do the discount offered describe your purchasing behavior ?	2.466	208	.014	.230	.08	.38

Interpretation – p-value is  $< 0.05$ , so we reject our null hypothesis, which means discount is an essential factor in purchasing the smartphone.

**Research Ques. 4:** Does advertisements and brand ambassadors affects consumers while purchasing of a Xiaomi smartphone?

(a) Null hypothesis – advertisement is not an essential factor in purchasing a Xiaomi smartphone.

Alternate hypothesis – advertisement is an essential factor in purchasing a Xiaomi smartphone.

H0:  $\mu \leq 3$

Ha:  $\mu > 3$

(b) Null hypothesis – brand ambassador is not an essential factor in purchasing a Xiaomi smartphone.

Alternate hypothesis – brand ambassador is an essential factor in purchasing a Xiaomi smartphone.

H0:  $\mu \leq 3$

Ha:  $\mu > 3$

**One-Sample Test**

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	90% Confidence Interval of the Difference	
					Lower	Upper
(a) Does advertisements affects consumers while purchasing a Xiaomi smartphone?	-.553	208	.581	-.048	-.19	.10
(b) Does brand ambassadors affects consumers while purchasing a Xiaomi smartphone?	-7.207	208	.000	-.660	-.81	-.51

(a) Interpretation – p-value is  $> 0.05$ , so we fail to reject our null hypothesis, which means advertisement is not an essential factor in purchasing a Xiaomi smartphone.

(b) Interpretation – p-value is  $< 0.05$ , so we reject our null hypothesis, which means brand ambassador is an essential factor in purchasing a Xiaomi smartphone.

**Research Ques. 5:** Do durability and resale value play an important role in switching the currently preferred smartphone with Xiaomi smartphone?

(a) Null hypothesis – durability is not an essential factor in switching to Xiaomi smartphone.

Alternate hypothesis – durability is an essential factor in switching to Xiaomi smartphone.

H0:  $\mu \leq 3$

Ha:  $\mu > 3$

(b) Null hypothesis – resale value is not an essential factor in switching to Xiaomi smartphone.

Alternate hypothesis – resale value is an essential factor in switching to Xiaomi smartphone.

H0:  $\mu \leq 3$

Ha:  $\mu > 3$

#### One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	90% Confidence Interval of the Difference	
					Lower	Upper
(a) Does durability play an important role in switching the currently preferred smartphone to Xiaomi smartphone?	10.564	208	.000	.813	.69	.94
(b) Does resale-value play an important role in switching the currently preferred smartphone to Xiaomi smartphone?	.532	208	.595	.048	-.10	.20

(a) Interpretation – p-value is  $< 0.05$ , so we reject our null hypothesis, which means durability is an essential factor in switching to Xiaomi smartphone.

(b) Interpretation – p-value is  $> 0.05$ , so we fail to reject our null hypothesis, which means resale value is not an essential factor in switching to Xiaomi smartphone.

**Research Ques. 6:** Influence of friends, siblings, social media, or ongoing trends when buying a Xiaomi smartphone?

Null Hypothesis – Consumers are not influenced by friends, siblings, social media, or ongoing trends when buying a Xiaomi smartphone.

Alternate Hypothesis – Consumers are influenced by friends, siblings, social media, or ongoing trends when buying a Xiaomi smartphone.

H0:  $\mu \leq 3$

Ha:  $\mu > 3$

#### One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	90% Confidence Interval of the Difference	
					Lower	Upper
Are you influenced by friends, siblings, social media or ongoing trends when buying a Xiaomi smartphone?	3.408	208	.001	.301	.16	.45

**Interpretation** – p-value is  $< 0.05$ , so we reject our null hypothesis, which means consumers are influenced by friends, siblings, social media, or ongoing trends when buying the Xiaomi smartphone.

**Research Ques. 7:** Whether photo shooting, video-calling, and gaming are taken as major functions by users while buying a smartphone?

- (a) **Null hypothesis** – photo shooting is not taken as the major functions while buying a smartphone.  
**Alternate hypothesis** – photo shooting is taken as the major functions while buying a smartphone.  
 $H_0: \mu \leq 3$   
 $H_a: \mu > 3$
- (b) **Null hypothesis** – video-calling is not taken as the major functions while buying a smartphone.  
**Alternate hypothesis** – video-calling is taken as the major functions while buying a smartphone.  
 $H_0: \mu \leq 3$   
 $H_a: \mu > 3$
- (c) **Null hypothesis** – gaming is not taken as the major functions while buying a smartphone.  
**Alternate hypothesis** – gaming is taken as the major functions while buying a smartphone.  
 $H_0: \mu \leq 3$   
 $H_a: \mu > 3$

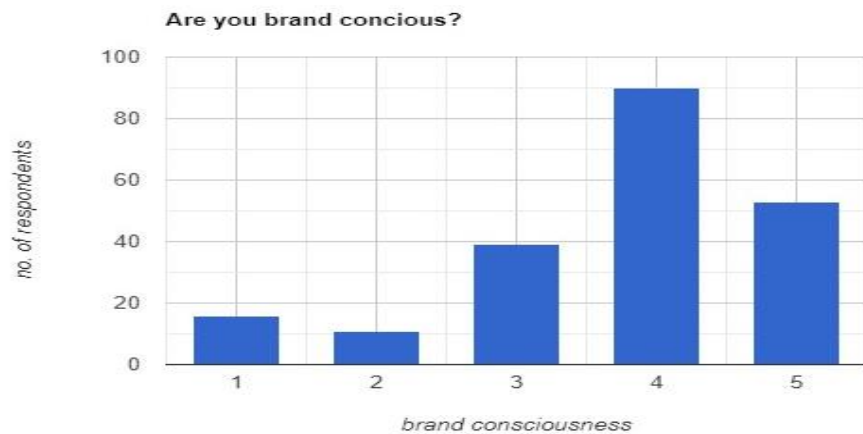
#### One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	90% Confidence Interval of the Difference	
					Lower	Upper
(a) Does video calling a major functions while buying smartphones?	5.332	208	.000	.488	.34	.64
(b) Does gaming a major functions while buying smartphones?	-5.643	208	.000	-.536	-.69	-.38
(c) Does photo shooting a major functions while buying smartphones?	3.636	208	.000	.306	.17	.45

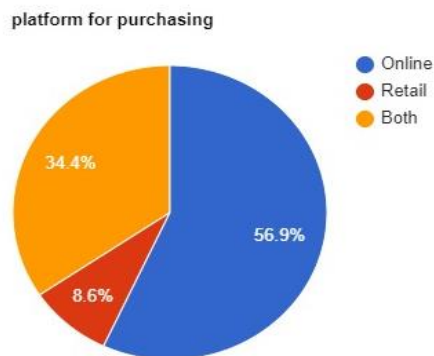
- (a) **Interpretation** – p-value is  $< 0.05$ , so we reject our null hypothesis, which means photo shooting is taken as the major functions while buying a smartphone.
- (b) **Interpretation** – p-value is  $< 0.05$ , so we reject our null hypothesis, which means video-calling is taken as the major functions while buying a smartphone.
- (c) **Interpretation** – p-value is  $< 0.05$ , so we reject our null hypothesis, which means gaming is taken as the major functions while buying a smartphone.

### Additional research questions and interpretation:

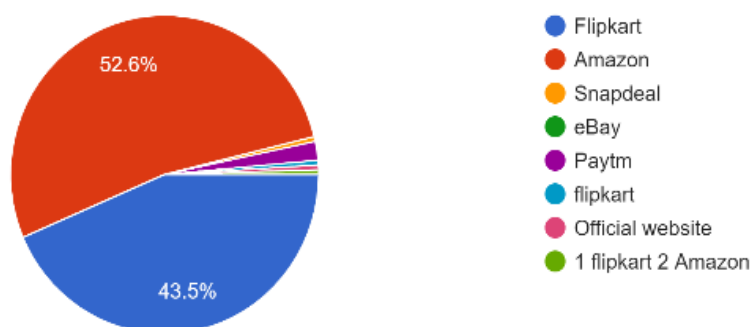
1) Are you brand conscious?



2) Which platform do you use for buying smartphones (Online, Retail, or both)?



3) Which online/E-retail mobile application do you use (in case of online purchasing)?



### **Limitations and Caveats**

- It wasn't easy to cover people of all age groups, like not all elderly people above 40 years are interested in using and buying smartphones.
- Many of the questions are time-dependent, like smartphone features, so biases in responses appear.
- Since there was no physical interaction with the respondents, so some reactions and behaviors required in the analysis went unnoticed.
- Very few respondents might have viewed Xiaomi's ad that was added in google form to motivate them to get honest responses.

### **Conclusion and recommendations**

From the research analysis, it is being concluded that price, after-sales service, discount, durability are essential factors in purchasing a Xiaomi smartphone. Buyers are attracted to brand ambassadors of Xiaomi more than its simple mobile advertisements. It was analyzed further that while buying Xiaomi smartphones users are usually influenced by their friends, siblings, social media, or ongoing trends to support their choices. Also, mobile functions like photo shooting, video-calling, and gaming are the ones that attract the users preferably upon other functions for purchasing a smartphone.

Hence, the management decision and market research problems can be answered to an extent with the help of these statistical tests and interpretations for planning marketing strategies and in deciding target market for which some recommendations that can be helpful are like fashionable smartphone models to attract female customers, user-friendly features to attract elderly people, frequent service centres and repairs to increase consumer trust and hence the market share, etc.

### **Team members and their contribution:**

#### **Group 12:**

<b>Team Member</b>	<b>Contributions</b>	<b>Rating (out of 10)</b>
Abhayraj Pratap Singh	Creating questionnaire, collecting responses, SPSS analysis, writing project report	9
Mansi Varshney	Creating questionnaire, collecting responses, SPSS analysis, writing project report	9
Saurabh Sachan	Creating questionnaire, collecting responses, SPSS analysis, writing project report	9
Vishesh Jain	Creating questionnaire, collecting responses, SPSS analysis, writing project report	9



## **Appendix**

### **Demographic details:**

Particulars		Numbers	Percentage
Age	Below 18	2	1.0
	18-25	162	77.5
	25-35	42	20.1
	35 above	3	1.4
Gender	Male	173	82.8
	Female	36	17.2
Marital Status	Single	196	93.8
	Married	13	6.2
Educational Qualification	Higher Secondary Leve	10	4.8
	Bachelor's Degree	89	42.6
	Post-graduate Degree	98	46.9
	Professional	12	5.7
Occupation	Student	157	75.1
	Public/Private sector employed	41	19.6
	Self-employed	4	1.9
	Family Business	0	0
	others	7	3.4
Annual Income	Less than 1	51	24.4
	1-3	44	21.1
	3-5	37	17.7
	5-8	43	20.6
	Above 8	34	16.2

**Google form link:** <https://forms.gle/yshwHUcemYCwYKEJ7>

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