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# A STUDY ON STUDENT'S BUYING BEHAVIOUR TOWARD SMART PHONES

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## *ABSTRACT*

*In the era of marketing revolution, the firms are focused towards the analysis of buyers behavioral pattern to identify the opportunities. The smart phone industry is not the laggard to adopt measures to explore needs of customer by identifying the consumer behaviour. India is one of the fastest growing economies in the world next only to china. The smart phone industry in India is growing at a fast pace and smart phone has become essential parts of personal and business life of people. Due to increase in disposable income, there has been a major shift in the attitude and aspirations of the consumers. This research paper analyzes the external and internal factors which are influencing a college going students in purchasing a smart phone. The research also focuses on students attitude for smart phone and influence of brand on consumers in buying decisions.*

## INTRODUCTION

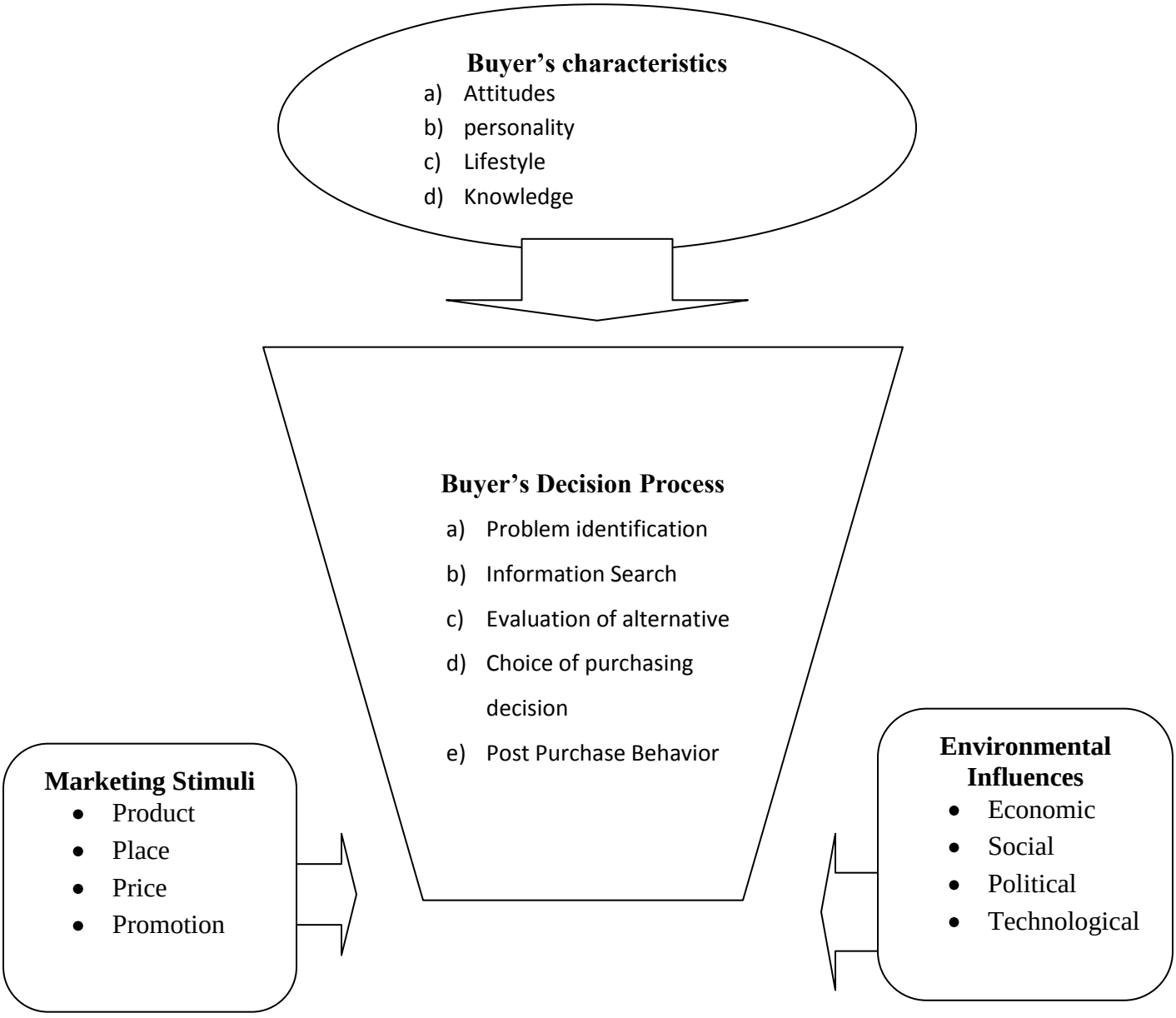
The main aim of marketing is meet and satisfy target customers need and wants buyer behavior refers to the peoples or organization conduct activities and together with the impact of various influence on them towards making decision on purchase of product and service in a market. The field of consumer behavior studies how individuals, groups and organization select, buy, use and dispose of goods, service, ideas, or experience to satisfy their needs and desires understanding consumer behavior and knowing customer are never simple. The wealth of products and service produced in a country make our economy strong. The behavior of human being during the purchase is being termed as "Buyer Behavior". Customer says one thing but do another. They

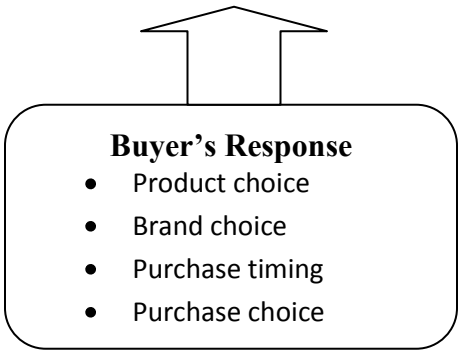
may not be in touch with their deeper motivations. They are responding to influences that change their mind at the last minute. A buyer makes take a decision whether save or spend the money.

**Definition of Buyer Behavior:-**

Buyer behavior entails "all activities associated with the purchase, use and disposal of goods and services, including the consumer's emotional, mental and behavioral responses that precede or follow these activities." Thus ,buyer behavior is "all psychological, Social and physical behaviors of potential customers as they become aware of evaluate, purchase, consume and tell others about product & service.

**Consumer Buying Behaviour Model**






## HISTORY OF SMART PHONE

The first commercially available device that could be properly referred to as a "smart phone" began as a prototype called "Angler" developed by Frank Canova in 1992 while at IBM and demonstrated in November of that year at the COMDEX computer industry trade show.[5][6][7] A refined version was marketed to consumers in 1994 by BellSouth under the name Simon Personal Communicator. In addition to placing and receiving cellular calls, the touch screen-equipped Simon could send and receive faxes and emails. It included an address book, calendar, appointment scheduler, calculator, world time clock and notepad, as well as other visionary mobile applications such as maps, stock reports and news.[8] The term "smart phone" or "smartphone" was not coined until a year after the introduction of the Simon, appearing in print as early as 1995, describing AT&T's Phone Writer Communicator. 3G launched in 2001 and allowed operators to offer a huge range of advanced services such as video calling and HSPA data transmission.. 4G became commercially available in the UK in late 2012 and offers super fast connections and similarly speedy downloads. The term 4G stands for 'fourth generation' and refers to Smart network technology that enables 4G compatible phones to connect to the internet faster than ever before.4G technology allows us download content at superfast speeds and has transformed our handsets into complete entertainment hubs.

### Smart phone in India

Exactly 21 years ago, a telephone call was made. It changed the way we communicate forever and ushered in a communication revolution in India. Smart phones industries rapidly developing in India. There are many Smart phone maker companies, which play a significant role in

development of Smart phone industry. At beginning the market share of Motorola and Nokia is higher but in 2012 Samsung extended its lead over Nokia.

The market share of Smart phone vendors in 2016 at world level.

| | |
|---|---|
| Samsung | 20.5% |
| Apple | 14.4% |
| Vivo | 8.9% |
| Oppo | 5.7% |
| Xiomi | 4.8% |
| Other | 45.7% |

According to the vIndia Monthly Data (August 2016) the market share of Smart phone vendors in 2016 in India.

| | |
|---|---|
| Samsung | 46.9% |
| Oppo | 8% |
| Apple | 6.3% |
| Vivo | 6.1% |
| Xiomi | 5.4% |
| Other | 27.6% |

TRAI release the press notice in December, 2016 that 87.99% (112,73,73,368 out of 128,11,79,000) of the total population is the Smart phone user in India. The joint report, released

by **the Department of Industrial Policy and Promotion** and **the Department of Telecom**, said the industry contributes 6.5 percent to the GDP currently. "The Smart industry in India, currently contributing 6.5 percent ($140 billion) to country's GDP, and employing over 4 million people (direct and indirect), is projected to grow rapidly in the coming years. "By 2020, the industry is expected to contribute 8.2 percent to country's GDP," the report said.

## OBJECTIVES OF THE STUDY

The Primary Objective is to study the perception & buying behavior of college students towards various Smart Phone brands. Secondary objectives are

- To study the factors that influence decision-making in purchasing a Smart phone.
- To find out the students satisfaction towards the various Smart phones.

## SCOPE OF THE STUDY

- The numbers of respondents surveyed are 96, college going students of nursing and B.D.S professional courses.
- The study is conducted in Firozpur.
- This study is conducted to analyze the buying behavior of these students while purchasing a smart phone.

## RESEARCH METHODOLOGY

A Research methodology has a specified framework for collecting the data in an effective manner. Research methodology means "defining a problem, defining the research objectives, developing the research plan, collecting the information, analyzing the information and presentation of findings." Such framework is called "Research Design". The research process that was followed by me consisting following steps;

A) Defining the problem

B) Developing the research plan

C) Collection of Data

D) Analysis and Interpretation of Data

E) Presentation of findings

**A) Defining the problem and research objectives**

My research problem is to know the Buying Behavior of Students while purchasing smart phones.

**B) Developing the Research Plan**

The development of research plan has following steps:

1. Data source

2. Research approach

3. Type of Research Design

4. Sampling plan

- Population - 614
- Sample size – 96

5. Questionnaire Design.

**DATA COLLECTION**

**Determining sources of Data:**

There are two main sources of data:

1. Primary data 2. Secondary data

- **Primary Data:**

Structured questionnaires were distributed to the students of Desh Bhagat Foundation Group of Institution, Moga. The questionnaires are filled in front of researcher himself. The researcher took permission from the students and requested to fill the form by explaining the purpose of the survey.

- **Secondary Data**

Secondary data consist of data retrieved from database, such as articles, journals, literatures in addition to books barrowed from college library or retrieve from Google Books and Google Scholar. These materials would facilitate this research study.

## DATA ANALYSIS

**Sampling process:**

While conducting the research work, sample is used as a way to gather data. The sampling is the process by which researchers select a representative part of the population that can be studied for their topic so that they will be able to draw conclusion regarding the entire population.

For the research work, population refers to 614 students of Geneis Institute od Dental Sciences & Research , firozpur. and the sample refers to those users, who are selected to take part in the research.

**Sample design:**

There are two approaches to the selection of the samples. Non Probability sampling and Probability sampling. In probability sampling each sample in the population has equal chances of being selected; Probability sampling can be done by four ways: random sampling, systematic random, cluster and stratified. In non Probability sampling each sample in the population do not have equal chances of being selected. The non probability sampling can be done by various techniques which are convenience sampling, judgmental sampling, quota sampling, snowball sampling and self- selection sampling.

**Sample size:**

On the basis of 614 total students of nursing (200) and B.D.S department (414) the sample size uses in the study at 10% margin of error, 95% confidence level and 0.5 standard deviation is 96.The sample consists 96 student of Genesis Institute of Dental Sciences and Research, Moga road, firozpur.

**Table. Sample distribution**

| **Variable** | **Gender** | | **Course** | |
|---|---|---|---|---|
| **Level** | **Male** | **Female** | **B.D.S (414)** | **Nursing (200)** |
| **Number of respondents** | 48 | 48 | 62 | 34 |
| **Percentage** | 50% | 50% | 65% | 35% |

The sample technique employed in this research was a **probability sample** method given that questionnaire was distributed randomly, which gives a fair representation of the study population. Among various probability techniques, **Proportion sampling technique** is used in the project. The respondents are from different age groups. Respondents were selected based on their convenient accessibility.

**Tools of Analysis in collecting data:**

Various tools have been used in this research:

1. Tables.
2. Pie charts.
3. Bar diagrams.
4. Percentage method has been used to analyze the data.

## DATA ANALYSIS AND INTERPRETATION

1. Gender of the respondents:

**Table 1. Gender of respondent**

| PARTICULARS | NUMBER OF RESPONDENTS | PERCENTAGE |
|---|---|---|
| Male | 48 | 50% |
| Female | 48 | 50% |

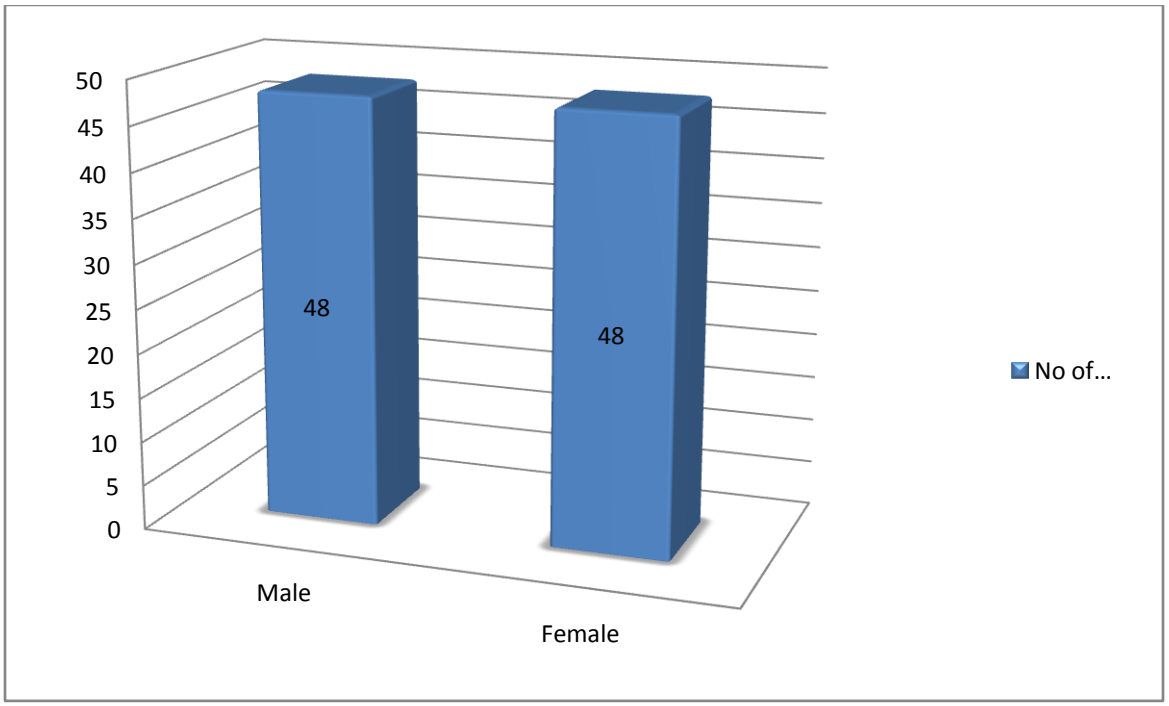



**Figure 1. Gender of Respondent**

- **Interpretation:** The given table and figure show that out of the 96 respondents 48 were male and 48 were female. All the respondents have their own Smart phone.

**2. Family income of the respondent:**

**Table 2. Family income of respondent**

| INCOME RANGE | NUMBER OF RESPONDENTS | PERCENTAGE |
|---|---|---|
| Below 100000 | 22 | 22.91 |
| 100000-200000 | 32 | 33.33 |
| 200000-300000 | 28 | 29.16 |
| Above 300000 | 14 | 14.58 |

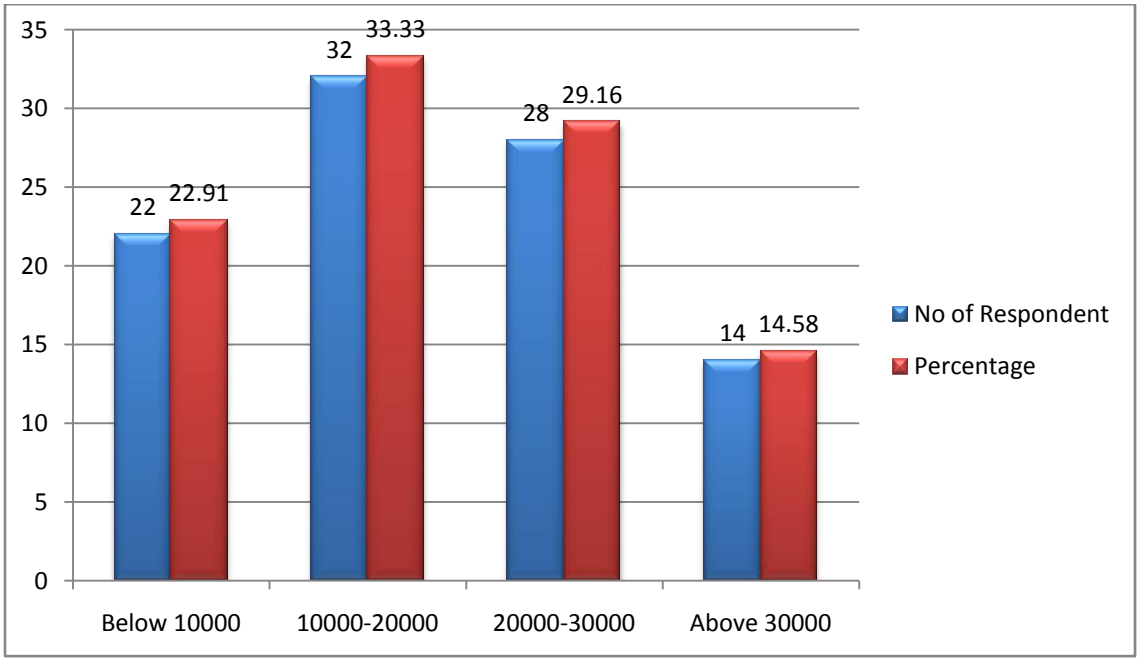



**Figure 2. Family income of respondent**

**Interpretation:**

The given table and figure show that that out of the 96 respondents, 22 respondents were from the family whose income is less than 100,000, 32 respondents were from the family whose income is between the 100,000 – 200,000, 28 respondents were from the family whose income is between 200,000- 300,000 and rest were from the family whose income is above 300,000.

**3. Brand preference of the respondents:**

**Table 3. Brand preference of respondent**

| BRAND NAME | NUMBER OF RESPONDENTS | PERCENTAGE |
|---|---|---|
| Nokia | 2 | 2 |
| Samsung | 35 | 36 |
| Apple | 20 | 21 |
| HTC | 4 | 4 |
| Oppo | 11 | 11 |
| Redmi | 10 | 10 |
| Vivo | 8 | 8 |
| Other | 6 | 6 |
| Total | 96 | 100 |

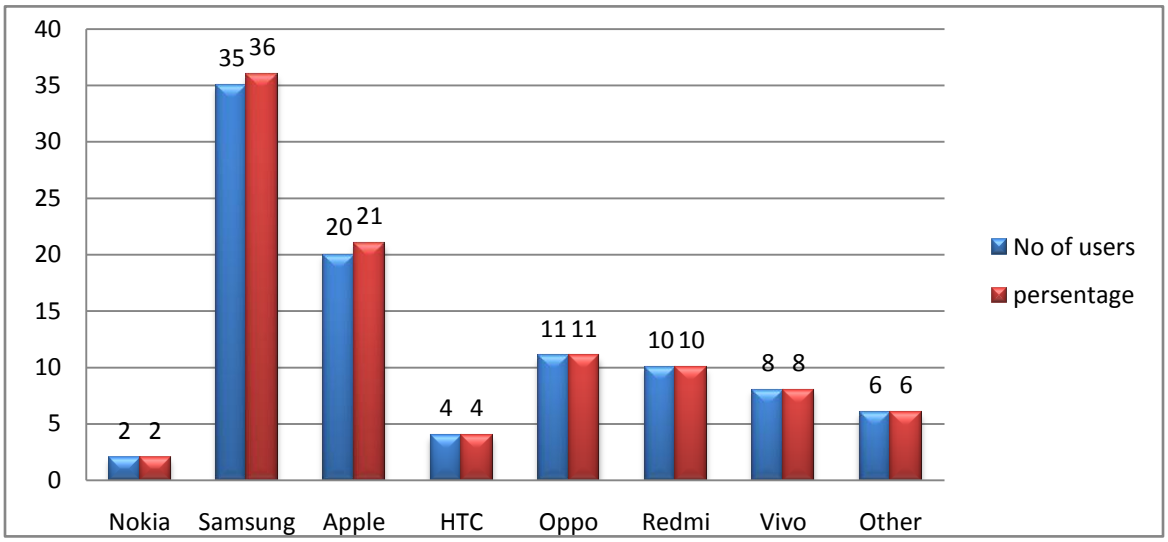



**Figure 3.Brand preference of respondent**

**Interpretation:** Out of the 96 respondents, 2 are using the Nokia phones, 35 are using the Samsung, 20 are using the Apple, 4 are using the HTC, 12 are using Oppo, 10 are using Redmi, 8 are using are using Vivo and the other Smart phone brand. As we see in the graph majority of the respondents use Samsung and approximately one-fourth of the respondents use Apple. The graphical representation of the table also shows that there are only 2 % users of Nokia.

4. **Respondent Willing to pay for a Smart phone:**

**Table 4. Willing to pay for Smart phone**

| SPENDING ON SMART PHONE | NUMBER OF RESPONDENTS | PERCENTAGE |
|---|---|---|
| Less than 15000 | 32 | 33 |
| 15000- 25000 | 26 | 27 |
| 25000-35000 | 18 | 19 |
| More than 35000 | 20 | 21 |
| Total | 96 | 100 |

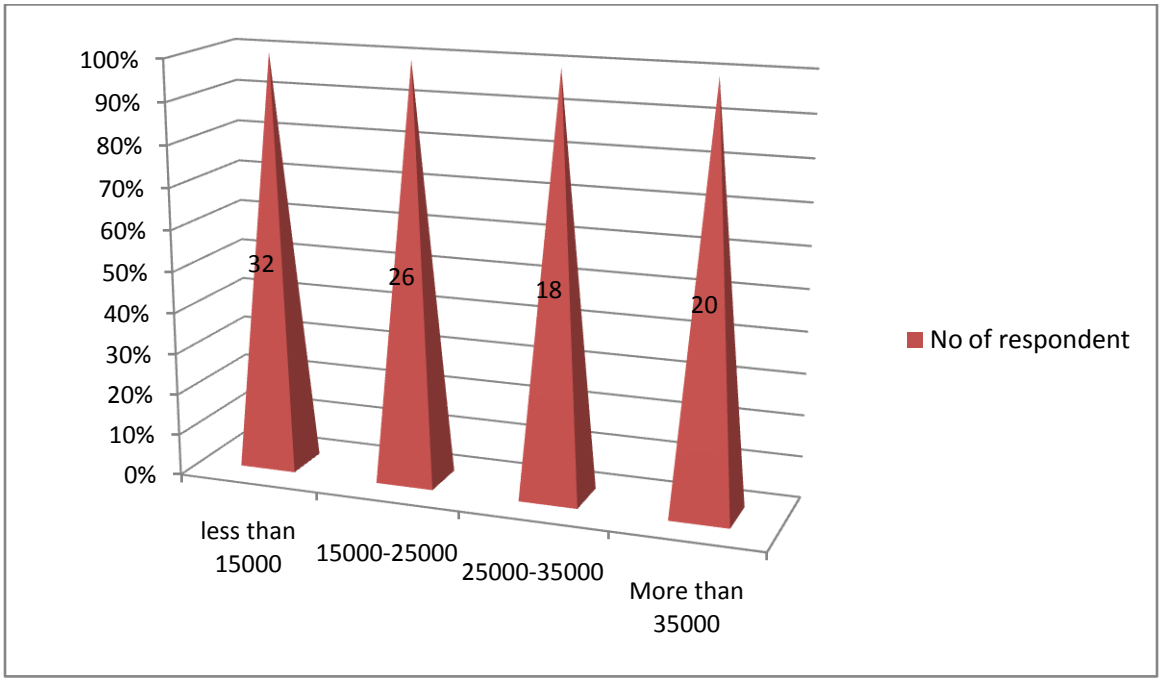



**Figure 4. Willing to pay for Smart phone**

**Interpretation:**

The given table and figure show that out of the 96 respondents,32 respondents were willing to spend less than 15,000, 26 were willing to spend between 15,000 to 25,000, 18 were willing to pay between 25,000 to 35,000 and rest 20 were ready to pay more than 35,000.

5. **Reason for buying this brand:**

**Table 5. Reason for buying this brand**

| PARTICULARS | NUMBER OF RESPONDENTS | PERCENTAGE |
|---|---|---|
| Cost control | 4 | 4.17 |
| Size & shape | 20 | 20.83 |
| Features | 56 | 58.33 |

| | | |
|---|---|---|
| After sale services | 12 | 12.50 |
| Offer & discount | 4 | 4.17 |

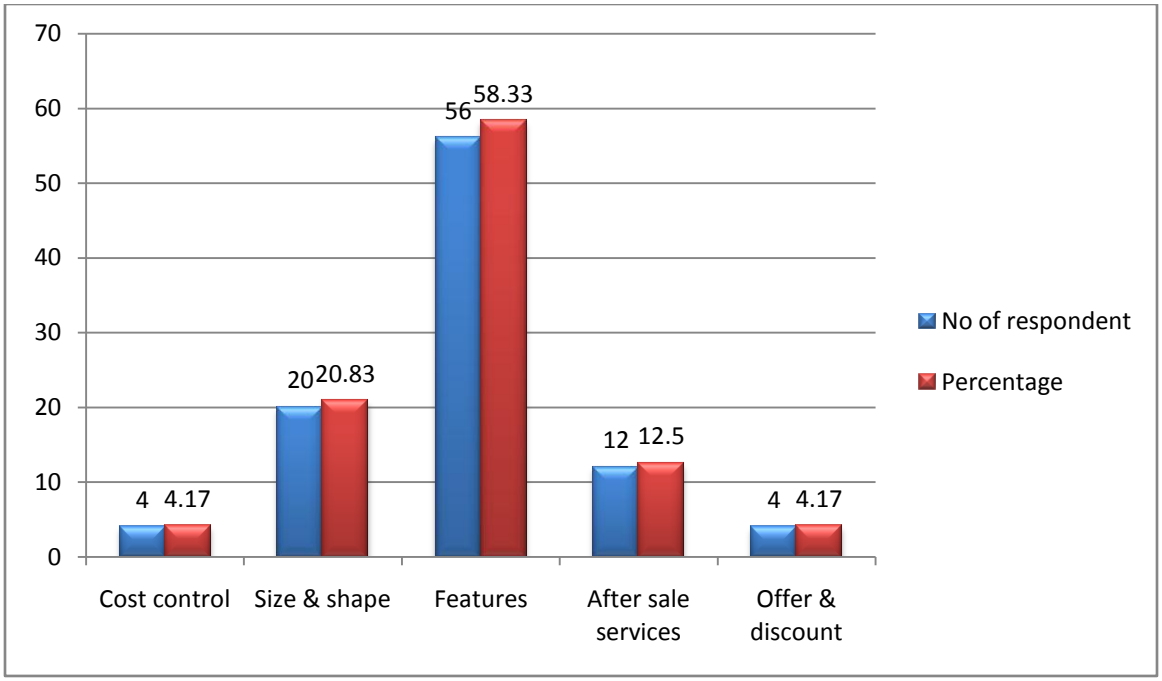



**Figure 5. Reason for buying this brand**

**Interpretation:**

The given table and figure show that out of the 96 respondents, 4 respondents purchased their current Smart brand due to cost control. 20 respondents purchased due to their size and shape. While 56 respondents purchased their current Smart brand because of the features of the smart phone, 12 of the respondents purchased for the sale services and 4 respondents owned their Smart set due to offer and discount.

**6. Factors influenced while purchasing the Smart:**

**Table 6. Factor influencing purchase**

| FEATURES | NUMBER OF RESPONDENTS | | | | |
|---|---|---|---|---|---|
| | VERY IMPORTANT | IMPORTANT | NEUTRAL | LESS IMPORTANT | NOT IMPORTANT |
| Price | 42 | 28 | 14 | - | 12 |
| Camera | 70 | 26 | - | - | - |
| Screen size | 22 | 74 | - | - | - |
| Storage capacity | 85 | 11 | - | - | - |
| RAM | 82 | 14 | - | - | - |
| Brand | 70 | 3 | 21 | 2 | - |

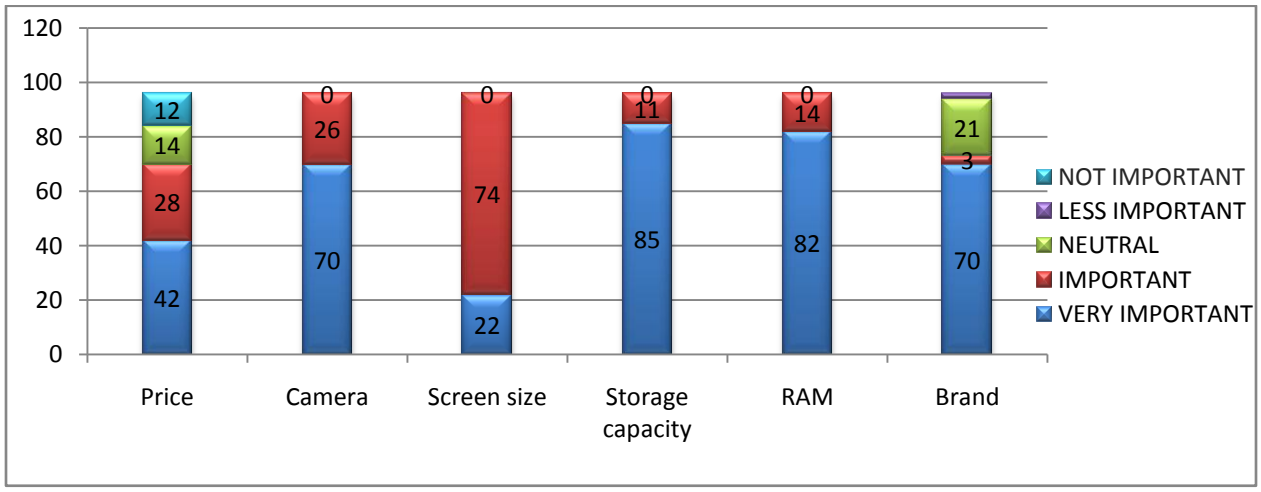



**Figure 6. Factor influencing purchase**

**Interpretation:**

The given table and figure indicates that out of the 96 respondents, 42 and 28 of the student see price is very important and important factor respectively .It is also noticed that 70 and 26 of the student see camera is very important and important factor respectively. As well as 22% and 74% see screen size of the Smart is very important and important factor respectively. Moreover, the storage capacity of the Smart device is also very important factor for the 85 students and for 11 is important. 82 of the respondents said that RAM is very important factor that is considered while purchasing Smart phone. According to the figure, Brand is very important for 70 of respondents.

7. **Sources of Information to buy new Smart phone:**

**Table 7. Source Of Information**

| INFORMATION SOURCE | NUMBER OF RESPONDENTS | PERCENTAGE |
|---|---|---|
| Friends | 36 | 37..50 |
| Family | 10 | 10.42 |
| Neighbor | 5 | 5.21 |
| Advertisement | 19 | 19.79 |
| Internet | 26 | 27.08 |
| Total | 96 | 100.00 |

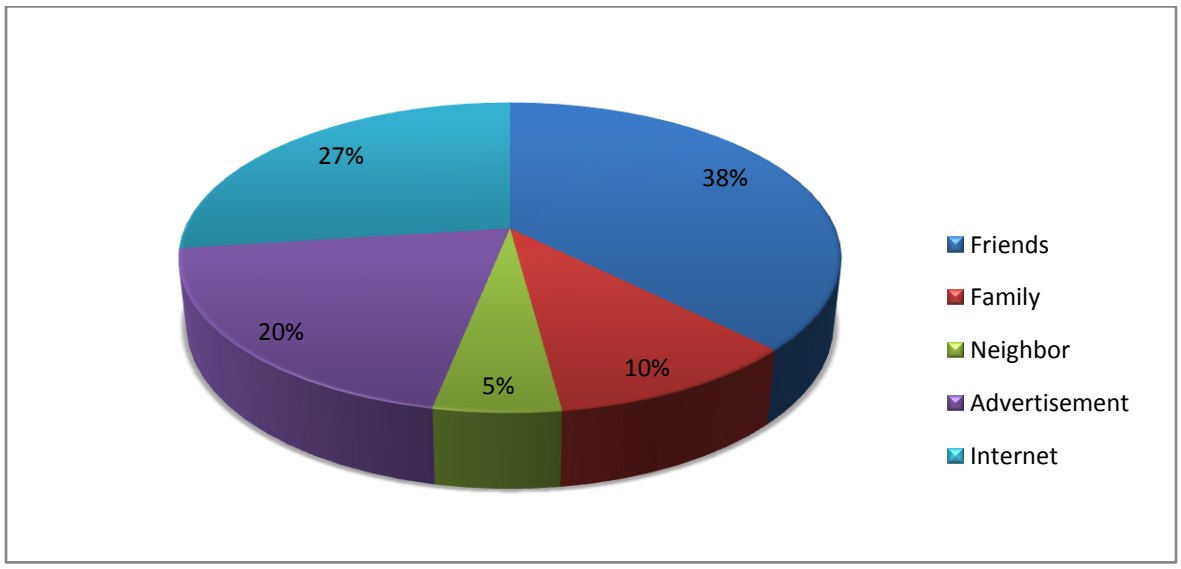



**Figure 7. Sources of Information**

**Interpretation:**

This question was asked to identify the affect of information resources on consumer in decision making process. According to the figure out of 96 respondents, 38% were influenced by friend's suggestions while buying a Smart phone whereas 10% were influential to family suggestions, 5% were influenced by neighbor, 20% were strongly influenced by advertisement activities and 27% of the respondents were searched on internet for getting the information about Smart phone.

**8. Purpose of purchasing Smart Phone:**

**Table 8. Purpose of purchase**

| PARTICULARS | NUMBER OF RESPONDENTS | PERCENTAGE |
|---|---|---|
| Necessity | 52 | 54 |
| Status | 27 | 28 |
| Luxury | 17 | 18 |

| | | |
|---|---|---|
| Total | 96 | 100 |

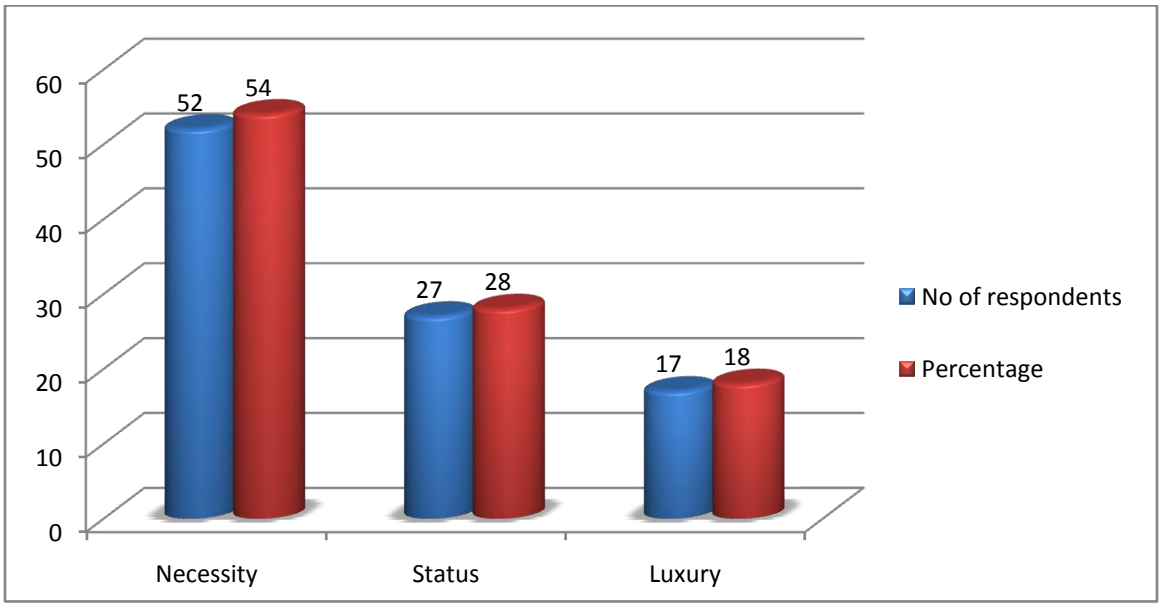



**Figure 8. Purpose for purchase**

**Interpretation:**

The tabulation and graphical representation of data shows that out of 96 respondents, there are 54% respondents purchased Smart phone as a necessity thing. 28% of respondents buy their Smart as status and the remaining 18 % purchased Smart phone as a luxury thing.

**9. Satisfaction level of the respondent toward current Smart phone?**

**Table 10. Satisfaction level of respondents**

| PARTICULARS | NUMBER OF RESPONDENTS | PERCENTAGE |
|---|---|---|
| Yes | 78 | 81 |
| No | 18 | 19 |
| Total | 96 | 100 |

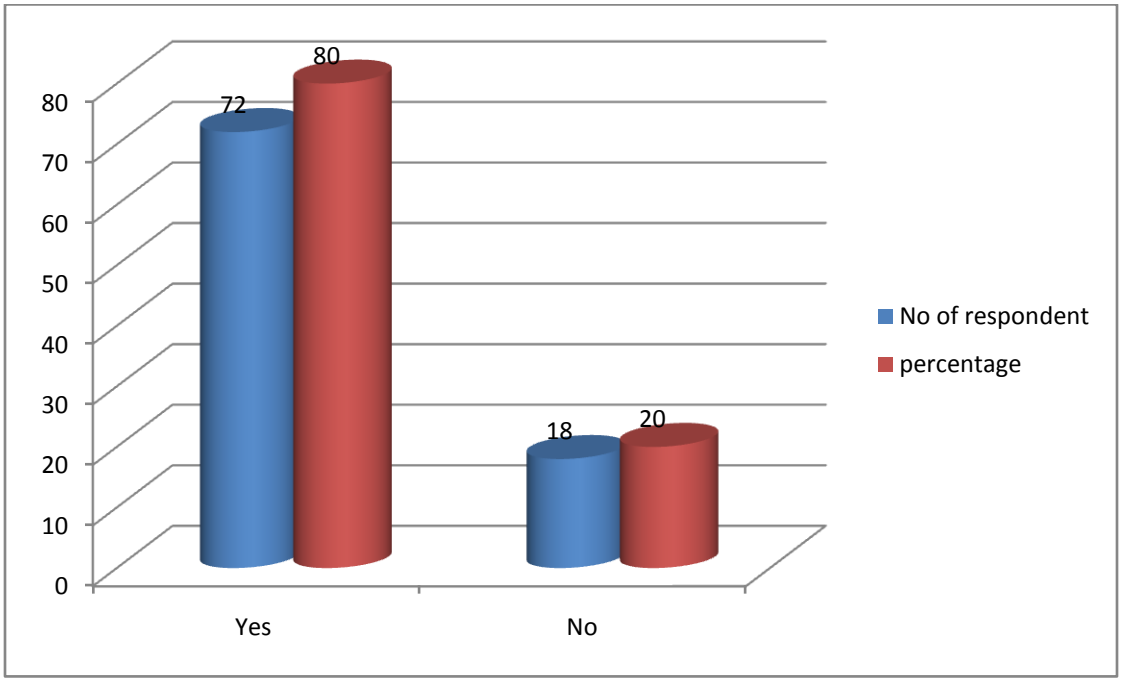



**Figure 9. Satisfaction level of respondents**

**Interpretation:**

This question was to identify the satisfaction of respondents with their Smart phone. According to figure 81% said that they are satisfied with their Smart phone and 19% said that they are not satisfied with their Smart phones. This data helps in analyzing the satisfaction level of consumers

from Smart phone, as maximum respondents using a Smart phone are satisfied with their product.

**10. Preference to Same Brand while purchasing new Smart phone:**

**Table 10. Preference of Same Brand**

| PARTICULARS | NUMBER OF RESPONDENTS | PERCENTAGE |
|---|---|---|
| Yes | 56 | 58 |
| No | 40 | 42 |
| Total | 96 | 100 |

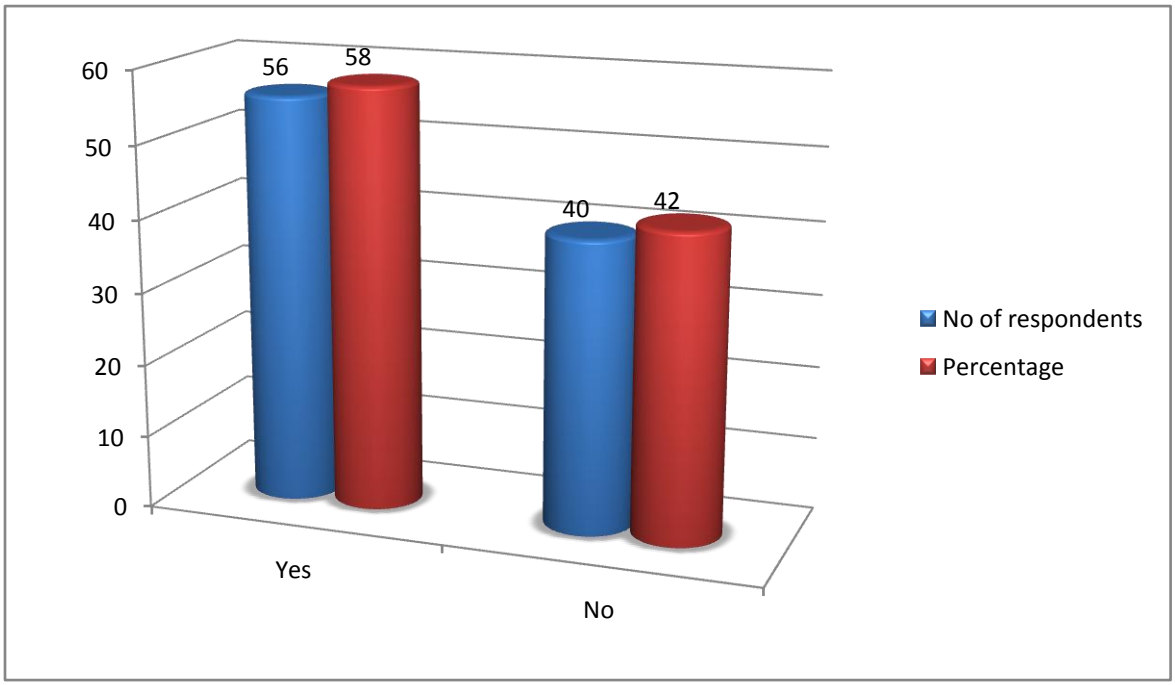



**Figure 7. Preference for Same Brand**

**Interpretation:**

This question was asked to identify that whether consumer will buy same brand of Smart phone for their next Smart or not. According to the figure 42% of respondents said that they won't be buying same brand in future where as 58% of respondents said that they will buy same brand in future. The result clarifies the number of consumer that will not buy the same brand, they will try different brand for their Smart phone as there are many brands and alternatives in market, while others consumers said that they will buy the same brand for their next Smart phone.

**11. Comparison of different brands with customer's satisfaction level:**

**Table 11. Comparison of different brands with customer's satisfaction level**

| BRAND NAME | SATISFIED | | NOT SATISFIED | |
|---|---|---|---|---|
| | NUMBER OF RESPONDENTS | PERCENTAGE | NUMBER OF RESPONDENTS | PERCENTAGE |
| Nokia | 1 | 50% | 1 | 50% |
| Samsung | 26 | 74% | 9 | 26% |
| Apple | 20 | 100% | 0 | 0% |
| HTC | 2 | 50% | 2 | 50% |
| Oppo | 6 | 55% | 5 | 45% |
| Redmi | 6 | 60% | 4 | 40% |
| Vivo | 4 | 50% | 4 | 50% |
| Other | 2 | 33% | 4 | 67% |
| Total | 67 | | 29 | |

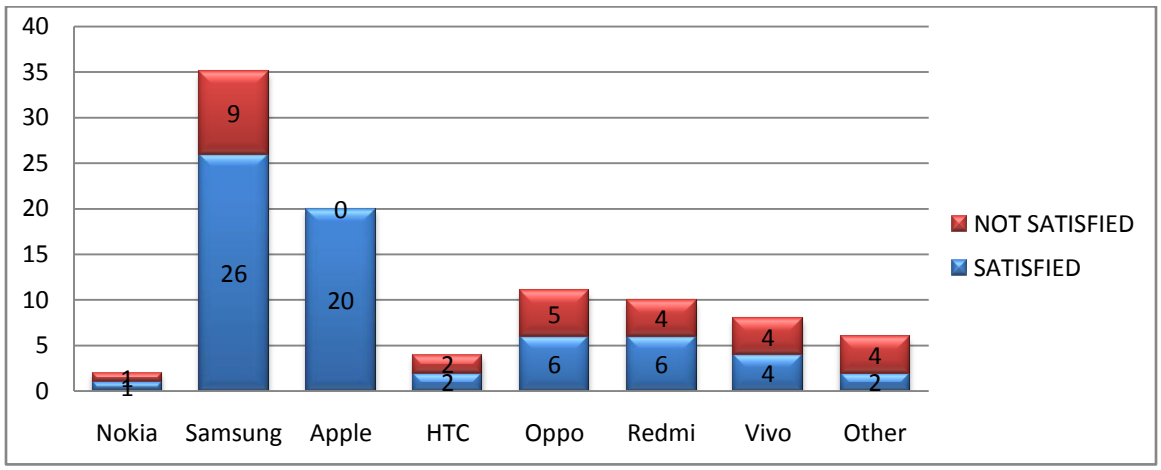



Figure 11. Comparison of different brands with customer's satisfaction level

**Interpretation:**

The table and graphical representation of the data show that there were 26 satisfied and 9 unsatisfied respondents of Samsung. 1 satisfied and 1 unsatisfied respondent of Nokia. Apple's respondents were fully 100% satisfied with the brand and 2 were satisfied and 2 unsatisfied respondents of HTC, 6 satisfied and 5 not satisfied respondents for Oppo, 6 satisfied and 4 not satisfied for Redmi and 4 satisfied and 4 not satisfied for vivo and respondents who used other brands, 4 satisfied while 2 were unsatisfied.

## CHI- SQUARE ANALYSIS

CHI-SQUARE ANALYSIS ON THE RELATIONSHIP BETWEEN

BRAND PREFRANCE AND CURRENT SATISFACTION LEVEL

| BRAND NAME | SATISFIED | NOT SATISFIED | TOTAL |
|---|---|---|---|
| Nokia | 1 | 1 | 2 |
| Samsung | 26 | 9 | 35 |

| | | | |
|---|---|---|---|
| Apple | 20 | 0 | 20 |
| HTC | 2 | 2 | 4 |
| Oppo | 6 | 5 | 11 |
| Redmi | 6 | 4 | 10 |
| Vivo | 4 | 4 | 8 |
| Other | 2 | 4 | 6 |
| Total | 67 | 29 | 96 |

Ho; There is no significant relationship between brand preference and satisfaction level of the Smart phones users.

H1; There is a significant relationship between brand preference and satisfaction level of the Smart phones users.

| O | E | (O-E) | $(O-E)^2$ | $(O-E)^2/E$ |
|---|---|---|---|---|
| 1 | 1.4 | -0.4 | 0.16 | 0.11 |
| 26 | 24.5 | 1.5 | 2.25 | 0.09 |
| 20 | 14.0 | 6 | 36 | 2.57 |
| 2 | 2.8 | -0.8 | 0.64 | 0.23 |
| 6 | 7.7 | -1.7 | 2.89 | 0.38 |
| 6 | 7.0 | -1 | 1 | 0.14 |
| 4 | 5.6 | -1.6 | 2.56 | 0.46 |

| | | | | |
|---|---|---|---|---|
| 2 | 4.2 | -2.2 | 4.84 | 1.15 |
| 1 | 0.6 | 0.4 | 0.16 | 0.27 |
| 9 | 10.6 | -1.6 | 2.56 | 0.24 |
| 0 | 6.0 | -6 | 36 | 6.00 |
| 2 | 1.2 | 0.8 | 0.64 | 0.53 |
| 5 | 3.3 | 1.7 | 2.89 | 0.88 |
| 4 | 3.0 | 1 | 1 | 0.33 |
| 4 | 2.4 | 1.6 | 2.56 | 1.07 |
| 4 | 1.8 | 2.2 | 4.84 | 2.69 |
| Total | | | | 17.14 |

Degree of freedom:

$d_f$ = (row-1) (column–1)

= (8-1) (2-1)

= 7

Table value of chi-square at 5% level of significant = 14.067

**Conclusion**

The critical value of chi square at the 4 degree of freedom is 14.067 and less than the calculated value 17.14 thus we reject the null hypothesis and accepts the alternative hypothesis that there is a significance relationship between brand preference and satisfaction level of the Smart phones users.

## FINDING OF THE RESEARCH

- 36 % respondents use Samsung brand.
- Most useable brand among the college student is Samsung and least useable brand is Nokia.
- 33% students are ready to pay for Smart phones less than 15,000 and they spend according to their family income.
- Mostly students prefer camera, storage capacity, RAM and screen size.
- Price and brand image are the important factors for the students while purchasing Smart phones.
- 58.33% respondents consider the features of the Smart while purchasing.
- 37.50% respondents get information from friends and 27.08% from internet.
- 54% students purchase Smart phone due to their necessity.
- 81% students are satisfied with their current Smart phone.

## LIMITATIONS

- A small sample size of 96 students is taken, so we cannot draw inferences about the population from this sample size.
- Time period is short and resource constraints.
- The scope of the project is limited to only one college. So, we cannot say that the same response will exist in all the colleges.
- This study is based on the prevailing student's satisfaction. But the student's satisfaction may change according to time, fashion, technology, development, etc.

## SUGGESTIONS

- Companies should offer more range of Rs. 15,000 or less than 15,000.
- Customers face the problem of hanging and service, so companies should provide the better services and solve the hanging problem.
- All companies should increase their distribution channels.
- The companies should continue to work on the strategy of T.Q.M (Total Quality Management).
- Nokia should try to expand their market share to survive.
- Companies should follow new techniques of promotion to create awareness about the entire range of company's products.

## CONCLUSION

This research study explores buying behaviour of college student toward Smart phone among the students of Genesis Institute of Dental Sciences and Research, moga road, firozpur having analyzed the empirical data obtained from the survey of 96 students. Samsung has a strong brand preference over brands. The scores obtained from the empirical data supports the above statement. The study shows most of the students take recommendation from friends and use internet for choosing a particular Smart phone. Economic criteria suggest that the price is one of the crucial factors that may have greater influences for the students to think to make decision regarding the purchase. Lastly the study measures the level of satisfaction of the brand user on their particular owned brand. The result shows apple users are highly satisfied than other Smart brand users. However most of the respondent (81%) satisfied with their owned Smart phone but 42% of the total want to buy another brand in the future.As stated earlier in the research purpose, the purpose of the research is to analyze buying behaviour of the college student toward Smart phone. The study analysis which criteria are used by students most for making decision of purchase of Smart phones based on the theoretical concept established by the theory .Hence it can be said that the purpose of this research study is fulfilled.

In conclusion, Brand image and Economic criteria plays a very important role to prefer brand and the study shows that there is a close significance relationship between family income and spending on the Smart phones.

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