A Study on Factors Influencing In Selection of Mobile Hand Sets, Guntur

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Abstract: *Mobile phones have been one of the fastest household adoption rates of any technology in the world's modern history. In current highly competitive mobile phone market, manufacturers constantly fight to find additional competitive edge and differentiating elements to persuade consumers to select their brand instead of a competitor's. In this process many new smart phones have been introduced into market which made life easy and people are facing more difficulties while purchasing mobile phone. So people consider more factors according to their requirement while purchasing the mobile phones. Consumers' of mobile phone found throughout the world greatly influenced by those different factors affecting mobile phones purchase decision.*
Keywords: *mobile phone, differentiating elements, purchasing decisions.*

I.   Introduction

The mobile phones is very vital part of daily routine of human life and it is the one of fastest growing product in the global market. The demands of products at higher qualities at lower price lead to innovation. Consumer don't want only purchase mobile phone they want feel, touch, and see the product what they brought. The advance communication technology has witness a development in electronic field in the last two decade. In the 21st century the mobile phone support a wide range of services such as text message, business application, gaming, short range wireless communication, internet etc.

The increasing competition between the telecom service providers has increased demand for both mobile telecom services as well as the handsets. According to Indian Brand Equity Foundation (2005), the mobile handset market, which was worth about $ 2 Billion two years ago, had shown a growth of 60% per annum. The GSM (Global System for Mobile Communications) handsets had 84% share and CDMA (Code Division Multiple Access) handsets has 16% market share. There are various players in the GSM market. Nokia was leading the market with 59% market share(Prashant, 2005). Among the other players, the prominent are Sony Ericsson, Samsung, Motorola and LG. They are offering wide range of models for the users of different preferences. The manufacturers are introducing newer and newer models in quick succession of time.

They are motivated to do so because Indian mobile subscribers are prepared to pay for upgrades, value-based services, and advanced models. The cut throat competition between manufacturers has forced manufacturers to reduce their costs and therefore, they are thinking of manufacturing handsets in India. The low wage rates will help manufacturers to reduce their costs (Indian Brand Equity Foundation, 2005). Besides this, the service providers and manufacturers are offering value added services to make up losses in revenues, which have resulted due to decrease in tariff rates. Thus mobile value added services has become an important element in the growth of mobile telephony in India.

Mobile phones today have moved beyond their fundamental role of communications and have graduated to become an extension of the personality of the user. In spite of breeding of offers for content-rich mobile data services other than text messaging, the adoption of advanced services such as mobile phone payment, online mobile gaming and mobile email have yet to reach the noteworthy levels of usage in India. There is a discernible preference for mobile phones with color screens over those with black and white displays. Short Message Service (SMS) is very much popular and its importance is increasing further as the subscribers can now participate in large number of contests/polls etc. Consumers are also making wide use of handsets for clicking photographs, playing games, downloading icons/screensavers/logo/ring tones, sending camera-phone taken photos, and playing offline games with their mobile phones. And yet the consumers are expecting much more from their mobile phones.

For many years now, service providers and telecom equipment manufacturers have been debating the convergence of fixed and mobile telecommunications. The debate that was started on cost benefits has turned into a commercially viable option for service providers. Mobile service providers, who were once competing

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fiercely with fixed-line operators, are now facing stiff competition from alternative technologies. Their revenue stream fuelled by voice minutes is rapidly declining not because consumers are making less calls, but because alternative technologies are providing voice services at very competitive rates. As market is driven by consumers' demands for high-quality voice services at lower prices, the service and equipment providers have to work closely to develop new innovations.

II.   Problem Definition

The product attributes help to select the product when customer confused between different products. This study has done with intention to find out the attributes which help to choose the mobile phone. It is focus on customer preference of product attribute of mobile phone handset.

OBJECTIVES
➢   To study the factors effecting the purchasing decision of mobile handsets.
➢   To find the major dimensions of factors involved in their decision making.
➢   To study the relative impact of each factor to the total variance explained.
➢   To known customer preferences to different mobile handsets.
➢   To study the impact of demographical factors in selection of mobile handsets

HYPOTHESIS
➢   There is no association (or) relationship between income and purchase decision
➢   There is an association (or) relationship between income and purchase decision.
➢   There is no association (or) relationship between age group and technological factors.
➢   There is an association (or) relationship between age group and technological factors.
➢   There is no association (or) relationship between brand and design factors.
➢   There is an association (or) relationship between brand and design factors.

III.   Review Of Literature

Ling Hwang and Salvendy (2007) in this study they surveyed on college students to find out students preference on mobile phones.

In the study of subramanyam and venkateswarlu (2012) they conducted the study on which factor influence the mostly buying behavior of customer.

In this stage, consumers pay particular attention to the attributes which are most relevant to their needs (Kolter, Wong, Saunders, & Armstrong, 2005).

The consumer begins consuming the product in stage five whereas in stage six, consumers evaluate the consumption process. This gives rise to satisfaction when consumers' expectations are higher than the perceived performance and vice versa (Blackwell et al., 2006).

Dorsch, Grove and Darden (2002) in their research on customer choice of mobile phone found that from the perspective of marketing consumer's purchase process can be classified into a five step problem solving process such as: need recognition, information search, given alternatives evaluation, purchase activity and post purchase evaluation.

Requelme (2001) conducted an experiment to identify the quantity of self-knowledge consumers have when choosing between mobile phone brands.

Liu (2002) in a recent paper analyzed factors affecting the decision regarding brand in the mobile phone industry in Asia.

These factors include culture, social class, reference group, family and household. The above mentioned factors are the major determinants behind the decision of consumers to opt a given good or service (Blackwell, Miniard, and Engel, 2006).

IV.   Research Methodology

Descriptive Research
Descriptive methods — they describe situations. They don't make accurate predictions, and they don't dictate cause and effect. There are types of descriptive methods namely, observational methods, case-study methods and survey methods. In this study survey method is used.

Sampling Technique:
A purposive-cum-convenient sampling method is used in selecting participants.
It uses the first available primary data source which means you may find the participants anywhere; there is no selection criterion to identify the subjects. All subjects are invited to participate.
Sample Size:

A purposive cum-convenient sampling method is employed. 171 sample members are chosen on the basis of their being readily available/accessible at Guntur

Data Collection:
It is a descriptive research, where the data is collected from both primary and secondary sources; the primary sources are collection of opinions and behaviors of the population using a structured questionnaire and secondary sources like previous researches in this field, various journals, books and websites.

Instruments Used:
In order to investigate the matters discussed above, data were obtained based on the provided details of consumers' choice criteria for mobile phones in Guntur. The researchers used the personally administrated and online survey questionnaires as a data collection method.

Statistical Tool:
The data was analyzed using SPSS and Ms Excel and presented in inform of chart and tables. The next chapter presents all the results of this study arranged as per the research questions.

V.   Data Analysis

FREQUENCIES

TABLE -1. Income

Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 1 Lakh	85	49.7	53.1	53.1
	1-5 Lakh	61	35.7	38.1	91.3
	5-10 Lakh	11	6.4	6.9	98.1
	Above 10 Lakh	3	1.8	1.9	100.0
	Total	160	93.6	100.0	
Missing	System	11	6.4		
Total		171	100.0		
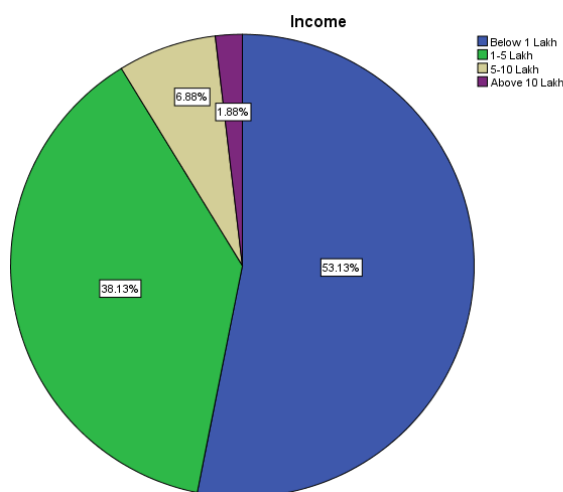
Figure 1: Income

From the above diagram, majority of the respondents 85(53.13%) are below 1 lakh income, followed by 61(38.13%) are between 1-5 lakh, followed by11 (6.88%) are between 5-10 lakh, 3(1.88%) are between above 10 lakh.

Age Group

TABLE -2 Age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-20 Years	10	5.8	5.9	5.9
	21-40 Years	142	83.0	84.0	89.9
	41-60 Years	17	9.9	10.1	100.0
	Total	169	98.8	100.0	

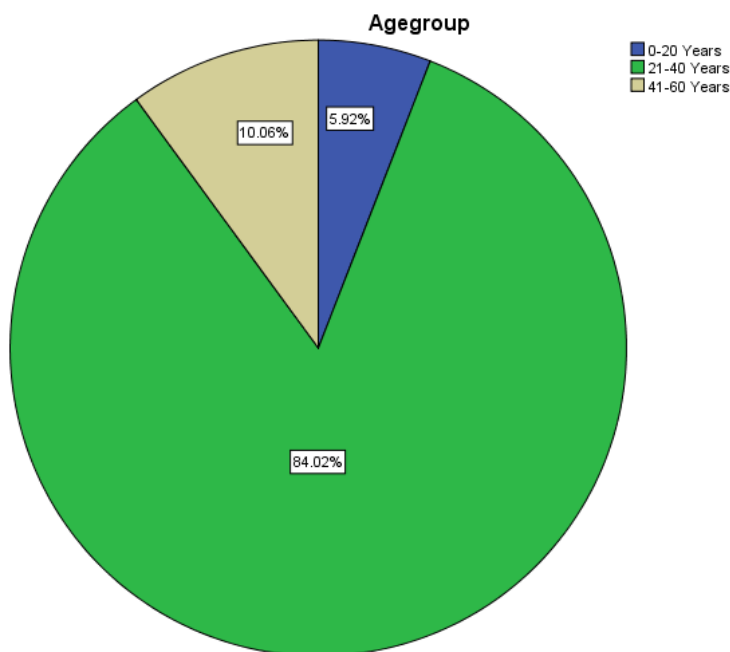| Missing | System | 2 | 1.2 | | |
| Total | | 171 | 100.0 | | |

Figure 2: Age group

From the above diagram, majority of respondents 142(84.02%) are 21-40 years, followed by 17(10.06%) are between 41-60 years, 10(5.92%) are between 0-20 years.

Gender

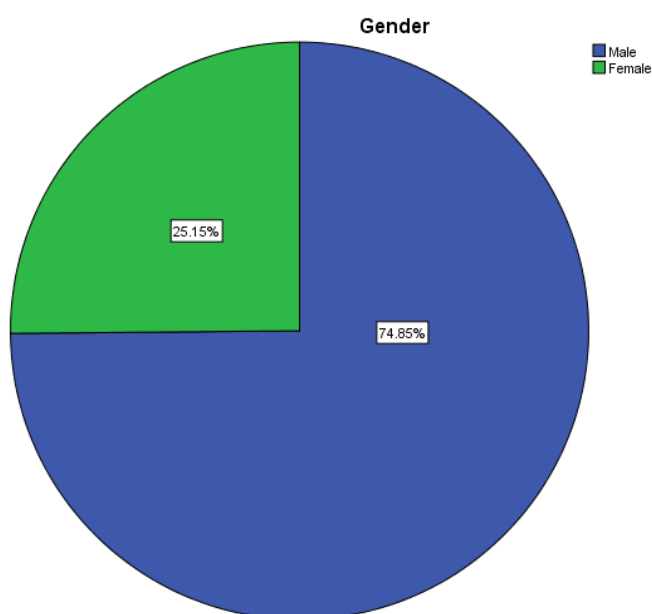|				TABLE -3 Gender	
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	128	74.9	74.9	74.9
	Female	43	25.1	25.1	100.0
	Total	171	100.0	100.0	

Figure 3: Gender

From the above diagram, 128 (74.85%) majority of respondents are Male, followed by 43(25.15%) are between Female.

Own Mobile

TABLE -4 Own mobile					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	168	98.2	98.2	98.2
	No	3	1.8	1.8	100.0
	Total	171	100.0	100.0	
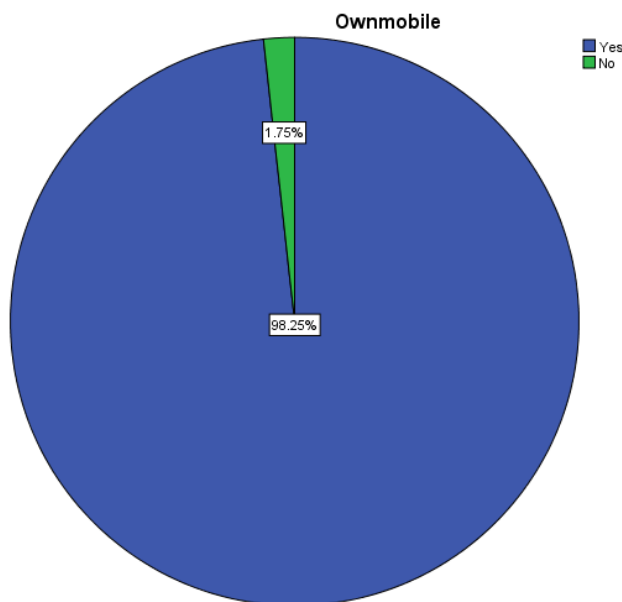
Figure 4: Ownmobile

From the above diagram, 168(98.25%) of respondents have their own mobile (yes), followed by 3(1.75%) they have no mobile.

Own Brand

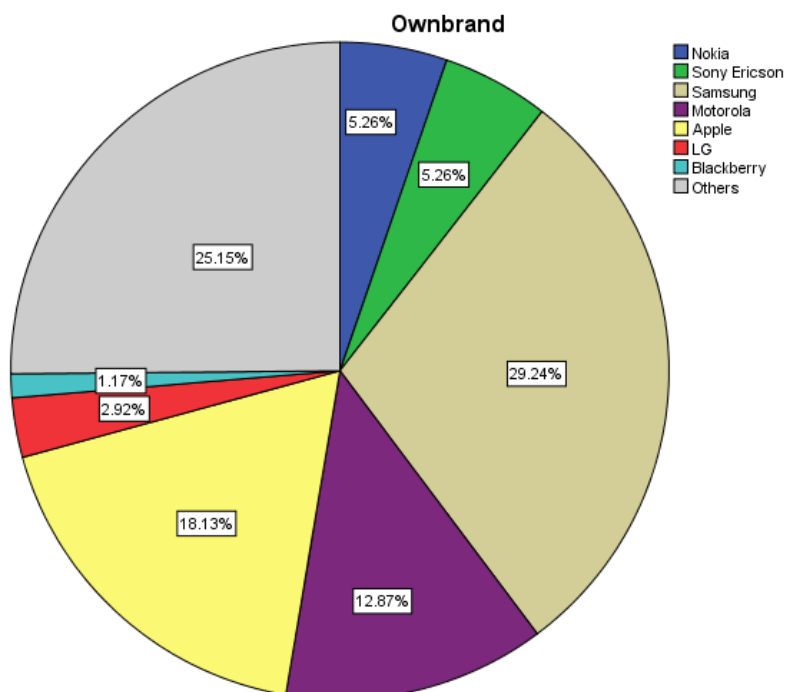| TABLE -5 Own brand					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Nokia	9	5.3	5.3	5.3
	Sony Ericson	9	5.3	5.3	10.5
	Samsung	50	29.2	29.2	39.8
	Motorola	22	12.9	12.9	52.6
	Apple	31	18.1	18.1	70.8
	LG	5	2.9	2.9	73.7
	Blackberry	2	1.2	1.2	74.9
	Others	43	25.1	25.1	100.0
	Total	171	100.0	100.0	

Figure 5: Own brand

From the above diagram, majority of the respondents 50(29.24%) are they expressed Samsung, followed by 43(25.15%) are selected other mobile handsets,31(18.13%) are selected Apple,22(12.87%) are selected motorola,9(5.26%) are selected Nokia, 9(5.26%) are selected Sony Ericson, 5(2.92%) are selected LG,2(1.17%) are selected Black berry.

Comparison between Age Group and Technological factors:

Age group * Bluetooth

H0: There is no relation between Age group & Bluetooth.

H1: There is a relation between Age group & Bluetooth.

TABLE -6 : Age group * Bluetooth							
Crosstab							
Count							
		Bluetooth					Total
		Most Imp	Imp	Neutral	Partially Imp	Least Imp	
Age group	0-20 Years	5	1	0	2	2	10
	21-40 Years	67	29	10	19	15	140
	41-60 Years	10	4	3	0	0	17
Total		82	34	13	21	17	167

correlation	Chi-square test	Result	
0.068	0.02	Reject Ho	

There is association between age group and Bluetooth.
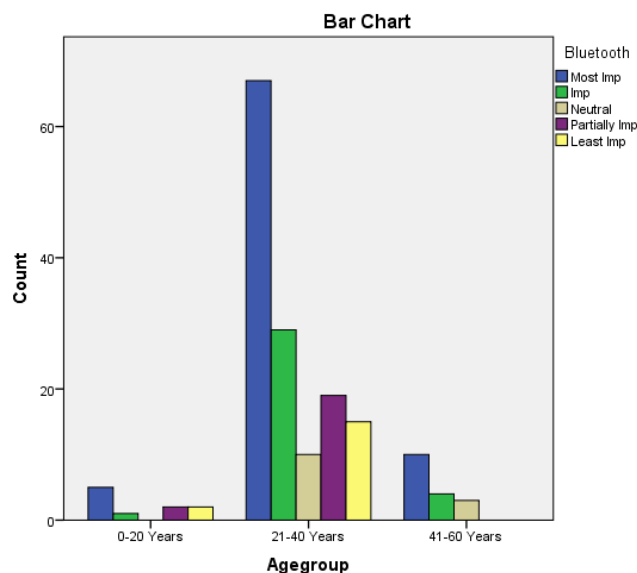There is a positive co- relation between age group and Bluetooth.

Figure6: Age group * Bluetooth

Age group * Resolution

H0: There is no relation between Age group & Resolution.

H1: There is a relation between Age group & Resolution.

TABLE -7: Age group * Resolution							
Crosstab							
Count							
		Resolution					Total
		Most Imp	Imp	Neutral	Partially Imp	Least Imp	
Age group	0-20 Years	2	3	3	2	0	10
	21-40 Years	44	32	31	18	13	138
	41-60 Years	3	6	6	0	2	17
Total		49	41	40	20	15	165

correlation	Chi-square test	Result
0.067	0.00	Accept Ho

There is association between age group and resolution.

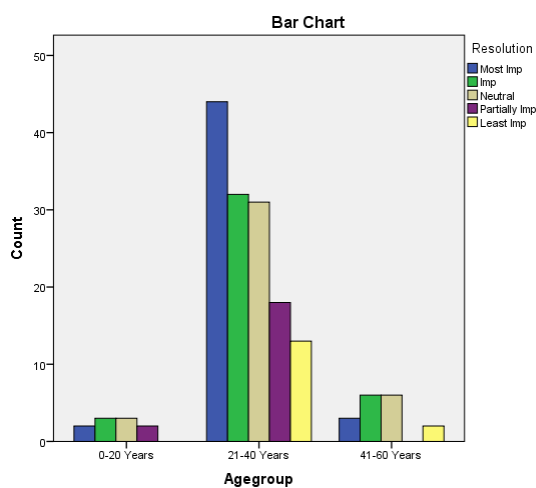There is a positive relation between age group and resolution.

Figure7: Age group * Resolution

Age group * Availability

H0: There is no relation between Age group & Availability.
H1: There is a relation between Age group & Availability.

TABLE -8 : Age group * Availability							
Crosstab							
Count							
		Availability					Total
		Most Imp	Imp	Neutral	Partially Imp	Least Imp	
Age group	0-20 Years	3	3	2	0	2	10
	21-40 Years	61	38	12	14	15	140
	41-60 Years	8	6	3	0	0	17
Total		72	47	17	14	17	167

correlation	Chi-square test	Result
0.063	0.01	Reject Ho

There is association between age group and availability.
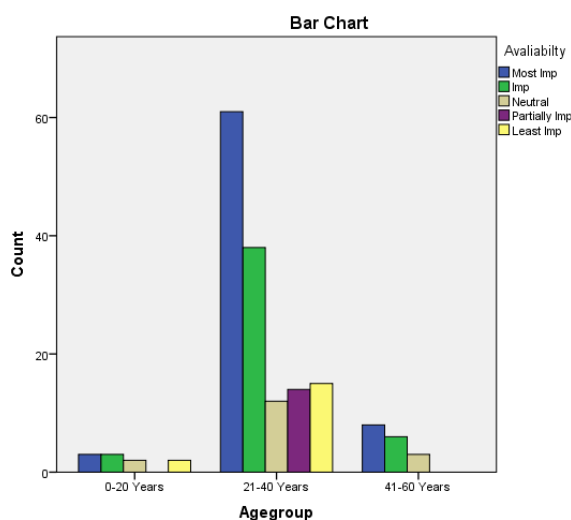There is a positive relation between age group and availability.

Figure8: Age group * Availability

Comparison between Income and price factors
Income * Price Discount

H0: There is no relation between Income & Price Discount.
H1: There is a relation between Income & Price Discount.

TABLE -9: Income * Price Discount							
Crosstab							
Count							
		Pricediscount					Total
		Most Imp	Imp	Neutral	Partially Imp	Least Imp	
Income	Below 1 Lakh	33	21	17	8	6	85
	1-5 Lakh	28	14	12	6	1	61
	5-10 Lakh	7	3	0	1	0	11
	Above 10 Lakh	2	0	0	1	0	3
Total		70	38	29	16	7	160

correlation	Chi-square test	Result
0.079	0.01	Reject Ho

There is association between income and price discount.
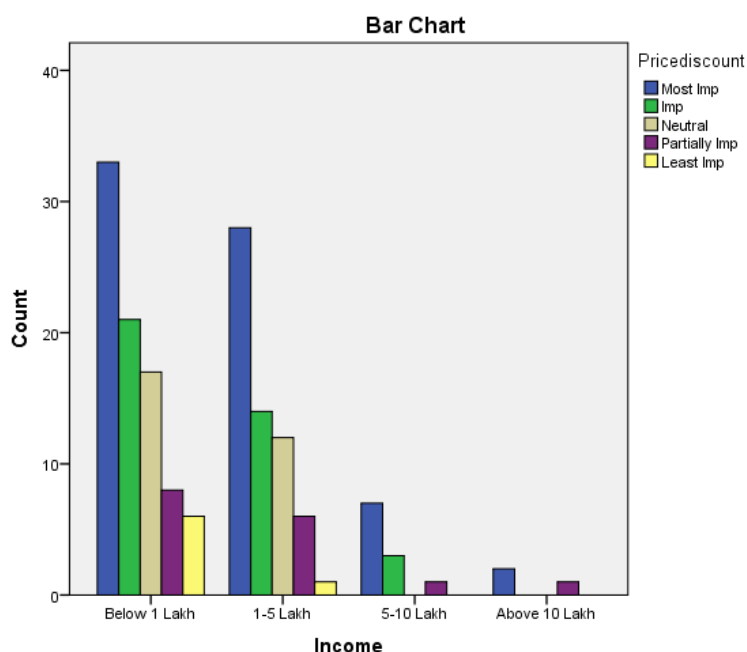There is positive co-relation between income and price discount.

Figure 9: Income * Price Discount

Income * Age of technology

H0: There is no relation between Income & Age of technology.
H1: There is a relation between Income & Age of technology.

TABLE -10 : Income * Age of technology						
Crosstab						
Count						
		Age of technology					Total
		Most Imp	Imp	Neutral	Partially Imp	Least Imp	
Income	Below 1 Lakh	14	27	24	9	11	85
	1-5 Lakh	14	21	13	7	6	61
	5-10 Lakh	0	7	2	1	1	11
	Above 10 Lakh	3	0	0	0	0	3
Total		31	55	39	17	18	160

correlation	Chi-square test	Result
0.076	0.000	Accept Ho

There is association between income and age of technology.
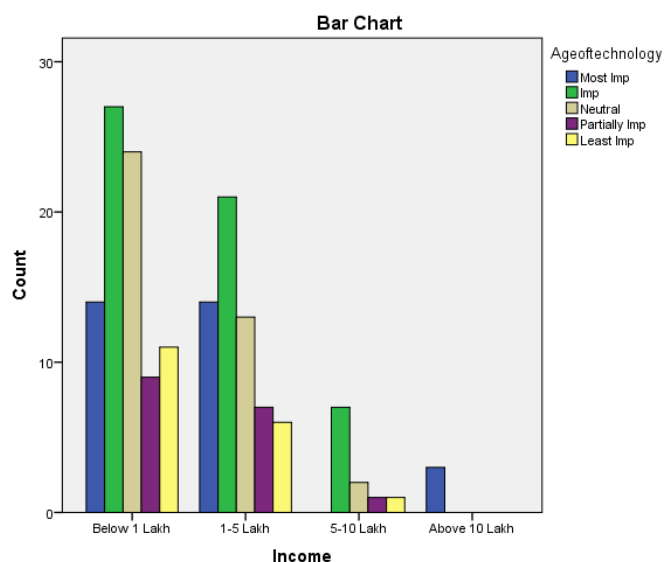There is a positive correlation between income and age of technology.

Figure10: Income * Age of technology

Income * security

H0: There is no relation between Income & Security.

H1: There is a relation between Income & Security.

TABLE -11 : Income * security							
Crosstab							
Count							
		Security					Total
		Most Imp	Imp	Neutral	Partially Imp	Least Imp	
Income	Below 1 Lakh	25	20	13	12	13	83
	1-5 Lakh	18	18	16	6	2	60
	5-10 Lakh	3	2	1	4	1	11
	Above 10 Lakh	2	0	0	0	1	3
Total		48	40	30	22	17	157

correlation	Chi-square test	Result
0.051	0.01	Reject Ho

There is association between income and security.

There is a positive correlation between income and security.
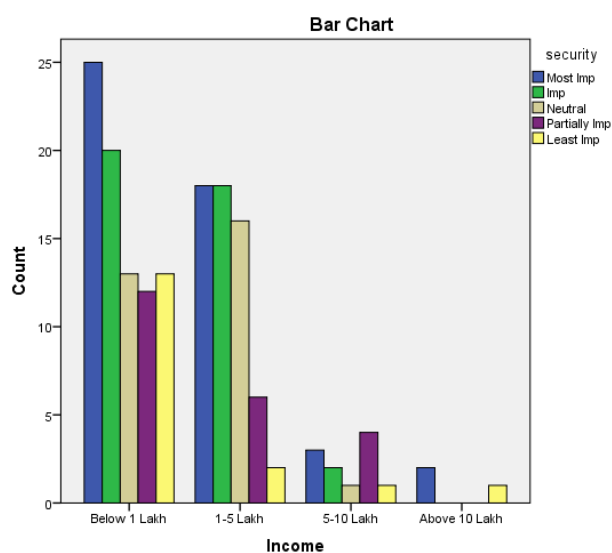

Figure11: Income * security

Comparison between Brand and Design Factors
Own brand * phone weight
H0: There is no relation between Own brand & Phone weight.
H1: There is a relation between Own brand & Phone weight.

TABLE -12: Own brand * phone weight							
Crosstab							
Count							
		phone weight					Total
		Most Imp	Imp	Neutral	Partially Imp	Least Imp	
Own brand	Nokia	4	2	0	3	0	9
	Sony Ericson	7	0	0	2	0	9
	Samsung	26	8	12	3	1	50
	Motorola	14	4	1	2	1	22
	Apple	14	10	2	3	2	31
	LG	5	0	0	0	0	5
	Blackberry	1	0	0	0	1	2
	Others	12	12	6	8	5	43
Total		83	36	21	21	10	171

Correlation	Chi-square test	Result
0.078	0.00	Accept Ho

There is association between own brand and phone weight.
There is a positive Co-relation between own brand and phone weight.
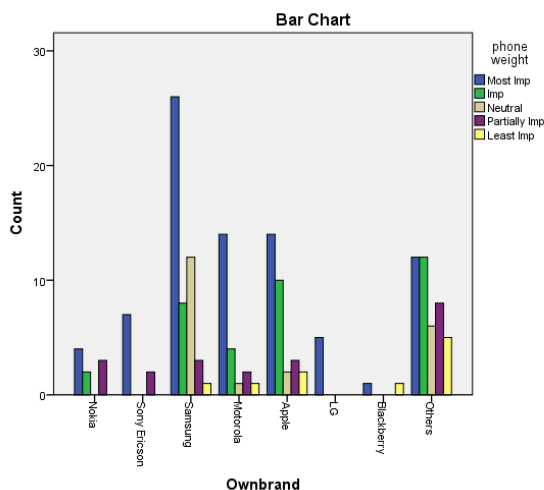

Figure12: Own brand * phone weight

Own brand * Touch screen

H0: There is no relation between Own brand & Touch screen.
H1: There is a relation between Own brand & Touch screen.

TABLE -13 : Own brand * Touch screen							
Crosstab							
Count							
		Touch screen					Total
		Most Imp	Imp	Neutral	Partially Imp	Least Imp	
Ownbrand	Nokia	5	0	1	1	2	9
	Sony Ericson	4	1	1	0	0	6
	Samsung	17	19	7	3	4	50
	Motorola	6	7	4	3	2	22
	Apple	10	9	7	1	3	30
	LG	2	3	0	0	0	5
	Blackberry	0	0	0	0	2	2
	Others	10	10	8	9	4	41

Total	54	49	28	17	17	165

correlation	Chi-square test	Result	
0.82	0.01	Reject Ho	

There is a association between own brand and touch screen.
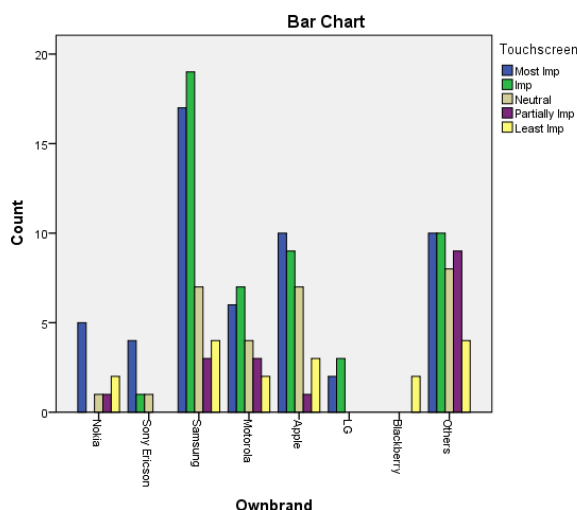There is a positive co-relation between own brand and touch screen.

Figure13: Own brand * Touch screen

Own brand * Availability of Dual and Tri SIM
H0: There is no relation between Own brand & Availability of Dual and Tri SIM.
H1: There is a relation between Own brand & Availability of Dual and Tri SIM

TABLE -14 : Own brand * Availability of Dual and Tri SIM						
Crosstab						
Count						
		Availability					Total
		Most Imp	Imp	Neutral	Partially Imp	Least Imp	
Own brand	Nokia	5	0	2	2	0	9
	Sony Ericson	2	2	1	0	3	8
	Samsung	16	11	13	6	4	50
	Motorola	7	9	2	1	3	22
	Apple	5	6	10	6	3	30
	LG	2	3	0	0	0	5
	Blackberry	1	0	0	0	1	2
	Others	9	9	9	8	6	41
Total		47	40	37	23	20	167

There is a association between Own brand & Availability of Dual and Tri SIM
There is a positive Correlation between Own brand & Availability of Dual and Tri SIM.

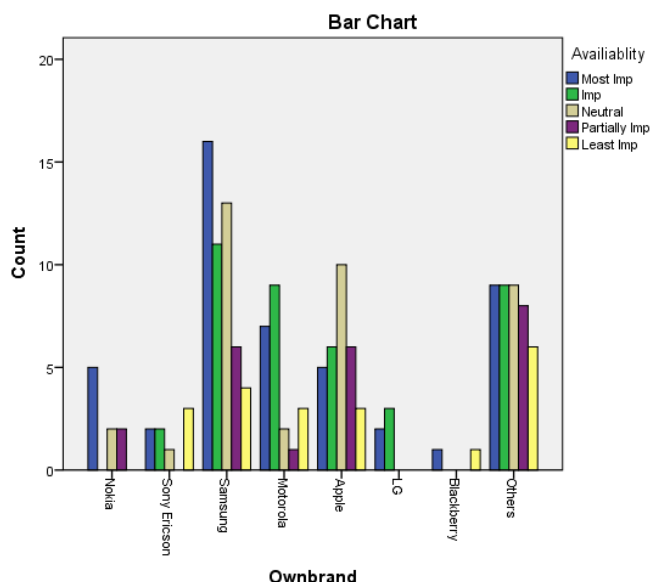| Correlation	Chi-square test	Result
0.79	0.04	Reject Ho

Figure14 : Own brand * Availability of Dual and Tri SIM

VI.   Findings

➢ From the above diagram, majority of the respondents 85(53.13%) are below 1 lakh income, followed by 61(38.13%) are between 1-5 lakh, followed by11 (6.88%) are between 5-10 lakh, 3(1.88%) are between above 10 lakh.

➢ From the above diagram, majority of respondents 142(84.02%) are 21-40 years, followed by 17(10.06%) are between 41-60 years, 10(5.92%) are between 0-20 years.

➢ From the above diagram, 128 (74.85%) majority of respondents are Male, followed by 43(25.15%) are between Female.

➢ From the above diagram, 168(98.25%) of respondents have their own mobile (yes), followed by 3(1.75%) they have no mobile.

➢ From the above diagram, majority of the respondents 50(29.24%) are they expressed Samsung, followed by 43(25.15%) are selected other mobile handsets, 31(18.13%) are selected Apple, 22(12.87%) are selected motorola,9(5.26%) are selected Nokia, 9(5.26%) are selected Sony Ericson, 5(2.92%) are selected LG,2(1.17%) are selected Black berry.

➢ There is association between age group and Bluetooth.

➢ There is a positive co- relation between age group and Bluetooth.

➢ There is association between age group and resolution.

➢ There is a positive relation between age group and resolution.

➢ There is association between age group and availability.

➢ There is a positive relation between age group and availability.

➢ There is association between income and price discount.

➢ There is positive co-relation between income and price discount.

➢ There is association between income and age of technology.

➢ There is a positive correlation between income and age of technology.

➢ There is association between income and security.

➢ There is a positive correlation between income and security.

➢ There is association between own brand and phone weight.

➢ There is a positive Co-relation between own brand and phone weight.

➢ There is a association between own brand and touch screen.

➢ There is a positive co-relation between own brand and touch screen.

➢ There is a association between Own brand & Availability of Dual and Tri SIM

➢ There is a positive Correlation between Own brand & Availability of Dual and Tri SIM.

VII.   Suggestions

According to research most of the respondents are they saw the price factors and technology factors and design factors. Majority of the respondents are purchasing mobile handsets useful to 4G.Thats why all the future mobile handsets should be worked on 4G net work.

Majority of the respondents are giving most importance for price and discounts that's why new mobile handsets will be with competent price.Now a day's respondents are more adapted to the technology so that prefer the advanced technology mobile handsets and they want low price .So that I suggested to give high quality mobiles and low price.

VIII.   Conclusion

In the communication era mobile phones is one of the reliable and effective way to communicate by different modes of communication. The mobile phone is very vital part of daily routine of human life and it is the one of fastest growing product in the global market. The demands of products at higher qualities at lower price lead to innovation the information was collected using questionnaire based on the research questions. The questionnaire was based on the three research questionnaires: The effect of demographics on the evaluations of different attributes related to mobile phone handsets choice; the effect of psychographics on the evaluations of different attributes related to mobile phone handsets choice; the effect of behavior on the evaluations of different attributes related to mobile phone handsets choice.

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