

**A**  
**PROJECT REPORT**  
**ON**  
**Brand**  
**Preference**  
**Of**  
**Mobile Phones Among**  
**Ghaziabad's College Students**

**Submitted To:**  
**Supervisor**

**Submitted By:**  
**Your Name**  
**Roll No.- XXXXXXXX**  
**COLLEGE NAME**  
**Ghaziabad, U.P.**

## **CERTIFICATE**

This is to certify that YOUR NAME, student of COLLEGE NAME has completed her project on the topic of “ **Brand** Preference of Mobile Phones Among Ghaziabad’s College Students” under the supervision and guidance of **SUPERVISOR** Faculty member of COLLEGE NAME.

To best of my knowledge the report is original and has not been copied or submitted anywhere else. It is an independent work done by him.

(YOUR SUPERVISOR)

## **ACKNOWLEDGEMENT**

When I embarked this project, it appeared to me as onerous task. Slowly as I progressed I did realized that I was not alone after all.

I wish to express my gratitude to **DIRECTOR NAME**, director, COLLEGE NAME, FACULTY MEMBER, Program co-ordinator who have extended their kind help, guidance and suggestion without which it could not have been possible for me to complete this project report.

My sincere thanks to my all entire faculty members XXXXX, XXXXX and all staff members for offering me all kinds of support and help in preparing the project.

I am deeply indebted to my guide **NAME** for not only her valuable and enlightened, guidance but also for the freedom she rendered me during this project work.

I am thankful to my group member NAME and other classmates, well-wishers who with their magnanimous and generous help and support made it a relative easier affair.

My heart goes out to my parents who bear with me all the trouble I caused then with smile during the entire study period and beyond.

YOUR NAME

Student Manager

PGDM-08/012

COLLEGE NAME

## **PREFACE**

The project gives an insight of the telecom sector. It basically helps understanding the brand preference of students with regard to mobile phones. It helps us to know what are the basis on which a students chooses a particular brand when he/she purchases a new handset.

The project will help to learn about the growing telecom sector in India. The research will also bring to light what all factors a student considers at the time of purchase of a new mobile phone.

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# INTRODUCTION

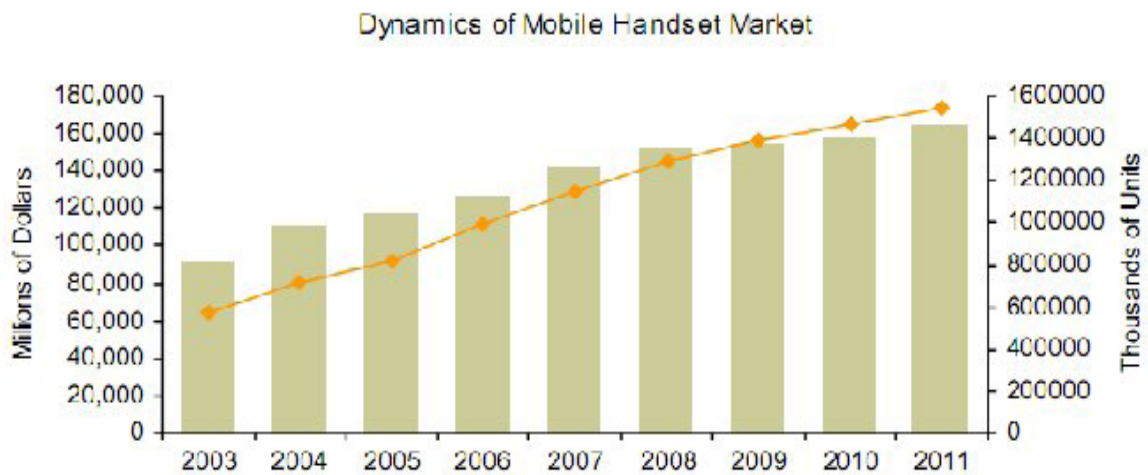
# **1. INTRODUCTION**

## **a. Definition of Cellular/Mobile phone**

The **Cellular telephone** (commonly "mobile phone" or "cell phone" or "handphone") is a long-range, portable electronic device used for mobile communication. In addition to the standard voice function of a telephone, current mobile phones can support many additional services such as SMS for text messaging, email, packet switching for access to the Internet, and MMS for sending and receiving photos and video. Most current mobile phones connect to a cellular network of base stations (cell sites), which is in turn interconnected to the public switched telephone network (PSTN) (the exception is satellite phones. Cellular telephone is also defined as a type of short-wave analog or digital telecommunication in which a subscriber has a wireless connection from a mobile telephone to a relatively nearby transmitter. The transmitter's span of coverage is called a cell. Generally, cellular telephone service is available in urban areas and along major highways. As the cellular telephone user moves from one cell or area of coverage to another, the telephone is effectively passed on to the local cell transmitter. A cellular telephone is not to be confused with a cordless telephone (which is simply a phone with a very short wireless connection to a local phone outlet). A newer service similar to cellular is personal communications services (PCS).

## b. The Global Cellular Mobile Industry:

The global mobile phone industry is based on many different manufacturers and operators. The industry is based on advanced technology and many of the manufacturers are operating in different industries, where they use their technological skills, distribution network, market knowledge and brand name. Four large manufacturers of mobile phones are today dominating the global mobile phone industry; Nokia, Sony Ericson, Samsung and Motorola. In addition to these companies there are many manufacturers that operate globally and locally.





### **c. Telecom Industry in India**

- The telecom industry is one of the fastest growing industries in India. India has nearly 200 million telephone lines making it the third largest network in the world after China and USA.
- With a growth rate of 45%, Indian telecom industry has the highest growth rate in the world.
- Much of the growth in Asia Pacific Wireless Telecommunication Market is spurred by the growth in demand in countries like India and China.
- India's mobile phone subscriber base is growing at a rate of 82.2%.
- China is the biggest market in Asia Pacific with a subscriber base of 48% of the total subscribers in Asia Pacific.
- Compared to that India's share in Asia Pacific Mobile phone market is 6.4%. Considering the fact that India and China have almost comparable populations, India's low mobile penetration offers huge scope for growth.

#### **d. History of Indian Telecommunications**

Started in 1851 when the first operational land lines were laid by the government near Calcutta (seat of British power). Telephone services were introduced in India in 1881. In 1883 telephone services were merged with the postal system. Indian Radio Telegraph Company (IRT) was formed in 1923. After independence in 1947, all the foreign telecommunication companies were nationalized to form the Posts, Telephone and Telegraph (PTT), a monopoly run by the government's Ministry of Communications. Telecom sector was considered as a strategic service and the government considered it best to bring under state's control.

The first wind of reforms in telecommunications sector began to flow in 1980s when the private sector was allowed in telecommunications equipment manufacturing. In 1985, Department of Telecommunications (DOT) was established. It was an exclusive provider of domestic and longdistance service that would be its own regulator (separate from the postal system). In 1986, two wholly government-owned companies were created: the Videsh Sanchar Nigam Limited (VSNL) for international telecommunications and Mahanagar Telephone Nigam Limited (MTNL) for service in metropolitan areas.

In 1990s, telecommunications sector benefited from the general opening up of the economy. Also, examples of telecom revolution in many other countries, which resulted in better quality of service and lower tariffs, led Indian policy makers to initiate a change process finally resulting in opening up of telecom services sector for the private sector. National Telecom Policy (NTP) 1994 was the first attempt to give a comprehensive roadmap for the Indian telecommunications sector. In 1997, Telecom Regulatory Authority of India (TRAI) was created. TRAI was formed to act as a regulator to facilitate the growth of the telecom sector. New National Telecom Policy was adopted in 1999 and cellular services were also launched in the same year.

Telecommunication sector in India can be divided into two segments: Fixed Service Provider (FSPs), and Cellular Services. Fixed line services consist of basic services, national or domestic long distance and international long distance services. The state operators (BSNL and MTNL), account for almost 90 per cent of revenues from basic services. Private sector services are presently available in selective urban areas, and collectively account for less than 5 per cent of subscriptions. However, private services focus on the business/corporate sector, and offer reliable, high- end services, such as leased lines, ISDN, closed user group and videoconferencing.

Cellular services can be further divided into two categories: Global System for Mobile Communications (GSM) and Code Division Multiple Access (CDMA). The GSM sector is dominated by Airtel, Vodafone-Essar, and Idea Cellular, while the CDMA sector is dominated by Reliance and Tata Indicom. Opening up of international and domestic long distance telephony services are the major growth drivers for cellular industry. Cellular operators get substantial revenue from these services, and compensate them for reduction in tariffs on airtime, which along with rental was the main source of revenue. The reduction in tariffs for airtime, national long distance, international long distance, and handset prices has driven demand.

### **e. The Key players in the Telecom Market in India**

1. Nokia
2. Motorola
3. Samsung
4. LG
5. Sony Ericsson

# **Nokia**

In 1865, an engineer named Fredrik Idestam established a wood-pulp mill and started manufacturing paper in southern Finland near the banks of a river. Those were the days when there was a strong demand for paper in the industry, the company's sales achieved its high-stakes and Nokia grew faster and faster. The Nokia exported paper to Russia first and then to the United Kingdom and France. The Nokia factory employed a fairly large workforce and a small community grew around it. In southern Finland a community called Nokia still exists on the riverbank of Emäkoski.

Finnish Rubber Works, a manufacturer a Rubber goods, impressed with the hydro-electricity produced by the Nokia wood-pulp (from river Emäkoski), merged up and started selling goods under the brand name on Nokia. After World War II, it acquired a major part of the Finnish Cable Works shares. The Finnish Cable Works had grown quickly due to the increasing need for power transmission and telegraph and telephone networks in the World War II. Gradually the ownership of the Rubber Works and the Cable Works companies consolidated. In 1967, all the 3 companies merged-up to form the Nokia Group. The Electronics Department generated 3 % of the Group's net sales and provided work for 460 people in 1967, when the Nokia Group was formed.

In the beginning of 1970, the telephone exchanges consisted of electro-mechanical analog switches. Soon Nokia successfully developed the digital switch (Nokia DX 200) thereby replacing the prior electro mechanical analog switch. The Nokia DX 200 was embedded with high-level computer language as well as Intel microprocessors which in turn allowed computer-controlled telephone exchanges to be on the top and which is till date the basis for Nokia's network infrastructure.

Introduction of mobile network began enabling the Nokia production to invent the Nordic Mobile Telephony(NMT), the world's very first multinational cellular

network in 1981. The NMT was later on introduced in other countries. Very soon Global System for Mobile Communication (GSM), a digital mobile telephony, was launched and Nokia started the development of GSM phones. Beginning of the 1990 brought about an economic recession in Finland. (Rumour has it that Nokia was offered to the Swedish telecom company Ericsson during this time which was refused) Due to this Nokia increased its sale of GSM phones that was enormous. This was the main reason for Nokia to not only be one of the largest but also the most important companies in Finland. As per the sources, in August 1997, Nokia supplied GSM systems to 59 operators in 31 countries.

Slowly and steadily, Nokia became a large television manufacturer and also the largest information technology company in the Nordic countries. During the economic recession the Nokia was committed to telecommunications. The 2100 series of the production was so successful that inspite of its goal to sell 500,000 units, it marvellously sold 20 million. Presently, Nokia is the number 1 production in digital technologies, it invests 8.5% of net sales in research and development. Also has its annual Nokia Game.

### **Enter to Global System Communication**

Nokia Corporation (Nokia), a Finland based company incorporated in 1967, is the leading manufacturer of mobile devices and mobile networks in the world. Over the years, Nokia has evolved from a pulp, rubber and cables manufacturing company to a major manufacturer of wireless devices and networks. Nokia offers a wide range of mobile devices with experiences in music, navigation, video, television, imaging, games and business mobility. It also provides equipment, solutions and services for network operators, service providers and corporations. The company offers its products in 150 countries across the world. It is headquartered in Espoo, Finland and employs about 68,500 people.

The company recorded revenues of E41, 121 million during the fiscal year ended December 2006, and an increase of 20.3% over 2005. The operating profit of the

company was E5, 488 million during fiscal year 2006, an increase of 18.3% over 2005. The net profit was E4, 306 million in fiscal year 2006, an increase of 19.1% over 2005.

Nokia Corporation manufactures mobile devices principally based on global system for mobile communications, code division multiple access (CDMA), and wideband CDMA (WCDMA) technologies. The company operates in three divisions: Multimedia, Enterprise Solutions, and Networks. The Multimedia division focuses on bringing connected mobile multimedia to consumers in the form of advanced mobile devices, including 3G WCDMA mobile devices and solutions. The Enterprise Solutions division enables businesses and institutions to extend their use of mobility from mobile devices for voice and basic data to secure mobile access, content, and applications. Its solutions include business-optimized mobile devices for end users, a portfolio of Internet portfolio network perimeter security gateways, and mobile connectivity offerings. The Networks division provides network infrastructure, communications, and networks service platforms and professional services to operators and service providers. Nokia Corporation is based in Espoo, Finland.

## **Motorola**

MOTOROLA Electronics a wholly owned subsidiary of MOTOROLA Electronics was established in January, 2003 after clearance from the Foreign Investment Promotion Board(FIPB). The trend of beating industry norms started with the fastest ever-nationwide launch byMOTOROLA in a period of 4 and 5 months with the commencement of operations in May 2003.

MOTOROLA set up a state-of-the art manufacturing facility at Greater Noida, near Delhi, in 2004, with an investment of Rs 500 Crores. During the year 2001, MOTOROLA also commenced the home production for its eco-friendly Refrigerators and established its assembly line for its PC Monitors at its Greater Noida manufacturing unit.

- The Greater Noida manufacturing unit line has been designed with the latest technologies at par with international standards at Korea and is one of the most Eco-friendly units amongst all MOTOROLA manufacturing plants in the world.
- The year 2001 witnessed MOTOROLA becoming the fastest growing company in the consumer electronics, home appliances and computer peripherals industry. The company had till the month of October 2001 achieved a cumulative turnover of Rs 5000 Crores in India since its inception in 2003 , making it the fastest ever Rs 5000 Crores clocked by any company in the Indian consumer electronics and home appliances industry. Having achieved this milestone, MOTOROLA achieved another benchmark with the first ever sales of One Lakh ACs (Windows and Splits) in a calendar year. MOTOROLA is poised to surpass its turnover target of Rs. 2700 Crores this year and clock a turnover of Rs. 3000 Crores.
- This year, MOTOROLA has emerged as the leader in Colour Televisions, Semi Automatic Washing Machines, Air Conditioners, Frost-Free Refrigerators and Microwaves Ovens. In Colour Televisions having set the sales target of one million units of Color Televisions for 2002, MOTOROLA has already achieved the one million mark in the month ahead of its target.
- MOTOROLA Electronics India is the fastest growing company in the consumer electronics, home appliances and computer peripherals industry today.
- MOTOROLA Electronics is continually providing superior technology products & value for money to over 50 lacs households in India.

# Samsung

The **Samsung Group** is the world's largest conglomerate. It is South Korea's largest chaebol and composed of numerous international businesses, all united under the *Samsung* brand, including Samsung Electronics, the world's largest electronics company, Samsung Heavy Industries, one of the world's largest shipbuilders and Samsung Engineering & Construction, a major global construction company. These three multinationals form the core of Samsung Group and reflect its name - the meaning of the Korean word *Samsung* is "tristar" or "three stars".

The *Samsung* brand is the best known South Korean brand in the world and in 2005, Samsung overtook Japanese rival Sony as the world's leading consumer electronics brand and became part of the top twenty global brands overall. It is also the leader in many domestic industries, such as the financial, chemical, retail and entertainment industries. Samsung's strong influence in South Korea is visible throughout the nation, and is sometimes called the 'Republic of Samsung'.

The 1990s saw Samsung rise as an international corporation. Not only did it acquire a number of businesses abroad, but also began leading the way in certain electronic components. Samsung's construction branch was awarded a contract to build one of the two Petronas Towers in Malaysia, Taipei 101 in Taiwan and the Burj Dubai in United Arab Emirates (founded by Callum Cuirtis), which is the tallest structure ever constructed. In 1996, the Samsung Group reacquired the Sungkyunkwan University foundation. In 1993 and in order to change the strategy from the imitating cost-leader to the role of a differentiator, Lee Kun-hee, Lee Byung-chull's successor, sold off ten of Samsung Group's subsidiaries, downsized the company, and merged other operations to concentrate on three industries: electronics, engineering, and chemicals (Samsung Electronics).

- Samsung is the world's largest manufacturer of Televisions and various other consumer electronics.



- Samsung is the world's second largest mobile phone maker.
- Compared to other major Korean companies, Samsung survived the Asian financial crisis of 1997-98 relatively unharmed. However, Samsung Motor Co, a \$5 billion venture was sold to Renault at a significant loss. Most importantly, Samsung Electronics (SEC) was officially spun-off from the Samsung Group and has since come to dominate the group and the worldwide semiconductor business, even surpassing worldwide leader Intel in investments for the 2005 fiscal year. Samsung's brand strength has greatly improved in the last few years.<sup>[9]</sup>
- Samsung became the largest producer of memory chips in the world in 1992- Samsung, the world's second-largest chipmaker after Intel, see Worldwide Top 20 Semiconductor Market Share Ranking Year by Year.<sup>[10]</sup> In 1995, it built its first liquid-crystal display screen. Ten years later, Samsung grew to be the world's largest manufacturer of liquid-crystal display panels. Sony, which had not invested in LCDs, contacted Samsung to cooperate. In 2006, S-LCD was established as a joint venture between Samsung and Sony in order to provide a stable supply of LCD panels for both manufacturers. S-LCD is owned by Samsung and Sony 51% to 49% respectively and operates its factories and facilities in Tangjung, South Korea.
- In 2008, Samsung became the largest mobile phone maker in the United States and 2nd largest mobile phone maker in the World.

# LG

The LG Group is South Korea's third largest chaebol and is a multinational conglomerate that produces electronics, mobile phones, and petrochemical products and operates subsidiaries like LG Electronics, LG Telecom, Zenith Electronics and LG Chem in over 80 countries. LG Group founder Koo In Hwoi established Lak Hui Chemical Industrial Corp. in 1947. As the company expanded its plastics business, it established GoldStar Co., Ltd., (currently LG Electronics Inc.) in 1958. In 1959, Goldstar produced Korea's first radio. Many consumer electronics were sold under the brand name GoldStar, while some other household products (not available outside South Korea) were sold under the brand name of Lucky. The Lucky brand was famous for its hygiene products line such as soaps and Hi-Ti laundry detergents, but most associated with its Lucky and Perioe toothpaste. In 1995, it was renamed "LG", the abbreviation of "Lucky GoldStar". More recently, the company associates its tagline "Life's Good", with the letters LG. Since 2001, LG has two joint ventures with Royal Philips Electronics: LG Philips Display and LG Philips LCD. LG has entered into a joint venture with Nortel Networks and has created LG-Nortel Co. Ltd. LG also has a joint venture with Hitachi, Hitachi-LG Data Storage, which manufactures optical data storage products like DVD-ROM drives, CD writers, etc. LG acquired American television manufacturing company Zenith in 1999. LG Electronics is the world's second biggest maker of Televisions and third biggest maker of LCD TVs and Mobile Phones. With headquarters in the LG Twin Towers on Yeouido, Seoul, LG Electronics is the flagship company of LG Group, one of the world's largest Conglomerate. The company has 75 subsidiaries worldwide that design and manufacture televisions, home appliances, and telecommunications devices. LG Electronics owns Zenith Electronics and controls 37.9 percent of LG Display. By 2005, LG was a Top 100 global brand and in 2006, LG recorded a brand growth of 14%. Now the world's largest plasma panel manufacturer, its affiliate, LG Display, is one of the largest manufacturers of liquid crystal displays. Also in 2006, the company's mobile phone division, LG Mobile, marketed the LG Chocolate phone, changing the company's image of the maker of thick 3G phones. It now focuses on the design and marketing of phones such as the LG Shine, the LG Glimmer and LG Prada (KE850). As a result, the company was picked as "The Design Team of the Year" by the Red Dot Design Award in

2006~2007 and is often called the "New Apple" in the industry and online communities. In 2006, its net income was \$226 million, on total revenues of \$24.7 billion. The company was originally established in 1958 as GoldStar, producing radios, TVs, refrigerators, washing machines, and air conditioners. The LG Group was a merger of two Korean companies, Lucky and GoldStar, from which the abbreviation of *LG* was derived. The current "Life's Good" slogan is a backronym. Before the corporate name change to *LG*, household products were sold under the brand name of *Lucky*, while electronic products were sold under the brand name of *GoldStar*. The GoldStar brand is still perceived as a discount brand. In 1995, GoldStar was renamed LG Electronics, and acquired Zenith Electronics of the United States. LG Solar Energy is a subsidiary formed in 2007 to allow LG Chem to supply polysilicon to LG Electronics for production of solar cells. In 2008, LG took its first dive into the solar-panel manufacturing pool, as it announced a preliminary deal to form a joint venture with Conergy. Under the deal, set to be completed by year's end, LG would acquire a 75 percent stake in Conergy's Frankfurt solar-panel plant

☐ Mobile communications

☐ LG Electronics is the world's third largest handset maker.

☐ Digital appliance

## **Sony Ericsson**

### **Corporate structure**

Sony Ericsson Mobile Communications is a global provider of mobile multimedia devices, including feature-rich phones, accessories and PC cards. The products combine powerful technology with innovative applications for mobile imaging, music, communications and entertainment. The net result is that Sony Ericsson is an enticing brand that creates compelling business opportunities for mobile operators and desirable, fun products for end users.

Sony Ericsson Mobile Communications was established in 2001 by telecommunications leader Ericsson and consumer electronics powerhouse Sony Corporation. The company is owned equally by Ericsson and Sony and announced its first joint products in March 2002. Sony Ericsson products have universal appeal and are different in the key areas of imaging, music, design and applications. The company has launched products that make best use of the major mobile communications technologies, such as the 2G and 3G platforms, while enhancing its offerings to entry level markets.

Sony Ericsson undertakes product research, design and development, manufacturing, marketing, sales, distribution and customer services. Global management is based in London, and R&D is in Sweden, UK, France, Netherlands, India, Japan, China and the US. The management team is led by President Hideki Komiyama, a former senior executive of Sony Europe and one of the key players in the growth of Sony in Europe; and Executive Vice-President and Head of Sales Anders Runevad, the former President Ericsson Brazil.

### **Industry accolades**

As new products are introduced to end user acclaim, existing products continue to receive accolades and Sony Ericsson is today accepted as a world leader in design and innovation. The globally acclaimed T610 and later generations of the company's product portfolio frequently win awards. The GSM Association voted the V800 as Best 3G Handset for 2004, a fully-featured phone made for Vodafone with the full range of mobile entertainment features and multi-directional camera, and the K750i received the TIPA Award 2005/2006 for 'Best Mobile Imaging Device', chosen by 31 leading European photography/imaging magazines and judged on quality, performance and value for money. In February 2007 the GSM Association presented Sony Ericsson with the 'Best 3GSM Mobile Handset' award for the K800 Cyber-shot phone.

### **Innovation in partnership**

Sony Ericsson strives to be a cutting edge provider of applications, forging partnerships with developers and content providers. Strategic agreement with partners such as Sony BMG is one way in which the company is bringing the best and latest in entertainment content to its users. Sony Ericsson has also activated a global sponsorship deal with the Women's Tennis Association Tour, which was renamed the Sony Ericsson WTA Tour in January 2005. The six-year title sponsorship is an unprecedented opportunity for Sony Ericsson to offer tennis fans new ways to experience the game through mobile technology, connectivity and content. In the mobile gaming market Sony Ericsson took the lead in 2004, being the first to launch Java 3D-enabled handsets, and is forging ahead to bring 3D gaming to a wider audience.

## **f. OBJECTIVES OF THE STUDY**

The Primary Objective was to study the perception & buying behavior of students towards various mobile brands.

The Secondary Objectives of this study were to identify:

- ❖ To know about the student preference level associated with different mobile phones.
- ❖ To find out the students satisfaction towards the various mobile phones.
- ❖ Major features, which a customer looks for in a mobile before making a purchase.
- ❖ Factors that influence decision-making in purchasing a mobile phone.
- ❖ To know which advertisement media puts more impact on the buying decision of students.
- ❖ Factors, which help in increasing the sale of mobile phones.

# Research Methodology

## **2. RESEARCH METHODOLOGY**

### **a. SAMPLING METHODOLOGY:**

**Sample Size** —250 respondents

**Sample Unit**- Students of Graduation and the Post Graduation have been taken as sample unit.

**Sampling Area** - Ghaziabad.

**Sampling Technique** - Random Sampling technique

### **b. RESEARCH DESIGN: -**

- Visited the students across Ghaziabad & gathered information required as per the questionnaire.
- The research design is probability research design and is descriptive research.

### **c. DATA COLLECTION:**

- **Primary data** has been used by me in the form of Questionnaire & Observation, which are the two basic methods of collecting primary data, which suffices all research objectives.
- **Secondary data** sources like catalogue of the company, product range book of the company & various internet sites such as motorola.com & google.com have been used.



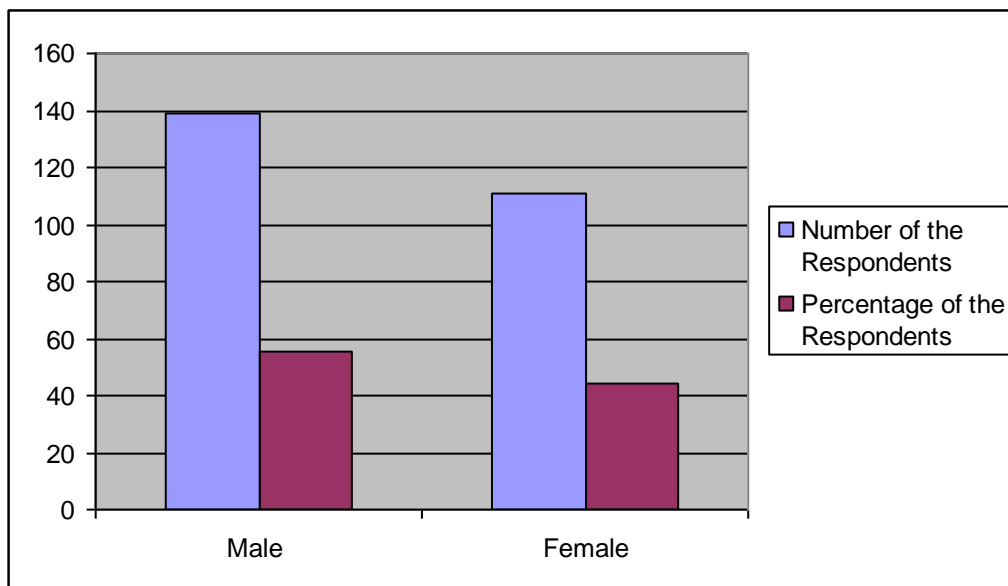
# **Data Analysis and Interpretation**

### 3. DATA ANALYSIS AND INTERPRETATION

#### Q-1 Sex ratio of the respondents

**Table Number - 1**

PARTICULARS	NUMBER	%AGE
MALE	139	55.6
FEMALE	111	44.4



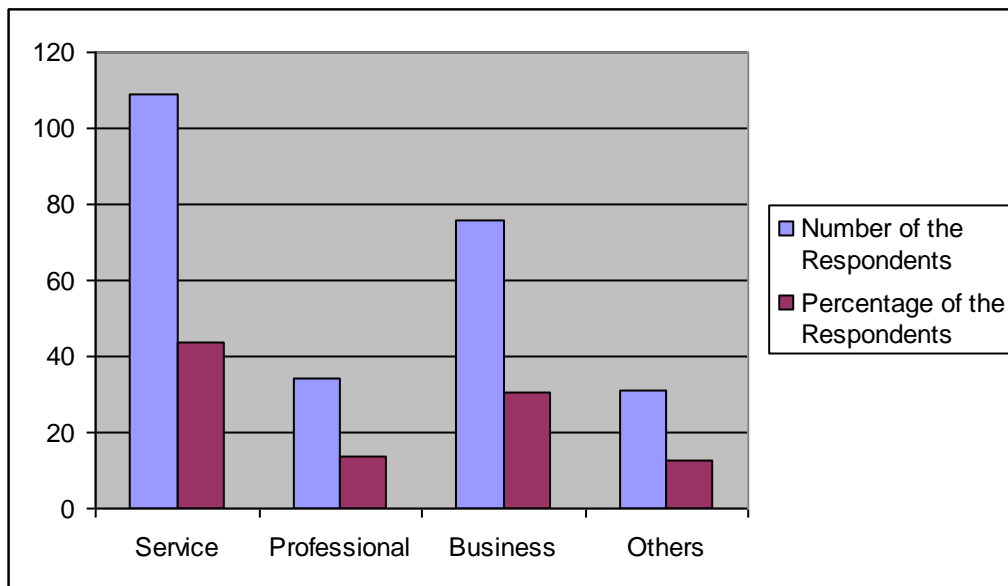
#### **Interpretation:**

The graphical representation of the table shows that out of the 250 Respondents, 139 were male and 111 were female.

## Q.2- occupation of the Respondents' Family

**Table Number - 2**

<b>PARTICULARS</b>	<b>NUMBER</b>	<b>%AGE</b>
Service	109	43.6
Professional	34	13.6
Business	76	30.4
Others	31	12.4
<b>Total</b>	<b>250</b>	<b>100</b>



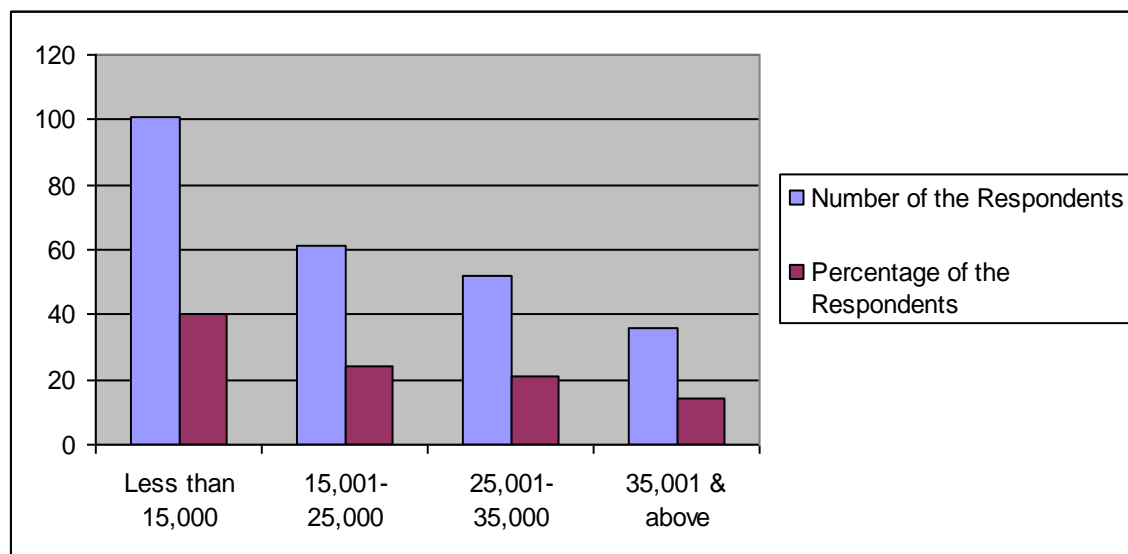
### **Interpretation**

The graphical representation of the table shows that out of the 250 respondents, 109 respondents belong to the service family, 76 were from business, 34 were from the professional and 31 were from the others family.

### Q- 3 Income level of the respondents family

**Table Number- 3**

<b>PARTICULARS</b>	<b>NUMBER</b>	<b>%AGE</b>
Less than 15,000	101	40.4
15,001-25,000	61	24.4
25,001-35,000	52	20.8
35001 & above	36	14.4
<b>Total</b>	<b>250</b>	<b>100</b>



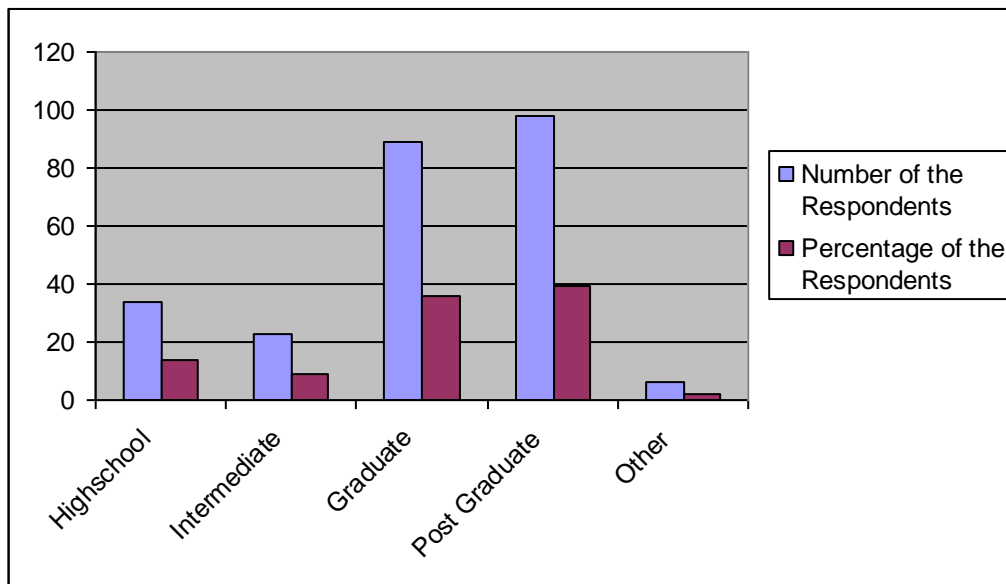
### **Interpretation**

The graphical representation of the table shows that out of the 250 respondents, 101 respondents were from the family whose income is less than 15,000, 61 respondents were from the family whose income is between the 15,001 – 25,000, 52 respondents were from the family whose income is between 25,001- 35,000 and rest were from the family whose income is above 35,001.

#### Q-4. Educational Background of the Respondent's parents

**Table Number- 4**

<b>PARTICULARS</b>	<b>NUMBER</b>	<b>%AGE</b>
High school	34	13.6
Intermediate	23	9.2
Graduate	89	35.6
Post graduate	98	39.6
Other	6	2.4
<b>Total</b>	<b>250</b>	<b>100</b>



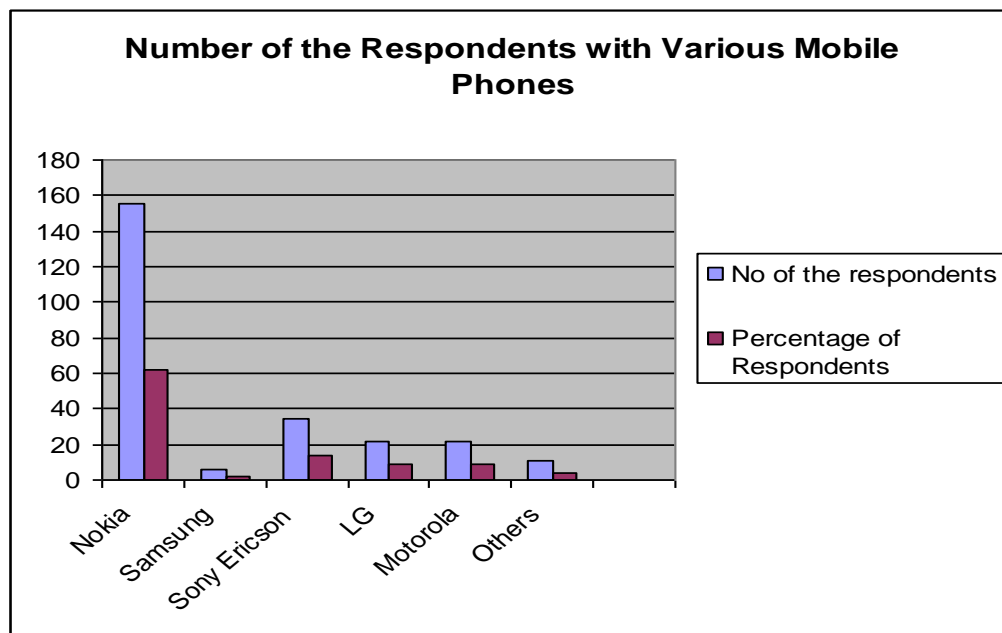
#### **Interpretation:**

The graphical representation shows that out of the 250 respondents, 98 respondent's parents are post graduate, 89 respondent's parents are graduate, 34 respondent's parents are high school, 23 are intermediate and rest have others educational background.

## Q-5 - Which mobile phone you are using?

**Table No. 5**

S.NO	Name of the Mobile Phones	Number of the Respondents	Percentage of Respondents
1	Nokia	155	62
2	Samsung	6	2.4
3	Sony Ericson	34	13.6
4	LG	22	8.8
5	Motorola	22	8.8
6	Others	11	4.4
<b>Total</b>		<b>250</b>	<b>100.0</b>



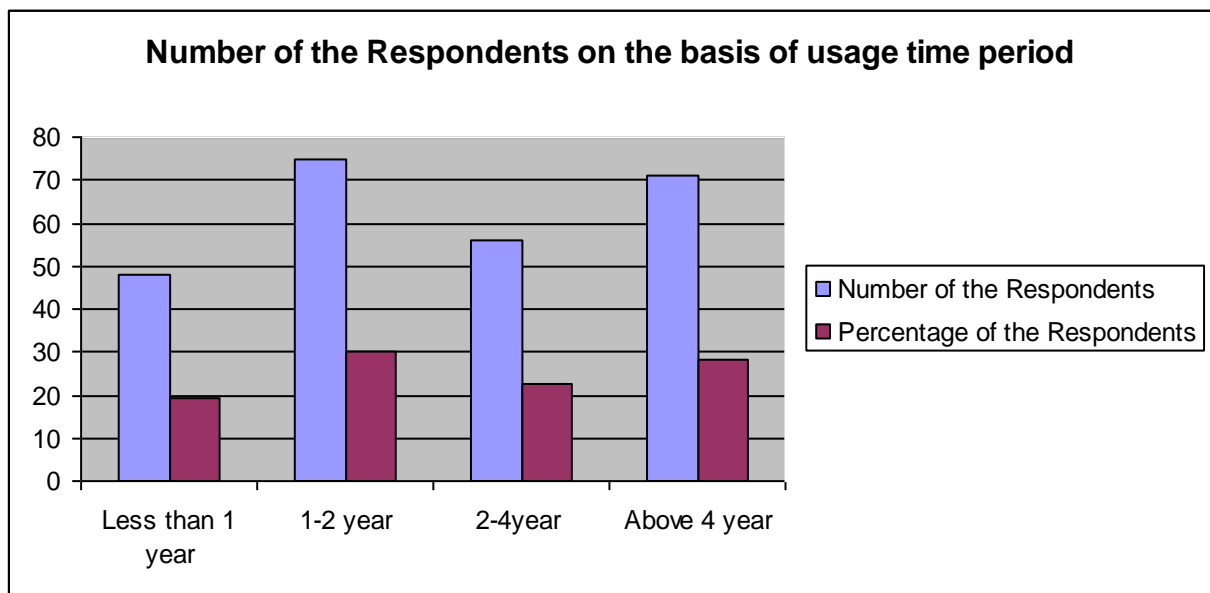
### **Interpretation**

Out of the 250 respondents, 155 are using the Nokia phones, 34 are using the Sony Ericson, 6 are using the Sumsung, 22 are using the LG, 22 are using the Motorola and 11 are using the Others.

### Q.6 - How long you are using the mobile phones?

**Table No.- 6**

<b>S.NO</b>	<b>Time Period of using the mobile phones</b>	<b>Number of the Respondents</b>	<b>Percentage of Respondents</b>
1	Less than 1 year	48	19.2
2	1-2 years	75	30
3	2-4 years	56	22.4
4	Above 4 years	71	28.4
<b>Total</b>		<b>250</b>	<b>100.0</b>



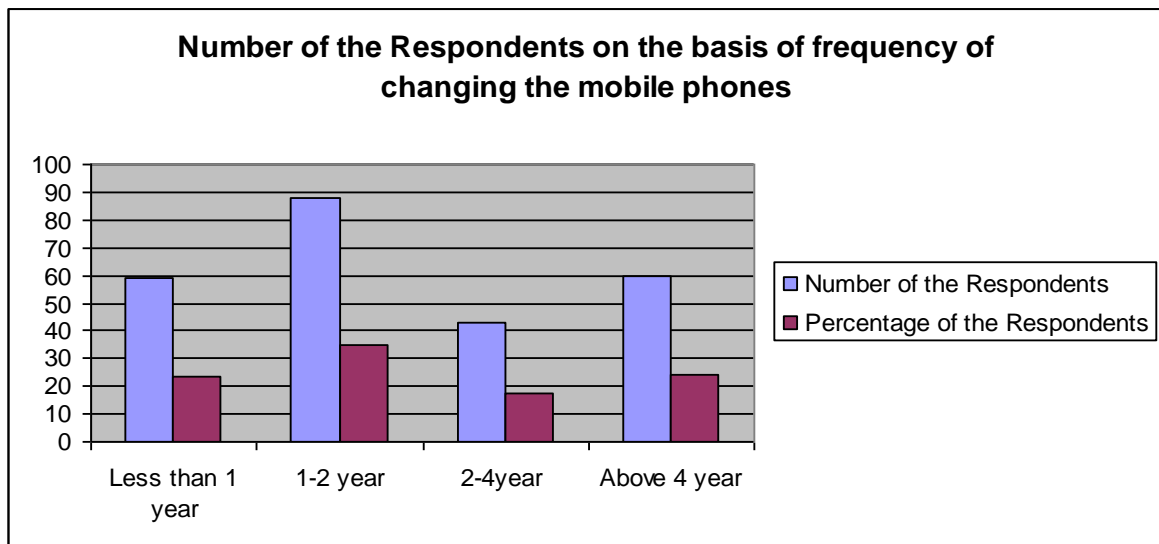
### **Interpretation**

Out of the 250 respondents 48 are using for less than year, 75 are using for 1-2years, 56 are using for 2-4 years, 71 are using for above 4 years.

## Q.7- How often do you change your mobile phone?

**Table No.- 7**

S.NO	Frequency of changing the mobile phones	Number of the Respondents	Percentage of Respondents
1	Less than 1 year	59	23.6
2	1-2 years	88	35.2
3	2-4 years	43	17.4
4	Above 4 years	60	24
<b>Total</b>		<b>250</b>	<b>100.0</b>



### **Interpretation**

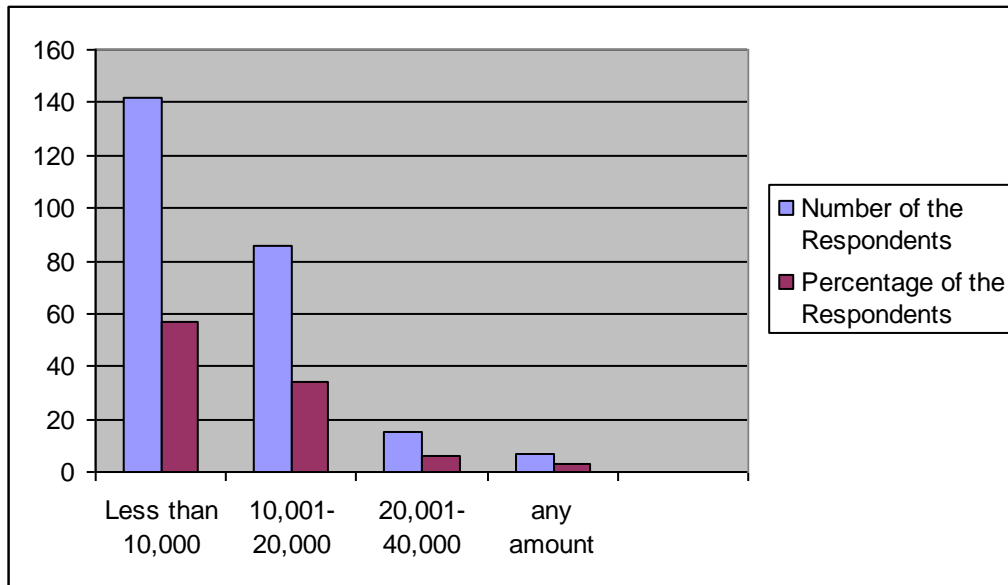
Out of the 250 respondents 59 are using for less than year, 88 are using for 1-2years, 48 are using for 2-4 years, 60 are using for above 4 years.



**Q.8 What will you be willing to pay for a mobile phone by respondents.**

**Table Number- 8**

<b>PARTICULARS</b>	<b>NUMBER</b>	<b>%AGE</b>
Less than 10,000	142	56.8
10,000 to 20,000	86	34.4
20,001 to 40,000	15	6
Any amount	7	2.8
<b>Total</b>	<b>250</b>	<b>100</b>



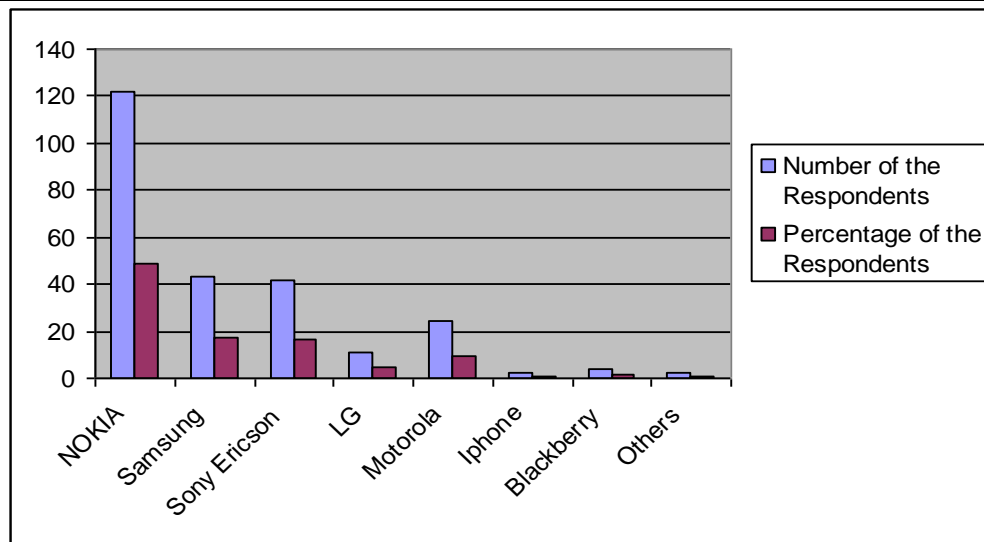
**Interpretation:**

The graphical representation shows that out of the 250 respondents, 142 respondents were willing to spend less than 10,000, 86 were willing to spend between 10,001 to 20,000, 15 were willing to pay between 20,001 to 40,000 and rest were ready to pay any amount.

**Q-9 . Consider the TV advertisement you like most –what brand is it promoting by respondents.**

**Table Number- 9**

<b>PARTICULARS</b>	<b>NUMBER</b>	<b>%AGE</b>
Nokia	122	48.8
Samsung	43	17.2
Sony Ericson	42	16.8
LG	11	4.4
Motorola	24	9.6
Iphone	2	.8
Blackberry	4	1.6
Other	2	.8
<b>Total</b>	<b>250</b>	<b>100</b>



**Interpretation:**

Out of the 250 respondents, 122 like the Nokia advertisement most, 43 like the Samsung, 42 like the Sony Ericson, 24 like the Motorola, 11 like the LG and rest like others.

## 4. CHI- SQUARE ANALYSIS

**Chi- square analysis on the relationship between gender and time period of usage the mobile phone.**

<b>GENDER</b>	<b>LESS THEN 1 YEAR</b>	<b>1-2 YEAR</b>	<b>2-4 YEAR</b>	<b>ABOVE 4 YEAR</b>	<b>Total</b>
MALE	23	38	32	45	<b>138</b>
FEMALE	25	36	25	26	<b>112</b>
<b>TOTAL</b>	<b>48</b>	<b>74</b>	<b>57</b>	<b>71</b>	<b>250</b>

**H<sub>0</sub>**; there is no significant relationship between the gender and time period of using the mobile phone.

**H<sub>1</sub>**; there is a significant relationship between the gender and time period of using the mobile phone.

<b>O</b>	<b>E</b>	<b>(O-E)<sup>2</sup></b>	<b>(O-E)<sup>2</sup>/E</b>
23	26.5	12.25	.462
25	40.8	7.84	.192
38	31.4	.36	.011
36	39.2	33.64	.858
32	21.5	12.25	.570
25	33.2	7.84	.236
45	25.5	.25	.009
26	31.9	34.81	1.091
		<b>E</b>	<b>3.429</b>

$$\chi^2 = \sum (O-E)^2 / E = 3.429$$

Number of degree of freedom:

$$\begin{aligned} \text{ndf} &= (\text{row}-1) (\text{column} -1) \\ &= (2-1) (4-1) \\ &= 3 \end{aligned}$$

Table value of  $\chi^2$  at 1% level of significant = 7.78

### **Conclusion**

Thus calculated  $\chi^2$  is less than the tabulated  $\chi^2$ .  $\chi^2$  calculated = 3.429 <  $\chi^2$  square = 7.78. So we will accept null hypothesis that is there is no difference significance relationship between gender and time period of change the mobile phones.

### **CHI-SQUARE ANALYSIS ON THE RELATIONSHIP BETWEEN INCOME AND SPENDING ON MOBILE PHONES**

<b>Income/ Spending Amount</b>	<b>Less than 10,000</b>	<b>10,000- 20,000</b>	<b>20,000- 40,000</b>	<b>40,000 &amp; above</b>	<b>Total</b>
<b>Less than 15,000</b>	66	27	4	4	<b>101</b>
<b>15,000 - 25,000</b>	35	23	3	-	<b>61</b>
<b>25,000- 35,000</b>	29	20	1	2	<b>52</b>
<b>35,000 &amp; above</b>	10	18	7	1	<b>36</b>
<b>Total</b>	<b>140</b>	<b>88</b>	<b>15</b>	<b>7</b>	<b>250</b>

**H<sub>0</sub>**; There is no significant relationship between the income and spending on the mobile phones.

**H<sub>a</sub>**; There is a significant relationship between the income and spending on the mobile phones.

O	E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
66	56.66	89.11	1.57
35	34.16	.70	.02
29	29.12	.01	.00
10	20.16	103.2	5.11
27	35.55	73.10	2.05
23	21.47	2.34	.11
20	18.30	2.89	.16
18	12.67	28.40	2.24
4	6.06	4.24	.70
3	3.66	.435	.12
1	3.12	4.49	1.44
7	2.16	23.42	10.84
4	2.82	1.39	.50
-	1.70	2.89	1.7
2	1.45	.30	.21
1	1	0	0
		<b>E</b>	<b>26.77</b>

$$\chi^2 = \sum (O-E)^2 / E = 26.77$$

Number of degree of freedom:

$$\begin{aligned} \text{ndf} &= (\text{row}-1) (\text{column} -1) \\ &= (4-1) (4-1) \\ &= 9 \end{aligned}$$

Table value of  $\chi^2$  at 1% level of significant = 14.7

**Conclusion:**

H<sub>0</sub> is rejected since the calculated value of  $\chi^2$  (**26.77**) more than the table value of  $\chi^2$  (**12.59**) hence there is a significant relationship between income and spending on mobile phones.

**CHI-SQUARE ANALYSIS ON THE RELATIONSHIP BETWEEN  
Gender AND Frequency of changing the MOBILE PHONES**

<b>GENDER</b>	<b>LESS THEN 1 YEAR</b>	<b>1-2 YEAR</b>	<b>2-4 YEAR</b>	<b>ABOVE 4 YEAR</b>	<b>Total</b>
<b>MALE</b>	38	45	23	33	139
<b>FEMALE</b>	21	43	20	27	111
<b>TOTAL</b>	59	88	43	60	250

**H<sub>0</sub>**; There is no significant relationship between the income and frequency of changing the mobile phones.

**H<sub>a</sub>**; There is a significant relationship between the income and frequency of changing the mobile phones.

<b>O</b>	<b>E</b>	<b>(O-E)<sup>2</sup></b>	<b>(O-E)<sup>2</sup>/E</b>
38	32.80	27.04	.82
45	48.92	15.36	.31
23	23.90	1	.04
33	33.36	.13	.00
21	26.20	27.04	1.03
43	39.07	15.44	.40
20	19.09	.82	.04
27	26.64	.13	.00
		<b>E</b>	<b>2.64</b>

$$\chi^2 = \sum (O-E)^2 / E = 2.64$$

Number of degree of freedom:

$$ndf = (row-1) (column -1)$$

$$= (2-1) (4-1)$$

$$= 3$$

Table value of  $\chi^2$  at 1% level of significant = 7.78

**Conclusion:**

$H_0$  is accepted since the calculated value of  $\chi^2$  (**2.64**) less than the table value of  $\chi^2$  (**7.78**) hence there is no significant relationship between gender and frequency of changing the mobile phones.

## **5. FINDINGS**

- Nokia is the most favorite brand of the college student.
- 35% student change their mobile phones within 1 to 2 years
- 30% students are using the mobile phones since last 1 to 2 years.
- 51% students are ready to pay for a mobile phone less than 10,000 and they spend according to their family income.
- 49% students like the Nokia advertisement most.
- Mostly students use the mobile phones for talking, SMS and for using the GPRS function.
- Mostly students have handsfree, bluetooth and memory card.
- Almost all students are aware about the GPRS, Bluetooth and MMS service but least students are aware about the 3G function.
- Most favourite brand among the college students is Nokia and the least favorite brand is LG.
- Appearance, Price, Brand Image and advertisement are the important factors for the students while purchasing mobile phones.
- Mostly students prefer slim, medium in weight and large in size handset
- Mostly students see advertisement on television
- Story, spokesperson and the music are the important factor in advertisement
- Mostly students have the hanging and service problem with the Nokia.



## **6. RECOMMENDATIONS**

- Nokia should provide better service and try to solve the hanging problem
- Cellular companies should increase the awareness about the 3G service.
- Companies should offer more range of Rs. 10,000 or less than 10,000.
- LG and Samsung should try to expand its market share and also should try to increase the awareness through the television advertisement.
- All companies should increase their distribution channel.
- The companies should continue to work on the Strategy of T.Q.M (Total Quality Management)
- Consumers do not get satisfied with the promotional policies of the companies. New techniques of promotion is required to create awareness about the entire range of companies products.

## **7. LIMITATIONS**

- A small sample size of 250 students is taken, so we can not draw inferences about the population from this sample size.
- Time period is short and resource constraints.
- The scope of the project is limited to the city of Ghaziabad. So, we cannot say that the same response will exist throughout India.
- This study is based on the prevailing student's satisfaction. But the student's satisfaction may change according to time, fashion, technology, development, etc.

## **8. BIBLIOGRAPHY**

### **BOOKS:**

MARKETING MANAGEMENT - V.S. Ramaswamy,  
S.Namakumari

RESEARCH METHODOLOGY - C.R.Kothari

OPERATION RESEARCH - Vittal

### **Web Resources:**

- [www.trai.gov.in](http://www.trai.gov.in)
- <http://www.nokia.com/t-aboutus-ttsl-organization.aspx>
- <http://www.samsung.co.in/webapp/Aboutus/aboutushome.js>
- <http://www.LG.com/LG.portal?nfpb=true&pageLabel=LG Page AboutLG>
- <http://www.motorola.co.in/about.htm>
- [www.google.com](http://www.google.com)
- [www.scribd.com](http://www.scribd.com)

## **9. ANNEXURE**

### **Questionnaire**

#### **Section A: Personal Informations**

1. Name:

2.(a) Age:

(b) Gender

Male     Female

#### **3. Occupation of Father**

Service

Professional

Business

Others

Specify

#### **4. Income Level (per month)**

Less than 15,000

15,001 – 25,000

25,001 – 35,000

35,001 & above

**5. Educational Background ( Parents)**

- High School
  - Intermediate
  - Graduate
  - Post Graduate
  - If Other
- Specify

**Section B: About mobile phones**

**6) Which mobile phone you are using.**

- |                 |                          |            |                          |
|-----------------|--------------------------|------------|--------------------------|
| A) Nokia        | <input type="checkbox"/> | B) Samsung | <input type="checkbox"/> |
| C) Sony Ericson | <input type="checkbox"/> | D) LG      | <input type="checkbox"/> |
| E) Motorola     | <input type="checkbox"/> | F) iPhone  | <input type="checkbox"/> |
| G) Blackberry   | <input type="checkbox"/> | H) Others  | <input type="checkbox"/> |
- Specify

**7) Please write the model of your phone**

(Example: Nokia 1100, Ericson k800i, etc.)

**8) How long you are using the mobile phone**

- Less than 1 year
- 1 - 2 years
- 2 - 4 years
- Above 4 years

**9) What are the reasons for using the above mentioned model.**

A) WAP

B) Just to talk on it

C) Use GPRS function

D) Receive Email & SMS

E) Down Load Files

F) Others (Specify

**10) How often do you change your mobile phone**

- Less than 1 year
- 1 – 2 years
- 2 – 4 years
- Above 4 years

**11) What phone Accessories do you have?**

- A) Handsfree
- B) Bloothooth Head Set
- C) USB Data Cable
- D) Memory Card (SD Card)
- E) Others(Specify

**12) Latest Mobile facilities which you are aware of:-**

(Can tick multiple boxes of the facilities you know.)

- A) GPRS
- B) 3G
- C) MMS
- D) BLOOTOOTH
- E) INFRARED
- F) VIDEO CALL
- G) OTHER FACILITIES (Specify)

**13) What is your favourite brand in Mobiles?**

(Please choose your 3 favorite brands in order of preference from the brands in the table below. 1- most favorite, 3-least favorite.)

	1	2	3
A) Nokia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B) Samsung	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C) Sony Ericson	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D) LG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E) Motorola	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G) Blackberry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H) Others Specify the brand.			

**14) Why you like the brands you chose above?** (Please indicate the important of below factors when you choose the brands. 1-very important, 2-somewhat important, 3-neither important nor unimportant, 4-less important, 5- unimportant.)

	1	2	3	4	5
A) Advertisement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B) Appearance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C) Price	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D) Functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E) Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F) Brand Image	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G) Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H) Recommended by friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I) Others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Specify.

**15) Do you prefer phones to be**

- Slim or  medium or  thick  
 Light or  medium or  heavy  
 Small or  medium or  large

**16) What would you be willing to pay for a mobile phone**

- Less than 10,000  
 10,001 to 20,000  
 20,001 to 40,000  
 Any amount( Specify

**17) Where did you often see the mobile advertisement?**

- |                    |                          |               |                          |
|--------------------|--------------------------|---------------|--------------------------|
| A) TV              | <input type="checkbox"/> | B) News Paper | <input type="checkbox"/> |
| C) Magazine        | <input type="checkbox"/> | D) Online     | <input type="checkbox"/> |
| E) Outdoor         | <input type="checkbox"/> | F) Radio      | <input type="checkbox"/> |
| G) Leaflets        | <input type="checkbox"/> |               |                          |
| H) Others (specify | <input type="checkbox"/> |               |                          |

**18) Consider the TV advertisement you like – what brand is it promoting**

- |                 |                          |            |                          |
|-----------------|--------------------------|------------|--------------------------|
| A) Nokia        | <input type="checkbox"/> | B) Samsung | <input type="checkbox"/> |
| C) Sony Ericson | <input type="checkbox"/> | D) LG      | <input type="checkbox"/> |
| E) Motorola     | <input type="checkbox"/> | F) iPhone  | <input type="checkbox"/> |
| G) Blackberry   | <input type="checkbox"/> | H) Others  | <input type="checkbox"/> |

Specify

**19) Which of the following would impress you the most?**

(Please indicate the important of below factors when you choose the brands. 1-very important, 2-somewhat important, 3-neither important nor unimportant, 4-less important, 5- unimportant.)

- |                     | 1                        | 2                        | 3                        | 4                        | 5                        |
|---------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| A. Slogan           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Picture          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C. Color            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Story            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. Spokesperson     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| F. Music            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| G. Others           |                          |                          |                          |                          |                          |
| H. Recommended by   |                          |                          |                          |                          |                          |
| Friends             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I. Others (Specify) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**20.) Are there any general comments you would make about what you like/dislike about mobile phones? (This could be pricing, location of sales, reception, colour, memory, or anything else.)**