

Mobile Lifestyle or Life in the Mobile: A Perceptual Outlook of Chennai City

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Abstract: Cell phones have become increasingly popular in recent years. While people of various ages find cell phones convenient and useful, tend to be more dependent on them. Based on a survey conducted in a randomly in different age-size in Chennai City, cell phone use was examined. The survey consisted of questions that dealt with various aspects of cell phone use, such as cell phone ownerships, time spent for cell phone calls, monthly cell phone bills, communication networks, text messaging, and cell phone dependency. The survey results showed significant gender differences in several aspects of cell phone use. Multiple interpretations of the findings are discussed.

Key Words: Mobile, Dependency, Social, Network, Technology

Introduction

Modern growth

A large population, low telephony penetration levels, and a rise in consumers' income and spending owing to strong economic growth have helped make India the fastest-growing telecom market in the world. The first and largest operator is the state-owned incumbent BSNL, which is also the 7th largest telecom company in the world in terms of its number of subscribers.^[4] BSNL was created by corporatization of the erstwhile DTS (Department of Telecommunication Services), a government unit responsible for provision of telephony services. Subsequently, after the telecommunication policies were revised to allow private operators, companies such as Vodafone, BhartiAirtel, Tata Indicom, Idea Cellular, Aircel and Loop Mobile have entered the space. see major operators in India. In 2008-09, rural India outpaced urban India in mobile growth rate.^[5] India's mobile phone market is the fastest growing in the world, with companies adding some 16.67 million new customers a month.^[6] The total number of telephones in the country crossed the 543 million mark on Oct 2009.^[7] The overall tele-density has increased to 44.85% in Oct 2009.^{[8][9]} In the wireless segment, 17.65 million subscribers have been added in Nov 2009. The total wireless subscribers (GSM, CDMA & WLL (F)) base is more than 543.20 million now. The wireline segment subscriber base stood at 37.16 million with a decline of 0.13 million in Nov 2009.^[10]

Growth of mobile technology

India has become one of the fastest-growing mobile markets in the world.^[15] The mobile services were commercially launched in August 1995 in India. In the initial 5–6 years the average monthly subscribers additions were around 0.05 to 0.1 million only and the total mobile subscribers base in December 2002 stood at 10.5 millions. However, after the number of proactive initiatives taken by regulator and licenser, the monthly mobile subscriber additions increased to around 2 million per month in the year 2003-04 and 2004-05.

Although mobile telephones followed the New Telecom Policy 1994, growth was tardy in the early years because of the high price of hand sets as well as the high tariff structure of mobile telephones. The New Telecom Policy in 1999, the industry heralded several pro consumer initiatives. Mobile subscriber additions started picking up. The number of mobile phones added throughout the country in 2003 was 16 million, followed by 22 million in 2004, 32 million in 2005 and 65 million in 2006. As of

January 2009, total mobile phone subscribers numbered 362 million, having added 15 million that month alone^[16]. India ranks second in mobile phone usage to China, with 506 million users as of November 2009^[17].

Telephone

On landlines, intra circle calls are considered local calls while inter circle are considered long distance calls. Currently Government is working to integrate the whole country in one telecom circle. For long distance calls, you dial the area code prefixed with a zero (e.g. For calling Delhi, you would dial 011-XXXX XXXX). For international calls, you would dial "00" and the country code+areacode+number. The country code for India is 91.

Wireless telephones

The Mobile telecommunications system in India is the second largest in the world and it was thrown open to private players in the 1990s. The country is divided into multiple zones, called circles (roughly along state boundaries). Government and several private players run local and long distance telephone services. Competition has caused prices to drop and calls across India are one of the cheapest in the world.^[30] The rates are supposed to go down further with new measures to be taken by the Information Ministry.^[31] The mobile service has seen phenomenal growth since 2000. In September 2004, the number of mobile phone connections have crossed fixed-line connections. India primarily follows the GSM mobile system, in the 900 MHz band. Recent operators also operate in the 1800 MHz band. The dominant players are Airtel, Reliance Infocomm, Vodafone, Idea cellular and BSNL/MTNL. There are many smaller players, with operations in only a few states. International roaming agreements exist between most operators and many foreign carriers. Main article: List of mobile network operators of India.

The breakup of wireless subscriber base in India as of September 2009 is given below.

Operator	Subscriber base
<u>BhartiAirtel</u>	110,511,416
<u>Reliance Communications</u>	86,117,663
<u>Vodafone Essar</u>	82,846,046
<u>BSNL</u>	58,756,598
<u>Idea Cellular</u>	51,454,402
<u>Tata Teleservices</u>	46,796,033
<u>Aircel</u>	25,728,633
<u>MTNL</u>	4,680,141
<u>Loop Mobile</u>	2,495,087
<u>MTS India</u>	1,960,532
<u>HFCL Infotel</u>	379,654
All India	471,726,205

The list of ten states (including the metros Mumbai, Kolkata and Chennai in their respective states) with largest subscriber base as of September 2009 is given below^[33]

State	Subscriber base	Wireless density'''
<u>Maharashtra</u>	58,789,949	51.96
<u>Uttar Pradesh</u>	57,033,513	26.32
<u>Tamil Nadu</u>	45,449,460	63.66
<u>Andhra Pradesh</u>	37,126,048	42.58
<u>West Bengal</u>	32,540,049	34.28
<u>Karnataka</u>	28,867,734	46.76
<u>Rajasthan</u>	27,742,395	39.09
<u>Gujarat</u>	27,475,585	45.49
<u>Bihar</u>	27,434,896	25.04
<u>Madhya Pradesh</u>	24,923,739	33.09
All India	471,726,205	37.71

Wireless density was calculated using projected population of states from the natural growth rates of 1991-2001 and population of 2001 census.

Landlines

Landline service in India is primarily run by BSNL/MTNL and Reliance Infocomm though there are several other private players too, such as Touchnet and Tata Teleservices. Landlines are facing stiff competition from mobile telephones. The competition has forced the landline services to become more efficient. The landline network quality has improved and landline connections are now usually

available on demand, even in high density urban areas. The breakup of wireline subscriber base in India as of September 2009 is given below.

Operator	Subscriber base
<u>BSNL</u>	28,446,969
<u>MTNL</u>	3,514,454
<u>BhartiAirtel</u>	2,928,254
<u>Reliance Communications</u>	1,152,237
<u>Tata Teleservices</u>	1,003,261
HFCL Infotel	165,978
Teleservices Ltd	95,181
All India	37,306,334

Objectives

- To show about the importance of mobile usage
- To show about behaviours of mobile users
- To examine the way people relate to the functionality of mobile phone.

Methodology

Based on the objectives of the present study these secondary and perceptual (primary data) data has been adopted in the form of qualitative techniques for the study area of Chennai City.

Study Area

For the present study the study area has been chosen is Chennai city – a special group of mobile users in Chennai city.

PE

Receptional Analysis of Mobile Phone

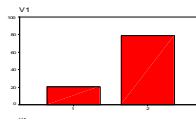
Perceptual Study of Demographic Aspects

Gender Distribution of Respondent

Table no. 1 Distribution of gender of respondent

GENDER	Frequency	Percent
MALE	21	21
FEMALE	79	79
Total	100	100

Chart no. 1



The above table and chart infers that the using mobile phone by gender are falls 21 % respondents are Male. Rest 79% respondents are Female.

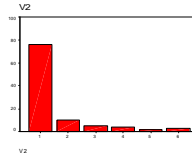
Age-Wise Distribution of Respondent

Table no. 2 Distribution of age-group of respondent

YEARS	Frequency	Percent
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18-21	76	76
21-25	10	10
25-30	5	5
30-35	4	4
35-45	2	2
45 +	3	3
Total	100	100

Chart no. 1A



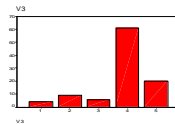
The above table and chart infers that the using mobile phone by age groups are falls under 76 % respondents are 18-21 years. Rest 10% respondents are 21-25 years. And the rest are falls beyond the age group of 25 years.

Educational Distribution of Respondent

Table no. 3 Distribution of Education of respondent

Classes	Frequency	Percent
No formal schooling	4	4
Primary school	9	9
Lower secondary	6	6
senior secondary school	61	61
post secondary	20	20
Total	100	100

Chart no. 1B



The above table and chart infers that the using mobile phone by education qualification are falls under 61 % respondents are senior secondary school studies. Next 20% respondents are post secondary studies. And the rest are falls beyond the educational qualification lower and primary schools.

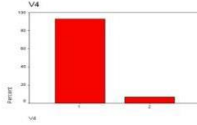
Perceptonal Study of Psychographic Aspects

Distribution of Respondent's Mobile Usage (4-9)

Table no. 4 Distribution of respondents mobile usage as a own:

Own Mobile (V4)	Frequency	Percent
Yes (1)	92	92
No (2)	7	7
Total	99	99

Chart no. 1C

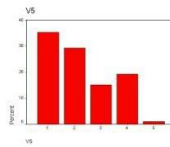


The above table and chart infers that the using mobile phone is belongs to the respondent or not. Over all respondents 92 % are saying YES. Rest are all saying NO. May be belongs to the relations using for a time being.

Table no. 5 Distribution of acquire a mobile phone in the household:

Acquire mobile phone (V5)	Frequency	Percent
less than 1 year (1)	35	35
1 - 2 year (2)	29	29
2 - 3 year (3)	15	15
3 - 4 year (4)	19	19
above 4 years (5)	1	1
Total	99	99

Chart No. 2

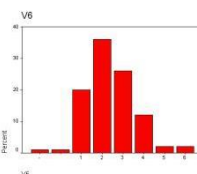


The above table and chart infers that the 35% of respondents using mobile for a period of less than 1 year. 15% of respondent using mobile for a period of 2 – 3 years.

Table No. 6 Distribution of no. of mobile phone users in house:

No. of mobiles in house (V6)	Frequency	Percent
1	20	20
2	36	36
3	26	26
4	12	12
5	2	2
6	2	2
Total	100	100

Chart No. 3

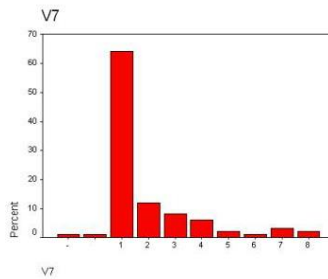


From the above table and chart infers that the currently how many mobile phones are using in a house says at least two in numbers.

Table No. 7 Distribution of Using of mobile phone product:

Handset Product (V7)	Frequency	Percent
Nokia (1)	64	64
Samsung (2)	12	12
Sony Ericsson (3)	8	8
LG (4)	6	6
Motorola (5)	2	2
Indian Mobiles (6)	1	1
China Mobiles (7)	3	3
Others (8)	2	2
Total	100	100

Chart No. 4



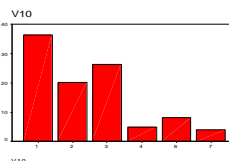
From the above table and chart infers that the currently using mobile phone by owned says that 64 % of Nokia hand sets, next 12 % of Samsung mobile phone as hand sets.

Distribution of Respondent’s Mobile Phone Dependency And Priority (10-14)

Table No. 8 Distribution of service provider of mobile phone:

Sl.No.	The Service Provider (V10)	Frequency	Percent
1	Air tel	36	36
2	Vodafone	20	20
3	Aircel	26	26
4	Reliance	5	5
5	Uninor	8	8
6	BSNL	4	4
7	Others	1	1
	Total	100	100

Chart No. 5



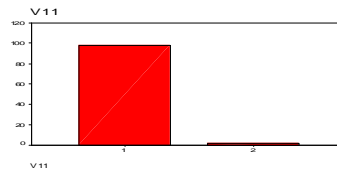
From the above table and chart infers that the currently using mobile phone by owned using the service provider is, 36 % of Airtel service provider, next 26 % of Aircel service provider of mobile phone as hand sets.

Distribution of Frequency of Mobile Usage (15-24)

Table No. 9 Distribution of mobile phone usages through SIM status:

SIM (V11)	Frequency	Percent
Pre-pain (1)	97	97
Post-pain (2)	3	3
Total	100	100

Chart No. 6

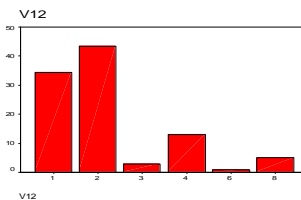


From the above table and chart infers that the currently using mobile phone by owned using the SIM belong to is, 97 % of pre-paid, next 3 % of post-paid of mobile phone as handsets.

Table No. 10 Distribution of Pre-paid recharges of mobile phone:

Sl.No.	Pre-paid (V12)	Frequency	Percent
1	Daily	34	34
2	Weekly	43	43
3	Bi-weekly	3	3
4	Monthly	13	13
6	Every three months	1	1
8	others	5	5
	Total	99	99

Chart 7



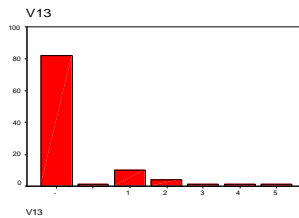
From the above table and chart infers that the currently using mobile phone by owned using recharge of mobile phone is, 43 % of weekly once, next 34 % of daily once a day of mobile phone.

Table No. 11 Distribution of post-paid recharges of mobile phone:

Sl.No.	Post-paid (Rs.)	Frequency	Percent
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0	< 500	83	83
1	500 – 700	10	10
2	700 – 1000	4	4
3	1000 – 1500	1	1
4	1500 – 2000	1	1
5	2000 – <	1	1
	Total	100	100

Chart No. 8

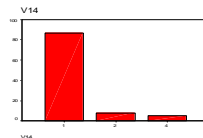


From the above table and chart infers that the currently using mobile phone by owned using recharge of mobile phone spending money for billing per month as a post-paid is, 83 % of less than Rs. 500, next 10 % of Rs. 500 – Rs. 700 for mobile phone.

Table No. 12 Distribution of consuming of money for mobile usage:

Sl.No.	Consumes all money	Frequency	Percent
1	Yes	86	86
2	No	10	10
4	No Answer	4	4
	Total	100	100

Chart No. 9



From the above table and chart infers that the currently using mobile phone by owned using recharge as well as billing for calls for mobile phone, whether they are consuming money all says, 86 % of YES, next 10 % of NO.

Table :13 Distribution of how frequently using mobile phone for :

	sending text		sending pictures		downloading ring tones		playing games		greetings		STD calling		local calls	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
ALWAYS	53	53	5	5	7	7	31	31	12	12	11	11	67	67
OFTEN	8	8	7	7	5	5	10	10	6	6	3	3	6	6
SOMETIMES	28	28	44	44	34	34	32	32	16	16	22	22	22	22
RARELY	6	6	15	15	16	16	10	10	19	19	9	9	2	2
NEVER	5	5	29	29	38	38	17	17	47	47	55	55	3	3
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100

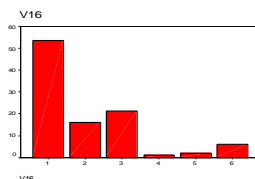
From the above table infers that the distribution of how frequently using mobile phone for sending text, sending pictures, downloading ring tones, playing games, greetings, STD calling and local calls. Out of these categories always making local calls as well as sending texts are dominates highest of using their mobile phone of their consuming of mobile phone.

Distribution of Mobile Usage with Environment

Table No. 14 Distribution of mobile phone bought from:

Sl.No.	Mobile bought from	Frequency	Percent
1	Father	53	53
2	Elder Brother/Sister	16	16
3	Self	21	21
4	Company	2	2
5	Gift	2	2
6	others	6	6
Total		100	100

Chart No. 10

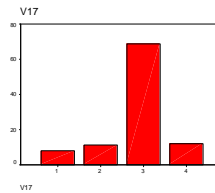


From the above table and chart infers that who bought the mobile phone for the respondent says, 53 % belongs from father and 21% belongs by self. Or 16% from elders brother or sisters barrowing.

Table No. 15 Distribution of mobile phone needed because of:

Sl. No.	Mobile needed for	Frequency	Percent
1	By surrounds uses	9	9
2	Like to have	11	11
3	Somebody recommended	68	68
4	others	12	12
	Total		100

Chart No. 11

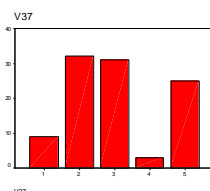


From the above table and chart infers that the currently using mobile phone by owned because of everybody around already having one mobile with, or wanted to buy it, or somebody asked to get one for respondent. Out of these choices 68% of respondents answered only because of somebody(friend/parents) asking to get one for self for consuming mobile phone.

Table No. 16 Distribution of mobile users while talking mind others:

Sl. No.	Mind others while talking	Frequency	Percent
1	No, never	9	9
2	Rarely	32	32
3	Sometimes	31	31
4	Often	3	3
5	Yes, always	25	25
	Total	100	100

Chart no. 12

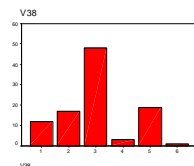


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are while talking over the mobile, whether bothers about their surrounds says, 32% and 31% of respondents are said rarely and sometimes of using mobile phone.

Table No. 17 Distribution of mobile users keep silent/vibrate mode:

Sl.no.	Silent/vibrate mode	Frequency	Percent
1	No, never	12	12
2	Rarely	17	17
3	Sometimes	48	48
4	Often	4	4
5	Yes, always	19	19
	Total	100	100

Chart no. 13



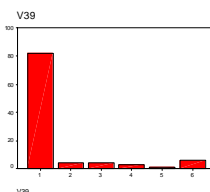
From the above table and chart infers that the perception of currently using mobile phone by owned respondent are while talking over the mobile, whether they keep the mobile phone as silent or vibrate mode. 48% respondents are keeping their mobile phone as silent mode sometimes. 17% of respondents are said that rarely of using mobile phone.

Table No. 18 Distribution of mobile users keep silent/vibrate mode:

Sl.no.	Silent/vibrate mode	Frequency	Percent
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1	No, never	82	82
2	Rarely	4	4
3	Sometimes	4	4
4	Often	3	3
5	Yes, always	1	1
6	I don't have a vehicle	6	6
	Total	100	100

Chart no.14

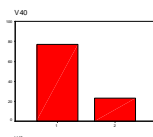


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are talking while driving over the mobile. 82% respondents are saying no talking while driving over mobile phone.

Table No. 19 Distribution of mobile users without mobile for a day:

Sl. No.	Without mobile	Frequency	Percent
1	NO	77	77
2	YES	23	23
Total		100	100

Chart no. 15



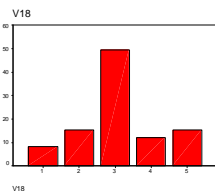
From the above table and chart infers that the perception of currently using mobile phone by owned respondent can do without mobile phone for a day. 77% respondents are saying NO.

Distribution of Mobile Usage with Latest Trend (29-31)

Table No. 20 Distribution of reason for purchasing the mobile:

Sl. No.	Reason	Frequency	Percent
1	Convenience	8	8
2	Easily accessible	15	15
3	Easy to communicate	49	49
4	No landline	12	12
5	others	16	16
	Total	100	100

Chart No. 16

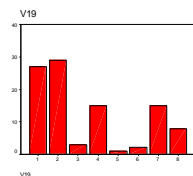


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are whether they are giving most important reason for purchasing the mobile phone. 49% respondents are saying that it was easy to communicate with friends easily so that the mobile phone are purchasing and using.

Table No. 21 Distribution of using accessories for mobile phone:

Sl.No.	Accessories	Frequency	Percent
1	Cover	27	27
2	Pouch	29	29
3	String	3	3
4	Memory card	15	15
5	Any above two	1	1
6	All the four	2	2
7	None so far	15	15
8	others	8	8
	Total	100	100

Chart No. 17

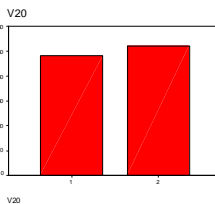


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are what accessories bought for their mobile phone. 27-29% respondents are bought mobile cover and memory card for using mobile phone.

Table No. 22 Distribution of using hands-free kit for mobile:

Sl. No.	Have hands-free kits	Frequency	Percent
1	YES	48	48
2	NO	52	52
Total		100	100

Chart No. 18

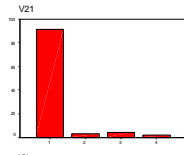


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are whether they have hands-free kit. 48% respondents are keeping their hands-free kit of mobile phone. 52% of respondents are said that NO for using hands-free for mobile phone.

Table No. 23 Distribution of at the age started using mobile:

Sl no.	At the age of	Frequency	Percent
1	18-21 years	91	91
2	21-25 years	3	3
3	25-30 years	4	4
4	30-25 years	2	2
	Total	100	100

Chart No. 19

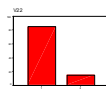


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are at the age started using mobile phone. 91% respondents are using their mobile phone started at the age of 18 – 21 years.

Table No. 24 Distribution of mobile phone always ON:

Sl. No.	Mobile ON	Frequency	Percent
1	YES	85	85
2	NO	15	15
	Total	100	100

Chart No. 20

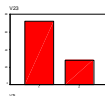


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are whether mobile phone always keeping ON. 85% respondents are keeping their mobile phone as ON.

Table No. 25 Distribution of mobile phone answering the calls:

S. No.	Answering calls	Frequency	Percent
1	All the calls	72	72
2	Selective calls	28	28
	Total	100	100

Chart No. 21

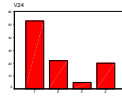


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are whether answers all the call from mobile phone. 72% respondents are attending their all the calls from mobile phone.

Table No. 26 Distribution of using mobile phone for:

Sl. No.	Using mobile for	Frequency	Percent
1	Calling friends	53	53
2	Calling home	22	22
3	Business	5	5
4	others	20	20
	Total	100	100

Chart No. 21

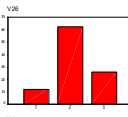


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are purpose of making calls from the mobile phone. 53% of respondents are making calls for their friends through mobile phone.

Table No. 27 Distribution of majority way of using mobile phone over all:

Sl no.	Majority Way of using	Frequency	Percent
1	Missed calls	12	12
2	SMS	62	62
3	Calls	26	26
	Total	100	100

Chart No. 22



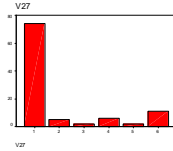
From the above table and chart infers that the perception of currently using mobile phone by owned respondent are use a mobile phone making a call maximum way of approach others through. 62% respondents are through SMS from their mobile phone.

Table No. 28 Distribution of majority of using mobile phone at the places:

Sl. No.	At the places of	Frequency	Percent
1	At home	74	74
2	In public transport	5	5
3	At worships	2	2

4	In shopping	6	6
5	At transport stations	2	2
6	At work place	11	11
Total		100	100

Chart No. 23

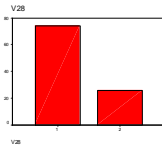


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are using their mobile phone maximum at the places of. 74% respondents are at home.

Table No. 29 Distribution of while talking mobile phone - attitudes :

Sl.no.	Attitude	Frequency	Percent
1	Stand at one place and complete the talk	74	74
2	Roam around	26	26
	Total	100	100

Chart No. 24

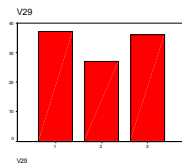


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are while talking over the mobile phone the attitude as. 74% respondents are standing at one place and complete the conversation than roam around of 26%.

Table No. 30 Distribution of storing information of mobile phone – private :

Sl.no.	Information storing - private	Frequency	Percent
1	Very private	37	37
2	Somewhat private	27	27
3	Not private	36	36
	Total	100	100

Chart No. 24

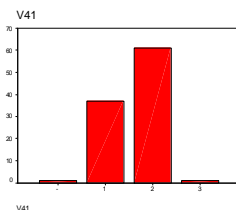


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are using their mobile phone how private is it considers. 37% respondents are keeping their mobile phone having information very private.

Table No. 31 Distribution of aware of latest model of mobile phone:

Sl. No.	Aware of Latest model	Frequency	Percent
0	-	1	1
1	YES	37	37
2	NO	61	61
3	No response	1	1
	Total	100	100

Chart no. 25

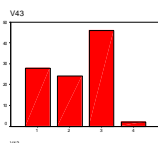


From the above table and chart infers that the perception of currently using mobile phone by owned respondent are whether they aware of the latest models or handset available in the mobile market. 61% respondents are keeping their mobile phone as ON.

Table No. 3.2 Distribution of mobile users having mobile phone:

Sl. No.	Having mobile phone	Frequency	Percent
1	Stylish	28	28
2	Conveneient	24	24
3	Safer	46	46
4	others	2	2
	Total	100	100

Chart no. 26



From the above table and chart infers that the perception of currently using mobile phone by owned respondent are feels the best part of having mobile phone. 46% respondents are feels that it is safer.

Table 33 Distribution of mobile users’ acceptance of the any of the statement :

	mobile necessity		model-fashion		lengthy conversation		sms storage privacy		while driving OK	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	54	54	15	15	21	21	45	45	7	7
2	23	23	47	47	17	17	13	13	14	14
3	1	1	12	12	20	20	8	8	2	2
4	12	12	8	8	9	9	16	16	4	4
5	10	10	18	18	33	33	18	18	73	73
Total	100	100	100	100	100	100	100	100	100	100

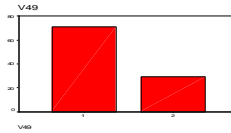
From the above table infers that the perception of currently using mobile phone by owned respondent are distribution of mobile users’ acceptance of the any of the statement whether the mobile necessity today or the model you busy tells how fashionable are, or lengthy conversations on a mobile are OK, or phone numbers messages stored in mobile are private, or using mobile phone while driving is OK. Totally agree and somewhat agree for mobile necessity and message storage are dominant to the respondents of consuming mobile phone.

Distribution of Mobile User’s Health Awareness

Table No. 34 Distribution of medical awareness of the using mobile:

Sl. No.	side effect	Frequency	Percent
1	YES	71	71
2	NO	29	29
	Total	100	100

Chart No.27



From the above table and chart infers that the perceptions of currently using mobile phone by owned respondent are having any medical side effects of using mobile phone. 71% respondents are feels that having medical side effects while consuming mobile phone.

Summary and Suggestions

Mobile phones have not only helped improve communication worldwide, especially in developing countries, they have in some instances helped save lives. For many parents, they offer an important means of keeping in touch with their children as they travel to and from school, sporting activities or meeting with friends. These and other positive aspects of mobile phones should be kept in mind when discussing the issue of adverse effects of mobile phones. A strong link has been found between mobile phone use while driving and the occurrence of traffic accidents, resulting in some governments taking steps to ban mobile phone use when navigating traffic. At present, there is no conclusive evidence from scientific studies and health-risk assessments to indicate that RF exposure from mobile phones and their base stations lead to adverse health consequences when exposure is below recommended reference values. No significant relationship has been established between mobile phone use and the incidence or growth of cancer, especially brain tumours. Although there is still justification for further studies, which look at the risks of longer-term mobile phone use (X15 years), these studies should also address a broad range of health outcomes, not only brain tumors. One concern that merits further investigation is that of subjective symptoms. Studies have shown that such complaints are not decreasing, despite the fact that no scientific evidence has been found in support of a causal relationship between EMFs below permitted levels and non-specific health symptoms. This is a broad area of investigation that requires an interdisciplinary approach with input from psychology, laboratory studies and epidemiologic disciplines. Little is known about possible adverse effects of mobile phone use on children, especially effects that might appear later in life. Ideally, prospective cohort studies covering different age groups as well as pregnant women and capable of incorporating the rapidly changing technology and exposures should be conducted. As the use of mobile phones is now so widespread, with almost everyone in industrialized countries having access to them, further studies should focus on exposure gradients rather than exposed versus non-exposed groups. Future studies should also be planned in less industrialized countries, where hardly any investigation has been carried out to date.

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