A study on the usage & dependency on smartphones among the college students in Coimbatore

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Abstract

A study is done to understand the usage of smartphone among the college students in Coimbatore. A sample of 200 respondents was taken for the study. 136 male students and 64 female students were studied in terms of age, gender, income, brand used, the service operator used, no of SIM used, type of connection and the money spent on recharges. The study also examined the frequency of smartphone usage for different purposes among the college students. The results show that except for online shopping, the respondents are seen to be using their smartphone several times a day.Chi-Square test was done to examine the relationship between the variables studied.

Key words: smartphone, youth, mobile usage.

1. Introduction

Mobile communication is a budding research area in India. There are various studies done on foreign context where they have explored the usage of smartphone or mobile phone with respect to children, youth, adults and the elderly. Various studies done on foreign context have dealt with the mobile phone or smartphone usage preferences, their effects on the users, maladaptive usage and over dependency on the device by the users. The few eminent researchers in the field of mobile communication are Silverstone and Haddon (1996), Katz (1997), Leung & Wei (1999), Licoppe (2001), Taylor and Harper (2001), Rich Ling (2001), LeopoldinaFortunati (2002), Lee (2002), and Aoki and Downes (2003). Few researchers who have worked on mobile communication and youth/college students are Rich

Ling (2001), Katz and Aakhus (2002), Yoon (2003), Aoki and Downes (2004), Fortunati, (2002); Fortunati&Manganelli, (2002), Green and Haddon (2009), Richard Allyene (2011), Reed (2011), and Groggin& Crawford (2011).

2. Review of Literature

In their book, "Mobile Communication", Rich Ling and Jonnathan Donner has written that "the mobile phone is becoming the locus of the calls that mark the different phases of our life. Irrespective of age, people are seen depending upon the device for various needs. The mobile phone is also becoming a cultural icon in its own term where the style, model and features of a phone play an important part to display who we are in to the outside world".

Katz(2003), in an edited volume, "Machines that become Us: the social context of Personal communication", mentions that "the mobile phones can be our personal miniature representative. It complements and enhances one's appearance".

"The need for mobile phone is related to the sense of personal safety and it allows the users to contact their important others in an instant" (Ling, 2004; Rosen, 2004).

Goodman (2005) did a study of mobile phone use in two East African countries-South Africa and Tanzania. His study proved that mobile phone ownership in South Africa is positively associated with overall life satisfaction.

"Mobile communication can nurture social participation and the sense of belonging to a personal linkage of peers, friends, and family" (Ishii, 2006; Ling, 2008; Matsuda, 2005).

Rainee, (2001) opines that at present we have the exercise of teenagers "hanging out" on-line through instant messaging to get hold of something exciting, to hear if something was "happening", related with hanging out in physical public spaces such as shopping malls.

Selingo (2004) did a national survey on US youngsters and found out that mobile phone is considered by the youth as a status symbol and a communications device".

3. Methodology

The methodology used for the study is survey. A well drafted questionnaire was distributed to 200 college students in Coimbatore. A total of 136 male students and 64 female students were taken for the analysis. The study intend to understand the usage of smartphone by the respondents on the factors of calling , texting, taking pictures, playing music, playing games, Social networking, and online shopping. The respondents were also studied in terms of age, gender, income, brand of smartphone used, the service operator, number of SIM used, type of connection (Post-Paid/Pre-Paid), and the amount of money spent on recharges in a month.

Objectives for the study
• To find out how often they use their smartphone for texting, calling, taking pictures, playing music, playing games, Social networking and online shopping.
• To find out the relationship between gender and smartphone brand preference
• To investigate the relationship between income and brand of mobile used
• To study the relationship between income and the number of SIM used
• To examine the relationship between income and type of connection , whether pre-paid or post-paid
• To study the relationship between gender and money spend
• To find out the relationship between income and money spent on recharges in a month

Based on the above mentioned, the following Hypotheses were set.
1. There is a significant relationship between gender and the smartphone brand preference.
2. There is a significant relationship between gender and money spend
3. There is a significant relationship between income and brand of smartphone used.
4. There is a significant relationship between income and the number of SIM used
5. There is a significant relationship between income and type of connection , whether pre-paid or post-paid

6. There is a significant relationship between income and money spent on recharges in a month

4. Data Analysis

The statistical tools such as frequency analysis of the demographic variables ,cross tabulation, T-Test and Chi-square Test($\chi2$) were done for analyzing the data

4.1. Usage of Smartphone for the purpose of texting

	Frequency	Valid Percent	Cumulative Percent
Never	9	4.5	4.5
Less often	47	23.5	28.0
Once in a week	13	6.5	34.5
Few times a week	31	15.5	50.0
Several times a day	100	50.0	100.0
Total	200	100.0	

The above table shows that half of the respondents use their smartphone for texting purpose several times a day.

4.2. Usage of Smartphone for the purpose of calling

	Frequency	Valid Percent	Cumulative Percent
Less often	7	3.5	3.5
Once in a week	1	.5	4.0
Few times a week	38	19.0	23.0
Several times a day	154	77.0	100.0
Total	200	100.0	
System	25		
	225		

The above table shows that a majority of the respondents use their smartphone for calling purpose several times a day.

4.3. Usage of Smartphone for the purpose of taking pictures

	Frequency	Valid Percent	Cumulative Percent
Never	5	2.5	2.5
Less often	21	10.5	13.0
₂ in a week	19	9.5	22.5
Few times a week	54	27.0	49.5
Several times a day	101	50.5	100.0
Total	200	100.0	

The above table shows that more than half of the respondents use their smartphone several times a day for taking pictures.

4.4. Usage of Smartphone for the purpose of playing Music

	Frequency	Valid Percent	Cumulative Percent
Never	5	2.5	2.5
Less often	7	3.5	6.0
Once in a week	7	3.5	9.5
Few times a week	29	14.5	24.0
Several times a day	152	76.0	100.0
Total	200	100.0	

The above table shows that more than half of the respondents use their smartphone for playing music several times a day.

4.5. Usageof Smartphone for the purpose of playing Games

	Frequency	Valid Percent	Cumulative Percent
Never	26	13.0	13.0
Less often	21	10.5	23.5
Once in a week	8	4.0	27.5
Few times a week	34	17.0	44.5
Several times a day	111	55.5	100.0
Total	200	100.0	

The above table shows that more than half of the respondents use their smartphone for playing games several times a day.

4.6. Usage of Smartphone for the purpose of Social Networking

	Frequency	Valid Percent	Cumulative Percent
Never	6	3.0	3.0
Less often	17	8.5	11.5
Once in a week	12	6.0	17.5
Few times a week	14	7.0	24.5
Several times a day	151	75.5	100.0
Total	200	100.0	

the above table shows that more than half of the respondents use their smartphone for social networking purpose several times a day.

4.7. Usage of Smartphone for the purpose of Online shopping

	Freque ncy	Valid Percent	Cumulat ive Percent
Never	17	8.5	8.5
Less often	60	30.0	38.5
Once in a week	42	21.0	59.5
Few times a week	44	22.0	81.5
Several times a day	37	18.5	100.0
Total	200	100.0	

The above table shows that a majority of 60 respondents use their smartphone less often for online shopping followed by a total of 44 respondents who use their smartphone for online purchase few times a week.

4.8. Gender and brand preferences

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
brand	Male	136	3.360	1.1067	.0949
	Female	64	3.125	1.3393	.1674

The mean value of male is 3.360 and female is 3.125.it can be concluded that male respondents are having more brand preferences when it comes to their smartphone usage than female respondents.

4.9. Gender and Money spent

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Moneys pent	Male	136	2.728	.8900	.0763
	Female	64	3.094	1.0035	.1254

The mean value of male is 2.728 and female is 3.094.It is found that female respondents are spending more money on recharges than male respondents on a monthly basis.

4.10. Income and brand used

Cross tabulation of Family income and brand used

		Brand				Total
		APPLE	SAMSUNG	NOKIA	OTHERS	
Family income	>10,000	2	0	0	6	8
	10,001-30,000	3	10	3	63	79
	30,001-60,000	6	6	0	45	57
	<60,000	23	2	2	29	56
Total		34	18	5	143	200

The cross tabulation results show that a total number of 23 respondents whose monthly income are above Rs. 60,000 are the ones who use Apple brand. A majority of 63 respondents prefer other brand like Redmi, Moto and Lenovo and they belong to the category of Rs. 10,001-30,000 income group.

A chi-square test was conducted to find out the relationship between income of the respondents and the brand used by them.

Table: 1. Chi-Square Test for income and brand used

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.435[a]	9	.000

The T-Test value is highly significant. It means that there is a significant relationship between income of the respondent and the brand used by them. A total of 23 respondents whose monthly income is above Rs.60,000 were seen to be using Apple as their smartphone brand. So the monthly income of the respondent plays a major determinant in deciding the brand of smartphone.

4.11. Income and the number of SIM used by the respondents

Cross Tabulation of Family income and the number of SIM used

Count

		noofsim		Total
		1	2	
Faminc	>10,000	4	4	8
	10,001-30,000	24	55	79
	30,001-60,000	23	34	57
	<60,000	29	27	56
Total		80	120	200

The Cross tabulation results show that majority of respondents own 2 SIM and they belong to the income group of Rs.10,001-30,000, followed by respondents who belong to the income group of Rs.30,001-60,000.

Table: 2. Chi-Square Test for income and number of SIM used

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.624[a]	3	.085

The chi-Square test value of .085 shows that there is no significant difference when it comes to the income of the respondent and the money spent on recharges. A chi-Square test was conducted to understand whether there is any relationship between family income and number of SIM the respondents use. It was proven that there is no significant difference when it comes to income and the number of SIM used. Respondents belonging to the income group of Rs,10,001-30,000 are seen to be possessing 2 SIM when it comes to usage. So income doesn't determine the usage of SIM in terms of numbers.

4.12. Income and type of Connection

Crosstabulation of income and type of connection(Pre-Paid/Post-Paid)

		Typeconnection		Total
		Pre paid	Post paid	
Faminc	>10,000	6	2	8
	10,001-30,000	73	6	79
	30,001-60,000	51	6	57
	<60,000	37	19	56
Total		167	33	200

The cross tabulation results shows that a majority of 19 respondents use post-paid connection and they belong to the income group of above 60,000.

Table: 3. Chi-Square Test for income and type of connection

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.789[a]	3	.000

A chi-Square test was conducted to understand whether the income determines the usage of pre-paid or post-paid connection. It was proved there is a significant relationship between income and the type of connection the respondents use. Out of post-paid users, majority of the respondents belong to high income category.

4.13. Income and Money spent on recharges

Crosstabulation of income and money spent on recharges

		Moneyspent				Total
		>100	100-200	200-400	<400	
Family income	>10,000	2	2	2	2	8
	10,001-30,000	10	29	23	17	79
	30,001-60,000	4	14	29	10	57
	<60,000	3	4	22	27	56
Total		19	49	76	56	200

The cross tabulation results shows that majority of respondents who spent more than Rs.400 on a monthly recharge belongs to the monthly income group of above Rs.60,000.

A Chi-Square test was conducted to understand the relationship between income and money spent on recharges by the respondents. It was proven that there is a significant relationship between income and money spent on recharges. Respondents with a higher income tend to spent more money on recharges.

Table: 4. Chi-Square Test for income and money spent on recharges

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	32.045[a]	9	.000

5. Results and Discussion

The study done to find out the smartphone usage among the college students in Coimbatore.

- It was found out that the college students in Coimbatore use their smartphone several times a day for the purpose of calling, texting, taking pictures, playing music and playing games. But they are seen to be using their smartphone less often for online shopping.

- The male respondents are found to be having brand preferences more than the female respondents.
- Female respondents are found to be spending more money on monthly recharges than male respondents.
- The study proved a significant relationship between income and brand used. Respondents belonging to above Rs.60,000 as their monthly income are seen to be owning the brand Apple.
- The study proved that income doesn't determine the number of SIM the respondents use. It was found out that respondens belonging to the income group of Rs.10,000 to 30,000 a month were seen to be owning more than a SIM.
- There is a significant relationship between income and type of connection. The respondents belonging to higher income were seen to be owning post-paid connection.
- It was found out that income has a significant relation with the money spent on recharges in a month. The higher income category was found to be spending more money on monthly recharges.

6. Conclusions

The study has proven that today's college students are having a dependency over their smart phone for coordinating their day to day life. Smart phones with their numerous features have made the college students to depend on the device on a greater extent. College students are seen to be obsessed with the smartphone device using it for calling, texting, playing music, playing games and using for social networking. They depend upon the smartphone for various features in order to meet their requirements with respect to information, entertainment and education.

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