A Study on Smartphone usage pattern among Adolescent in Tiruchirappalli Town

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Abstract - Recent innovation in the Mobile Technology is "Smart phone". Technology has done a lot of benefits to our lives easier and more efficient. People find it quite easier to communicate with each other in a different way and access more information with the smart phone's support. Today's smart phone application markets host an ever increasing number of applications. Apps play ground integrates multiple components comprising different detection and an automatic exploration technique for this purpose. This Apps Playground is seems to be quite effective at automatically detecting privacy leaks and malicious functionality in applications. Smartphone abuse to addiction is becoming more problematic nowadays in India because most students whether higher learning students or low level students are more addicted to applications found on smartphones like WhatsApp, Twitter, Facebook and the like. The purpose of this paper is to present the result of a survey on the impact of smartphone application usage among adolescent. The data were collected through structured questionnaires from 150 individual users across the city in Tiruchirappalli and the conclusions were drawn from the inferences obtained.

Keywords - Mobile technology, Apps, Smartphone, Internet, addiction.

I. INTRODUCTION

Smartphones is one among those technological devices that become the number one tool as its usage is very simple, quick and helps people solve many kinds of problems easily. They are considered as small computers because their functions actually fulfill that description. These gadgets are of recent origin. Their growth could be accounted only between 7 to 10 years and its technology has been enhanced equivalent to iphone or newest Android models in the mobile market.

Right from the launch of first iphone in the year 2007, most of the consumers are attracted towards this device. Practically speaking, adolescents are rather hooked to this incredible instrument. Interpersonal relationship and group communication has become inevitable in the life of adolescents. The Smartphone not only facilitate easy, quick and prompt communication, but also an effective device in enhancing the exposure level in various fields.

In the life of adolescents, Smartphone has become part and parcel of their life style next to their very basic needs. They are able to find anything they need from that device. There is every possibility for them to find applications of any kind of interest. This paper intends to portray the intensity of the influence of this indispensable device in the life of adolescents.

The scientific and technological exploitation in the mobile phone is a welcoming features. It has captured a major chunk of youth market. The consumption pattern of smartphone among adolescents is most alarming one.

Youngsters are now-a-days most adaptable to the changing environment than the adults. They operates the smartphone smarter than their parents and elders. They consider the apps in the smartphone are some of the best way to learn more and more. They consider the smartphone as a positive part of their life.

Adolescent are most susceptible to access to Smartphone. The emerging trend of socialization in the upcoming cultural change is the root cause. Apart from conversation, they spend most of their time on their Smartphones for social media, messaging, gaming etc. They fail to engage themselves with others, reference to go out or play etc.

Smartphone is more than a high-tech toy for many people. They enlighten and create awareness on everything from artistic endeavors to technical pursuits. More over it provide social independence too. Teens learn more about society and social dynamics through their smartphone in one sitting. Most of the social apps they intend to spend are Whatsapp, Snapchat, instagram, facebook and like apps. The smartphone provide portable access the young ones to the entire world. The parents who are really concerned over their teenage sons' or daughters' really worried about this

scenario. It is true that Smartphone does harm to the mental health of the adolscents.

Objectives:

- ❖ To study the level of familiarity among the adolescent about the features of Smartphone.

- ❖ To understand the usage pattern of smartphone among adolescent.

- ❖ To assess the positive and negative impact of smartphone usage among adolescents.

- ❖ To suggest measure to proper usage of smartphone among adolescents.

II.   METHODOLOGY

This study is a descriptive one and the respondents were selected on convenience sampling mode. The size of the survey is limited to 150 respondents and data were are chosen as sample size for the study and data was collected through a structured questionnaire in and around Tiruchirappalli Town, Tamilnadu, South India. The data collected were tabulated, analysed using appropriate tools and inferences were also drawn.

Scope of the study:

- • The study helps us to know about the influence of Smartphone usage among adolescents.

Limitation of the study:

- • The study confines itself only to the usage of communication technology through Smartphone in Tiruchirappalli town**.**

Tools and Techniques:

- ❖ Percentage Analysis
- ❖ Chi Square test
- ❖ T- test analysis

III.   REVIEW LITERATURE

Kuan-Yu Lin and His-Peng Lu (2012) applied network externalities and motivation theory to understand the usage of Social Networking Sites among adolescent college students. After conducting an empirical research involving 402 samples, using Structural Equation Modelling (SEM) Approach, Lin and Lu (2011) found that "Enjoyment" was the foremost cogent issue for the increasing usage of Social Networking Sites among the college students.

Won Kim and Sang-WonLee (2010) found out that nowadays the adolescent use various Social Networking Sites, to remain connected with their friends, discover new "friends" and to share users – created contents, like photos, videos, blogs etc, so as to explore factors affecting college students' motive for exploiting Social Networking Sites.

Coyle and Vaughn (2009) in their study examined the literature on Social Networking Sites and conducted a survey among college students to access why they engage in social networking. They found that the prime reason for exploitation of Social Networking Sites is to stay involved with friends. They conjointly indicate that these are used for simply trivial communication with friends. These sites are merely new type of communication that's evolving over time with the help of technology.

IV.   ANALYSIS AND INTERPRETATION

Demographic profile of the respondents:

Variables	Factors	Frequency	Percent
Gender	Boys	65	43
	Girls	85	57
Educational Qualifications (Doing)	SSC	18	12
	HSC	27	18
	Diploma	38	25
	Bachelor Degree	68	45
Having access to Smartphone	Yes	135	90
	No	15	10
Having Internet on mobile	Yes	117	78
	No	33	22
Type of connection	Prepaid	120	80
	Postpaid	30	20
Service Provider	Airtel	66	44
	Jio	48	32
	BSNL	18	12
	Reliance	6	4
	Vodafone	12	8
Brand of Smartphone	Samsung	54	40
	Sony	32	24
	Nokia	11	8
	Apple	24	18
	LG	14	10
Time Spending	Below 2 Hrs	8	6
	2Hrs – 4 Hrs	38	28
	4 Hrs – 6 Hrs	57	42
	Above 6 Hrs	32	24

Source: Primary data

- • 57% of the respondents are girls.

- • 45% of the respondents are doing Bachelor Degree.

- • 90% of the respondents have accessibility to smartphone.

- • 78% of the respondents have internet connection on mobile.

- • 80% of the respondents have prepaid connection.

- Majority of 44% of the respondents are using Airtel sim.

- 40% of the respondents are having Samsung mobile.

- 42% of the respondents are using smartphone for 4 Hrs to 6 Hrs everyday.

Usage Pattern of the respondents

Variables	Factors	Frequency	Percent
Usage of operating System	Android	58	43
	Iphone	31	23
	Symbian	20	15
	Blackberry	18	13
	Microsoft	8	6
Expectation from an operating system	Fast and easy	61	45
	Should provide rich user interface	31	23
	Should provide rich navigation	24	18
	Easy to upgrade	19	14
Features mostly used	Games	12	9
	Voice/Video call	7	5
	Internet	25	19
	E-Mail	19	14
	Social Networking	30	22
	Take Pictures/Videos	11	8
	Watching Videos	24	18
	Map	7	5
Frequently download	Apps	61	45
	Documents	14	10
	Music and Videos	36	27
	All	24	18
Need of Smartphone	Social Purpose	88	65
	Academic Purpose	27	20
	Both	20	15
Social Networking Apps mostly used	Facebook	58	43
	Whatspp	34	25
	Twitter	20	15
	Instagram	7	5
	Wechat	16	12
Frequency of using social networking apps	Everyday	110	82
	Once a week	14	10
	Once a month	4	3
	Occasionally	7	5
Reason for Usage	Keep in touch with friends	45	33
	Making new friends	20	15
	Gathering information	31	23
	To share experience	16	12
	Time pass	23	17
Place of using Smartphone	While Shopping	40	30
	While Eating at home	30	22
	While viewing TV	14	10
	While learning	7	5
	While driving	20	15
	While crossing the road	24	18
Reason for purchase	Hold smartphone not want to use it	20	15
	Prestigious symbol	47	35
	Create jelous among peer group	30	22
	Prefer to go online everyday	38	28

Source: Primary data

- 43% of the respondents are using Android mobile.

- 45% of the respondents felt smartphone operating system is fast and easy.

- 22% of the respondents mostly used social networking apps.

- 45% of the respondents frequently download various apps.

- 65% of the respondents use smartphone for social needs.

- 43% of the respondents mostly used facebook in social networking apps.

- 82% of the respondents use social networking apps everyday.

- 33% of the respondents are using smartphone to keep in touch with friends.

- 30% of the respondents are using smartphone while at shopping.

- 35% of the respondents purchase smartphone for prestigious symbol.

V.   EFFECTS OF SMARTPHONE USAGE

The Smartphone may help us to establish contacts with our friends and relatives and also empower our knowledge and wisdom. But too much of usage ruin the life style even. Younger generation is more fascinated towards this magical device and are losing their time, energy, money and even their precious life.

All the scientific innovations are made with an intention to develop the nation and its citizen. But practically speaking, it is ruining the lives of most of the adolescents. They become addicted to Smartphone and the details of which is shown below.

Ill Effects of Smartphone Usage

	Very much accept it	Accept	Not accept	Total
Addiction	62	53	35	150
Headache	75	58	17	15
Sleeplessness	80	48	22	150
Nervous Problem	45	68	37	150
Disobedience	55	62	33	150
Depression	68	54	28	150

Source: Primary data

- 62% of the respondents very much accept the illness of smartphone usage to addict.

- 75% of the respondents felt headache while using smartphone.

- 80% of the respondents are felt sleeplessness for continuously using smartphone.
- 68% of the respondents accept a nervous problem.
- 62% of the respondents are disobedience for using smartphone.
- 68% of the respondents getting depressed for usage of smartphone.

Hypothesis testing

S.No	H$_o$	Table value	Calculated value	Significance Level	Remark
1.	There is no significant relationship between Gender and expectation from an Operating System.	7.815	6.141	5%	Accepted
2.	There is no significant relationship between Smartphone user and Frequently download applications.	5.991	1.926	5%	Accepted

Source: Primary data

1. As calculated value is lower than the table value, the hypothesis is accepted and proven that there exist no relationship between Gender and expectation from an Operating System.
2. As calculated value is lower than the table value, the hypothesis is accepted and prove that there is no relationship between Smartphone user and Frequently download applications.

HO$_3$ - There is no significant difference on the reason for usage of various applications on Smartphone among Boys and Girls.

One-Sample t-test of Hypothesis

	N	Mean	Standard Deviation	Df	T-Calculated	P-Value
Male	5	13	148.8	9	2.262	0.447
Female	5	17	50.67			

From the above result analysis presented, it shows that the probability value is less than 0.05 at 5% level of significance. The t-calculated value is 2.262 and the P value is 0.447 at degree of freedom 9 using two tailed significant level. That is the null hypothesis which states that there is no significant difference between reason for usage of various application on Smartphone among boys and girls is hereby accepted. Therefore, there is no significant difference on the reason for usage of application on Smartphone among Male and Female.

VI. SUGGESTIONS

❖ In the future, research must be done to seek out the impact of smartphones on brain or caput, within the sense that do they cause any biological effects on caput or brain resulting in the addiction students.

❖ Media should take a lead role in enlightening the negative consequences of mobile phone usage and tips to tackle such consequences.

❖ Allowing teenagers to use mobile phones by setting a minimum regulation and by providing education, making the children perceive the negative impacts and therefore the best ways that to affect them.

❖ Teenagers shouldering the responsibility for creating the simplest attainable use of device.

VII. CONCLUSION

Smartphone is the ultimate device replacement for face to face conversation. This digital communication keeps the people in the comfort zone. But over dose of usage causes problem. Educating the teens on the proper usage of Smartphone really make their life meaningful with magnified mental health.

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