

## A Study on Smart Phone Usage Pattern – Purpose and Preference among College Students

**Dr. Deepali R. Naidu,**

Assistant Professor,  
City Premier College,  
Rashtrasant Tukadoji Maharaj  
Nagpur University, Nagpur, Maharashtra, India

### ABSTRACT

*Smartphones with android systems are generally used by college students not only for communication but also for learning and socialization. Socialisation through Facebook, Instagarm & Snapchat are often used by students. Tools like Online tutorials, Youtube are extensively used for learning. Entertainment like music apps, movie apps and online television channels are also popular Smartphone features used by the college students. This study highlights the relationship between the variable primary purpose and gender and education of the students. But when it comes to identifying relationship between the primary purpose of phone usage and their opinion, preference and usage pattern, there is a moderate positive relationship. Gender wise there was a difference in using the application of Smart phones. Male students were found to use fitness and beauty apps more than female students. Education wise Science students were inclined towards usage of practical application videos and Commerce students used on line tutorials in order to prepare for their exams. There was a gap between the expression of students in primary purpose and usage pattern. The study has been conducted in Nagpur City and the data was collected from the Undergraduate students studying in Science and Commerce streams.*

**Keywords:** *Smartphones, Socialisation, Smartphone Features, Primary purpose, Usage pattern.*

### Introduction:

Mobile phone has revolutionized the information access modes for varied purposes like learning, information search, on line shopping and uses of features like camera and security. The user of Smartphone in India by the end of 2017 is expected to reach 299.24 million and by 2019 is expected to pass the five billion mark globally (Statista, 2017)<sup>1</sup>. Development of Mobile phone into Smartphone took place with the advent of Android systems in 1990s. Smartphones allow the user to use the phone not only for communication facility but also data computing facilities and use data communication device as computer and networking device as well. Smart phone provides immense informational benefits to its user specially when they are in their

academic learning process. So students use Smartphones not only for communication but also for learning and socialization

### Objectives of the Study:

1. To study the usage patterns of Smart phone by the students.
2. To analyse the behavioural usage pattern of smart phone among the students.
3. To analyse the use of Smart phone gender among the students related to different features.

### Hypotheses:

Based on the aforementioned objectives the following hypothesis have been framed and tested:

<sup>1</sup> <https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/>

**Hypothesis I:**

- H<sub>01</sub>: There is no significant relationship between the usage pattern and primary purpose of smart phone as far as gender is concerned.

**Hypothesis II:**

- H<sub>02</sub>: There is no significant relationship between the primary purpose of smart phone and preference of smart phone feature as far as education is concerned.

**Literature Review:**

All the previous studies which have examined the consumer usage pattern in smartphone and especially among the college students at under graduate have been thoroughly studied and their conclusions have been comprehended and accordingly the literature review substantiated further research.

**Usage behaviour towards Smart Phones:**

(Festinger, 1957). Dissonance theory posits that consumers make some kind of comparison between the expectations and product performance. This post usage evaluation leads to Assimilation theory. (Anderson, 1973). Consumers seek to avoid dissonance by adjusting their perceptions beyond their latitude of acceptance. According to (Gershthimer & Lupp, 2004), mobile are created ahead of the recognition of consumer needs and hence are technology push driven market. Companies estimate the future needs of the consumers and then design and develop the products accordingly. (Malasi, 2012) studied the product influence on mobile phone preference where in it was concluded that students are at a position to differentiate the offerings and hence purchase those which satisfy their needs. (Malviya & Dr. Saluja, 2013). (Qadri, Abubaka, & Ibrahim, 2015) mobile usage trends have dramatically increased post smart phone introduction in the market among the university students due to the availability of high speed and low fare internet service. The other facilities being loads of free messaging and cheap smart phone. (Bhutia, 2016) College going students are moderately addicted to mobile phone and gender and stream has no impact on the mobile phone to usage of mobile phone. The new emerging device which is called as Smartphone has become essential part of life and features like brand, social image, technology and durability are playing a major role in buying decision of the consumers. (Alson & Misagal, 2016). Students socialize through smart phones and are bordering towards learning process-impairing type. They do not use it for emergencies. (George, Saif, & Joseph, 2017). Students can be motivated towards mobile learning and can be weaned away from the ringxiety and frequent checking of phones even waking up from sleep in midnight. (Kang, 2011).

Mobile devices are used for various applications such as making voice/video calls, browsing the internet, playing games and so on. Mobile devices have multiple interfaces which can access multiple access networks such as 3G, WiFi and mobile WiMAX. This implies that students who are tech savvy use various apps whenever and wherever they want as per their convenience. Their primary purpose of using the phone for making voice calls is obviously satisfied. But due to the version of Operating systems in the SmartPhone, the customers may have certain amount of dissatisfaction. (Olson & Dover, 1979) Consumers can reduce the tension resulted from discrepancy between expectations and product performance, both by distorting expectations and increasing the level of satisfaction through minimizing the relative importance of experimental disconfirmation. (Singh, 2009) concluded in their study that youngsters preferred mobile handset on the basis of factors like appearance, brand value and some technical features rather than the price factor. (Albarran & Hutton, 2009) conducted a study on use of mobile phones by Young Latinos between the ages of 18-25. They concluded that female respondents used the mobile phone for staying in touch with family, friends and for social networking while the male respondents used phones for accessing internet and for music. Phones provided them a sense of status. (Dr.Kavitha & Yogeshwari, 2015) in their research paper stated that male respondents were more particular about the features while purchasing a brand in smartphones. Dr. Kavitha T.N.R, Yogeshwari K. (2015) in their research paper stated that male respondents were more particular about the features while purchasing a brand in smart phones. Hence in this study the gender difference in usage pattern related to purpose and preference of Smartphone was considered. Besides this, education of the college students in usage pattern related to purpose and preference of Smartphone was also examined.

**Research Methodology:**

The research design adopted in present study is descriptive and qualitative design based on primary and secondary data to identify if there is any relationship between the primary purpose of use of smart phone and the feature they use both gender wise and education type. (Bryman, 2008)<sup>2</sup> Qualitative research usually emphasizes words rather than quantification in the collection and analysis of data. (Kotler, Armstrong, Agnihotri, & Haque, 2010)<sup>3</sup> The objective of descriptive research is to describe things.

<sup>2</sup> Bryman, Bell (2008), Business Research Method. New York: Oxford Publication. p 401

<sup>3</sup> Kotler, Armstrong, Agnihotri, Haque (2010), Principles of Marketing, New Delhi: Pearson Prentice Hall. p 91

**Sampling:**

For the sake of primary data, a sample size of 150 was selected from Under Graduate students. Sampling method was convenience and snowball sampling. The students were selected from different Undergraduate Colleges from Science and Commerce streams. The students who possessed Smartphone were selected and who used at least more than 5 features of the phone on daily basis. Students were between the age group of 17 to 24. Both male and female students were selected for the study.

**Data Collection:**

For collection of data both primary and secondary tools were used. Questionnaires were used as primary tools and relevant journals and text books as secondary tools. Questionnaire of 8 questions were issued which consisted of dichotomous and polychotomous variables. The first three questions related to the demographics of the sample. Fifth and Sixth question consisted of usage time and the nine camera features respectively. Seventh and the eight questions related to time spent on each feature and primary purpose of using the phone.

**Data Analysis Tools:**

Non-parametric test i.e. (Kothari, 2014)<sup>4</sup>  $\chi^2$  analysis and linear regression and ANOVA tests were used for Hypotheses testing. 150 Questionnaires were issued but 110 were considered for analysis due to completeness and validity.

**Results and Discussion:**

Data Analysis of the usage Pattern of Smart Phone as Per Primary purpose as Far as Gender is Concerned. The analysis consists identifying the association between the independent variables- the primary purpose usage pattern with 10 sub variables which are polychotomous in nature and the variable, gender of the respondent. The analysis and interpretation is as follows:

Chi-Square Tests	Value	d f	Asymp. Sig. (2-sided)
Gender * Time For Call	9.898 <sup>a</sup>	4	.042
Gender * Camera	1.143 <sup>a</sup>	2	.565
Gender * Social Networking	2.685 <sup>a</sup>	3	.443
Gender * Utility Apps	5.364 <sup>a</sup>	3	.147
Gender * Information Search	.309 <sup>a</sup>	2	.857
Gender * Learning	3.092 <sup>a</sup>	3	.378
Gender * Entertainment	4.643 <sup>a</sup>	3	.200
Gender *	10.653a	3	.014

Chi-Square Tests	Value	d f	Asymp. Sig. (2-sided)
On-Line Shopping			
Gender * Lifestyle Apps	9.608a	2	.008
Gender * Device & Security	3.119 <sup>a</sup>	2	.210

From the analysis, it is evident that time spent on calling ( $\chi^2$  value=9.898, sig=.042), phone used for online shopping ( $\chi^2$  value=10.653, sig=.014), life style apps ( $\chi^2$  value=9.608, sig=.008) are significantly related to the gender of the respondent. Hence it can be stated that there is little association between the rest of the variables and the gender of the respondent. The results of hypothesis testing are as follows:-

Research Hypothesis	Working Hypothesis	Results
<b>H<sub>01</sub>:</b> There is no significant relationship between the usage pattern and primary purpose of smart phone as far as gender is concerned.	<b>H<sub>01a</sub>:</b> There is no significant relationship between the usage pattern and time spent on making call as far as gender is concerned.	Accepted
	<b>H<sub>01b</sub>:</b> There is no significant relationship between the usage patterns and using camera as far as gender is concerned.	Rejected
	<b>H<sub>01c</sub>:</b> There is no significant relationship between the usage pattern and social networking apps as far as gender is concerned.	Rejected
	<b>H<sub>01d</sub>:</b> There is no significant relationship between the usage pattern and utility apps of smart phone as far as gender is concerned.	Rejected
	<b>H<sub>01e</sub>:</b> There is no significant relationship between the usage pattern and information search in smart phone as far as gender is concerned.	Rejected
	<b>H<sub>01f</sub>:</b> There is no significant relationship between the usage patterns and learning apps in smart phone as far as gender is concerned.	Rejected
	<b>H<sub>01g</sub>:</b> There is no significant relationship between the usage pattern and entertainment purpose of smart phone as far as gender is concerned.	Rejected
	<b>H<sub>01h</sub>:</b> There is no significant relationship between the usage pattern and on-line shopping in smart phone as far as gender is concerned.	Accepted
	<b>H<sub>01i</sub>:</b> There is no significant relationship between the usage pattern and lifestyle apps of smart phone as far as gender is concerned.	Accepted
	<b>H<sub>01j</sub>:</b> There is no significant relationship between the usage pattern and device and security features of smart phone as far as gender is concerned.	Rejected

<sup>4</sup> Kothari, Garg. (2014), Research Methodology, New Delhi: New Age International Publishers. P 151, p 334.

**Analysis of the Primary Purpose of Smart Phone and Preference of Smart Phone Feature as far as Education is concerned:**

The analysis consists of one dependent variable which is the primary purpose to use a smart phone with 10 sub variables which have been further measured through 4 to 8 variables each using 5- point Likert Scale. The independent variables are type of education taken up by the students and their preference of the features of Smart phone. Preference has been measured again using 10 sub variables using Likert scale. The analysis and interpretation is as follows:

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.062 <sub>a</sub>	.004	-.005	.974	.004	.425	1	109	.516
2	.248 <sub>b</sub>	.062	.017	.964	.058	1.618	4	105	.175

a. Predictors: (Constant), Education Type  
 B. Predictors: (Constant), Education Type, Camera Feature-Video, Camera Feature-Pictures, Camera Feature-Selfie, Camera Feature-Edit Pictures

The probability of the F statistic (1.618) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is greater than the level of significance of 0.05.

ANOVA <sup>c</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	.404	1	.404	.425	.516 <sup>a</sup>
	Residual	103.506	109	.950		
	<b>Total</b>	<b>103.910</b>	<b>110</b>			
2	Regression	6.413	5	1.283	1.381	.237 <sup>b</sup>
	Residual	97.497	105	.929		
	<b>Total</b>	<b>103.910</b>	<b>110</b>			

The probability of the F statistic (1.283) for the overall regression relationship is greater than the level of significance of 0.05.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.864	.372		7.701	.000
	Education Type	.136	.208	.062	.652	.516
2	(Constant)	2.739	.551		4.967	.000

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	Education Type	.119	.210	.054	.566	.573
	Camera Feature-Selfie	-.076	.084	-.091	-.906	.367
	Camera Feature-Pictures	.139	.069	.213	2.000	.048
	Camera Feature-Video	.085	.070	.126	1.226	.223
	Camera Feature-Edit Pictures	-.103	.068	-.163	-1.525	.130

a. Dependent Variable: CAMERA

For the independent variable education type , the probability of the t statistic (.566) , B value is .573 ,selfie is -.906, B value is .367, picture is .213, B value is .048 and video is .070, B value is .223 , edit feature is -1.525, and the p value >0.05 .There is statistically significant relationship.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.080 <sub>a</sub>	.006	-.003	.838	.006	.707	1	109	.402
2	.107 <sub>b</sub>	.011	-.007	.840	.005	.539	1	108	.464

a. Predictors: (Constant), Education Type  
 b. Predictors: (Constant), Education Type, Time for Call

The probability of the F statistic (.539) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is greater than the level of significance of 0.05.

ANOVA <sup>c</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.497	1	.497	.707	.402 <sup>a</sup>
	Residual	76.602	109	.703		
	<b>Total</b>	<b>77.099</b>	<b>110</b>			
2	Regression	.877	2	.439	.621	.539 <sup>b</sup>
	Residual	76.222	108	.706		
	<b>Total</b>	<b>77.099</b>	<b>110</b>			

The probability of the F statistic (.621) for the overall regression relationship is greater than the level of significance of 0.05.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.351	.320		10.472	.000
	Education Type	-.151	.179	-.080	-.841	.402
2	(Constant)	3.325	.323		10.307	.000
	Education Type	-.190	.187	-.101	-1.013	.313
	Time For Call	.042	.058	.073	.734	.464

a. Dependent Variable: Time for Call

For the independent variable education type, the probability of the t statistic (-.841), B value is -.151, Time spent on calling is .734, B value is .464 and the p value >0.05. There is statistically significant relationship.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.062 <sub>a</sub>	.004	-.005	.561	.004	.421	1	109	.518
2	.475 <sub>b</sub>	.225	.165	.511	.222	4.16 <sub>9</sub>	7	102	.000

A. Predictors: (Constant), Education Type

B. Predictors: (Constant), Education Type, Instagram, Snapchat, Face Book, Hike, Twitter, Whats App, Tumbler

The probability of the F statistic (4.169) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is less than the level of significance of 0.05.

ANOVA <sup>c</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	.132	1	.132	.421	.518 <sup>a</sup>
	Residual	34.300	109	.315		
	<b>Total</b>	<b>34.432</b>	<b>110</b>			
2	Regression	7.763	8	.970	3.711	.001 <sup>b</sup>
	Residual	26.670	102	.261		
	<b>Total</b>	<b>34.432</b>	<b>110</b>			

The probability of the F statistic (3.711) for the overall regression relationship is less than the level of significance of 0.05.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.622	.214		16.918	.000
	Education Type	.078	.120	.062	.649	.518
2	(Constant)	3.244	.298		10.886	.000
	Education Type	.085	.115	.068	.738	.462
	Whats App	-.138	.048	-.364	-2.897	.005
	Face Book	.120	.047	.325	2.562	.012
	Hike	.026	.040	.069	.661	.510
	Instagram	.061	.037	.170	1.670	.098
	Snapchat	.108	.037	.298	2.911	.004
	Twitter	.010	.039	.032	.264	.793
	Tumbler	-.045	.059	-.095	-.756	.451

a. Dependent Variable: Networking Apps

For the independent variable education type, the probability of the t statistic (.738), B value is .062, whatsapp is -2.897, B value is -.138, hike is .661 B value is .510 and instagram is 1.670, B value is .061, snapchat is 2.911, B value is .108, Twitter is .010, B value is .793 and Tumbler is -.045, B value is .451 the p value >0.05. There is no statistically significant relationship.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.010 <sup>a</sup>	.000	-.009	.837	.000	.011	1	109	.918
2	.327 <sub>b</sub>	.107	.037	.818	.107	1.747	7	102	.106

a. Predictors: (Constant), Education Type

b. Predictors: (Constant), Education Type, Caller Identification, Ticket Booking, Application Lock, File Sharing, E-Wallet, Travel, Mailing

The probability of the F statistic (1.747) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is greater than the level of significance of 0.05

ANOVA <sup>c</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	.008	1	.008	.011	.918 <sup>a</sup>
	Residual	76.389	109	.701		
	<b>Total</b>	<b>76.396</b>	<b>110</b>			

ANOVA <sup>c</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
2	Regression	8.185	8	1.023	1.530	.156 <sup>b</sup>
	Residual	68.211	102	.669		
	<b>Total</b>	<b>76.396</b>	<b>110</b>			

The probability of the F statistic (1.530) for the overall regression relationship is greater than the level of significance of 0.05.

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	3.148	.320		9.853	.000
	Education Type	.019	.179	.010	.104	.918
2	(Constant)	2.696	.433		6.230	.000
	Education Type	.098	.183	.052	.536	.593
	Ticket Booking	.208	.070	.387	2.996	.003
	E-Wallet	-.058	.061	-.113	-.959	.340
	Travel	-.012	.070	-.020	-.164	.870
	Mailing	-.061	.077	-.117	-.791	.431
	File Sharing	-.026	.069	-.055	-.369	.713
	Caller Identification	-.023	.064	-.045	-.369	.713
	Application Lock	.064	.059	.130	1.079	.283

a. Dependent Variable: Utility

For the independent variable education type , the probability of the t statistic (.536) , B value is .593 , ticket booking is 2.996, B value is .003, e-wallet is -.959 B value is .340 and travel app is -.164, B value is .870 , mailing is -.791, B value is .431, file sharing is -.369 ,B value is .713 , caller identification is -.369 ,B value is .713 and Application lock is 1.079,B value is .283 the p value >0.05 .There is statistically significant relationship.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.010 <sup>a</sup>	.000	-.009	.613	.000	.012	1	107	.914
2	.327 <sup>b</sup>	.107	.045	.597	.107	2.010	6	101	.071

a. Predictors: (Constant), Education Type

b. Predictors: (Constant), Education Type, News Application, Chrome, Opera, Safari, Bing, Uc Browser

The probability of the F statistic (2.010) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is greater than the level of significance of 0.05

ANOVA <sup>c</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.004	1	.004	.012	.914 <sup>a</sup>
	Residual	40.234	107	.376		
	<b>Total</b>	<b>40.239</b>	<b>108</b>			
2	Regression	4.297	7	.614	1.725	.111 <sup>b</sup>
	Residual	35.942	101	.356		
	<b>Total</b>	<b>40.239</b>	<b>108</b>			

The probability of the F statistic (1.725) for the overall regression relationship is greater than the level of significance of 0.05.

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	3.378	.242		13.984	.000
	Education Type	.015	.134	.010	.108	.914
2	(Constant)	3.207	.286		11.218	.000
	Education Type	.054	.134	.039	.404	.687
	Chrome	.072	.044	.169	1.645	.103
	Bing	-.043	.043	-.117	-1.007	.317
	Uc Browser	.090	.048	.232	1.896	.061
	Safari	.004	.048	.010	.088	.930
	Opera	-.083	.038	-.235	-2.151	.034
	News Application	-.048	.043	-.122	-1.117	.266

a. Dependent Variable: Search

For the independent variable education type, the probability of the t statistic (.404), B value is .687, Chrome is 1.645, B value is .103, Bing is -1.007 B value is .317, UC Browser is 1.896, B value is .061, Safari is -.088, B value is .930, Opera is -2.151, B value is .034 and News Application is -1.117, B value is .266 and the p value >0.05. There is statistically significant relationship

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.058 <sup>a</sup>	.003	-.006	.761	.003	.359	1	106	.550
2	.454 <sup>b</sup>	.206	.142	.703	.202	3.602	7	99	.002

a. Predictors: (Constant), Education Type

b. Predictors: (Constant), Education Type, Online Dictionary, On-Line Tutorials, Entrance Exam Modules, Language Tutorials, Practical App Videos, Regular Course Modules, E Books

The probability of the F statistic (3.602) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is less than the level of significance of 0.05

ANOVA <sup>c</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.208	1	.208	.359	.550 <sup>a</sup>
	Residual	61.449	106	.580		
	<b>Total</b>	<b>61.657</b>	<b>107</b>			
2	Regression	12.683	8	1.585	3.205	.003 <sup>b</sup>
	Residual	48.975	99	.495		
	<b>Total</b>	<b>61.657</b>	<b>107</b>			

The probability of the F statistic (3.205) for the overall regression relationship is less than the level of significance of 0.05.

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
	1	(Constant)	3.004			.295
Education Type		.099	.165	.058	.599	.550
<b>Total</b>		<b>59.856</b>	<b>110</b>			
2	(Constant)	2.481	.402		6.166	.000
	Education Type	.134	.162	.079	.828	.409
	Regular Course Modules	.134	.054	.295	2.486	.015
	Entrance Exam Modules	.072	.054	.154	1.326	.188
	Practical Videos	-.035	.057	-.070	-.623	.535
	E Books	-.059	.059	-.131	-.988	.325
	On-Line Tutorials	-.096	.045	-.203	-2.132	.035
	Online Dictionary	-.114	.049	-.269	-2.316	.023
	Language Tutorials	.144	.045	.317	3.220	.002
	<b>Total</b>	<b>59.856</b>	<b>110</b>			

a. **Dependent Variable:** Learn

For the independent variable education type , the probability of the t statistic (.828) , B value is.409 , regular course modules is 2.486 , B value is .805, entrance exam modules is -1.326 B value is .188 , practical Video is -6.23, B value is .535 , e-books is-.988, B value is .325, on line tutorials is 2.132 ,B value is .035 ,online dictionary is -2.316 and B value is .023 and Language tutorials is 3.220 ,B value is .002 .There is no statistically significant relationship.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.002 <sup>a</sup>	.000	-.009	.741	.000	.001	1	109	.981
2	.254 <sup>b</sup>	.065	.011	.734	.065	1.438	5	104	.217

a. **Predictors:** (Constant), Education Type

b. **Predictors:** (Constant), Education Type, Movies Application, Games Application, TV Channel Application, Music Application, Videos Application

The probability of the F statistic (1.438) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is greater than the level of significance of 0.05

ANOVA <sup>c</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	.000	1	.000	.001	.981 <sup>a</sup>
	Residual	59.856	109	.549		
	<b>Total</b>	<b>59.856</b>	<b>110</b>			
2	Regression	3.871	6	.645	1.199	.313 <sup>b</sup>
	Residual	55.985	104	.538		
	<b>Total</b>	<b>59.856</b>	<b>110</b>			

The probability of the F statistic (1.199) for the overall regression relationship is greater than the level of significance of 0.05.

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
	1	(Constant)	3.363			.283
Education Type		.004	.158	.002	.023	.981
<b>Total</b>		<b>59.856</b>	<b>110</b>			
2	(Constant)	2.924	.426		6.870	.000
	Education Type	.040	.160	.024	.249	.804
	Music Application	.124	.064	.239	1.949	.054
	Movies Application	-.078	.052	-.167	-1.521	.131
	Videos Application	-.034	.066	-.063	-.505	.614
	Games Application	.049	.056	.102	.878	.382
	TV Channel Application	.029	.046	.067	.620	.536

a. **Dependent Variable:** Entertainment

For the independent variable education type, the probability of the t statistic (.249) , B value is.804, Music app is1.949 , B value is .054, Movies app is -1.521 B value is .131, Video is -.505, B value is .614,

games is .878, B value is .382, and TV Channel is .620, B value is .536 and the p value >0.05. There is statistically significant relationship.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.023 <sup>a</sup>	.001	-.009	.866	.001	.057	1	108	.812
2	.759 <sup>b</sup>	.577	.547	.580	.576	23.121	6	102	.000

a. Predictors: (Constant), Education Type

b. Predictors: (Constant), Education Type, E-Tail Stores, Paytm Mall, Whatsapp, Social Site Shopping, C2c Models, Company Apps

The probability of the F statistic (23.121) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is less than the level of significance of 0.05

ANOVA <sup>c</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.043	1	.043	.057	.812 <sup>a</sup>
	Residual	80.912	108	.749		
	<b>Total</b>	<b>80.955</b>	<b>109</b>			
2	Regression	46.671	7	6.667	19.836	.000 <sup>b</sup>
	Residual	34.284	102	.336		
	<b>Total</b>	<b>80.955</b>	<b>109</b>			

The probability of the F statistic (19.836) for the overall regression relationship is less than the level of significance of 0.05

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.941	.336		8.766	.000
	Education Type	-.045	.187	-.023	-2.39	.812
2	(Constant)	3.446	.283		12.195	.000
	Education Type	-.007	.128	-.003	-.052	.958
	E-Tail Stores	-.333	.043	-.692	-7.836	.000
	Social Site Shopping	.247	.050	.465	4.964	.000
	Whats App	-.030	.042	-.056	-.719	.474
	Company Apps	-.327	.061	-.584	-5.325	.000
	C2c Models	.200	.061	.358	3.296	.001
Paytm Mall	.118	.042	.227	2.835	.006	

a. Dependent Variable: Shopping

For the independent variable education type, the probability of the t statistic (-.052), B value is .958,

e-tail stores is -7.836, B value is .000, Social sites is 4.964 B value is .000, Whatsapp is -.719, B value is .474, Company apps is -5.325, B value is .000, and C2C is 3.296, B value is .001 and paytm Mall is 2.835, B value is .006 p value for 4 variables is less than or equal to 0.05 and 3 variables is > 0.05.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.022 <sup>a</sup>	.000	-.009	.764	.000	.052	1	109	.821
2	.587 <sup>b</sup>	.344	.293	.639	.344	7.644	7	102	.000

a. Predictors: (Constant), Education Type

b. Predictors: (Constant), Education Type, Cooking Apps, Medical Apps, Sports Apps, Diy Apps, Beauty Apps, Location Specific, Fitness Apps

The probability of the F statistic (7.644) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is less than the level of significance of 0.05.

ANOVA <sup>c</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	.030	1	.030	.052	.821 <sup>a</sup>
	Residual	63.556	109	.583		
	<b>Total</b>	<b>63.586</b>	<b>110</b>			
2	Regression	21.898	8	2.737	6.698	.000 <sup>b</sup>
	Residual	41.687	102	.409		
	<b>Total</b>	<b>63.586</b>	<b>110</b>			

The probability of the F statistic (6.698) for the overall regression relationship is less than the level of significance of 0.05

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.296	.291		7.879	.000
	Education Type	.037	.163	.022	.227	.821
2	(Constant)	2.284	.291		7.853	.000
	Education Type	.008	.142	.004	.054	.957
	Fitness Apps	.086	.061	.167	1.398	.165
	Beauty Apps	.276	.053	.517	5.213	.000
	Cooking Apps	-.164	.052	-.362	-3.130	.002
	Diy Apps	-.112	.030	-.347	-3.717	.000
	Sports Apps	-.006	.015	-.039	-.405	.687
	Location Specific	.044	.044	.104	1.002	.319
	Medical Apps	-.233	.085	-.244	-2.746	.007

a. Dependent Variable: Lifestyle



For the independent variable education type , the probability of the t statistic (.054) , B value is .957 , Fitness app is 1.398 , B value is .165, Beauty apps is 5.213 B value is .000, Cooking app is -3.130, B value is .002, DIY apps is -3.717 , B value is.000, Sports app is -.405 ,B value is .687, Location is 1.002, B value .319 and Medical app is- 2.746 ,B value is .007 p value for 2 variables is less than or equal to 0.05 and 6 variables is > 0.05.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.116 <sup>a</sup>	.014	.005	.817	.014	1.497	1	109	.224
2	.424 <sup>b</sup>	.180	.133	.762	.166	4.223	5	104	.002
a. Predictors: (Constant), Education Type									
b. Predictors: (Constant), Education Type, SOS, Pattern, Face Recognition, Fingerprint, Retina Scan									

The probability of the F statistic (4.223) for the change in R<sup>2</sup> associated with the addition of the predictor variables to the regression analysis containing the control variables is less than the level of significance of 0.05.

ANOVA <sup>c</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	.999	1	.999	1.497	.224 <sup>a</sup>
	Residual	72.695	109	.667		
	<b>Total</b>	<b>73.694</b>	<b>110</b>			
2	Regression	13.266	6	2.211	3.805	.002 <sup>b</sup>
	Residual	60.428	104	.581		
	<b>Total</b>	<b>73.694</b>	<b>110</b>			

The probability of the F statistic (3.805) for the overall regression relationship is less than the level of significance of 0.05

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.486	.312		7.977	.000
	Education Type	.214	.175	.116	1.224	.224
2	(Constant)	2.582	.344		7.497	.000
	Education Type	.269	.164	.147	1.643	.103
	Fingerrint	-.129	.054	-.272	-2.379	.019
	Retina Scan	.121	.071	.253	1.690	.094
	Face Recognition	-.134	.059	-.256	-2.262	.026
	Pattern	.001	.052	.002	.015	.988
	SOS	.128	.067	.220	1.900	.060

a. Dependent Variable: Security

For the independent variable education type, the probability of the t statistic (1.643), B value is .103, Fingerprint is -2.379, B value is .019, Retina scan is 1.690 B value is .094, Face recognition is -2.262, B value is .026, Pattern is .015, B value is .988, and SOS is 1.900, B value is .060 p value is greater than 0.05

The results of hypothesis-II testing are as follows:

Research Hypothesis	Working Hypothesis	Results
H <sub>02</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone utility app feature as far as education is concerned.	H <sub>02a</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone camera feature as far as education is concerned.	Rejected
	H <sub>02b</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone call feature as far as education is concerned.	Rejected
	H <sub>02c</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone networking app feature as far as education is concerned.	Accepted
	H <sub>02d</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone utility app feature as far as education is concerned.	Rejected
	H <sub>02e</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone information search feature as far as education is concerned.	Rejected
	H <sub>02f</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone learning app feature as far as education is concerned.	Accepted
	H <sub>02g</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone entertainment feature as far as education is concerned.	Rejected
	H <sub>02h</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone on line shopping feature as far as education is concerned.	Accepted
	H <sub>02i</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone lifestyle app feature as far as education is concerned.	Accepted
	H <sub>02j</sub> : There is no significant relationship between the primary purpose of smart phone and preference of smart phone device security feature as far as education is concerned.	Accepted

**Conclusion:**

In the present study it can be concluded that female students spend less time on calling and spend relatively more time on online shopping. The most preferred being on line retail stores followed by C2C models, the least preferred being shopping through Whatsapp. interestingly, male students were accessing beauty and fitness apps more than the female students. This may require the Vloggers and Technopreneurs to focus and post videos keeping in mind the male visitors. It was observed that Students from Science stream preferred Practical application videos for learning their subjects while the commerce students accessed on line tutorial apps to prepare for their subjects and different entrance examinations. It can be said that there is moderate positive relationship between the primary purpose using smartphone as far as gender and education type is considered. However the study is limited to the students of Commerce and Science streams and students from humanities were not considered. Extraneous variables like price and brand of the smartphone can provide more insight into the primary purpose of smart phone usage pattern.

**Acknowledgement:**

It is my pleasant task to express my thanks to all those who have contributed in many ways for to the success of this study. I would like to extend my deepest gratitude to the students patiently filled up the questionnaires. I extend my sincere thanks to the College Management, Principal and my colleagues for providing the support to complete my study. I extend huge and warm thanks to my husband Mr.Reenesh Naidu and my Children, Reshmi, Masoomi and Jeetank for their love care and support and creating a pleasant atmosphere for me forever

**Dr. Deepali R. Naidu**

**References:**

- Albarran, A. B., & Hutton, B. (2009). Young Latinos use of mobile phones: A cross-cultural study. *Revista de Comunicacion*, 8(1), 95-108.
- Alson, J., & Misagal, L. .. (2016). Smart Phone usage among College Students. *Impact: IJRET*, 4(3), 63-70.
- Anderson, R. (1973). Consumer Dissatisfaction: The Effect of Disconfirmed Expectancy on Perceived Product Performance. *Journal of Marketing Research: Journal of Business Research*, 10(1).
- Bhutia, T. (2016). Mobile Phone Addiction Among College Going Students in Shilling. *International Journal Of Education And Psychological Research*, 5(2).
- Bryman, B. (2008). *Business Research Method*. New York: Oxford Publication.
- Dr.Kavitha, T., & Yogeshwari, K. (2015). A Study On Customer Attitude Towards Smartphones With Special Reference To Chithode, Erode District. *IOSR Journal of Business Management*.
- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Evanston, IL: Row & Peterson.
- George, S., Saif, N., & Joseph, B. (2017). *A Study on Mobile Phone Usage Pattern and its Dependence among Medical Students of a College in Kerala, India*.
- Gershtimer, O., & Lupp, C. (2004). Need Versus Technology – The Challenge to Design Third- Generation Mobile Application. *Journal of Business Research*, 57(12).
- Kang, S. H. (2011). Usage Pattern Analysis Of Smartphone. *National Research Foundation, Korea, World Class University, 2011*.
- Kothari, G. (2014). *Research Methodology*. New Delhi: New Age International Publishers.
- Kotler, Armstrong, Agnihotri, & Haque. (2010). *Principles of Marketing*. New Delhi: Pearson Prentice Hall.
- Malasi, J. (2012). Influence Of Product Attributes On Mobile Phone Preference Among University Students: A Case Study Of Undergraduate Students. *International Journal of Academic Research in Economics and Management Sciences*, 1(6).
- Malviya, S., & Dr. Saluja, M. (2013). Thakur A.S. “A Study of Factors Influencing Consumer’s Purchasing Decision towards Smart phones in Indore. *International Journal of Advanced Research n Computer Science and Management Studies*, 1(6).
- Olson, J., & Dover, P. (1979). Disconfirmation of Consumer Expectation Through Product Trial. *Journal of Applied Psychology*, 64, 179-189.
- Qadri, M., Abubaka, Y., & Ibrahim, J. (2015). Prevalence of Mobile Usage among University Students : A Case Study of International Islamic University , Malaysia. *International Journal of Scientific and Research Publication*, 5(12).
- Singh, G. (2009). Mobile Phones Buying Behavior of Different Age and Gender Groups. *International Journal of Business and Management*, 4(5).
- Statista. (2017). Retrieved November 17, 2017, from <https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/>: <https://www.statista.com>

\*\*\*\*\*