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POST-GRADUATION STUDENTS' ATTITUDE AND PERCEPTION TOWARDS USE OF SMARTPHONES FOR HIGHER LEARNING WITH REFERENCE TO CHITTOOR DISTRICT, ANDHRA PRADES, INDIA.

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ABSTRACT

Purpose

The intention of this research article is to rapid growth in technology and the advancement in education system, Acknowledgment of smartphones by students in higher education has been a universal experience in modern days. The main objective of this research paper is to comprehend and evaluate students' attitudes and perceptions towards the effectiveness of smart phones for higher learning with reference to Chittoor District, Andhra Pradesh, India.

Design/methodology/approach

Descriptive research method is used for this study employing quantitative approaches. A prepared well structured opinion poll was used to accumulate the data through investigation method and convenience sampling was adopted. A total of 150 questionnaires with self explanatory questions were administered to students of selected institutions in Chittoor District and out of which 120 were returned.

MS-Excel and also the SPSS Package were used for coding the data.

Data will be analyzed using a variety of statistical instruments.

Findings

The results clearly indicate that a very positive attitude towards higher learning. However, this study highlights that there is no association between smart phone usage and gender among the post-graduation student.

Practical implications

The consequences of this investigate paper have realistic implication for higher learning prog rammes' policymakers, educators and developers, exclusively for developing countries. Secon d implication, the results are based on selfreported responses from postgraduate students from only three disciplines.

Originality/value

The paper links smartphone use for learning activities to educational services value-creation processes. The discussion presented here makes it the main focus and argues that for educational purposes, most respondents see smartphones as an important medium.

Key Words: Smartphone, Students' attitudes and perceptions, Higher Learning, Academic disciplines (Business Management, Commerce, Engineering, and Science).

INTRODUCTION

A rapid growth in technology and the advancement in education system, Smartphones have become an important piece of day by day life.

Several students capable of now are witnessed haulage smartphones (such as the Apple, Samsung, HTC, Nokia, Blackberry, and Sony Ericsson) on institute campuses. Smartphones can be used to search for viewing course related material, look up words in dictionaries, money transfer, research purpose, checking weather forecasts, chatting, and connecting to community network platform such as LinkedIn, Facebook, WhatsApp and Twitter. Smartphones has been a decisive component of teaching and learning of post-graduation studies over the last several years. Smartphones provides immense information benefits to the students when they are in their academic learning process. So, Students not only use their smartphones for making video and voice calls but also for higher learning.

A smartphone is an electronic device used for twoway telecommunications over a cellular base station network known as chamber site (as defined by V ijayakumaran Nair. Eat.al 2014).

REVIEW OF LITERATURE

Overall 10 research studies were reviewed. A small number of important ones are quoted hereunder related research topic.

1). Swathi, Vidhisha, Dr. Umesh Maiya (2020), in their research study "Post-Graduation Students' Perception towards use of Smartphones for Education: A Study With Reference To Udupi District" the aim was to study the usage patterns of smartphones by the students and also to examine the utilize of smartphones for education amid the post-graduation students based on their gender. This study was empirical in nature and a sample of 150 respondents from post-graduation students on the basis of simple random sampling. Descriptive research design was used and primary data were

collected from Post Graduation Students. Secondary data were collected from internet, websites. Data coding was done using SPSS statistical package. For analysis and interpretation, researchers used simple statistical tools such as a percentage, Bar charts; Chi -square test was used for testing hypothesis. The researcher concluded that the there is no association between smartphone usage and gender among the post-graduation student and also smartphone usage does not have an impact on their knowledge.

2). **Dr.K.Sumathi et.al (2018),** in their research study "Reviewing the Impact of Smartphone Usage on Academic Performance among Students of Higher Learning".

This study investigated Smartphone's impact on higher learning educational outcomes.This research study aimed to identify the affiliation among smart phone use and academic performance for advanced wisdom students.

Quantitative research design and Simple random sampling technique was adopted for data collection. Students around Virudhunagar district collected primary and secondary data sources through a structured questionnaire. During 201 6, the study population comprised 40% of students from different institution s. Between October and November 2016, survey data was collected by ques tionnaire method. Adopted closedended questions. A total of 85 sets of ques tionnaires were circulated to students from different institutions. Analyzed the returned copies using percentage and frequency count. The data collecte d were fed to SPSS.20 analysis software. Nonparametric ChiSquare test. Co nsequences indicate there is no significant affiliation affecting students ' sch olastic performance in using smartphones.

3). Hejab Ma'azer Al Fawareh, Rafha Saudi Arabia (2017), in their research study, **"**The uses and effects of smartphone in higher education". This research explores accurately predict by using this technologies to improve students' satisfac tion. This study was empirical in nature and a sample of 60 respondents from top various colleges was taken. Exploratory research design was used and primary data were collected from PG Students. Secondary data were collected from internet, websites. Data coding was done using SPSS statistical package. The results indicated that the Smartphones have been a very good tool for supervising project's standard and knowledge sharing.

4). Fuxin (2012) in his research study, "Mobile /smart Phone Use in Higher Education".

By providing a literature review on the use of smartphones in higher educati on, this literature review explores the evolution of the smartphone into a pot entially powerful learning tool and lays the foundation for future research th at examines the digital gap between teachers and students related to the kno wledge and use of smartphones in an existing university.

RESEARCH GAP

After going through the available literature on the **POST-GRADUATION STUDENTS' ATTITUDE AND PERCEPTION TOWARDS USE OF SMARTPHONES FOR HIGHER LEARNING** it has been found that no systematic research has been done on the use and effectiveness of the use of smartphones for higher learning. Research activity in the area of use of smartphones for higher learning by and large is limited in Chittoor district, Andhra Pradesh. Most studies focused on a particular group of PG Students and as such an elaborate coverage of various other groups of students were found missing. In this study, different business management, commerce management, and technical students were considered to make it a meaningful exercise.

CONSTRAINT OF THE WORK

Due to time constraints, this study took only limited population size. The st udy is partial to selected institutes in ChittoorDistrictAndhra Pradesh State's . Chances of misrepresenting their responses. Few respondents hesitated to disclose correct information. Some of the respondents were least interested i n sharing their experiences with new smartphone use and the questionnaires were not complete.

RESEARCH METHODOLOGY

This study embodies descriptive research method is used for employing quantitative approaches. The target population of the study is Business Management, Commerce, Engineering, and Science. The researcher has used primary and secondary data sources. A structured questionnaire was used to collect the data and convenience sampling was adopted to identify the category of three academic disciplines are participated. The primary information was collected between February and March 2020. The relevant Secondary data has been gathered from an assortment of sources such as various company websites, text books, journals, Conferences, Workshops, Seminars, and Magazines. Simple random sampling technique was adopted for selection of respondents. 150 questionnaires with self explanatory questions were administered to students of selected institutions in Chittoor District of Andhra Pradesh State and out of which 120 were returned. Statistical Package for Social Sciences (SPSS) and MS-Excel were used for data coding. The relevant and interesting data are presented in tabular form and graphs.

Data analysis was done using various statistical techniques including mean, standard deviation, and chi-square test.

OBJECTIVES OF THE STUDY

The study has the following as its key objectives

- To study the post-graduation students outlook and observation towards the use of smartphones for higher learning with reference to Chittoor district, Andhra Pradesh.
- To study the usage patterns of smartphones by the post graduation students.

- To estimate the use of smartphones for higher learning between the post-graduation students based on their gender.

TESTING OF HYPOTHESIS

The way to calculate chi-square (X2) = [(o-e) 2 / e],
Chisquare is the sum of the square difference between observed (o) and exp ected (e) frequency divided into all possible categories by the expected freq uency. The ChiSquare test is testing null hypotheses and the alternative hyp othesis states that there is no significant difference between the expected an d observed frequency is null hypothesis and a significant other hand.The fol lowing hypothesis is proposed are postulated to justify statement of study pr oblem and goals.
H01: There is no substantial gender and smartphone difference in PG studie s.
H11: Gender and smartphone use differ substantially in PG studies.

DATA ANALYSIS & INTERPRETATION

PART I: Demographic Profile

Factors	Response	Frequency	%	Valid %	Cumulative %
Gender	Male	80	66.7	66.7	66.7
	Female	40	33.3	33.3	100
Total		120	100	100	
Age	18-20 Years	9	7.5	7.5	7.5
	21-24	74	61.7	61.7	69.2
	Above 24 Years	37	30.8	30.8	100
Total		120	100	100	
Course Details	Business Management	43	35.8	35.8	35.8
	Commerce	36	30.0	30.0	65.8
	Engineering	30	25.0	25.0	90.8
	Science	11	9.2	9.2	100
Total		120	100	100	

No. of Smartphones Owned	One	48	40.0	40.0	40.0
	Two	64	53.3	53.3	93.3
	Three	8	6.7	6.7	100
Total		120	100	100	
Brands of smartphones under use	Apple	12	10.0	10.0	10.0
	Samsung,	33	27.5	27.5	37.5
	Redmi	38	31.7	31.7	69.2
	Appo	28	23.3	23.3	92.5
	Sony Ericsson	9	7.5	7.5	100
Total		120	100	100	

Table – 1: Demographic Characteristics of Respondents and Mobile Phone Ownership Pattern

Source: Authors compiled using primary data

Gender status of respondents: From the table No.1 depicts that there is 66.7% have male and rest of them female respondents. Age profile of respondents: The table No. 1 revealed that 18 – 20 Years only 7.5%, 61.7% have the age of 21-24 years, followed by above 24 year with 30.8% respondents. Course profile of respondents: From the above table, it is clear that majority of the respondents i.e. 35.8% are associated with Management domain, 30% from commerce domain and rest of them from science domain.

PART II: FACTORS INFLUENCING SMART PHONE USERS

Smartphones are a useful medium of imparting knowledge

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	11	9.2	9.2	9.2
	Neutral	54	45.0	45.0	54.2
	Agree	55	45.8	45.8	100.0
	Total	120	100.0	100.0	

Table – 2

Source: Authors compiled using primary data

Interpretation: Table 2 shows the opinion of the respondents on the Smartphones are a useful medium of imparting knowledge where respondents were questioned by the researcher 45.8% showed agreed and were ready for imparting knowledge. But 9.2% respondents are disagreed about this statement.

From the above discourse, we concluded that most respondents agreed, som e respondents said they disagreed and reaming respondents were unsure abo ut that kind of statement.

Effect of smartphones on paper work in the learning process

		Frequenc y	%	Valid %	Cumulative %
Valid	Disagree	12	10.0	10.0	10.0
	Neutral	40	33.3	33.3	43.3
	Agree	68	56.7	56.7	100.0
	Total	120	100.0	100.0	

Table – 3

Source: Authors compiled using primary data

Interpretation: Table 3 shows the opinion of the respondents on paper work in the learning process 56.7% showed agreed. But 10% disagreed and 33.3% were neutral for paper work in the learning process.

From the above discourse, we ascertained that most of the participants said t hey were in agreement, some of the respondents said they were not in agree ment and the reaming respondents were neutral about any of this statement.

It is a good idea for institute to contact students via smartphones for educational purposes

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	27	22.5	22.5	22.5
	Neutral	44	36.7	36.7	59.2
	Agree	49	40.8	40.8	100.0
	Total	120	100.0	100.0	

Table – 4

Source: Authors compiled using primary data

Interpretation: Table 4 shows the opinion of the respondents on good idea for institute to contact students via smartphones for educational purposes only 40.8% showed agreed. But 22.5% were disagreed and 36.7% were neutral statements.

From the above argument, we concluded that most of the respondents said agreed, some respondents were neutral and reaming respondents disagree about this statement.

Mode of learning preferred by PG students

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	65	54.2	54.2	54.2
	Neutral	49	40.8	40.8	95.0
	Agree	6	5.0	5.0	100.0
	Total	120	100.0	100.0	

Table – 5

Source: Authors compiled using primary data

Interpretation: Table 5 shows the opinion of the respondents on the Mode of learning preferred by PG students 54.2% showed disagreed this statement. But 5% agreed and 40.8% were not sure about ready for new system. From the above consultation, we reached the conclusion that most respondents agreed that some participants were neutral and reaming participants disagreed.

Smartphones can improve communication between students and Faculty fraternity

		Frequency	%	Valid %	Cumulative %
Valid	Disagree	12	10.0	10.0	10.0
	Neutral	40	33.3	33.3	43.3
	Agree	68	56.7	56.7	100.0
	Total	120	100.0	100.0	

Table – 6

Source: Authors compiled using primary data

Interpretation: From table number 6 shows the opinion of the respondents on the Smartphones can improve communication between students and Faculty fraternity, 56.7% showed neutral. But 33.3% were agreed and 12% were disagreed.

We reached the conclusion from the above discussion that most of the respo ndents said they were neutral; some respondents said they disagreed, and re aming respondents agreed on this statement.

Average Hours Spent Per Day

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Disagree	4	3.3	3.3	3.3
	Neutral	35	29.2	29.2	32.5
	Agree	81	67.5	67.5	100.0
	Total	120	100.0	100.0	

Table – 7

Source: Authors compiled using primary data

Interpretation: Table 7 illustrates the views of the respondents on an Average Hours Spent per Day, 67.5% showed agreed. But 29.2% were neutral, and 3.3% were disagreed about Average Hours Spent per Day.
From the above consultation, we led to the conclusion that almost all partici pants said they agreed, some respondents said they disagreed and reamed ne utral about this statement.

Performance make use of of smartphone

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	13	10.3	10.3	10.3
	Neutral	40	33.3	33.3	43.6
	Agree	67	55.8	55.8	100.0
	Total	120	100.0	100.0	

Table – 8

Source: Authors compiled using primary data

Interpretation: Table 8 illustrates the responses of the respondents on the on the use of smartphone where respondents were questioned by the researcher, 55.8% showed agree. But
10.3% were disagreed and 33.3% were neutral.
From the above conversation, we stated that most respondents said they agr eed, some respondents said they were disagreeing and reaming uncertain ab out this comment.

Association between the usage of Smartphones for educational and non educational purposes.

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	47	39.1	39.1	39.1
	Neutral	8	6.7	6.7	45.8
	Agree	65	54.2	54.2	100.0
	Total	120	100.0	100.0	

Table – 9

Source: Authors compiled using primary data

Interpretation: Table 9 shows the belief of the respondents on the usage of Smartphones for educational and non educational purposes. 54.2% showed agreed. But 6.7% were neutral, and 39.1% were disagreed.

From the above conversation, we reached the conclusion that most of the pa rticipants said they were agreed, some of the respondents said they were not in agreement and the reaming participants were undecided.

Smartphones announcement is a faster technique to get criticism in learning

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	51	42.5	42.5	42.5
	Neutral	61	50.8	50.8	93.3
	Agree	8	6.7	6.7	100.0
	Total	120	100.0	100.0	

Table – 10

Source: Authors compiled using primary data

Interpretation: Table 10 shows the opinion of the respondents a faster technique to get criticism in learning 42.5% showed disagreed. But 6.7% were agreed, and 50.8% were neutral.

From the above discussion we found that most respondents stated that they were neutral, some participants answered that they agreed, and reaming res pondents disagreed.

Relationship between usage of smartphone and gender

		Frequenc y	%	Valid %	Cumulative %
Valid	Disagree	49	40.8	40.8	40.8
	Neutral	53	44.2	44.2	85.0
	Agree	18	15.0	15.0	100.0
	Total	120	100.0	100.0	

Table – 11

Source: Authors compiled using primary data

Interpretation: Table 11 illustrates the respondents' opinion on the respondents on the Relationship between usage of smartphone and gender only 15% showed agreed. But 44.2% were neutral, and 40.8% were disagreed.

From the above discussion, we concluded that most respondents said they were neutral, some respondents said they agreed and reaming respondents disagreed.

Descriptive Statistics			
	N	Mean	Std. Deviation
Smartphones are a useful medium of imparting knowledge	120	2.37	.647
Effect of smartphones on paper work in the learning process	120	2.47	.673
It is indeed a fantastic idea to approach students via smartphones for academic reasons.	120	1.82	.778
Mode of learning preferred by PG students	120	1.51	.594
Smartphones can improve communication between students and Faculty fraternity	120	2.23	.618
Average Hours Spent Per Day	120	2.26	.510
Showing the use of smartphone	120	1.55	.684
The relationship between the uses on behalf of Academic, and non academic purposes of smartphones.	120	1.67	.596
Information sharing with smartphones is a quicker solicits feedback when learning.	120	1.64	.605
Relationship between usage of smartphone and gender	120	1.74	.704
Factors influencing Smart phone users Overall	120	1.9258	.21479
Valid N (list wise)	120		

Table – 12

Source: Authors compiled using primary data

Hypothesis

H01: There is no significant difference between gender and smart phone usage for PG studies.

H11: There is a significant difference between gender and smart phone usage for PG studies.

Gender * Mode of learning preferred by PG students Cross tabulation

Count

		Mode of learning preferred by PG students			Total
		Disagree	Neutral	Agree	
Gender	Male	47	28	5	80
	Female	18	21	1	40
Total		65	49	6	120

Table – 13

Source: Authors compiled using primary data

Chi-Square test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.681[a]	2	.159
Likelihood Ratio	3.729	2	.155
Linear-by-Linear Association	.756	1	.385
N of Valid Cases	120		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 2.00.

Table – 14

Source: Authors compiled using primary data

Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Interval by Interval	Pearson's R	.080	.089	.868	.387[c]
Ordinal by Ordinal	Spearman Correlation	.105	.090	1.151	.252[c]
No of applicable Cases		120			

Table – 15

Source: Authors compiled using primary data

FINDINGS AND RECOMMENDATIONS

1. Further research mayperhaps be undertaken as to the explicit extent to whic h the use of smartphones can disrupt learning processes and harm studies.
2. In order to maximise their use as a support to learning processes, professors be supposed to give guidance on the utilize of smartphones, particularly for data.
3. College Administration can create a hub where 24/7 For a secure campus can be sent text messages and images.
4. To display the accurate results, a mobile app can be generated to track the b ehaviour of the students on smartphone use.

CONCUSION

From the above statistical analysis, we identified that for PG student s, there is no significant relationship affecting gender and smartphone use.T his paper identifies the use of smartphones in nowadays postgraduate stude nts as an important part of their learning due to its advanced features. For st udents, each technology has its own merits, and mobile phone is one of the

m. Although it reduces paper work in the learning process, higher learning i s very necessary for postgraduate students.

In this research paper data were collected from both phone usage habits and PG Students, such as browsing frequency descriptions, information from the sit es visited and so on, and found no significant gender and smartphonerelated relationship for PG studies. We concluded that, if the smartphones are used properly and managed, it would greatly improve the academic performance of students.

REFERENCES

1. Ahmed, I., & Qazi, T. F. (2011). Mobile phone adoption and consumption patterns of university students in Pakistan. *International Journal of Business and Social Science*, *2*(9), 205-213.
2. Al-Emran, M., Elsherif, H. M., & Shaalan, K. (2016). Investigating attitudes towards the use of mobile learning in higher education. *Computers in Human Behavior*, *56*, 93-102.
3. Callum, K. (2006). Mobile technology in facilitating learning goals. In *mLearn 2006*. Banff: Alberta.
4. Dr. K. Sumathi, Mrs. N. Selva Lakshmi and Ms. S. Kundhavai (2018). Renewing the Impact of Smartphone Usage on Academic Performance among the Students of Higher Learning. International Journal of Pure and Applied Mathematics.
5. Fuxin. (2012). Mobile/smart Phone Use in Higher Education. *Proceedings of Southwest Decision Sciences Institute Conference*.
6. Hejab Ma'azer Al Fawareh, Shaidah Jusoh Northern Border University, Rafha Saudi Arabia (2017). The uses and effects of smartphone in higher education. http://www.i-jim.org.
7. Pollara, P., & Kee Broussard, K. (2011, March). Student perceptions of mobile learning: A review of current Research. In *Society for Information Technology & Teacher Education International Conference,2011*(1), 1643-1650.
8. Siew Foen Ng, Nor Syamimi Iliani Che Hasan, Nor Hairunnisa Mohammed Nor, Nur Ain Abdul Malek (2017). The Relationship between Smartphone Use and Academic Performance: A Case of Students in Malaysian Tertiary Institutions. Malaysian Online Journal of Education and Technology.
9. Thornton, P., & Houser, C. (2004). Using mobile phones in education. In *Proceedings of Wireless and Mobile Technologies in Education, 2004: The 2nd IEEE International Workshop on IEEE* (pp. 3-10).
10. UNESCO. (2012). *Mobile learning and policies, Key issues to consider*. Retrieved August 2015 from http://unesdoc.unesco.org/images/0021/002176/217638E.pdf.
11. Uzunboylu, H., Cavus, N., & Ercag, E. (2009). Using mobile learning to increase environmental awareness. *Computers & Education*, *52*(2), 381-389.

12. Valderrama Bahamóndez, E. D. C., & Schmidt, A. (2010, April). A survey to assess the potential of mobile phones as a learning platform for Panama. In *Proceedings of the 28th International Conference Extended Abstracts On Human Factors In Computing Systems* (pp. 3667-3672).
13. Valk, J. H., Rashid, A. T., & Elder, L. (2010). Using mobile phones to improve educational outcomes: An analysis of evidence from Asia. *The International Review of Research in Open and Distance Learning*, 11(1), 117-140
14. Wang, M., Shen, R., Novak, D., & Pan, X. (2009). The impact of mobile learning on students' learning behaviours and performance: report from a large blended classroom. *British Journal of Educational Technology*, *40*(4), 673-695.
15. Wishart, J. (2015, October). Assimilate or accommodate? The need to rethink current use of the term 'mobile learning'. In *International Conference on Mobile and Contextual Learning* (pp. 229-238). Springer International Publishing.

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