

IMPACT OF SOCIAL MEDIA ON STUDENTS' ACADEMIC PERFORMANCE: A STUDY OF STUDENTS OF FEDERAL POLYTECHNIC, UGEP, CROSS RIVER STATE

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Abstract

This study examines the impact of social media on the academic performance of students of Federal Polytechnic, Ugep, Cross River state. Social media is an off-spring of the new media. However, the development in Information and Communication Technology (ICT) and Internet in Nigeria has led to the invention of other new media channels that brought tremendous improvement in the communication system. These media tools also enhance learning amongst students. The researchers used survey method of scientific inquiry; using students of all the seven (7) schools of the institution of study which formed the population. Questionnaires were administered to some randomly selected students of the same school giving a 91.2% response rate. Taro Yamane's formula was adopted to determine the sample size which was calculated to be 384. The data collected from the respondents were later presented using simple percentages and tables. Hypotheses were tested using Z-test. The findings reveal that students' exposure to internet and social media platforms enabled them learn communication skills, connect to their teachers for learning, discussion and sharing of information with their peers. The study also found out that social media impacted positively on their academic performance hence they generate ideas and concepts related to their studies. The study concludes that the academic performance of students under study were positively influenced due to their regular online contacts. The study therefore recommends expansion of the social networking sites and enlightenment of students on the appropriate use of social media sites.

Keywords: Social Media, Academic Performance , Global village , Students , Impacts

Introduction

The invention of the Internet brought a new dimension into the media landscape. It marked the beginning of technological transformation and socialization with a higher desire for information about everything. This slowly developed into social media, which essentially is information about people (Olaniran, 2014). Social network, in other words, is referred to as a social structure made up of individuals or organisations called “nodes”, which are connected by one or more specific types of interdependency, such as friendship, kinship, common interest, financial exchange, dislike, sexual relationships or relationships of beliefs, knowledge or prestige (Asemah & Edeogu, 2012). Overtime the means of communication has changed people's living state of affairs and advancements in technology have made it an interesting field to explore. Technology is like two sided coin, it brings with it both negative and positive sides. It helps people to be better informed,

enlightened and abreast with world developments as well as exposes them to harmful information and its purveyors. Social media sites include: *Facebook*, WhatsApp, Tiktok, Snapchat, *Instagram* and Youtube. The social media sites are used by most people to interact with old and new friends, either physically through the internet (Asemah & Edegoh, 2012). Social media such as *Facebook*, Snapchat, Youtube and *Instagram* has divided our World into online and offline. Social media are online technology platforms that help to connect people together far and near and build relationship among people. With social media we can communicate with each other even on different continents, listen to music, read books, view photos and much more. Social media has greatly simplified our lives and tightly tied to ourselves. With the aid of social media, students can participate in lectures virtually and get reminders and aids online. Students can equally source academic materials online as some Polytechnic resource persons adopt SM platforms as an easy way to communicate to the students.

Statement of the Problem

The rapid growth of technological innovation in media has had a great impact on the way people communicate on a daily basis. The growing use of social media among the younger generation has become a surging trend with its positive and negative tendencies. Interestingly, students are not left behind in the ever-growing trend. Due to its increased popularity, economists, chief lecturers and professors are questioning whether grades of students are not directly proportional to the time spent on these sites. Choney (2010); MehMood and Taswir (2013); Jacobsen and Forste (2011), believe that the use of technology such as internet is one of the most important factors that can influence educational performance of students positively or adversely. Many parents and guardians are worried that students are spending too much time on *Facebook* and other social media sites and consequently do not have enough time to study. According to Ibe and Asogwa (2022), Social networking is a welcome development due to its abundant benefits like the speed at which information is disseminated, facilitates the exchange of ideas, awareness, knowledge, enhancing learning opportunities among others. They further posited that, it is vital and serves as an integral part of modern life which is culminated with technologies and innovations. It is against this background, the study aimed to find out the impact of social media among students of Federal Polytechnic Ugep, Cross River State.

Objectives of the Study

1. To find out the various social networking sites the students have access or are more exposed to.
2. To find out the frequency at which students of Federal Polytechnic, Ugep, Cross River State access the online platforms.
3. To ascertain how the use of social media has affected the academic performance of the students.

Conceptual Framework

Social media belongs to the new communication technology used through the internet and some websites that are linked to it which has eased human interactions, sharing of information and ideas amongst groups especially students, businessmen and the general public. Conceptually, social media according to Dollarhide, (2021) is a “computer-based technology that facilitates the sharing of ideas, thoughts and information through the building of virtual networks and communities”. It connotes web-based tools and services that allow users to create, share/search and also give room for interaction about the information given, people can discuss, learn, make “followers” or

“friendship” on *Instagram, Twitter, Facebook, Tik-tok*, etc. Social media also means things of positive and negative, annoying, time-consuming, time-efficient, useful and useless (Ibe, et al., 2022).

Theoretical Framework

The theories considered most appropriate for this work are: Diffusion of Innovation theory and Uses and Gratification theory.

Diffusion of Innovation theory was developed by E. M. Rogers in 1962 as one of the oldest social science theories. It explains how over time an idea or product gains momentum, and diffuses (spread) through a specific population or social system. The diffusion of innovation theory by Rogers, (1983) was set to examine how new ideas are spread among people through media. It is a theory that seeks to explain how, why and at what rate new ideas and technology spread through cultures. The theory asserts further that in the Adoption of a new idea, behaviour or product does not happen simultaneously in a social system: rather it is a process whereby some people are more apt to adopt the innovation than others. It relates the usefulness of the media and to what extent it can affect man.

Uses and Gratification theory (UGT) is an approach to understanding why and how people actively seek out specific media to satisfy specific needs. It was originated in the 1970 by Blumler and Katz as a reaction to traditional mass communication research emphasizing the sender and the message. UGT also called functional theory is concerned with the social and psychological origin of needs which generate expectation of the mass media which leads to different patterns of media exposure, resulting in need gratifications and other consequences, mostly unintended ones (Katz et al., 1974). These uses (exposure to the media) and gratification (benefits) are determined by the needs of members of the audience.

Review of Related Literature

The use of social media among our teaming youths is growing by the day which invariably has gained quantum popularity among students. It aids connection not only homogeneously but heterogeneously (national and internationally). Several studies have been carried out by different researchers to assess how the use of social media impact on student academic performance. Choney, (2010); MehMood and Taswir, (2013); Kist, (2008), Jacobsen and Forste, (2011) believes that the use of technology such as internet is one of the most important factors that can influence performance of students positively or negatively. The internet is at once a world-wide broadcasting capability, a mechanism for information dissemination and a medium for collaboration and interaction between individuals and their computers without regard for geographic location. The proliferation of mobile devices and network availability has had a tremendous influence on the way people communicate daily. Owusu-Acheaw, and Larson (2015) did a study to assess students' use of social media and its effect on academic performance of tertiary institutions students in Ghana with a focus on Koforidua Polytechnic students. Questionnaire was used for collecting data. The study revealed that majority of the respondents had mobile phones which also had Internet facility on them and had knowledge of the existence of many social media platforms. The study further confirmed that most of the respondents visit their social media sites using their phones and spend between thirty minutes to three hours per day. Hasnain, et al (2015) also studied that the relationship between the use of social media and students' academic performance in Pakistan. The results reveal that social media has an inverse relationship with academic performance. This implies that social media platform used in a positive manner can help students and youths in

gaining knowledge that can be used to enhance their academic performance. Emeka and Nyeche (2016) in a study on the Impact of Internet Usage on Academic performance of under-graduate students using University of Abuja, Nigeria averred that the use of Internet is a beneficial tool to students and enhances their skills and capability which will assist them in studies and professional life. Zahid, et al (2016) carried out a study to determine the effect of growing use of social media sites on the academic performance of the students of universities and colleges. On the basis of random sampling, 300 students were selected. Questionnaire was used as the instrument for data collection. The questionnaire retrieved from respondents was analyzed with descriptive statistics and results indicates that the effect of social media can be positive.

Eke, Omekwu and Odoh (2014) study on the impact of social media among undergraduates in Nigeria showed that, there are some benefits from using social media. Such benefits include; encouraging virtual meeting with co-research scholars; self-esteem and well-being; Research and learning; strengthening interpersonal relationship; read and write web skills, presentation skills etc. It was also noted that students use social media to communicate with friends, viewing movies, discussing national issues like politics, economy and religious matters, and for academic purposes.

Methodology

According to International Encyclopaedia of the Social and Behavioural Sciences, 2015, survey is a general term for standardized mass questioning of a population under survey. The instrument of data collection for the study is the questionnaire. The area of study is Federal Polytechnic Ugep, Cross River state. To determine the appropriate sample size, Taro Yamane sample determination formula was deployed.

$$n = \frac{N}{1 + N(e^2)}$$

Where n=Sample

N=Population size

E= error limit

(Using the foregoing population of different Schools in Federal Polytechnic Ugep, Cross River State)

N=9,400

$e^2 = 0.05 \times 0.05$ or = 0.0025)

$n = 383.67 = 384$

Questionnaires distributed	384
Questionnaires Not Returned	20
Questionnaires wrongly completed	14
Questionnaires Retrieved and used for the research	350

Distribution and Retrieval of Questionnaires

Questionnaire	Frequency	Percentage %
Questionnaire distributed	384	-
Questionnaire retrieved and used for the research	350	91.2
Questionnaire not returned	14	3.6

Questionnaire wrongly completed	20	5.2
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How it is derived:

350 divided by 384 multiplied by 100 = 91.2%

14 divided by 384 multiplied by 100 = 3.6%

20 divided by 384 multiplied by 100 = 5.2%

Presentation of Data/Analysis

Data gathered from this study were interpreted and analyzed using tables with the frequencies and proportion of each scores generated through research questions. While Z-test was used for the hypothesis.

Results

Items 1 to 5 in the questionnaire answered questions on the demography of respondents.

Question 1: Sex?

Table 1: Response to Question 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	182	52.0	52.0	52.0
Female	168	48.0	48.0	100.0
Total	350	100.0	100.0	

Source: SPSS Version 23.0

Table 1 shows that 182 respondents representing (52.0%) of respondents were males while 168 representing (48.0%) of the respondents were females.

Question 2: What is your age bracket?

Table 2: Response to Question 2

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-24	243	69.4	69.4	69.4
25-31	77	22.0	22.0	91.4
32-38	25	7.1	7.1	98.6
39-40	5	1.4	1.4	100.0
Total	350	100.0	100.0	

Source: SPSS Version 23.0

Table 2 above shows that 243 respondents (69.4%) fell under the age bracket of 18-24, 77 respondents (22.0%) were under 25-31, 25 respondents (7.1%) were under 32-38 and 5 respondents were under 39-40 years respectively. This means that respondents were the youths that make extensive use of the social media.

Question 3: What school are you in?

Table 3: Response to Question 3

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid School of Engineering Technology	147	42.0	42.0	42.0
School of Science Technology	35	10.0	10.0	52.0
School of Agricultural Technology	22	6.3	6.3	
School of Environmental and Health Technology	35	10.0	10.0	74.0
School of Management Technology	28	8.0	8.0	82.0
School of Art and Design				
School of General, Entrepreneurial and Vocational Studies	20 63	5.7 18.0	5.7 18.0	100.0
Total	350	100.0	100.0	

Source: SPSS Version 23.0

Table 3 above indicates that 147 respondents (42%) were Engineering students, 35 respondents (10%) were Science students, 22 respondents (%) were students of Agricultural Technology, 35 respondents (10%) were students of environmental and Health Technology, 28 respondents (8%) were students of Management Technology, 20 respondents (%) were students of Art and Design while 63 respondents (18%) were students of General, Entrepreneurial and Vocational Studies. This indicates that a reasonable number of respondents cut across various departments in the polytechnic.

Question 4: What level are you? (National Diploma 1&2 / Higher National Diploma 1 & 2)

Table 4: Response to Question 4

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid ND1	133	38.0	38.0	38.0
ND2	49	14.0	14.0	52.0
HND1	49	14.0	14.0	66.0
HND 2	119	34.0	34.0	100.0
Total	350	100.0	100.0	

Source: SPSS Version 23.0

The result of data in Table 4 shows that 133 respondents (38%) were ND1 students, 49 respondents (14%) were ND2 students, 49 respondents were HND1 students and 119 respondents (34%) were HND2 students.

Question 5: What kind of student are you?

Table 5: Response to Question 5

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid Part-Time	73	20.9	20.9	20.9
Full Time	277	79.1	79.1	100.0
Total	350	100.0	100.0	

Source: SPSS Version 23.0

The result of the data in table 5 indicates that 277 respondents (79.1%) were on Full-Time basis while 73 respondents (20.9%) were on Part-Time basis.

Analysis of Data from Survey (field)

Research question 1: what social networking sites do the students of Federal Polytechnic Ugep, Cross River State have access to?

Items 6-13 answered the research question 1

Table 6: Which of the following do you own?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Computer	102	29.1	29.1	29.1
Cellphone	14	4.0	4.0	33.1
Smart Phone	199	56.9	56.9	90.0
Palm Top	35	10.0	10.0	100.0
Total	350	100.0	100.0	

Source: SPSS Version 23.0

Going by the table above, 102 respondents (29.1%) own a computer, 14 respondents (4%) own a cell phone, 199 respondents (56.9%) own a smart phone and 35 respondents (10.0%) own a palmtop.

Table 7: Do you have access to the internet?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	329	94.0	94.0	94.0
No	21	6.0	6.0	100.0
Total	350	100.0	100.0	

Source: SPSS Version 23.0

The above table shows that 329 respondents (94%) have access to internet and 21 respondents (6%) have no access to the internet.

Table 8: Are you aware of the social networking sites?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	350	100.0	100.0	100.0

Source: SPSS Version 23.0

The above table illustrates that 350 respondents (100%) being the whole sample size of study are aware of social networking sites.

Table 9: What are the social networking sites you are exposed to?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <i>Facebook</i>	50	14.3	14.3	14.3
<i>Snapchat</i>	15	4.3	4.3	18.6
<i>Instagram</i>	100	28.6	28.6	47.1
<i>Youtube</i>	185	52.9	52.9	100.0
Total	350	100.0	100.0	

Source: SPSS Version 23.0

Going by the result of the above table, a large percentage of respondents (52.9%) were of the opinion that YouTube is the most used social media site, followed by *Instagram* (29.1%) amongst students of Federal Polytechnic Ugep, Cross River State.

Table 10: Exposure to social media has positive influence in the academic performance of students.

Item	Strongly Agree	Agree	Strongly Disagree	Disagree	Neutral	Mean
For informal learning, such as communicating with peers about course content	200 (57.1%)	109 (31.1%)	21 (6%)	11 (3.1%)	9 (2.6%)	4.3457
Discussion questions for the traditional class and announcements are posted by some lecturers for their students	173 (49.4%)	142 (40.6%)	Nil	16 (4.6%)	19 (5.4%)	4.2143
Interaction with fellow students in the group work related to video shots	215 (61.4%)	102 (29.1%)	3 (0.9%)	7 (2%)	23 (6.6%)	4.6857
Receive announcements from their schools	111 (31.7%)	199 (56.9%)	10 (2.9%)	30 (8.6%)	Nil	4.0543
Learn communication skills as well as presentation skills for application during the seminar and project defence.	247 (70.5%)	80 (22.9%)	3 (0.9%)	13 (3.7%)	7 (2%)	4.5457
Grand Mean						4.4030

Source: Authors' Compilation and SPSS Version 23.0

Table 4.4 above shows the mean distribution of opinions of the respondents on exposure to social media has a positive influence on the academic performance of students.(Based on tabulated mean ratings of 3.0)

In item number one, the data shows that 200 respondents strongly agreed, 109 respondents Agreed, 9 respondents were neutral, 21 respondents disagreed and 11 respondents strongly disagreed. The

mean score of 4.3457 is a strong indication that the majority of the respondents accepted that the informal learning, such as communicating with peers about course content.

On item two, 173 respondents strongly agreed, 142 respondents Agreed, 9 were neutral, and 11 respondents disagreed. The high mean score of 4.2143 is an indication that the majority of the respondents strongly agreed with the proposition that it was a discussion question for the traditional class and announcements are posted by some lecturers for their students.

Concerning item three, 215 of the respondents strongly agreed, 102 respondents agreed, 23 respondents were neutral, 3 respondents disagreed and 7 respondents strongly disagreed. The result shows a mean score of 4.6857 which directly implies that the majority of respondents agreed that it was interaction with fellow students in the group work related to video shots.

For item number four, the high mean of 4.0543 depicts that respondents are all in agreement that it was Receiving announcements from their schools, and item five with the mean of 4.5457 showed that the respondents agreed that Learning communication skills as well as presentation skills for application during the seminar and project defence.

With the grand mean of **4.4030**, it is a strong indication that the respondents accepted that exposure to social media has a positive influence on the academic performance of students.

Test of Hypotheses

The five hypotheses that were formulated earlier were tested using a normal distribution (z-test). The Z-score is shown below

$$z = \frac{\bar{x} - \mu}{s/\sqrt{n}}$$

where:

- z = standard normal deviate
- \bar{x} = mean of the mean responses
- μ = Population mean
- S = standard deviation

Decision Rule

The rule in the use of the z-test criterion was to accept the alternate hypothesis of the calculated z-score if it was higher than the tabulated z-score. The hypothesis was not to be rejected if the tabulated value was less than the calculated z-value.

$Z_{critical} > Z_{cal}$, do not reject, otherwise accept.

Test of Hypothesis

Ho: Exposure to social media has no positive influence on the academic performance of students

Hi: Exposure to social media has a positive influence on the academic performance of students

Table 4.4: Z-test result on whether exposure to social media has a positive influence on the academic performance of students

How does exposure to social media influence the academic performance of students
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N		350
Normal Parameters	Mean	3.2212
	Standard Deviation	0.912
Most Extreme	Absolute	.261
Most Extreme	Positive	.311
Difference	Negative	-.231
Kolmogorov-Smirnov Z		5.827
Asymp. Sig.(2-tailed)		.000

Source: Author's compilation SPSS Output

- a. Test distribution is Normal
- b. Calculated from data

Decision Rule: If the calculated Z-value is greater than the critical Z-value (i.e. $Z_{cal} > Z_{critical}$), reject the null hypothesis and accept the alternate hypothesis accordingly.

Result: With Kolmogorov-Smirnon Z – value of 5.827 and on Asymp. Significance of 0.000, the responses from the respondents as displayed in the table are normally distributed. This affirms the assertion that exposure to social media has a positive influence on the academic performance of students.

Decision: Furthermore, comparing the calculated Z- value of 5.827 against the critical Z- value of 1.96 (2-tailed test at 95% level of confidence) the null hypothesis was rejected. Thus, the alternate hypothesis was accepted which states that exposure to social media has a positive influence on the academic performance of students.

Conclusion

This study concludes that, the students of Federal Polytechnic Ugep, Cross River State academic performance is not in any way influenced negatively by social media. This is only possible because they are mostly online for research purposes, group discussions, submission of their assignments, project work, seminars, lectures and class briefs, etc and only little or no time for chatting and hook-ups. This may be likened to the institution's tradition of "warning" and finally "expelling" students who are not doing well academically.

Recommendations

The researchers made some recommendations based on the findings, viz:

- ✓ There should be more expansion of social networking sites and new pages to enhance academic activities to avoid any form of setbacks in the student's academic performance.
- ✓ Lecturers should engage their students more by asking them to submit their assignments online via their e-mail.
- ✓ Finally, there is a grave need to bring up infrastructures for e-libraries to improve their learning even as it gets more spiced up technologically.

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