



Effects of Information and Communication Technology Platforms on University Students Academic Performance

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ABSTRACT This study investigated the effects of social media and its influence on the academic performance of the students in the National Open University (NOUN), Benin Study Center using a self-developed structured questionnaire called "Social Media and Academic Performance of Students Questionnaire (SMAAPOS)" with 395 student respondents. Data obtained shows that 597 (46%) of the participants' responded Strongly Agree that students addictiveness to social network has a significant influence on their academic performance, while 312 (24%) Agree, 262 (20%) Disagree, and 125 (10%) Strongly Disagree, and that there is a significant influence on student's usages of social media network by age.

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Institutions, organizations, industries and individuals are greatly fascinated as a result of the advancement technology which has enlarged the framework of communication through Information and Communication Technologies (ICTs) platforms also known as Social Network Sites (SNSs). The world at large is now seen as a "global village" whereby individuals can easily share, communicate with one another with ease. This newness and ease of communications especially through the various social media networks (such as Twitter, Yahoo Messenger, 2go messenger, YouTube, Skype, Google talk, Google messenger, Facebook Messenger, Whatsapp, Yookos, LinkedIn, Instagram, Flickr, Gab, Pinterest etc.) certainly has its merits and demerits. Information and Communication Technology Platforms are online Communities of Internet users who want to communicate with other users about areas of mutual interest, whether from a personal, business or academic perspectives (William *et al.*, 2009). The millions of social networking sites have transformed the thought of a global village into a reality whereby billions of people communicate via social networking sites. Numerous benefits have been obtained through distant communication with the use of Social Networking Sites. Academic performance plays an important role in an individual empowerment and in nations building. The role of academic achievement as one of the predictors of one's life success and also in the aspect of academic placement in schools to higher institutions as well as the level of employability in one's career is inevitable (Kyoshaba, 2009). Students' involvement in this social networks during lecture hours has contributed to their poor academic performance (Ogedegbe *et al.*, 2012). Olubiyi (2012)

noted that students in recent times are so engrossed in the social media that they are almost 24 hours online. Even in classrooms and lecture theatres, it has been observed that some students are always busy chatting online, while lectures are on. Times that ought to be channeled towards academic learning, have been crushed by the passion for meeting new friends' online, and most times busy discussing trivial issues. Hence most students' academics suffer setback as a result of distraction from the social media. In (Obi *et al.*, 2012), it was observed that the use of these sites also affects students' use of English and grammar. More recently, most Social Networks Sites support voice chat and video chat further making users not to be concerned with texting. A Social Network Site refers to a networked based platform that enables users to create public profiles within that network and form relationship with other users of the same website who access their profile. After joining a social network site, users are prompted to identify others in the system with whom they have a relationship. The label for these relationships differs depending on the site. Wandera *et al.*, (2016) discovered that social media greatly influence collaborative learning in a Cohort Environment. Moshi *et al.*, (2018) carried out a study in Tanzania to examine the influence of social media on learning behaviour among secondary school students in Moshi Municipality in Tanzania. The study adopted the Banduras' Social Learning Theory and Katz's User Gratification Theory to inform both the methodology and analysis. The quantitative data analyzed showed that accessibility of the social media influences the learning behaviour of secondary school students. Oberiri and Ezeah (2017), Amadi and Ewa (2018) enlisted several related issues on access and

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utilization of social networking sites in general terms to students performance. This study seeks to examine the level of student addictiveness to social media and its influence on the academic performance of the students in the National Open University,

MATERIALS AND METHODS

A well-constructed and self-developed questionnaire called “Social Media and Academic Performance of Students Questionnaire (SMAAPOS)” was used to get the desired information from the students. The questionnaire was divided into two sections (A and B). Section A was for collection of information on personal data of respondents while Section B consisted of questions that elicited responses from the respondents with response options: Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

The reliability of the research instrument was determined using a split half test using the odd and even numbered items to form the two halves. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value of 0.65 indicated that the research instrument was reliable; hence it was adopted for getting the desired information for the study. The researchers collected the needed data through the use of questionnaire and its administration in the selected faculties. A sample size of 395 students was used to determine a true representation of the entire 30,000 students of the National Open University, Benin Study Center by applying the Taro Yamane’s formula for obtaining sample size for a given population.

A total of 395 copies of the questionnaire were distributed to elicit responses from the students. A total of 30 questionnaires were missing while 41 were wrongly filled leaving the researcher with 324 valid questionnaires. Responses from the questionnaire were analyzed using the descriptive statistics of frequency counts and percentage, and inferential statistics of Chi-square (χ^2) test of independence. Descriptive statistics of frequency counts and percentages were used in analyzing demographic variables and research questions while the inferential statistics of Chi-square(X^2) independence test was also used to test the stated hypotheses at 0.05 α -level of significance.

RESULTS AND DISCUSSION

The demographic data according to faculties consist of distribution of students as follows: Arts 74 (23%), Education 55 (17%), Social Sciences 52 (16%), Science and Technology 72 (22%) and Management science 71 (22%). The respondents in terms of gender, age and level of academic study consist of the participants: 140 representing (43%) of the respondents were Male and 184 representing (57%) were Female; 126 which represents (29%) of the respondents were between 16-20years, 56 which represents (17%) were between 21-25years, and 142 which represents (44%) were between 26years and above; 55(17%) of the respondents are from 100 level, 59 (18%) from 200 level, 83 (26%) from 300 level, 30 (9%) from 400 level and 97 (30%) are from 500 level. The analysis of the research questions is as in Table 1.

Table 1: Students Addictiveness to Social Network and Academic Performance.

S/N	Statement	SA	A	D	SD	Total
1	Addiction to online social networks is a problematic issue that affects my academic life	197(61%)	86(27%)	27 (8%)	14(4%)	324(100%)
2	Online social networks distract me from my studies	149(46%)	101(31%)	74(23%)	-(-)	324(100%)
3	Hours spent online can never be compared to the number of hours I spend reading	182(56%)	75(23%)	55(17%)	12(4%)	324(100%)
4	There is no improvement in my grades since I became engaged into these social networking sites.	69(21%)	50(15%)	106(33%)	99(31%)	324(100%)
Total		597	312	262	125	1296
Total (%)		(46 %)	(24%)	(20 %)	(10%)	(100%)

Table 2: Exposure of Students to Social Media Network and Their Academic Performance.

S/N	Statement	SA	A	D	SD	Total
1	I usually have unlimited access to Facebook and this has affected my academic performance negatively.	79(24%)	207(64%)	15(5%)	23(7%)	324 (100%)
2	I engage in academic discussions on twitter and this has improved my academic performance.	177 (55%)	53(16%)	59(18%)	35(11%)	324(100%)
3	I make use of whatsapp to disseminate knowledge to my class mate	88 (27%)	153(47%)	78(24%)	5 (2%)	324(100%)
4	I Solely rely on information gotten from Wikipedia to do my assignments without consulting other sources.	237(73%)	48(15%)	14(4%)	25(8%)	324(100%)
Total		581	461	166	88	1296
Total (%)		(45)	(36)	(13)	(6)	(100%)

The Table 1 shows that 597 (46%) of the participants’ responded Strongly Agree that Students’ addictiveness to social network has a significant influence on their academic performance, while 312 (24%) Agree, 262 (20%) Disagree, and 125 (10%) Strongly Disagree. Table 2 shows that 581 (45%) of the participants’ responded Strongly Agree that Student’s exposure to social media network has significant influence on

students’ academic performance, while 461 (36%) Agree, 166 (13%) Disagree, and 88 (6%) Strongly Disagree. Table 3 shows that 359 (28%) of the participants’ responded Strongly Agree that Use of social media has significant influence on the academic performance of the students while 299 (23%) Agree, 376 (29%) Disagree, and 262 (20%) Strongly Disagree.

Table 3: Use of Social Media and Students’ Academic Performance

S/N	Statement	SA	A	D	SD	Total
1	The usage of Wikipedia for research has helped improve my grade	89 (27%)	183(57%)	37(11%)	15(5%)	324(100%)
2	Engaging in academic forums on yahoo reduces my rate of understanding.	21(6%)	13(4%)	201(62%)	89(28%)	324(100%)
3	I use materials gotten from blogging sites to complement what I have been Taught in class.	180(56%)	57(18%)	27(8%)	60(18%)	324(100%)
4	I will not perform well in my academics even if I stop using social media	69(22%)	46(14%)	111(34%)	98(30%)	324(100%)
Total		359	299	376	262	1296
Total (%)		(28%)	(23%)	(29%)	(20%)	(100%)

Table 4: Gender Usage of Social Media.

S/N	Statement	SA	A	D	SD	TOTAL
1	Male and female students use social media networks differently in different frequencies.	80(24%)	201(62%)	14(4%)	29(10%)	324(100%)
2	Female students use social networking sites more to explicitly foster social connections.	217 (67%)	85 (27%)	-	22(6%)	324(100%)
3	Gender determines the level of social media network usage.	35(11%)	231(71%)	19(6%)	39(12%)	324 (100%)
4	Males are more effective at using social networking sites for non-academic purposes.	197(61%)	56(17%)	51(16%)	20(6%)	324(100%)
Total		529	573	84	110	1296
Total (%)		(41%)	(44%)	(7%)	(8%)	(100%)

Table 5: Age Usage of Social Media.

S/N	Statement	SA	A	D	SD	Total
1	Age has impact on the use of social media	138(43%)	111(34%)	17 (5%)	58(18%)	324(100%)
2	Social media become boring has I grow older.	18(6%)	270(83%)	23(7%)	13(4%)	324(100%)
3	Social media is not relevant to people of older generation.	35(11%)	34(10%)	102(32%)	153(47%)	324(100%)
4	The younger generations are the most active users of social media.	215(66%)	78(24%)	31(10%)	-	324(100%)
Total		406	493	173	224	1296(100%)
Total (%)		(31%)	(38%)	(13%)	(18%)	(100%)

Table 4 shows that 529 (41%) of the participants’ responded strongly Agree that there is a significant difference between male and female student usage of social media network, while 573 (44%) Agree, 84 (7%) Disagree and 110 (8%) Strongly Disagree. Table 5 shows that 406 (31%) of the participants’ responded strongly Agree that there is a significant difference between student’s usage of social media network by age and their academic performance, while 493 (38%) Agree, 173 (13%) Disagree and 224 (18%) Strongly Disagree.

In testing the hypotheses stated, the chi-square(X^2) inferential statistics was employed. Students’ addictiveness to social network has no significant influence on their academic performance: The calculated chi-square value of 151.907 is greater than the Critical chi-square value of 7.815, hence the null hypothesis which states that Students’ addictiveness to social network has no significant influence on their academic performance is hereby rejected. This implies that Students’ addictiveness to social network has a significant influence on their academic performance.

Student's exposure to social media network has no significant influence on their academic performance: The calculated chi-square value of 75.907 is greater than the Critical chi-square value of 7.815, hence the null hypothesis which states that Student's exposure to social media network has no significant influence on students' academic performance is hereby rejected. This implies that Student's exposure to social media network has significant influence on students' academic performance.

Use of social media do no significantly have influence on the academic performance of the students in National Open University of Nigeria (NOUN): The calculated chi-square value of 14.130 is greater than the Critical chi-square value of 7.815, hence the null hypothesis which states that Use of social media do no significantly influence on the academic performance of the students in National Open University of Nigeria, Benin Study Center is hereby rejected. This implies that social media has a significant influence in the students' academic performance.

There is no significant influence on male and female student usage of social media: The calculated chi-square value of 46.500 is greater than the Critical chi-square value of 7.815, hence, the null hypothesis which states that there is no significant influence on male and female student usage of social media is hereby rejected. This implies that there is a significant influence on male and female student usage of social media. Age does not have significant influence on the use of social media: The calculated chi-square value of 132.074 is greater than the Critical chi-square value of 7.815, hence, the null hypothesis which states that age does not have significant influence on the use of social media is hereby rejected. This implies that age influence the use of social media.

The hypothesis that states Students' addictiveness to social network has no significant influence on their academic performance was tested. The finding shows that Students' addictiveness to social network has a significant influence on their academic performance. Social media have become a major part of the lives of the students of today. The hypothesis which states that Student's exposure to social media network has no significant influence on students' academic performance was tested. The finding shows that Student's exposure to social media network has significant influence on students' academic performance. This corresponds with the findings of Amadi and Ewa (2018) which states that students' involvement in social media often affects their academic performance. Hence most students' academics suffer setback as a result of distraction from the social media. The third hypothesis which states that Use of social media do not significantly influence the academic performance of the students in National Open University of Nigeria (NOUN) was tested as well. The findings shows that use of social media has

significant influence on the academic performance of the students in National Open University of Nigeria (NOUN). This goes in line with the observations of Oberiri (2016) which noted that, the improved usage of internet has become a worldwide phenomenon for quite some time. The hypothesis which states that there is no significant difference between male and female student usage of social media network was tested. The findings of this study shows that the there is no significant difference between male and female student usage of social media network. The hypothesis concerning whether ageing does not have significant influence on the use of social media was tested. The findings of this study shows that age influence the use of social media.

Conclusion: This study revealed that Information and Communication Technology platforms has no significant influence on students' academic performance despite its negative effects in exposing students privacy and distracting students from their academic work. The university management however, should come up with a template on how their students can maximize the use of Information and Communication platforms to enhance academic performance.

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