

**AN ANALYSIS OF SOCIAL MEDIA USAGE AND ACADEMIC PERFORMANCE
AMONG UNDERGRADUATE STUDENTS' USMANU DANFODIYO
UNIVERSITY SOKOTO, NIGERIA**

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ABSTRACT

The study was to analyze the social media usage and academic performance among undergraduate students at Usmanu Danfodiyo University, Sokoto UDUS. The study sought to analyze types of social media used by undergraduate students, the rate of social media usage, gender differences in social media usage and relationship between social media and academic performance. It was conducted using a cross-sectional survey design; using questionnaires and a sample of 373 respondents was used. In verifying the hypotheses, the researcher used t -test to find out whether gender difference occurred in social media usage. Also, the researcher used correlation to determine whether there was a relationship between social media and academic performance among undergraduate students at UDUS. The results highlighted that there is a relationship between social media usage and academic performance among undergraduate students at UDUS. The findings revealed that majority of the undergraduate students in UDUS are using Facebook as a social media of communication among themselves. Also, it was discovered from the findings that there is no gender difference in social media usage among the undergraduate students. The study recognized the relationship between social media usage and academic performance. The study recommended that there be need for the University, to use Facebook, twitter, and WhatsApp platform for teaching and learning. Therefore, the university can use social media to teach their students. Furthermore, The University should integrate social media into teaching and learning process.

Keywords: Social media, students' academic performance, Facebook WhatsApp, and twitter

INTRODUCTION

Social media have today been massively used by students in the different higher education institutions in Nigeria. Due to the advancement in technology in learning social media have helped in making learning easy for students and teaching for teachers in many parts of the world. Social media like Google, Twitter, Facebook, and Skype have been introduced in the universities



as methods that can connect people easily and also help in the teaching and learning process by sharing learning resources. It was during the 1990's when home computer became more commonly used in households, and social media sites were becoming more refined. The internet's relay chats (IRCS) were first used in 1988 and were popularized in the 90s. The first popular media site, six degrees, was created in 1997. The site enabled its users to upload profiles and makes friends with others users (Hendricks, & Singhal 2003). By 2006, Facebook and twitter both became available to users throughout the world.

These sites remain the most popular network on the internet in the world today. After the success of these social media sites, another site like Tumbler, Spotify, Foursquare and Pinterest began appearing to fill specific social network niches. According to Hendricks & Singhal (2003), technology, social and environmental addict, there are tremendous varieties of social networking sites, and many of them can be linked to allow cross posting. This creates an environment where users can reach a maximum number of people without sacrificing the intimacy of person-to-person communication. According to this, we can positively speculate about what the future of social networking may look in next decade or even 100 years from now, and it seems clear that it will exist in some form for long as humans are alive.

Given the history of social media, there are still many social media sites appearing on the internet. The most famous social media site now is Facebook. Facebook was invented by Mark Zuckerberg (2011) who launched the website called the Facebook in February 2004. The website was named from a printed manual that was handed out every year in Harvard University containing the pictures of all student and staffs in the university. The site was still in simple form, and its purpose was to be an exclusive tool for the Harvard students to communicate to one another over the internet. After one month the website had been extended to the other three Ivy League schools across the country and Boston schools and then most universities across the United States. In 2005, all high schools could join Facebook, and the latter part of 2006 it was opened to everybody with an e-mail address and background information. The company turned the website's named to Facebook in 2005 after they bought the domain name facebook.com

Caraher and Braselman (2010) highlighted that 64% of students use social media to connect with classmates to study or work on class assignments at least several times per month and 41% use social media to study or work on class assignments at least several times per month. 27% use social media to connect with the faculty to study or work on class assignments, at least several times per month (Caraher & Braselman, 2010). According to Hrastinski, Keller, & Carlsson, (2010) (2010) synchronous media were argued to be more useful to support tasks and exchanges such as planning work. Social media is useful for learners' interactions which fulfill different cooperative/collaborative purposes by enabling them to see receiver's action and get the right results away.

Academic performances are the outcomes of education. This is also the extent to which a teacher or institution can know whether the students have achieved their educational goals. Academic performance is commonly measured by examinations or continuous assessment, but there is no general agreement on how it is best tested or which aspects are most important-



procedural knowledge such as skills or declarative knowledge. In Usmanu Danfodiyo University Sokoto, academic performance of students is measured by Cumulative Grade Point Average (CGPA).

Usmanu Danfodiyo University (UDUSOK, formerly University of Sokoto) is one of the first twelve Federal Universities in Nigeria founded in 1975. It is in the ancient city of Sokoto. The school is named after Usmanu Danfodiyo, the founder of the Sokoto Caliphate. UDUSOK is a four-year University that also features associate degrees and remedial programs (pre-degree). The university has an extensive and accredited medical program and the Usmanu Danfodiyo University Teaching Hospital, Sokoto, which is one of the biggest hospitals in Nigeria and West Africa. It is mostly accessible to those of low income and, like most Nigerian hospitals; it does not require health insurance before treatment. The internet is available to all students in the University computer labs, their laptops, and mobile phones. In UDUSOK the biggest number of the students is connected to at least one social media such as Facebook, WhatsApp, Twitter, etc.

STATEMENT OF THE PROBLEM

In the world, today communication and getting timely information are vital in all aspects. In universities varying, timely communication and frequent interaction of students with their lecturers have been noted to improve their learning and academic performance. According to Ahmed & Qazi (2011) the different social media which have all been developed they have started in universities with the aim of improving students learning and their academic performance. At the Usmanu Danfodoyo University Sokoto, many students have embraced the use of social media (such as Facebook, Twitter, WhatsApp, and Viber. e.t.c) but they do not use the social media site for learning.

The student uses social media for social interactions and personal purposes such as sending private messages, commenting on friends' photos, tagging photos, posting a video, creating or responding to the social event, searching for their favorite artist's and concerts, playing video games e.t.c. This takes much of their time which would have been used for learning to only chat with friends. Social media is being used by most students; this would have been a good platform to improve teaching and learning of students at the university. With such great opportunity for students to use social media to improve students' academic learning, it has not been tapped by the various higher education institutions in Nigeria UDUS inclusive with such challenges this compelled the researcher to undertake an analysis of the social media usage and academic performance among undergraduate students at Usmanu Danfodiyo University, Sokoto.

GENERAL OBJECTIVE

The general objective of the study was to analyze social media usage and academic performance among undergraduate students at Usmanu Danfodiyo University Sokoto. The specific objectives of the study were;

1. To find out the social media sites used by undergraduate students at Usmanu Danfodiyo University Sokoto
2. To find out the usage rate of social media by undergraduate students at Usmanu Danfodiyo University Sokoto
3. To explore gender differences in social media usage among undergraduate students at Usmanu Danfodiyo University Sokoto
4. To analyze the relationship between social media usage and academic performance among undergraduate students' at Usmanu Danfodiyo University Sokoto.

RESEARCH QUESTION

1. What are the social media used by undergraduate students Usmanu Danfodiyo University Sokoto?
2. What is the rate of social media usage by undergraduate students at Usmanu Danfodiyo University Sokoto?
3. What are the gender differences in social media usage among undergraduate students at Usmanu Danfodiyo University Sokoto?
4. What is the relationship between social media usage and academic performance among undergraduate students at Usmanu Danfodiyo University Sokoto?

METHODOLOGY

The study employed cross-sectional survey research design. This is because it allows studying the population at one specific time and differences between the individual groups within the population. This study compared and also provided for the examination of the relationship between social media usage and students' academic performance among students at the Usmanu Danfodiyo University Sokoto. The study only adopted a quantitative approach to research to collect and also analyze the research result. The researchers will use a questionnaire to collect data from the respondents.

Sample Size Selection

The study was conducted in Usmanu Danfodiyo University Sokoto. Two campuses were represented in this study by a sample of 373 students (respondents) who were selected using the Krejcie & Morgan, (1970) table.

Sampling technique

Stratified sampling was used to select the sample that was used in the study. This was used to identify the samples from the different strata of the population. The researcher identified students from their various groups in the population. Sufficient numbers of subjects from each stratum were selected accordingly. The sample selected was determined according to the total population using the krejcie & Morgan(1970) table. After that samples were drawn proportionately from the

different strata. The campuses and the size of the respondents that took part in the study are presented in the table below;

Table 1: Sample selection

Campus	Category	Population	Sample	Strategies
Main Campus	Students	4329	179	Stratified sampling
City Campus	Students	3461	142	Stratified sampling
Total		9052	373	

Validity

To establish the validity, the instrument was subjected to the scrutiny by experts who evaluated the relevance of the items in the tools to the objectives. The experts rated each item on a scale, and their recommendations were used to finally modify questions and the format of the tools to have the ability to solicit the required information. Undergraduate students, lecturers, deans of faculties and heads of departments were given the questionnaires to examine whether the questionnaire would obtain data which it is designed to collect. The content validity index (CVI) was computed by the formula below

$$CVI = \frac{\text{agreed items by the judge as suitable}}{\text{Total number of items in the questionnaire}}$$

A content validity index (CVI) of the questionnaire which was got 0.86, which highlighted that the instrument was valid to collect the information it was designed to collect.

Reliability

Reliability determines whether the research instrument is consistent and therefore be adopted for collecting data (Kaplan & Saccuzo, 1999). The reliability of the questionnaire was determined through piloting of the instruments. Data gathered from the pilot study was analyzed using the Cronbach’s Alpha coefficient to determine the reliability of the instrument using SPSS. After analyzing the reliability of the instrument, a Cronbach’s Alpha of .856 was got which indicated that the instrument was reliable to collect the data for the study. The reliability on 0.9 highlighted that the instrument was highly consistent in collecting information about an analysis of social media usage and Undergraduate academic performance among undergraduate students at UDUS.

Data Analysis

Data that was collected was analyzed using quantitative method. The objectives of the study required different statistical tools or techniques in order analyze the data that was obtained. Research question 1 and research question 2 required descriptive statistical tools (frequencies and percentage) for analyzing the data while research question 3 and 4 required inferential statistical tools; t-test, and correlation, respectively.

DISCUSSION OF RESULTS



From table 1, about cumulative grade average point (CGPA) majority of the respondents 209 (56%) fall between 2.80-3.99, followed by 97 (26.0%) respondents falling between 4.00-4.39, then 47 (12.6%) respondents fall between 4.40-5.00, and 20 (5.4%) respondents fall between 1.00-2.79. The finding above shows that majority of the students with the highest percentage of cumulative grade point are have the percentage of 12.% with the highest frequency of 47.

Table 1 Distribution of respondents according to cumulative grade average point

Cumulative Grade Average Point		
Attribute	Frequency	Percentages
4.40-5.00	47	12.6
4.00-4.39	97	26.0
2.80-3.99	209	56.0
1.00-2.79	20	5.4
Total	373	100

The finding in table 2, showed that most of the respondents 199 (53.4%) of the respondents were males while 174 (46.6%) of them were females. This is associated with the fact that, The figure coincides wide the actual percentage of students distribution according to gender in UDUS where 52% of the total student's population are male, and 48% are female.

Table 2: Distribution of respondents according to Gender

Gender		
Attribute	Frequency	Percentage
Male students	199	53.4
Female students	174	46.6
Total	373	100.0

From table 3 Majority of respondents were from the second year of study with 207 (55.5%) respondents, 157 (42.1%) respondents were in the third year of study, and about 9 (2.4%) respondents were at the fourth year of study. This shows that majority of respondents were either in the middle or final year of their studies while the least respondent was in the fourth year. This indicates that majority of the respondents are in second year and third year. They were selected because they have been in the school for over a year and had gained lots of experience. Information from them might be more valid than collected from lot year students.

Table 3: Distribution of respondents according to Study year

Study year		
Attribute	Frequency	Percentage



2 nd year	207	55.5
3 rd year	157	42.1
4 th year	9	2.4
Total	373	100

Section two: Description of respondents’ opinions about the research questions

In this section, description of respondents’ opinion per the items in the questionnaire relating to the objectives of the study is presented. Respondents were requested to react to the items by ticking (checking) the option that best described their opinions on dichotomous questions ranging from Yes and No, and Likert scale ranging from Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree.

Respondents’ opinion on social media usage by undergraduate students

Several items in the questionnaire were presented to the respondents to rate social media usage by undergraduate students at the UDUS.

Table 4: Distribution of respondents’ by opinion on types of social media used by undergraduate

Social media used	Frequency	Percentage
Face book	289	77.5
Twitter	43	11.5
Google plus	7	1.9
MySpace	1	0.3
LinkedIn	2	0.5
Flicker	2	0.5
whattsApp	27	7.2
Others	2	0.5
Total	373	100

According to table 4, it is indicated that majority of the respondents (289, 77.5%) use Facebook, about 43 (11.5%) respondents use Twitter, 27 (7.2%) respondents use WhatsApp, while 7 (1.9) respondents use Google plus. Also 2 (0.5%) respondents use LinkedIn, Flicker, and others, and only 1 (0.3%) respondents used MySpace. The findings show that majority of the respondents use Facebook as a means of social media among undergraduate students, with the highest percentage of (77.5%).

Lenhart, Campbell, and Purcell (2010) found out that Facebook is currently the most commonly used online social network among university students. Among University profile owners, 73% have a profile on Facebook, 48% have a profile on MySpace, and 14% have a LinkedIn profile.

Respondents’ opinion on rate of social media usage among undergraduate students



Several items in the questionnaire were presented to the respondents find out how much time students spend on social media site networking.

According to Table 5 majority of respondents 131 (35.1%) spend 10-30 mins on social networking per day respectively. 68 (18.2%) respondents spend 30-60 minutes on social networking per day, 44 (11.8%) respondents spend and 39 (10.3%) respondents spend between 1hour and 2 hours on social networking per- day respectively. This indicated that majority of the respondents spend between 10-30 minutes and less than 10-minute per-day respectively.



Table 5: Distribution of respondents with their opinion on rate of social media usage

Time spent on social networking	Frequency	Percentage
Less than 10 mins	76	20.4
10-30 mins	131	35.1
30-60 mins	68	18.2
1 hour	44	11.8
2 hours	39	10.3
6 hours	5	1.3
More than 6 hours	10	2.7
Total	373	100

Respondents’ opinion on gender difference in social media usage

Table 4.8: Distribution of respondents by opinion on gender gap in social usage

	Levenes. Test for Equality of Variance								
	F	Sig	T	Df	Sig(2 tailed)	Mean difference	Standard Error Difference	95% confidence interval of the difference	
								Lower	Upper
Usage	0.157	.692	.543	330	0.587	0.3457	.0.6361	.09057	.15971
Equal variance assumed									
Equal variance not assumed		.545	329.996		.586	0.3457	0.6346	0.9026	.15939

In a reflection of the results in table 4.8 it is highlighted that there is no difference between social media usage among undergraduate students according to gender; $t(372) = .543$, $p > .05$. This means that it is a good platform for teaching and learning process for both male and female students Other studies have not detected any gender difference in the overall amount of time spent online (Toe & Lim, 2000) and Americans (Fortson et al., 2007; Jackson et al., 2001). Also, in a study of 122 German high school students, no gender differences were detected in the diversity and frequency of internet usage (Wolfradt & Doll, 2001). In a recent study by Peter and Valkenburg (2013).



Respondents opinions on relationship between social media usage and academic performance

Table 10: Social media usage and academic performance

		Academic performance	Social media usage
Academic Performance	Pearson Correlation	1	.474**
	Sig. (2-tailed)		.000
	N	369	329
Social media usage	Pearson Correlation	.474**	1
	Sig. (2-tailed)	.000	
	N	329	332

According to the results of table 10, it was discovered that there is a relationship between the two variables; social media usage and academic achievement ($r(329) = .474, P=.000$). The use of social media in learning increases the learning achieved by students. Students who use the social media demonstrate an increase in overall GPA when compared with students do not participate in social media (Junco, 2012b; Junco et al., 2011). Social media usage within the academic setting not only increases students’ GPA but also facilitates peer feedback on assignments and thoughtful student reflections on course content. This is because of the ability for students to openly communicate with each other and develop strong relationships with peers is enhanced (Arnold & Paulus, 2010; Ebner, Leinhardt, Rohs, & Meyer, 2010; Kuh, 1993). Furthermore, using social media fosters long-term retention of information and develops a deeper understanding of content that is discussed in a class (Chen & Bryer, 2012; Heafner & Friedman, 2008).

Regarding the students’ academic performance with engagement acquired a typical percentage when it comes to the academic performance of students at University since it provides coalition and sharing of knowledge in the class and library by using social media anytime. The collaborative learning with social media usage and acquired an average percentage when it comes to the academic performance of students at University. Since it helps make the students feel confident enough to present the social media by collaborative between peers, teachers, and engagement within the class. Finally, regarding the students’ academic performance with interactivity with teachers of utilizing social media and acquired the Lowest percentage sometimes not allowed to communicate with teachers or shy students, but are good since it provides those more understanding from teachers, and academic achievement in education.

CONCLUSION

From the discussions the following conclusions are drowned; the majority of the students at Usmanu Danfodiyo University Sokoto use Facebook and Twitter while some use WhatsApp. A



few students use google plus, LinkedIn, Flickr, and others, if the university would recognize integrating social media into the teaching and learning process Facebook and Twitter would be more suitable for students. From the discussion, the University majority of the students spend 1-2 hours on social networking site per day, and less than 1 hour per day on social networking site per day, the university would use between 1-2 hours and less than 1 hour in teaching and learning process. The study discovered that there is no gender difference in social media usage between male and female students, meaning that social media would be a good platform for teaching and learning process for both male and female students. From the discussion above the study had recognized that there is a relationship between social media and academic performance in order to improve students' learning.

RECOMMENDATIONS

Basing on the findings of this study social media would be critical to improving the teaching and learning process. The following recommendations might be considered to improve the teaching and learning process of students at UDUS.

1. There is a need for the university to integrate Facebook, twitter, and WhatsApp as platforms for teaching and learning process of students. This is because students spend sizable time on those plat form.
2. Since there is a relationship between social media and academic performance. The university is recommended to integrate social media into teaching and learning process. Because social media help in content support, teacher and student interaction during the learning and teaching process

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