

SOCIAL MEDIA AND STUDENTS ACADEMIC PERFORMANCE

BY

Richard Aghama OKUNDIA

MGS1306956

**DEPARTMENT OF BUSINESS ADMINISTRATION,
FACULTY OF MANAGEMENT SCIENCES,
UNIVERSITY OF BENIN,
BENIN CITY**

SOCIAL MEDIA AND STUDENTS ACADEMIC PERFORMANCE

BY

Richard Aghama OKUNDIA

MGS1306956

**BEING A RESEARCH PROJECT SUBMITTED TO THE
DEPARTMENT OF BUSINESS ADMINISTRATION,**

FACULTY OF MANAGEMENT SCIENCES,

UNIVERSITY OF BENIN,

BENIN CITY

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
AWARD OF BACHELOR OF SCIENCE (B.SC) DEGREE IN BUSINESS
ADMINISTRATION.**

AUGUST, 2016

DECLARATION

I, **Richard Aghama OKUNDIA**, hereby declare that this research project is my original work under the supervision of Mrs Rosaline Omoyebagbe Dania in the department of Business Administration, Faculty of Management Sciences, University of Benin, Benin City and that this research project has never been presented to any university or institution for any academic award. All ideas and views are products of personal research and that of others have been duly referenced, appreciated and acknowledged.

Sign:_____

Richard Aghama OKUNDIA

Date:_____

AUGUST, 2016

CERTIFICATION

The undersigned read and certified that this research work was carried out by OKUNDIA RICHARD AGHAMA. It was approved by the Department of Business Administration, University of Benin, Benin City as meeting the requirement for the Award of Bachelor of Science (B.Sc) degree in Business Administration.

MRS ROSALINE OMOYEBAGBE DANIA

Date

Project Supervisor

DR JONES O. EJECHI

Date

Project Coordinator

DR IBRAHIM SHAIBU

Date

Head of Department

DEDICATION

This research work is dedicated to God Almighty for His providence; Philip Anigboro of blessed memory, my former supervisor at Delta State Polytechnic Ogwashi-Uku for providing me mentorship and enthusiasm for academic research; and Mum Blacky, may you live to enjoy the greatest joy and pleasure of my education for which you bore the little pain. Roses may have thorns but they are still beautiful!

ACKNOWLEDGMENT

I acknowledge the guardian hand of my supervisor Mrs Rosaline Omoyebagbe Dania for her unwavering encouragement and loving appreciation that has brought the best out of me. I am grateful to Osaigbovo Frank Okundia, Somtochukwu John Okonkwo, Idowu Michael Josiah, Isaac Imagbedion my course mates and colleagues for their reviews and suggestions. I am equally appreciating staff in the Department of Business Administration especially Simon Ayo Adekunle, Efosa Abiodun Oshodin, Dr Andrew Ehiabhi Tafamel and Dr Ibrahim Shaibu for their encouragement. I am appreciating Ikponmwosa Samuel Osawe for providing me with Internet access whenever I was tempted to bow to the mighty torrential of fear and despair. And also Victor Udoh for his assistance in analysing the data for this research. I also wish to thank Ven. Prof. Mon Nwadiani my teacher at All Saints Chapel, Uniben for his spiritual and moral contributions to the successful completion of this project. I thank the numerous students that provided the information for this research. Without their cooperation this project would have been an impossible mission. I wish to also thank Franklin Agetue and Emmanuel Nnamdi, my former lecturers at Delta State Polytechnic, Ogwashi-Uku for their constructive contributions to my academic transformation. I am also grateful to Hon. Mathew Aigbuhuenze Iduoriyekemwen JP and E3Project for accepting my proposal when I set out for this research.

I am deeply grateful to my immediate and extended family members for their financial, material, moral and spiritual contributions and support to my success. Finally, I am grateful to God Almighty who gave me time, space, intellect, material, ideal, skill, chance and fortune. To Him be all the glory.

ABSTRACT

This was an empirical study to determine the impact of social media on academic performance of University of Benin students. To achieve this general objective, four research questions were raised and three null hypotheses formulated, which guided the study.

A survey research design was used for the research. Questionnaire was used to generate primary data from a representative random sample of 112 students (108 representing 96 percent was correctly filled and returned). The students who participated in the survey were drawn from various faculties in the University. Descriptive statistics of frequency counts and percentages were used in analysing demographic variables and research questions while the Pearson Correlation Matrix and Analysis of Variance (ANOVA) were used to test the stated hypotheses at a 0.05 level of significance.

The results and contributions to knowledge include that the most common reason for social usage in the order of popularity was to share knowledge and information with other people. Also that there is no relationship between social media usage and student academic performance; no difference between male and female students with respect to their level of engagement on social media; and that age has no significant relationship with social media usage. It was recommended that parents and guardians should help to ensure that students utilize the benefits of social media and that scholars and opinion leaders should make efforts to eliminate the paradigm that social media is harmful to the academic development of students.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Technological advancements have brought major changes to the ways and manners people conduct their affairs globally. This technological advancement continues to break communication barriers and replacing them with new methods of connecting global audience. With the enablement of technology, anyone who has access to the Internet can be connected through numerous accessible social media platforms, and mobile telephony and be able to communicate video calls and electronic conferencing with peers regardless of distance. Sajithra and Patil (2013) express the belief that “social media is an extension and explosion of traditional word of mouth networks. Word of mouth has always been the most effective and trust worthy means of disseminating information”.

Social media have become very popular in recent years, this may be attributed to increasing proliferation and affordability of Internet enabled devices such as personal computers, mobile devices and tablets. This is evidenced by the burgeoning popularity of many online social media that include such social networking platforms as Facebook, collaborative projects such as Wikipedia, content communities like YouTube, blogs like Word Press, virtual games worlds such as World of Warcraft and virtual social worlds like Second Life. According to statistics by National Bureau of Statistics [NBS] (2016) as at September 2015, there were a total of 150,469,438 mobile subscribers in Nigeria. Of all users, a total of 97,212,364 had an Internet subscription. As a result social media are becoming more and more popular especially among students in Nigeria.

Teenagers and young adults have especially embraced these tools as a way to connect with their peers, share information, reinvent their personalities, and showcase their social lives (Boyd, 2007). As a result, a lot of students happily make use of these opportunities by spending a substantial amount of their time to use various social media platforms. However, the question remains that whether social media have any impact on student's academic performance.

Daluba and Maxwell (2013) posit that “millions of people are using social media tools as part of their everyday lives for work, studies and play because of its ubiquity”. The purpose students use media and the implication the activity has on academic performance has recently become the fore of academic discuss. Similarly, Aghaunor and Ekuobase (2015) remarked that “[social media] seem to have a profound impact on the process of learning in higher education by offering new possibilities for learners and teachers. However, with the recent proliferation of ICT tools and services, students are finding it difficult to curtail its negative appeal”. Others worry that the social media phenomenon in Nigeria is making students to spend less time studying their books and that this has resulted in dwindling academic performance.

According to Tech City (as cited in NOI Polls, 2016), in 2015, 93 million Nigerians surfed the Internet through their phones out of which 44 percent used it on social networking sites. In a survey by NOI Polls (2016) the study revealed that almost two-third (63 percent) of Nigerians who respondent stated that they are on one form of social media or the other. Analysis of age-group revealed that 74 percent are aged between 18–25 years—a typical undergraduate ages. The survey also revealed that due to the unique features of various social media platforms, most Nigerians use more than one, depending on preferences. Similarly, a survey by QZ (as cited in NOIPolls, 2016) found that 91 percent of respondents mentioned Facebook as the most used social media platform in Nigeria. And that Nigeria has about 7.2 million daily active users with 97 percent of them accessing the platform via mobile to “like”, “share” and “upload” content

on the social network. This is followed by WhatsApp (73 percent), BlackBerry Messenger (BBM) (20 percent) and Twitter (17 percent) among other social media platforms.

A number of prior studies that have examined this issue have come up with mixed results. Some studies like Hasnain, Nasreen and Ijaz (2015); Owusu-Acheaw and Larson (2015) pointed to a negative relationship. Whereas, other studies like Al-Rahmi and Othman (n.d.); Haseena and Rasith (2016) pointed to a positive relationship. Yet, some couldn't establish any direction. The contradictory results may be explained, at least to some degree, by the controllable variables used for these studies; and, the cultural background may partly account for the contradiction.

In spite of the above, however, studies on the impacts social media have on the academic performance of students in Nigerian universities are yet to be given adequate attention in the literature. A recent study by Aghaunor and Ekuobase (2015) in "ICT Social Services and Students' Academic Performance", the study focused on ICT tools rather than any specific social media platform. Ezeah, Asogwa and Edogor (2013) in "Social Media Use among Students of Universities in South-East Nigeria", the study could not determine whether a significant difference exists in "social media" habit between male and female students. Similarly, Buhari and Ashara (2014) in "Use of Social Media among Students of Nigerian Polytechnic" also conspicuously omitted the same factor. And no attempt was made to establish if a significant difference exists in "social media" habit as it relates to age. Thus, the need to make up for these gaps in knowledge in area of education in Nigeria makes the current study very significant. Its findings would further reveal the purposes students use social media, whether usage of social media affect academic performance, the interaction of gender difference, and the interaction of age. Hence, the main objective of this study is to investigate whether there is a positive impact of the social media use on academic performance of undergraduate students in the University of Benin.

1.2 Statement of Problem

Today's university students consist of members of the 'net generation'. That is, children who have grown up understanding the power of all types of technologies from early in their lives (Kirschner and Karpinski, 2010). Social media is increasingly becoming popular among Nigerian students. As such it is generating interests and concerns among researchers, school authorities and parents as to their likely benefits and damages on students as they continued to adopt social media to cater for their social and informational needs. Researchers like Mehmood & Taswir (2013), Kist (2008) believe that the use of technology such as social media is one of the most important factors that can influence educational performance of students positively or adversely.

The various purposes for which student use social media have ignited inquiries in academic cycle. Regardless of this, whether the student is a teen, young adult, or old, social media users the all over the world use them for different reasons. Social media provide users with facilities such as: promoting themselves in online environment and continuing to communicate with other users (Ellison, Steinfield & Lampe, 2007), for entertainment, education and information purposes (Ezeah et al., 2013) and chatting (Owusu-Acheaw & Larson, 2015; Buhari & Ashara 2014).

It is assumed in some quarters that the academic performances of students are facing a lot of neglect and challenges. There is a deviation distractions and divided attention between social media activities and their academic work. This may be as users continue to find them useful, comforting and amusing. In an examination of the patterns of student' ownership and use of cell phones and use of instant messaging, Junco, Merson & Salter (2010) however submitted that excessive use of social media tools by students has led to debate over whether

or not it has changed the very shape and structure of students' social behaviour and academic practices. This has thus become a source of worry to many leading educators who believe in knowledge and skill acquisition.

Social media can provide flexibility in learning, stimulate innovative ideas, and increase interpersonal relationships among students and instructors. However, Alhazmi and Rahman (2013) posit that students who are currently using social media for academic purposes have a negative perception of the use of social media for academics. This raises series of questions regarding the nature of the current academic use and its relationship with lecturers and the learning environment. According to Kist (2013) a significant number of parents are sceptical about the educational value of these social media tools on their wards.

As several studies demonstrate, the use of social media could affect academic performance of students negatively (Owusu-Acheaw & Larson, 2015) or could positively impact academic performance (Buhari & Ashara, 2014; Haseena & Rasith, 2016). In the light of the above, this study intends to explore some of the trending issues facing students' academic performance as a result of social media usage.

1.3 Research Questions

The following research questions were raised;

1. For what purposes do students use the social media?
2. To what extent does students' usage of social media affect their academic performance?
3. Is there gender difference in the student's usage of social media?
4. Is there a relationship between age and students' level of engagement on social media?

1.4 Objectives of the Study

The main aim of the study is to know the impact of social media on academic performance of undergraduate students. Specifically, the objectives are to:

1. Ascertain the purpose for which students use the social media

2. To explain the relationship between students usage of social media and student academic performance.
3. Find out if there is a difference in students' usage of social media by gender.
4. To determine if age has a significant relationship with students' level of engagement on social media.

1.5 Research Hypotheses

For the purpose of this study, the following hypotheses have been developed:

1. There is no significant relationship between students' usage of social media and their academic performance
2. There is no significant difference between male and female students usage of social media.
3. There is no significant relationship between usage of social media and age.

1.6 Significance of the Study

It is expected that the outcome of this research will benefit the lecturers, parents, students and researchers. This study will help the lecturers of universities to know the influence that social media have on their students, so as to assist them to enlighten and create awareness to the students on the possible damages or likely benefits that social media usage have on them. The study is of significance to parents, in the sense that, they will know the possible effects these social media have on their children, so as to serve as watch-dog to their children on the usage of the social media. It will provide relevant material for students and other researchers undertaking similar research.

1.7 Scope of the Study

The essence of this research is primarily to study the impact of social media on the academic performance of undergraduate students. And the study basically focuses on Nigerian

undergraduates. Due to time constraint and for easy analysis, the work is delimited to University of Benin, Benin City. It is believed that this will reduce cost and avoid complexity that may arise as a result of having a very large population. But since in most cases the characteristics of students are generally similar, the research findings would be generalized to include all students of Nigeria Universities.

1.8 Limitation of the Study

There are a few limitations that might affect the generalizability of the findings. The most significant limitation of this study is that it focused specifically on students attending a single, large, public university. Thus, its conclusion may not be generalizable to students of other institutions or with other demographics.

Furthermore, the focus on university students places the research in a particular institutional context. Consequently, the results may not adequately represent the total student population in Nigeria.

○ REFERENCES

- Aghaunor, C. T. & Ekuobase, G. O. (2015) ICT social services and students' academic performance. *A Multidisciplinary Journal Publication of the Faculty of Science, Adeleke University, Ede, Nigeria*, 2, 29-46.
- Alhazmi, A. K. & Rahma, A. A. (2013) Facebook in higher education: Students' use and perceptions. *Advances in Information Sciences and Service Sciences (AISS)*, 5(15), 32-41.
- Al-Rahmi, W. M. & Othman, M. S. (n.d.) The impact of social media use on academic performance among university students: A pilot study. *Journal of Information Systems Research and Innovation*. Pdf <http://seminar.utmspace.edu.my/jisri/>
- Boyd, D. (2010) *Taken out of context: American teen sociality in networked publics*. Berkeley, CA: University of California; 2008. Available at: www.danah.org/papers/TakenOutOfContext.pdf. Accessed April 14, 2016.
- Buhari, S. R. & Ashara, B. H. (2014) Use of social media among students of Nigerian polytechnic. *International Conference on Communication, Media, Technology and Design* 24 - 26 April 2014, Istanbul – Turkey, pp. 302-305
- Daluba, N. E. & Maxwell, E.O. (2013) Effect of social media on the use of academic library by undergraduate students in Tertiary institutions: A case study of Kogi State University, Anyigba. *Academic Research International*, 4(5), 536-542.
- Ellison N.B., Steinfield, C. & C. Lampe (2007) The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication* 12(4), 1143–1168
- Ezeah, Asogwa & Edogor (2013) Social media use among students of universities in South-East Nigeria. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 16(3).
- Haseena, M. L. F. & Rasith, P. M. M. (2016) Impact of social media on students' academic performance; special reference to Eastern University, Sri Lanka. *Journal for Studies in Management and Planning*, 2(3), 13-19
- Hasnain, H., Nasreen, A. & Ijaz, H. (2015) Impact of social media usage on academic performance of university students. *Proceedings of the 2nd International Research Management and Innovation Conference (IRMIC 2015)* Langkawi, Malaysia. Retrieved 21th December, 2015, from <http://www.rmc.kuis.edu.my/irmic/e-proceedings/e-preceeding-irmic-2015/> pdf
- Junco, R., Merson, D. & Salter, D. W. (2010) The effect of gender, ethnicity, and income on college students' use of communication technologies. *Cyberpsychology, Behaviour, and Social Networking*, 13(6), 619-627.
- Kirschner, P. A. & Karpinski, A. C. (2010) Facebook and academic performance. *Computer in Human Behaviour*, 26, 1237-1245.

- Kist, W. (2013) Class, get ready to tweet: Social media in the classroom. Pdf
- Mehmood, S. & Taswir, T. (2013) The effect of social networking site on the academic performance on students in College of Applied Sciences, Nizwa, Oman. *International Journal of Arts and Commence*, 2(1), 111-123.
- National Bureau of Statistics (2016) *Nigerian telecommunications sector: Summary report: Q3 2015*. Abuja, Nigeria: NBS.
- NOI-Polls (2016) Facebook ranked No. 1 social media and online dating platform in Nigeria. Retrieved April 14, 2016, from: <http://www.noi-polls.com/root/index.php?pid=373&parentid=14&ptid=1>
- Owusu-Acheaw, M. & Larson, A. G. (2014) Use of social media and its impact on academic performance of Tertiary Institution students: A study of students of Koforidua Polytechnic, Ghana. *Journal of Education and Practice*, 6(6), 94-101.
- Sajithra, K. & Patil, R. (2013) Social media: History and components. *IOSR Journal of Business and Management (IOSR-JBM)*, 7(1), 69-74.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review on the ‘impact of social media on academic performance of students’. The chapter is divided into nine sections. The first section reviews related literature on the concept of social media. This is followed by the subsections which review literature on the historical evolution of social media, types of social media, functions of social media and mobile social media. The sections that follow review literature on academic performance, purpose students use social media, social media usage and academic performance, gender difference and social media, age and usage of social media, social media in the classroom, problems of social media and the final section summarises the reviewed literature.

This chapter describes the core idea of the research study and was used later in the Data Presentation and Analysis and Summary, Conclusions and Recommendations chapters.

2.2 Concept of Social Media

Social media is a new phenomenon that have generated a lot of interests from various fields and disciplines. And social media research has been developing at a rapid pace. Different scholars have described social media according to the ‘colour of the lens of their microscope’. For example, Kaplan and Haenlein (2010) describe social media as a group of Internet-based applications that build on the ideological and technological foundation of Web 2.0, and that allow the creation and exchange of user-generated contents. In the opinion of Dewing (2012:1) “social media refer to the wide range of Internet-based and mobile services that allow users to participate in online exchange, contribute user-created content or joining online communities”. According to Ezeah, Asogwa and Edogor (2013:23) “social media are modern interactive communication channels through which people connect to one another, share ideas,

experiences, pictures, messages and information of common interest”. On their part, Ngai, Moon, Lam, Chin, and Tao (2015:769) summarize the definition by dividing the compound term “social media” into its two components—“social” and “media.” The “social” part they refer to as the activities carried out among people, whereas “media” they refer to the Internet-enabled tools and technologies used to carry out such activities. Social media is an extension of the traditional word of mouth networks (Sajithra & Patil, 2013). With the increasing wave of technological advancement, social is changing the very nature of interpersonal communication. This cultural shift is even more profound among undergraduate students.

2.2.1 Historical Evolution of Social Media

According to Hendricks (2013) the earliest method of communicating across great distance used written correspondence delivered by hand from one person to another. Social media are mere extension and explosion of traditional word of mouth networks (Sajithra & Patil, 2013). This primitive delivery system would become widespread and streamlined in future centuries (Hendricks, 2013). It therefore makes sense to take a step back and provide an insight regarding where social media came from and what they include.

In 1972, the telegraph was invented. This allowed message to be delivered over a long distance far faster than a horse and rider could carry them. Although telegraph messages were short, they were revolutionary way to convey news and information. Important discoveries happened in the decade of the 1980s: The telephone in 1980 and radio in 1981. They have become more sophisticated than they were when they were invented. They allow signal exchange (Hendricks, 2013).

In 20th Century, technology began to change very rapidly. After the first super computers were created in 1940s, scientists and engineers began to develop ways to create networks between those computers, and this later lead to the birth of the Internet. The earliest form of the Internet included CompuServ, developed in 1960s. Primitive forms of email were also

developed this time (Hendricks, 2013). And it was Ray Tomlinson who invented Internet based email in late 1971. In 1970s networking technology had improved, and in 1979 Usenet allowed users to communicate through a virtual newsletter. Usenet is a worldwide distributed Internet discussion system. It was developed by Duke University graduate students Tom Truscott and Jim Ellis in 1980 (Sajithra & Patil, 2013).

According to Hendricks (2013) in 1980s home computers were becoming more common and social media was becoming more sophisticated. Internet relay chats, or IRCs, were used in 1988 and continued to be popular well into 1990s. IRC is a form of chatting. Originally designed for group chatting in discussion forums, this also allowed one-to-one communication via private message as well as chat and data transfers (Sajithra & Patil, 2013).

According to Kaplan and Haenlein (2010) the era of social media as we understand it today probably started when Bruce and Susan Abelson founded “Open Diary,” an early social networking site that brought together online diary writers into one community. After the invention of blogging, social media began to explode in popularity (Hendricks, 2013). The term “weblog” was first used, and truncated as “blog” later when one blogger jokingly transformed the noun “weblog” into the sentence “we blog (Kaplan & Haenlein, 2010). In 1999, the first blogging site became popular, creating a social media sensation that’s still popular today (Hendricks, 2013).

The first recognised social media site, Six Degrees, was created in 1997 (Boyd & Ellison, 2007). SixDegrees.com allowed users to create profiles, list their Friends and, beginning in 1998, surf the Friends lists (Ibid.). Sites like Myspace and LinkedIn gained prominence in the early 2000s, and sites like Photobucket and Flickr facilitated online photo sharing. YouTube came out in 2005, creating an entirely new way for people to

communicate and share information with each other across great distances (Hendricks, 2013).

By 2006, Facebook and Twitter both became available to users throughout the world. These sites remain some of the most popular social media on the Internet. According to ExactTarget (2014) Facebook, QQ, Qzone, WhatsApp, WeChat, Google+, LinkedIn, Twitter, Tumblr and Tencent Weibo ranked as the top 10 social platforms on the globe popping up to fill specific social networking niches. Today, there is a tremendous variety of social media tools available to students, and many of them can be linked to allow cross-posting. For example one can be playing YouTube videos and sharing the activity with Friends on Facebook or Twitter. This creates an environment where users can reach the maximum number of people without sacrificing the intimacy of person-to-person communication.

2.2.2 Types of Social Media

Considering that social media are in different categories, Kaplan and Haenlein (2010:62) tried to classify social media into six distinct categories:

Collaborative Projects

In the most general sense, collaborative projects are a special form of social media application that enable the joint and simultaneous creation of knowledge related content by many end-users. Whereas blog content is authored by a single person or a few editors and may later be commented on by others, collaborative projects are different in that they allow all users to equally post, add, or change content. In this sense they are probably the most democratic form of social media. Collaborative projects allow community of people to add and edit content in a community-based data base.

There are different types of collaborative projects and they include:

- **Wikis**

Wiki means “quick” in the Hawaiian language and its originator, Microsoft Encarta described a wiki as a type of server software that enables users to create or alter content on a Web page. Wikis are interlinked web pages based on the hypertext system of storing and modifying information. Each page can store information and is easily viewed, edited, and commented on by other people using a web browser. Functionally, a wiki is meant to engage individuals to regularly update wiki pages in a collaborative fashion, to add new information, and to create links between pages. There can be benefits to student engagement when a wiki is employed as part of a blended learning approach (Neumann & Hood, 2009). One well known example of wiki is Wikipedia, a free online encyclopaedia that makes use of wiki technology. Wikis helped to transform the web into a collaborative environment (Desilets et al., 2005). A wiki enables readers to create and edit encyclopaedia articles.

- **Social bookmarking sites or collaborative tagging services**

The second type of collaborative project is social bookmarking sites, or collaborative tagging services. They allow users to organize and share links to websites; interact by tagging website and searching through website bookmarked by others that can subsequently be organized in the form of tag clouds: visual representations of tags, the importance of each indicated by its font size or colour. The resulting classification of content is sometimes referred to as folksonomy, a portmanteau of folk and taxonomy. The most widely known representative of this type of collaborative project include Reddit, StumbleUpon, Digg and Delicious. Delicious was founded in 2003 and today has more than 5 million users and 1 billion linked bookmarks (Kaplan & Haenlein, 2014).

- **Online forums or message boards**

The third type of collaborative project is online forums or message boards, via which people can hold conversations in the form of posted messages. As opposed to wikis, forums usually do not allow users to edit content posted by others, but rather only respond to or discuss this content within their own postings. The right of editing is limited to forum administrators or moderators. Also, forums only count as collaborative projects when their focus is on the joint creation of knowledge (Kaplan & Haenlein, 2014).

- **Review sites**

Review sites are websites that focus on exchanging feedback regarding anything of relevance in human life. Here interaction is by voting for articles and commenting on them. Prime examples in this category include Propello, TripAdvisor and Epinions.com. Review sites usually employ some form of reputation system that allows them to compute reliability scores based on ratings received within user reviews. These systems are designed to avoid strategic manipulation of the content posted (Kaplan & Haenlein, 2014).

Blogs

Blogs are Web information sharing technology (Boulos, Maramba, & Wheeler, 2006). According to Kaplan and Haenlein (2010), blogs are the social media equivalent of personal web pages and can come in a multitude of different variations, from personal diaries describing the author's life to summaries of all relevant information in one specific content area. Functioning as an online journal, blogs have unique date entries about an issue with the most recent comments shown first in reverse chronological order (Mayfield, 2008). Composed of text, image, videos, commentary, and links to other Web sites, the contents are contributed by individuals or a group of both professionals and amateurs. Boyd (2006) distinguished blogs

from generic Websites in that blogs capture ongoing expressions, not the edits of a static creation and because the expressions are captured locally, not in a shared common space.

Moreover, blogs are easily subscribed through RSS technology. Popular blogs include Wordpress, Blogger, Movable, LiveJournal, and Xanga. Although blogs did not originate in education sectors, they have become useful in various educational levels and settings, and as an authoring tool. According to Kist (2013) Blogs offer students the chance to keep multimedia records, incorporating video and sound files, as well as images into their written record. The ability for students to comment on each other's blogs allows classroom discussions to continue around the clock. Åkerlund (2011) remarked that the assignment to the students in traditional teaching is often based on production of written texts that are submitted to the teacher and/or presented to the class. With blogging from and the use of cameras inside or outside the classroom, the mission can be to tell a factual story in words and pictures. Thus engaging in dialogues in the form of blog comments are associated with positive attitudes towards online peer interaction and academic achievements, as well as positive motivation to learn from peers (Yang & Chang, 2011).

Content Communities

Content communities according Dewing (2012) allow users to share photos or videos and commenting on other users' submission. They allow users to organize, share and comment on different types of contents such as images, videos. The main objective of content communities according to Kaplan and Haenlein (2010) is the sharing of media contents between users. Content communities exist for a wide range of different media types, including text (e.g., BookCrossing), photos (e.g., Flickr), videos (e.g., YouTube), and PowerPoint presentations (e.g., Slideshare). YouTube footages enable direct access to a vast array of performance techniques, interpretative decisions and visual cues that can be replayed and reviewed at will, thus affording a learning tool of great potential thus it may be used as a tool

to inform and display and as a forum for critical analysis and commentary (Jones & Cuthrell, 2011). Since its creation in February, 2005, YouTube saw rapid growth; sixteen months after its creation, 100 million clips were being viewed per day (comScore, 2006). Exposure to YouTube as a teaching tool in the curriculum has been beneficial: the development of critical awareness and judgement in that forum would appear to have contributed to this cohort being willing to engage extensively with this audio-visual resource as a tool for personal learning (Monkhouse & Forbes, 2015). YouTube was established primarily to enable users to share personal objects, experiences and observations with the world (Kietzmann, Hermkens, McCarthy & Silvestre, 2011).

Social Networking Sites

This category of social media allow users to connect by creating personal information profiles, inviting friends and colleagues to have access to those profiles, and sending messages between each other (Kaplan & Haenlein, 2010). SNSs have achieved phenomenal success since the launch of sixdegrees.com in 1997 (Kent, 2008). According to Statista 1.4 billion people used social networking sites around the globe in 2012; by 2016, this number will grow to an estimated 2.13 billion. While Facebook remains the dominant platform with just over 1.5 billion registered users many other platforms and apps have considerable audiences. Created in 2004, Facebook according to NOIPolls (2016) is the most popular SNS in Nigeria. To join Facebook, a user had to have a harvard.edu email address. Beginning in September 2005, Facebook expanded to include high school students, professionals inside corporate networks, and, eventually, everyone. The change to open signup did not mean that new users could easily access users in closed networks—gaining access to corporate networks still required the appropriate dotcom address, while gaining access to high school networks required administrator approval (Boyd and Ellison, 2007).

Facebook allows each user to create a profile, updating it with personal information such as home address, mobile phone number, interests, religious views, and even data like relationship status. In addition to creating individual profiles, Facebook users can also “designate other users as friends, send private messages,” join groups, post and/or tag pictures and leave comments on these pictures as well as on either a group’s or an individual’s wall (Grossecka et al., 2011). Other SNSs include Pinterest (a site where the user can “pin” the things he/she likes in a particular category to create a “board” to group them all together, for example, future research ideas) and Instagram (a site dedicated to taking pictures and allowing them to tell an entire story) allow members to instantly see the creativity of a friend and can help the user to brainstorm new ideas (Diercksen, DiPlacido, Harvey & Bosco, n.d.).

Virtual Game Worlds

The virtual game worlds have the features of choices, the framing of the game world through a set of rules for how to interact with it, and the possibility of interacting with the game environment. In virtual game worlds users are usually required to follow strict rules that govern their behaviour (Kaplan & Haenlein, 2009). Many multi-player worlds are intrinsically associated with the role-playing game genre, inspired in its computerised format by the tabletop role-playing games; “you” as player inhabit the body of a character, your avatar, through whose eyes you see the world (Klastrup, 2003). Virtual game world has no definite outcome, the game never stops (in principle; in practice virtual world publishers may go bankrupt!), and hence you can never win the game (Ibid.). Generally game world has an open structure within which many variations of the game rules can be carried out, however many in-world activities actually have finite goals with predetermined methods of completion, such as quests. Klastrup (2003) noted that the implicit goal here is to improve the “stats” (statistics of health, stamina) and skills (dexterity, intelligence, fighting skills with sword, arrow) which the character is born with by gaining experience points, which at some point sends the character to a new “level”

where he or she gains access to more skills, new objects in the world, improved health etc. In Sony's EverQuest for example, one needs to be a wizard to perform magic or a cleric to heal others. In commercial worlds a stats and skills structure is typically not implemented, rather it is through activities and wealth your character gains a reputation and progresses in the social hierarchy (Klastrup, 2003). However, virtual game worlds often do not allow one to engage in economic activities with other users within the world, including the sale and purchase of content. Instead, such activities are conducted using means from outside the world, such as the online auction house eBay and virtual game worlds have also reached the interest of academics (Kaplan & Haenlein, 2009). Generally, the urge to advance one's character, socially or "statistically" often remains an important part of the motivation for returning to the world (Klastrup, 2003). The popularity of virtual game worlds have been on the increase. The applications that have gained popularity in recent years, as standard game consoles include Microsoft's X-Box and Sony's PlayStation. They now allow simultaneous play among a multitude of users around the globe.

Virtual Social Worlds

EDUCAUSE (2006) described virtual social worlds as online environment whose "residents" are avatars representing individuals participating online. Users of virtual worlds design their environments and often their avatars as well, from gender to clothing and hairstyle, and control how those avatars communicate, move, create things, and interact. The functioning of a virtual world can mirror that of the real world, or it can allow residents to do such things as fly, wander around underwater, or teleport themselves to other locations (Klastrup, 2003; Papp, n.d.; EDUCAUSE, 2006). Having lived in the world for so long that you have had significant experiences or experienced significant changes you have shared – or want to share – with other players also familiar with the world, your story of "the world as lived" can, retrospectively, become a compelling story to be told (Klastrup, 2003).

Furthermore, it also seems closely related to the experience of the emergence of a social space (for instance in massive multi-player games a guild, or an in- or out-of-world community founded on a common interest) – so it could easily also be a story of inclusion into or exclusion from smaller or larger social networks (Ibid.). What we find in virtual worlds is exactly performances (people acting) and thus, transposing but of real events, realised and performed by players (and subsequent readers) in interaction with each other and the world, which would retrospectively make good stories (Klastrup, 2003). Today's virtual worlds are immersive, animated, 3D environments that operate over the Internet, giving access to anyone in the world. Although many online games take place in such environments, the concept of a virtual world does not require the elements of a game, such as rules or an explicit objective. Residents of a virtual world have the freedom to do and be nearly anything they want, limited only by the design of the environment (EDUCAUSE, 2006).

2.2.3 Functions of Social Media

Considering that social media offer different opportunities, Kietzmann, Hermkens, McCarthy, and Silvestre (2011:423); and Kietzmann, Silvestre, McCarthy and Pitt (2012) provided a framework for examining the functionality of social media. According to them, the seven functional blocks of social media are anchored on:

- **Identity:** The identity functional block represents the extent to which users reveal their identities in a social media setting. This can include disclosing information such as name, age, gender, profession, location, and also information that portrays users in certain ways. Aggarwal (n.d) is of the opinion that social media contain a tremendous information about the individual in terms of their interests, demographic information, friendship link information, and other attributes. This can lead to disclosure of different kinds of information in the social network, such as identity disclosure, attribute disclosure, and linkage information disclosure. For instance, Kaplan and Haenlein

(2010) explain that the presentation of a user's identity can often happen through the conscious or unconscious 'self-disclosure' of subjective information such as thoughts, feelings, likes, and dislikes. According to Steinfield, Ellison, Lampe, and Vitak (2012), the information disclosures on social media are key to their successful functioning—facilitating relationship initiation, development, and maintenance that permits the establishment of bridging and bonding social capital. Identity is core to many social media platforms.

- **Conversations:** The conversations block of the framework according Kietzmann et al (2011) represents the extent to which users communicate with other users in a social media setting. Many social media platforms are designed primarily to facilitate conversations among individuals and groups. These conversations happen for all sorts of reasons. People tweet, blog, ping and chat to meet new like-minded people, to find true love, to build their self-esteem, or to be on the cutting-edge of new ideas or trending topics. Social media makes it easy for one to get involved discussion by answering questions or taking part in the conversation without having to take a day off school. Cabral (2011) express the opinion that social media is a web-based technology that transforms how people communicate by enhancing interactive conversations. There is more about conversation than identity in most social media networks.
- **Sharing:** Sharing represents the extent to which users exchange, distribute, and receive content. The term 'social' often implies that exchanges between people are crucial (Kietzmann et al, 2011). Social media technologies comprise a wide range of tools and technologies, such as media sharing sites, blogs, social bookmarking sites, virtual communities, SNSs, and virtual worlds. These tools provide people with various ways to interact and share information and knowledge with friends and the public. Steinfield et al (2012) are of the opinion that rich interaction such as sharing photos and

videos among friends can enhance and sustain strong ties that are a source of bonding social capital.

- **Presence:** The framework building block presence represents the extent to which users can know if other users are accessible. It includes knowing where others are, in the virtual world and/or in the real world, and whether they are available. In the virtual world, this happens through status lines like 'available' or 'hidden.' Given the increasing connectivity of people on the move, this presence bridges the real and the virtual (Kietzmann et al, 2011). Social media afford users who prefer to engage in real-time communication the platform to stipulate their presence or status line indicator, along with a suitable mechanism through which these users can contact each other and interact.
- **Relationships:** The relationships block according to Kietzmann et al (2011) represents the extent to which users can be related to other users. By 'relate,' they mean that two or more users have some form of association that leads them to converse, share objects of sociality, meet up, or simply just list each other as a friend or fan. The popularity of social media by implication, provide a simple interface for individuals to establish some form of association.
- **Reputation:** Reputation is the extent to which users can identify the standing of others, including themselves, in a social media setting. Reputation can have different meanings on social media platforms. In most cases, reputation is a matter of trust, but since information technologies are not yet good at determining such highly qualitative criteria, social media sites rely on 'mechanical Turks': tools that automatically aggregate user-generated information to determine trustworthiness.
- **Groups:** The groups' functional block represents the extent to which users can form communities and sub-communities. The more 'social' a network becomes, the bigger

the group of friends, followers, and contacts. Facebook and WhatsApp have groups, for instance, with administrators who manage the group, approve applicants, and invite others to join. The direct implication of groups is fairly straightforward. It can be assumed that a social media community would enjoy a way to group its users, even when the number of likely contacts is low for each member initially. Groups in social media are more than just a listing of users.

2.2.4 Mobile Social Media

When social media is used in combination with mobile devices, it is called mobile social media (Al-Menayes, 2015). Mobile social media is a group of mobile applications that allow the creation and exchange of user-generated content. The introduction of anytime anywhere Wi-Fi in mobile phones and the prevalence of free social media applications according to Al-Menayes (2015) have made them indistinguishable from personal computers when it comes to Internet use. The rising importance of mobile social media is reflected when we looked at the average time per day that people are spending on the mobile web, this metric according to Global Web Index (2015) has jumped from 1.24 hours in 2012 to 1.99 hours in 2015. According to ExactTarget (2014) half of the planet now owns a mobile phone. Out of the total global population: 7.18 billion Active mobile users: 3.61 billion (50% penetration). Similarly 77% of all social media users are now accessing them via mobile devices. 22% of people on the planet use social media on a mobile device (Ibid.). Mobile phones are portable, providing easy access to the Internet regardless of time and place (Al-Menayes, 2015). Mehmood and Taswir (2013:) remarked that as a result of smart features available on social networks like reading RSS feeds, location tagging and status updates have ignited popular uses of social media on mobile phone. With mobile social media one not only knows the “status” of friends and acquaintances, but additionally where they are currently located (Kaplan & Haenlein, 2012). Due to the fact that mobile social media runs on mobile devices, it differs from traditional social media as it

incorporates new factors such as the current location of the user, time delay between sending and receiving (Al-Menayes, 2015). These factors formed the basis by which mobile social media is differentiated.

According to Kaplan and Haenlein (2012), mobile social media can be differentiated along four lines and these include:

Space-timers (location and time sensitive): This enables exchange of message with relevance for specific location and time. Facebook, Foursquare and BlackBerry Messenger are the examples in this category.

Space-locators (location sensitive): This exchange message with relevance for one specific location which are tagged to certain place. Yelp and Qype are examples in this category.

Quick-time (time sensitive): transfer of traditional social media application to mobile services to increase immediacy. Posting twitter messages, Facebook status updates fall within this category.

Slow-timers (neither location nor time sensitive): transfer traditional social media application to mobile devices. Reading a Wikipedia entries and watching Youtube videos fall within the distinct group of slow-timers.

2.2.5 Reasons for Social Media Use by Students

Research on the reasons students embrace social media is still deficient. Nevertheless the purpose for which social media are deployed appears to be expanding. A handful of studies addressed some specific category of social media rather than the generality of social media. For example, in investigating the purpose students of the University of Nigeria Nsukka use the SNSs Eke, Omekwu and Odoh (2014) surveyed 150 students and found that the students use the SNSs to communicate with friends; watch movies; discuss national issues like politics, economy and religious matters; and for academic purposes which particularly is relevant to their academic pursuit. Citing the National School Board Association, Klopfer *et al.* (2011)

reported that the topic of most conversation on SNSs is education—60 percent of the students' surveys said they use the sites to talk about education topics and more than 50 percent use it to talk about specific schoolwork.

In a similar study to ascertain how university students from a range of European countries (Lithuania, Romania, Ukraine, Czech Republic, Turkey) use social networking websites; Lamanauskas et al (2013) found that the most important function of social media use by respondents from all countries they surveyed were communication, learning and exchanging information. Another study by Ünal and Koroğlu (2013) revealed that prospective teachers (students) use SNSs for social interaction and communication, identification and recognition, and education. A similar study by Mehmood and Taswir (2013) revealed that of the 80 percent students who reported that they used a social networking site on phone and that the smart features available on social networks like reading RSS feeds, location tagging and status updates were popular uses of social network on mobile phone. These were not directly related to their educational pursuit. Other studies have delimited their attention to some popular platforms of the major category of social media. One of such studies was carried out by Alhazmi and Rahman (2013) when they studied the purpose students of Universiti Teknologi Malaysia use Facebook.

Their findings revealed that the students use it to keep in touch with their friends, to let others know what is happening in their life, communicate with friends on classwork, sharing of news and other issues and these do not relate to their academic goals. In an analysis among Serbian students, Milošević, Živković, Arsić and Manasijevic (2015:584) showed that the implementation of Facebook as virtual classroom that was aimed at Facebook student-users, who participated in the study, use Facebook to improve communication with peers and professors, improve and expand the discussion with other students, post announcement related

to lectures, exams and other events at the university, thus providing support in task execution, quality improvement of educational process and expansion of the total quantum of knowledge.

Yet in a survey of German students, Skiera, Hinz and Spann (2015) found that on average, students use platforms such as Facebook to gather valuable information from their peers, as well as to cultivate relationships, which reduces the time available for their academic studies. Similar, Akyıldız and Argan (n.d.) surveyed 1300 undergraduate students and found that students use Facebook for both social purposes and educational purposes. Some of the studies that have paid attention to the generality of social media in this area include: Ebele and Oghentega (2014) studied the impact of social media on academic performance of students of four universities in Nigeria. They sampled 100 students-25 students each from Nnamdi Azikiwe University Awka, Delta State University Abraka, Madonna University Okija and Anambra State University and found that undergraduates in the four universities paved together, do not use social media for academic purposes but mainly for general information that are not relevant to their academics.

Similarly, Ezeah, Asogwa and Edogor (2013:29) sampled 300 students from selected universities in South-East Nigeria and found that students in South-East Nigeria “use the social media partly because of the pleasure and fun they derive from the pornographic contents and watching movies using the social media”. In another survey of 93 students in University of Benin, Aghaunor and Ekuobase (2015:24) found that over 75% of activities carried out with the aid of ICT tools (social media); do not have any direct link to students curricular. Implying that students use social media in pursuing activities that do not have bearing with their academics. In a similar study to ascertain the purpose students use social media. Evidence from a survey of 2605 students in King Abdulaziz University, Saudi Arabia carried out by Al-Sharqi, Hashim, and Kutbi (2015) reveals that students use social media tools for a blend of academic and non-academic purposes. And that a significant number of students use social media for

entertainment, information searching and learning. In a survey of students of Koforidua Polytechnic in Ghana, Owusu-Acheaw and Larson (2015) concluded that student use social media to chat than academic purpose. Evidence emanating from a polytechnic setting is provided by an insight from a study by Buhari and Ashara (2014:304) who surveyed 932 students of Kaduna Polytechnic. The study revealed that students of Kaduna Polytechnic, Nigeria use social media to connect; interact; share information and chat with friends. Constituting activities that are meaningless to their academic agenda.

2.2.6 Gender Difference and Use of Social Media

When reviewing the literature related to gender, results are mixed as to which group spends more time on social media. One school of thought believes that women are significantly more likely to use social media than men. Although the original gender gap in computer and Internet use appears to have narrowed to the point of nonexistence (Perrin, 2015; Hargittai, 2008). According to Perrin (2015) women and men use social media at similar rates – women were more likely than men to use social networking sites for a number of years, although since 2014 these differences have been modest. Today, 68% of all women use social media, compared with 62% of all men. In 2005, 8% of men and 6% of women used social media. Starting in 2009, women started using social media at slightly higher rates than men, although this balance has shrunk yet again in recent years. Today, 68% of women and 62% of men report social media usage, a difference that is not statistically significant. Akyildiz and Argan, (2012) found that male students use Facebook more frequently than female students with more friends and spend significantly more time on Facebook than female students. A study conducted by Brenner and Smith (2013) found that 71% of women were users of SNSs compared with 29% of men. However, others believe that more men use the Internet in its nascent years than did women. Others have found female to be more frequent on social media than male. For example Skiera *et al.* (2015) found that women and men seem to use the social network differently,

which may also explain differences in academic performance. While men connect to generate and exploit social capital, women groom their relationships, which requires more time (that could also be used for studying) than does the goal-oriented approach that men pursue.

In terms of the type of connections among gender, Salvation and Adzharuddin (2014) discovered that women are more likely to conform to a majority opinion and more relationship oriented than men. However, boys are more likely to create an account simply because they are trying to meet a significant other, or because they are already in a relationship with someone who has requested them to join (Bonds-Raacke & Raacke, 2008). Males' motivations have roots in social compensation, learning, and social identification gratifications. In other words, females use SNSs for relational purposes more frequently than their male counterpart (Chan-Olmsted, Cho & Lee, 2013).

Peluchette and Karl, (2008); Nemetz, (2010) found that significant gender differences were found regarding the type of information posted on SNSs. Also, Shen, et al. (2010) found that men are more likely to engage in task-oriented or instrumental behaviour and therefore attitude toward the use of information technology will be more salient for men than women. Whereas there is no significant difference in the amount of social media use and sharing of user-generated media content between males and females, studies have shown some dissimilarity in social media preferences and motives by gender (Barker, 2009; Raacke & Bonds-Raacke, 2008). Research has shown that though girls and boys are both likely to have a SNS account, the reasons for the accounts may vary based on gender (Bonds-Raacke & Raacke, 2008). Women in a study by Junco *et al.* (2010) reported using social communication services more than men; and that they spent more time to be social online.

A study by Peter and Valkenburg (2009) showed that boys seem to benefit more from social media use and communication technology than girls do. This can be hypothesized because boys tend to have more difficulty expressing their thoughts and emotions face-to-face with others

than girls do (Peter & Valkenburg, 2009). A research to explore motivations for SNSs users revealed that the primary motives to use the sites for females are communication, entertainment, and passing time (Barker, 2009). An empirical study found that women are more likely to engage in SNSs than men, reflecting that women prefer person-to-person communication online to men (Hargittai, 2007). Pew Research Center (as cited in NOIPolls, 2016) reported that more women tend to belong to the social media platforms that has dating features like Facebook, BBM, and WhatsApp, unlike men who prefer those platforms that have forums for sharing business ideas or information like LinkedIn, Twitter. And that boys use social media to expand their networks by making new friends, while the major purpose of social media for girls is to maintain existing friendships. Girls have reported that they use social media for things like chatting and downloading music (Giles & Price, 2008). Interestingly, while male users tend to use wikis more frequently female users use SNSs more frequently. Girls are also more likely than boys to post sexually explicit pictures of themselves, and to talk about sexual activity in public forums (Rafferty, 2009). Girls are also more likely than boys to share personal information about their daily lives (Merten & Williams, 2009). Only 15% of boys shared any personal information besides their hobbies, interests, and friendships (Merten & Williams, 2009).

2.2.7 Age and Social Media Usage

Prior studies indicate that age and social media adoption have an inverse relationship in various contexts. According to these studies, older people tend to exhibit more negative perceptions of new media and feel greater reluctance to adopt them when compared to young adults. According to Alvarez (2015) age can be another barrier to [...] digital inclusion—and one that disregards all geographical boundaries. He remarked that some 60 percent of people in developed nations over the age of 65 have never been online, compared with 18 percent of all adults. For example, a study by Akindehin and Akindehin (2011) found that young adults

are more likely to accept and use specific Internet-related technologies, such as online chat rooms, Webcasting and social media.

Similarly, Peluchette and Karl, (2008); Nemetz, (2010); Chan-Olmsted *et al.* (2013) found that the younger users tend to use SNSs, blogs, content communities, and micro-blogging more frequently. On the other hand, older users tend to perceive the information-centric social media like wikis, blogs, and online forums to offer more connectedness utility. Indicating that the young adults are much more likely than their older counterparts to be online. Such behaviours are affecting their academic performance (Al-Tarawneh, 2014). While the foregoing indicates that the older people become, the less likely they would accept social media. The findings of Kwon and Noh, (2010); Svorc (2012) suggest otherwise that age and social media experience show limited influences on individuals' perceptions and usage of the internet.

As human being can't do the same thing for long they tend to be boring, but the younger can stay long hours just on Facebook without any complain (Abdulahi *et al.*, 2014). Social media have also been in the centre of concern for many parents (Tynes, 2007). Other parents just simply do not want their children staring at the computer too long. The risks and dangers of teen social media usage are constantly flooding television shows, newscasts, and magazines, always warning parents to educate parents on teen internet behaviours (Tynes, 2007). Young people seem especially susceptible, with evidence underscoring students whose academic performance is compromised as they spend increasing amount of time online (Al-Menayes, 2014). Some also suffer health consequence resulting from lack of sleep brought about by the growing amount of time they spend on the Internet especially late at night (Al-Menayes, 2014).

Study by Chan-Olmsted *et al.* (2013) found that significant age difference is found regarding the type of information posted on social media in that older people are more likely to find some conventional postings and personal choice intrusions by faculty more

inappropriate than younger lads. Sharing inappropriate information or disclosing “too much information” is another concern that many adults have about teens that participate in social networking online (DeSouza & Dick, 2008). In a recent study done on teens and their MySpace participation, it was estimated that at least 65% of teens who had a MySpace account had very personal information on their profile pages (DeSouza & Dick, 2008). This personal information included where they live, their phone number and email addresses, where they attend school, where they work, and a number of things that they enjoy doing in their spare time (DeSouza & Dick, 2008).

Also, many teens, especially females, posted information about their sexual behaviour and their alcohol and substance use (DeSouza & Dick, 2008). On the other side of the issue, there are other adults and many professionals, including lecturers and school faculty, who encourage the use of SNSs like Facebook because they allow students to connect with one another and discuss school related issues (Salas & Alexander, 2008). Teenagers have become accustomed to this lifestyle much more than older generations have in recent years, as this way of living is all they know (Lewis, 2008). Teenagers now use the social media for the majority of their daily activities and information gathering, as opposed to older generations who used resources like the television or newspaper (Lewis, 2008). This study also showed that approximately half of all teens who have Internet access are also members of SNSs, and use the Internet to make plans and socialize with friends (Kist, 2008). As one researcher stated, “Teens use the social media as an extension of their personality, to show their friends – and the world – who they are, what they care about, and to build connections with other like-minded people” (Goodman, 2007, 84). It is estimated that the vast majority of teenagers in Nigeria visit at least one social media platform approximately twenty times each day (Valkenburg & Peter, 2009). Young adults lead the age groups with their use of communication tools, such as instant messaging

and chatting, and they are also more likely to pursue hobby or entertainment activities, such as downloading music or surfing for fun (Fox & Madden, 2005; Madden, 2003).

They also use the medium for getting information about leisure time activities more than others (Howard, Rainie, & Jones, 2001). While younger users see the —sociability centric social media as an effective means to connect to the world, older users view the —content centric social media like wikis, forums, and blogs as better ways of connecting to the world. The differential emphasis in sociability and content among different age groups regarding social media has some interesting implications (Chan-Olmsted *et al.*, 2013).

2.2.8 Social Media in the Classroom

Rapid development of information and communication technologies has brought changes in various pedagogical and technological applications and processes (Mazman & Usluel, 2010). Having social media in the classroom has been a controversial topic for the last several years. Many parents and educators have been fearful of the repercussions of having social media in the classroom (Kist 2012). As a result, cell phones and mobile devices have been banned from classroom and schools have blocked many popular social media (Abdulahi *et al.*, 2014). However, despite this apprehensions, students are using social media. Schools have realized that they need to incorporate these tools into the classroom and rules are changing. Currently, social media are being adopted rapidly by millions of users most of whom are students with a great number of purposes in mind (Willems & Bateman, 2011; Wolf, Wolf, Frawley, Torres, & Wolf, 2012; Selwyn, 2007). Studies showed that social media tools support educational activities by making interaction, collaboration, active participation, information and resource sharing, and critical thinking possible (Ajjan & Hartshorne, 2008; Mason, 2006; DeAndrea *et al.*, 2011; Junco *et al.*, 2010; Junco *et al.*, 2012).

In early 2013, Steve Joordens, a professor at the University of Toronto, encouraged the 1,900 students enrolled in his introductory psychology course to add content to Wikipedia

pages featuring content that related to the course. Like other educators, Joordens argued that the assignment would not only strengthen the site's psychology-related content, but also provide an opportunity for students to engage in critical reflection about the negotiations involved in collaborative knowledge production. So, in a nutshell, the social media have contents that can contribute positively to studies, but unfortunately most students do not use the beneficial aspects of the networking sites (Ezeah et al., 2013, Wolf *et al.*, 2012). One social media that has supplemented classroom discussion activities is Blog. According to Yang and Chang (2011) blogging acts as a supplement to a traditional face-to-face course, both inside and outside of school. Classroom discussion is often teacher–student centred, rather than a student–student dialogue. The blog is a vehicle to ensure that everyone has a voice and is a valued member of the learning community (Ibid.). In a college - wide survey, Dunn (n.d.) found that 68% of respondents thought social media could enhance their learning experience.

Facebook has quickly become the social network site of choice by college students and an integral part of the “behind the scenes” college experience (Selwyn, 2007). Researchers who favour the use of Facebook in education claim it can have a positive influence on students’ lives, such as providing a way to contact fellow classmates and instructors about course assignments or group projects (Milošević *et al.*, 2015; Petrović *et al.*, 2012). Others indicate that Facebook can have a negative impact on academic performance, leading to lower GPAs and less time spent on academic work (Skiera *et al.*, 2015; Junco, 2011; Kirschner & Karpinski, 2010). Characteristics noted in the literature which recommend Facebook as a tool that can contribute significantly to the quality of education are: fostering positive relationships among students and encompassing students’ motivation and engagement (West et al., 2009; Kabilan et al., 2010). Facebook researchers claim that, “the experience with communication technologies that teenagers today possess must be tapped by educators and connected to

pedagogy and content in order to address learning objectives in schools” (Fewkes & McCabe, 2012).

Facebook allows students to ask more minor questions that they might not otherwise feel motivated to visit a professor in person during office hours to ask (Milošević *et al.*, 2015; Moody 2010). Further, Facebook enables teachers to: provide constructive educational outcomes in a variety of fields (Pempek, 2009, DeAndrea *et al.*, 2011); practice a differential pedagogy, in the best interests of the students (Hew, 2011); integrate diagnostic formative evaluation in the learning process and to calibrate didactic activities accordingly (Pasek & Hargittai, 2009); achieve a change in strategy, mentality, attitude and behaviours by using Facebook (Petrović *et al.*, 2012; Roblyer, 2010); establish efficient educational relations on a social network (Selwyn, 2009); accept the student as an interaction partner (Schwartz, 2009); analyse and compare ways of learning and the knowledge achieved by students (Roblyer, 2010); develop knowledge and skills in order to perform efficient didactic activities (Petrović *et al.*, 2012; Hew, 2011). To begin to understand how it can be used in an educational context, Mazman and Usluel maintain that instructors should know how students use Facebook and why it has become so popular.

Twitter also promotes social connections among students. It can be used to enhance communication building and critical thinking. Domizi (2013) utilized Twitter in a graduate seminar requiring students to post weekly tweets to extend classroom discussions. Students reportedly used Twitter to connect with content and other students. Junco *et al.* (2011) completed a study of 132 students to examine the link between Twitter and student engagement and students grades. They divided the students into two groups, one used Twitter and the other did not. From the findings, they concluded that using Twitter in educationally relevant ways had a positive effect on student engagement. Their results suggest that Twitter can be used to engage students in ways that are important for their academic and psychosocial development.

Twitter assignments promoted active learning by helping students relate the course material to their own experiences both inside and outside of the classroom. They also found that Twitter was used to discuss material, organize study groups, post class announcements, and connect with classmates. Gao, Luo, and Zhang (2012) reviewed literature about Twitter published between 2008 and 2011. They concluded that Twitter allowed students to participate with each other in class (back channel), and extend discussion outside of class. Since the posts cannot exceed 140 characters, students were required to express ideas, reflect, and focus on important concepts in a concise manner.

YouTube is the most frequently used social media tool in the classroom (Moran, Seaman, & Tinti-Kane 2012). Students can watch videos, answer questions, and discuss content. Additionally, students can create videos to share with others. Sherer and Shea (2011) claimed that YouTube increased participation, personalization (customization), and productivity. Eick & King (2012) found that videos kept students' attention, generated interest in the subject, and clarified course content.

ValuePulse is a social learning platform where students and professors in higher education can easily engage in real-time discussions about coursework and industry news (Wolf *et al.*, 2012). According to Wolf *et al.* (2012) ValuePulse provides one-click access to a virtual library of news feeds and class discussions. The library of news feeds eliminates clicking in-and-out of multiple news sources to find relevant and up to date course information. Discussions are fully developed with no character limit (Ibid.). ValuePulse provides a rating function to identify valuable information and discussions.

Learning and Society group have extensively written about, created materials for, and implemented virtual games in educational settings. They contend that playing a game like Civilization and World of Warcraft can be a profoundly powerful way for learning about just anything. Both of these games – Civilization and World of Warcraft – provide us with clear

demonstrations of the educational implications and possibilities (Klopfer et al., 2009). Therefore, one of the most obvious benefits to using these technologies for learning is that students are often already familiar with these interfaces and the “language” of interacting with and utilizing them (Ibid.). Students and teachers can learn about activities, where students apply, analyse and problem-solve using course content and ideas. This can include: role-play, operating simulated equipment, designing and building things (Angel Learning, 2008).

Students today demand more autonomy, connectivity, interaction and socio-experiential learning opportunities in their learning contexts (McLoughlin & Lee, 2007). However, Pearson does hypothesize that the benefit of using social media is the potential to “transform from pushing content outward to a way of inviting conversation, of exchanging information...” (Moran et. al., 2011). Social technologies can provide new opportunities to engage learners and many educators are discovering impactful strategies for using them in face-to-face, blended and online classrooms (Seaman & Tinti-Kane, 2013).

2.2.9 Problems of Social Media

The numerous problems of social media usage have recently been the major focus of attention worldwide (Buhari & Ashara, 2014). Even though many schools have created many strict rules that forbid the use of handheld technology during school activities or that block certain social media applications, many students are still able to connect during lecture hours as they please (Subrahmanyam & Greenfield, 2008). According to moralists like Onah and Nche (2014) while social media have fuelled or deepened the level of immorality among the youths in the country; new acts of immorality have cropped up as result of the negative influences available on these social sites. According to them, some of the moral issues that have arisen from the abuse and obsession with social media include: Sexual promiscuity, Internet crimes, indecent dressing and sexual harassment, loss of sense of sacredness of human life and neighbourliness, impatience and quick syndrome. Other scholars have equally

expressed their concerns about the problems of social media. They are angered that social media have caused distractions during instruction time (Al-Sharqi, Hashim & Kutbi, 2015), encourage terror (Buhari & Ashara, 2014; Bloem *et al.*, 2013), cause students to become less sociable, make students become mentally dull (Al-Sharqi, Hashim & Kutbi, 2015; Bloem *et al.*, 2013).

Bloem *et al.*, (2013) remark that social media have brought us attention and knowledge deficits that tend to darken the bright benefit which was so badly sought after. They have given rise to information overload. Information is causing lack of focus and flow and this corrodes the productivity and innovation capability of students (Bloem *et al.*, 2013). Based on the information in our profiles, social media will automatically bury all true serendipity if we do not watch out, and thus also eliminate an important source of creativity and innovation, resulting in increasing cocooning and tunnel vision (Bloem *et al.*, 2013).

2.3 Academic Performance

Performance is defined as the observable or measurable behaviour of a person an animal in a particular situation usually experimental situation (Simpson and Weiner. 1989). This means that performance measures the aspect of behaviour that can be observed at a specific period (Yusuf, n.d.). To determine performance, a performance test is conducted. Singer (1981) defined performance test as the type of mental test in which the subject is asked to do something rather than to say something. Performance test is the type of test which throws light on the ability to deal with things rather than symbols (Drever, 1981).

In relation to educational research, academic performance of a student can be regarded as the observable and measurable behaviour of a student in a particular situation. For example, the academic performance of a student in social studies includes observable and measurable behaviour of a student at any point in time during a course (Yusuf, n.d.). In social studies students' academic performance consists of his scores at any particular time obtained from a

teacher-made test. Therefore, academic performance can be equated with the observed behaviour or expectation of achieving a specific statement of or statement of educational intention in a research (Yusuf, n.d.). Academic performance of students consists of scores obtained from teacher-made test, first term examination, mid-semester test, et cetera. In fact, assessing the psychological and psychosocial processes of learning and development have always been complex; however, the measurement is made increasingly difficult when the outcome of interest is unclearly defined (Terenzini, 1989).

In general, one could surmise that academic success, or more aptly, academic performance currently functions as an amorphous construct that broadly incorporates a broad range of educational outcomes from degree attainment to moral development (Yusuf, n.d.). The importance of the moral aspect of academic performance can only be under-estimated to the detriment of the society's wellbeing.

2.3.1 Factors affecting Students' Academic Performance

A review of extant literature has led to the identification of the following factors as the key determinants of student academic performance, namely; performance during examinations, communication, learning facilities, proper guidance, family stress and social media usage. Each of the factors is discussed below:

a) Student Examination Performance

Galiher (2006) and Darling (2005) used GPA to measure student performance because their main focus was on student performance for a particular semester. Some other researchers used test results or previous year result since they are studying performance for the specific subject or year (Hijazi & Naqvi, 2006). In general, performance during examinations has proven to be the most popular and reliable determinant of a student's academic performance.

b) Communication

Many studies have been discussed with respect to the different factors that affect the students' academic performance. There are two types of communication factors that affect the students' academic performance. These are internal and external classroom factors and these factors strongly affect the students' performance. Internal classroom factors includes students competence in English, class schedules, class size, English text books, class test results, learning facilities, homework, environment of the class, complexity of the course material, teachers role in the class, technology used in the class and exams systems. External classroom factors include extracurricular activities, family problems, work and financial, social and other problems. If the students have strong communication skills and have strong grip on English, it increases the performance of the students. The performance of the student is affected by communication skills because it is possible for students to see communication as a variable which may be positively related to performance of the student in open learning.

c) **Learning Facilities**

Robert and Sampson (2011) found that students' performance is significantly correlated with satisfaction with academic environment and the facilities of library, computer lab, etc in the institution. With regard to background variables, he found a positive effect of high school performance and school achievement but found no statistical evidence of significant association between family income level and academic performance of the student. Robert & Sampson (2011) opined that members of educational boards should be educated in order to ensure that their impact on the various schools they preside over is positive for the professional and socio-psychological development of the students. According to them, it is prerequisite that is highly essential for student learning. Young (1999) holds the view that student performances are linked with the use of library and level of their parental education. His research revealed that the use of the library positively affected student performance. The academic environment

is an effective variable for students and has a significant positive relationship with their grade level (Kirmani & Siddiquah, 2008).

d) Proper Guidance

Noble (2006) noted that students' academic accomplishments and activities, perceptions of their coping strategies and positive attributions, and background characteristics (i.e., family income, parents' level of education, guidance from parents and number of negative situations in the home) were directly related to their academic achievements in high school. The students face a lot of problems in developing positive study attitudes and study habits. Guidance is the factor through which a student can improve his study attitudes and study habits and is directly proportional to academic achievement. The students who are properly guided by their parents have performed well in the exams. The guidance from the teacher also affects the student performance. The guidance from the parents and the teachers indirectly affect the performance of the students (Hussain, 2006).

e) Family Stress

Socio-economic factors like attendance in the class, family income, and mother's and father's education, teacher-student ratio, presence of trained teacher in school, sex of student and distance of school also affect the performances of students in their various high schools and colleges. (Raychaudhuri, Amitava, Debnath, Manojit, Sen, Seswata & Majun, 2010). According to Kernan, Bogart & Wheat (2011), academic success of a graduate student will be enhanced if the optimal health related barriers are low. There is a negative relationship between college credit and stress but weak relationship between GPA (Grade Point Average) and stress (Zajacova, Lynch and Espenshade, 2005). Raychaudhuri (2010) found that numerous studies have been done to identify those factors which are affecting student's academic performance. The students' academic performance depends on a number of socio-economic factors like students' attendance in the class, family income, mother's and father's education, teacher-

student ratio, presence of trained teacher in school, sex of the student, and distance of schools. Hijaz and Naqvi (2006)'s Pakistan study observed that there is a negative relationship between the family income and students' performance and they focused on the private colleges in Pakistan.

f) Engagement time on Social Media

Several factors have been alleged to affect students' academic performance. According to Aghaunor & Ekuobase (2015) grades are the most predictive factors of school performance and thus, would also constitute the main indicator of academic success. However, they went further to opine that the dark side of technological advancement has resulted in dilemmas such as the setback of real values of life especially among students who constitute the majority of social media users. Social media focus on building and maintaining social associations among people who share interests and or activities. With so many social media available on the Internet, students are tempted to abandon their homework and reading times in preference for virtual gaming, watching YouTube clips, sharing Instagram photos and blogging with friends. In light of this, the objective of his study is to investigate the impact of social media on academic performance of students and to determine whether it has a negative or positive relationship.

2.3.2 Measuring Students' Academic Performance

Academic performance is measured using the Grade Point Average (GPA). 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 such as facts (Ward, Stoker & Murray-Ward, 1996). When it comes to common criteria, the operative measurement of academic performance at university level is the grades which lecturers give students upon the completion

of some evaluation system, most notably, the oral, written or practical test that students complete over the course of the school year. Measuring performance determines how well students have achieved desired educational goals. Hoyle (1986) argued that schools are established with the aim of imparting knowledge and skills to those who go through them and behind all this is the idea of enhancing good academic performance.

Despite, and perhaps because of its amorphous nature, the term ‘academic success’ or ‘academic performance’ is one of the most widely used constructs in educational research and assessment within higher education (York, Gibson & Rankin, 2015). Terenzini (1989) argues that primary tenet of good assessment is to clearly articulate what it is you are attempting to measure. Ambiguity associated with the definitions of academic success is partially attributed to its inherently perspectival nature (York, Gibson & Rankin, 2015). Varying constituents view success, and thereby academic success, differently. For example, while the chair of an English department may not consider utilizing alumni’s career promotion histories as an indicator of academic success, a director of career services almost certainly would. In this example, the faculty member may argue academic success refers specifically to the acquisition of specific knowledge and skills demonstrated through completion of courses. The administrator may in turn argue academic success refers to ability for graduates to obtain and advance in occupations within, or related to, their degree fields (York, Gibson & Rankin, 2015). Both arguments are valid within the current amorphous construction of academic success and the necessary application of the term within the contexts of departmental goals for students (York, Gibson & Rankin, 2015). This broad application of the term limits the ability of educators and administrators to clearly examine academic success and thereby prioritize actions intended to increase institutional effectiveness (York, Gibson & Rankin, 2015). In fact, such is the cumbersome task of measuring an amorphous concept such as academic success that York, Gibson and Rankin (2015) opined thus “to the best of our knowledge, there is no complete

presentation of empiric instruments available to educational researchers seeking to measure various aspects of academic success despite being perhaps the most researched outcome in education”. However, they subsequently outlined the following factors as instruments which could be operationalized as measures of academic performance or success: 1) Academic achievement; 2) Attainment of learning objectives; 3) Acquisition of skills and competencies; 4) Satisfaction; 5) Career Success; and 6) Persistence.

In their view, *academic achievement* can be proxied by using grades and GPA of students. This view is supported by the fact that there is no other consensually adopted or verifiable index for measuring a students’ academic ability or progress. In their proposed model, *satisfaction* can either be captured by course evaluation or through larger nationally available institutional surveys such as Cooperative Institutional Research Program’s (CIRP) The Freshman Survey (TFS) or the National Survey of Student Engagement (NSSE) (Wilson, & Simons, 2002).

In addition, according to Dorensen and Fel (as cited in York, Gibson & Rankin, 2015), *career success* could be proxied in two distinct ways, namely: extrinsic and intrinsic measures. Extrinsic measures of career success include things like job attainment rates and promotion histories, annual performance ratings while intrinsic measures of career success include measures of career satisfaction or professional goal attainment. Fralick (as cited in York, Gibson and Rankin, 2015) provides an excellent example of intrinsic measures in a study where success was measured via participants’ perception of having had the opportunity to develop potential, realize ambitions, enhance career options, and increase self-satisfaction. Between these two, we found studies more often focused on extrinsic measurements perhaps because of their clearer operationalization.

The *accomplishment of learning objectives* and the *acquisition of skills and competencies* can be measured at the course, program, and institutional level. Assignments

and course evaluations are the primary means of measuring these things at the course level. Programmatic evaluation usually occurs by some sort of curricular capstone or in some fields by an independent professional entity; such as teaching or engineering accreditation. There is a considerable overlap between the measurement of attaining learning objectives and the acquisition of skills and competencies. Furthermore, according to literature, *persistence* can be measured by two primary measurement instruments namely; retention between particular years of college—most commonly between the first and second years, and degree attainment rates (York, Gibson & Rankin, 2015).

2.4 Review of Related Literature on Social Media Usage and Students Academic Performance

The direct link between social media usage and students' academic performance has been the focus of extensive literature during the last two decades (Aghaunor & Ekuobase, 2015). Results of available studies indicate that while some students use social media for socializing, others might use it for learning activities thus enhancing academic performance. Although social media is a very helpful tool in students' hands, it was found by many studies that a negative impact of social media usage on academic performance could occur (Maqableh, Rajab, Quteshat, Masa'deh, Khatib & Karajeh, 2015). Social media users devote lesser time to their studies in comparison to nonusers do and subsequently get lower GPAs (Kirschner & Karpinski, 2010). Results of a study by Hasnain, Nasreen and Ijaz (2015) indicated that the usage of social media has an inverse relationship with academic performance of students. This implies that the more students spend time on social media, the more their GPA is affected. According to Khan and Balasubramanian (2009), social media users often time experience poor performance academically. In a study to find out the direct consequences of ICT in Nigeria Universities, Enikuomihin (2011) surveyed 1,860 Facebook users from the Lagos State University and found that 90 percent of the students could not get up to cumulative grade point

average (CGPA) above 3.50 because they had spent a large part of their time on social media than on their homework and study time that could have contributed to the attainment of higher grade.

Similarly, Englander, Terregrossa & Wang (2010) posit that social media is negatively associated with academic performance of student and is a lot more momentous than its advantages. Evidence from a survey of 152 students of Asia Pacific University, Abdulahi, Samadi and Gharleghi (2014) shown that usage of social network sites negatively impact academic performance of students. However, In a bid to analyse the effects of social media on academic performance of business education students in south-east Nigeria, Nwazor and Godwin-Maduikwe (2015) distributed 600 copies of questionnaire to four universities in south-east Nigeria and subsequently concluded that activities on social media have negative effects on students' academic performance. In a bid to examine the purposes of Facebook use in an undergraduate sample and explore time investment of the students to Facebook social network site, Akyildiz and Argan, (2012) administered questionnaire to 1300 undergraduate students at Anadolu University in Turkey and thereafter concluded that social media users spend more time for socializing rather than learning. This indicates that excessive use of social media reduces student's academic performance since time meant for studies is used on non-academic issues like chatting and making friends.

Nevertheless, (Junco, 2015) studied the impact of college students' academic level and found that Facebook affected Grade Point Averages (GPAs) negatively for freshmen, sophomores, juniors but not for seniors. Seniors spend less time on Facebook, and they are less likely to post status updates comments, chats, posts, videos or photos than others.

A handful of other studies have also found social media usage to positively impact academic performance. Griffith and Liyanage, (2008) found that support from instant messaging, wikis, blogs, discussion boards, and other Web 2.0 facilities can complement what

is taught in a traditional classroom setting. Also, Boyd and Ellison, (2007) assert that the copy and paste practices on MySpace serves as a form of literacy involving social and technical skills. Whereas according to Pasek, More and Hargittai (2009) the use of Facebook has a positive relationship with academic performance.

In another study, Haseena and Rasith (2016) conducted a survey of 200 students among the students of Eastern University, Sri Lanka. Their findings concluded that there is a significant positive relationship between social media usage and academic performance. Indicating that if the students spend more time on social media it will help the students to easily discuss about the study task, assignment and exams. When the time spending on social media is increasing it will also increase the performance of the students. Findings from a survey of 932 students of Kaduna Polytechnic by Buhari and Ashara (2014) revealed that students perceived social media usage as something interesting that they can use to improve their academic performances.

2.5. Summary of Literature Review

This chapter reviewed the concept of social media: their meanings, historical evolution, categories, functions and social media on mobile devices. In addition, this chapter discussed the reasons students use social media and academic performance. According to most findings students mainly use social media to socialise. Again, social media usage and academic performance was also reviewed in this chapter. According to most research done on the topic social media usage negatively affect academic performance. Indicating that as students continue to use social media their academic performance continue to shrink. This chapter also discussed age usage as well as gender usage of social media. According to most research done on the topics, the number of teenage girls and boys who communicate on these social media networks are equally divided. Majority of students in Nigeria visit at least one social networking site several times daily. Cell phones have been banned from classroom and schools

have blocked many popular social media websites due to the repercussion the social media might have on the academic performance of students. Hence, for the purpose of this study, the researcher will: ascertain the purpose for which students use social media, find out if students usage of social media affect their academic performance, find out if there is a difference in students' usage of social media by gender, and determine if age of student influences the use of social media. Upon the conclusion of this research project, there will be a better understanding regarding students in Nigerian tertiary institutions and whether or not they are able to balance a life of social media and academic performance.

○ REFERENCES

- Abdulahi, A. Samadi, B. & Gharleghi, B. (2014) A study on the negative effects of social networking sites such as Facebook among Asia Pacific university scholars in Malaysia. *International Journal of Business and Social Science*, 5(10), 133-145.
- Aghaunor, C. T. & Ekuobase, G. O. (2015) ICT social services and students' academic performance. *A Multidisciplinary Journal Publication of the Faculty of Science, Adeleke University, Ede, Nigeria*, 2, 29-46.
- Åkerlund, D. (2011) Social media in the classroom: Different perspectives on young students' use of blogs and digital cameras in their school work. *Paper presented at the conference Literacy - en morsmålsdidaktisk utfordring*. Tønsberg, Norge. 2- 4 November 2011.
- Akyildiz, M. & Argan, M. (2012) Using online social networking: Students' purposes of Facebook usage at the University of Turkey.
- Alhazmi, A. K. & Rahma, A. A. (2013) Facebook in higher education: Students' use and perceptions. *Advances in Information Sciences and Service Sciences (AISS)*, 5(15), 32-41.
- Al-Menayes, J. (2015) Dimensions of social media addiction among university students in Kuwait. *Psychology and Behavioral Sciences*, 4(1), 23-28
- Al-Rahmi, W. M. & Othman, M. S. (n.d) The impact of social media use on academic performance among university students: A pilot study. *Journal of Information Systems Research and Innovation*.
- Al-Sharqi, L., Hashim, K. & Kutbi, I. (2015) Perceptions of social media impact on students' social behaviour: A comparison between Arts and Science students. *International Journal of Education and Social Science*, 2(4), 122-131.
- Al-Tarawneh, H. A. (2014) The influence of social networks on students' performance. *Journal of Emerging Trends in Computing and Information Sciences*, 5(3), 200-205.
- Alvarez, L. (2015) Developing the network for growth and equality of opportunity. *The Global Information Technology Report 2015*, 67-72.
- Bloem, J., Duivestijn, S. & van Manen, T. (2013) *The dark side of social media: Alarm bells, analysis and the way out*. Groningen: LINE UP boek en media bv.
- Boyd, D. (2006). *A Blogger's Blog: Exploring the Definition of a Medium*. Reconstruction 6(4). <http://reconstruction.eserver.org/064/boyd.shtml> (This is part of a special issue on Theories/Practices of Blogging, eds. Michael Benton and Lauren Elkin.).
- Boyd, D. (2008) *Taken out of context: American teen sociality in networked publics* (Doctoral thesis). Berkeley, CA: University of California; 2008. Available at: www.danah.org/papers/TakenOutOfContext.pdf.
- Boyd, D. & Ellison, N. B. (2007) Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*. Retrieved on: 24 December 2015, doi:10.1111/j.1083-6101.2007.00393.x
- Boyd, D. & Heer, J. (2006) Profiles as conversation: Networked identity performance on Friendster. *Proceedings of the 39th Hawaii International Conference on System Sciences – 2006*.

- Brenner, J. & Smith, A. (2013) 72% of Online Adults are Social Networking Site Users. *Pew Research Centre, August 5, 2013.*
- Buhari, S. R. & Ashara, B. H. (2014) Use of social media among students of Nigerian polytechnic. *International Conference on Communication, Media, Technology and Design* 24 - 26 April 2014, Istanbul – Turkey, pp. 302-305
- Buzzetto-More, N. A. (2012) Social networking in undergraduate education. In J. Jovanovic, R Chiong, & T. Weise (Eds.). *Interdisciplinary Journal of Information, Knowledge, and Management*, 7, 63-90.
- Chan, S., Cho, M. & Lee, S. (2013) User perceptions of social media: A comparative study of perceived characteristics and user profiles by social media. *Online Journal of Communication and Media Technologies*, 3(4), 149-178.
- Dabbagh, N., & Kitsantas, A. (2011) Personal Learning Environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning. *Internet and Higher Education*, doi:10.1016/j.iheduc.2011.06.002
- Daluba, N. E. & Maxwell, E.O. (2013) Effect of social media on the use of academic library by undergraduate students in tertiary institutions: A case study of Kogi State University, Anyigba. *Academic Research International*, 4(5), 536-542.
- Darling, A.R., (2005). School-related Social Support and Students-Perceived Life Satisfaction. *Journal of Educational Research*. 102(4), 303-320.
- DeAndrea, D.C., et al. (2011) Serious social media: On the use of social media for improving students' adjustment to college, *Internet and Higher Education*, doi:10.1016/j.iheduc.2011.05.009
- Dewing, M. (2012) *Social media: An introduction*. Ottawa: Library of Parliament
- Drever, J. (1981). *The Penguin Dictionary of Psychology*. Middlesex: Penguin Books Ltd.
- Duggan, M., Ellison, N.B., Lampe, C., Lenhart, A. & Madden, M. (2015) *Social Media Update 2014*. Pew Research Center, January 2015. Available at: <http://www.pewinternet.org/2015/01/09/social-media-update-2014/>
- Dunn, L. A. (n.d.) Teaching in higher education: Can social media enhance the learning experience? *Interdisciplinary Science Education, Technologies and Learning - The University of Glasgow*.
- Ebele, O. C. & Oghenetega, L. U. (2014) The impact of social media on the academic performance of university students in Nigeria. *Journal of Education and Practice*, 5(33), 21-24.
- EDUCAUSE (2006) *7 things you should know about virtual worlds*, Pdf available at: <http://www.educause.edu/eli>
- Eke, H. N., Omekwu, C. O. & Odoh, J. N. (2011) The use of social networking sites among the undergraduate students of University of Nigeria, Nsukka. *Library Philosophy and Practice (e-journal)*. Paper 1195.
- Ellison, N. B., Steinfield, C. & Lampe, C. (2007) The benefits of Facebook “Friends:” Social capital and College students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12, 1143–1168.
- Enikuomhin, A. O (2011) ICT, CGPA: Consequences of social networks in an Internet driven learning society. *International Journal of Computer Trends and Technology*, 2(2) 9-14.

- Ezeah, Asogwa & Edogor (2013) Social media use among students of universities in South-East Nigeria. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 16(3).
- ExactTarget (2014) *100 Stats about social media around the world*. Retrieved from <http://www.exacttarget.com>
- Galiher, A.S., (2006). Determinants of Student Performance at University: Reflections from the Caribbean. *Research in Higher Education*. 23(6), 77-106.
- Griffith, S., & Liyanage, L. (2008). An Introduction to the Potential of Social Networking Sites in Education (Powerpoint Slides).Johannesburg: Leedsburg.
- Hargittai, E. & Hinnant, A. (2008) Digital inequality: Differences in young adults' use of the Internet. *Communication Research*, 35(5), 602-621.
- Haseena, M. L. F. & Rasith, P. M. M. (2016) Impact of social media on students' academic performance; special reference to Eastern University, Sri Lanka. *Journal for Studies in Management and Planning*, 2(3), 13-19.
- Hasnain, H., Nasreen, A. & Ijaz, H. (2015) Impact of social media usage on academic performance of university students. *Proceedings of the 2nd International Research Management and Innovation Conference (IRMIC 2015)* Langkawi, Malaysia.
- Hendricks, D. (2013) Complete history of social media: Then and now. Accessed 20th December 2015, from <http://www.smallbiztrends.com/2013/05/the-complete-history-of-social-media-infographic.html>.
- Hijazi, S.T.& Naqvi,S.M. (2006). Factors Affecting Students' Performance: A Case of Private Colleges. *Bangladesh E-Journal of Sociology*. 3(1), 1-17.
- Hoyle, E. (1986). *Policies of School Management*. Suffolk: The Press Ltd.
- Hussain, C.A., (June 2006). Effect of Guidance Services on Study Attitudes, Study Habits and Academic Achievement of Secondary School Students. *Bulletin of Education and Research*. 28(1), 35-45.
- Junco, R. (2011) Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance. *Computers in Human Behaviour*, doi:10.1016/j.chb.2011.08.026.
- Junco, R., Heiberger, G. & Loken, E. (2010) The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning*.1-14.
- Junco, R., Merson, D. & Salter, D. W. (2010) The effect of gender, ethnicity, and income on college students' use of communication technologies. *Cyberpsychology, Behavior, and Social Networking*, 13(6), 619-928.
- Kaplan, A. M. (2012). If you love something, let it go mobile: Mobile marketing and mobile social media 4x4. *Business Horizons*, 55(2), 129—139.
- Kaplan, A.M. and Haenlein, M. (2009), The fairyland of second life: about virtual social worlds and how to use them , *Business Horizons*, 52(6), 563-72.
- Kaplan, A.M. and Haenlein, M. (2010), Users of the world, unite! The challenges and opportunities of social media , *Business Horizons*, 53(1), 59-68.

- Kaplan, A.M. and Haenlein, M. (2010) Collaborative projects (social media application): About Wikipedia, the free encyclopedia. *Business Horizons*, 57, 617—626
- Kent, J. (2008) Social networking sites: Will they survive? *Nebula*
- Kernan, G., Willium, S., Bogart, T., Jane, J., Wheat & Mary, E., (2011). Health Related Barriers to Learning among Graduate Students. *Journal of HealthEducation*. 11(5),425-455.
- Khan, Z. R. & Balasubramanian, S. (2009). Students go click, flick and cheat: E-cheating, technologies and more. *Journal of Academic and Business Ethics*, 1-26
- Kirmani, Neghat, S.,Siddiquah&Aishah, (2008). Identification and Analysis of Factors Affecting Students Achievement in Higher Education (Powerpoint Slides).Retrieved from isdpt.org/isdpt.publication/journals/04/02/2008.
- Kist, W. (2013) Class, get ready to tweet: Social media in the classroom. Pdf
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P. & Silvestre, B. S. (2011) Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54, 241—251.
- Kietzmann, J. H., Silvestre, B. S., McCarthy, I. P. & Pitt, L. (2012) Unpacking the social media phenomenon: Towards a research agenda. *Journal of Public Affairs*. Published online in Wiley Online Library (www.wileyonlinelibrary.com) doi: 10.1002/pa.1412
- Kirschner, P. A., & Karpinski, A. C. (2010). Facebook and academic performance. *Computers in Human Behaviour*, 26, 1237–1245
- Klastrup, L. (2003) *A poetics of virtual worlds*. Melbourne: DAC
- Klopfer, E., Osterweil, S., Groff, J. & Haas, J. (2009) *Using the technology of today, in the classroom today: The instructional power of digital games, social networking, simulation and how teachers can leverage them*. Massachusetts: The Education Arcade
- Kolek, E. and Saunders, D. (2008) Online disclosure: An empirical examination of undergraduate Facebook profiles. *NASPA Journal*, 45(1).
- Krasilnikov, A. & Semenova, M. (2014) Do social networks help to increase student academic performance? The case of Vk.com and Russian students. *Economics Bulletin*, 34(2), 718-733.
- Kuss, D. J. & Griffiths, M. D. (2011) Excessive online social networking: Can adolescents become addicted to Facebook? *Education and Health*, 29(4), 68-71.
- Kwon, W. and Noh, M. (2010). The influence of prior experience and age on mature consumers' perceptions and intentions of internet apparel shopping. *Journal of Fashion Marketing and Management*, 14(3), 335 - 349.
- Lamanauskas, V., Šlekienė, V., Ragulienė, L., Iordache, D., Pribeanu, C., Bilek, M., Cavas, B. & Mazurok, T. (2013) Social networking websites from the point of view of university students: A comparative analysis. *Problems of Education in the 21st Century*, 57, 61-78.
- Lifespan (2013) *Texting, social networking and other media use linked to poor academic performance*. ScienceDaily. Accessed 11th January, 2016. <http://www.sciencedaily.com/releases/130411131755.htm>
- Maqableh, M., Rajab, L., Quteshat, W., Masa'deh, R. M. T., Khatib, T., & Karajeh, H. (2015) The impact of social media networks websites usage on students' academic performance. *Communications and Network*, 7, 159-171.

- Mehmood, S. & Taswir, T. (2013) The effects of social networking sites on the academic performance of students in College of Applied Sciences, Nizwa, Oman. *International Journal of Arts and Commerce*, 2(1).
- Merten, M., & Williams, A. (2009), Adolescents' Online Social Networking following the Death of a Peer. *Journal of Adolescent Research*. 24(4), 67-90.
- Milošević, I., Dragana, Ž., Arsić, S. & Manasijević, D. (2015) Facebook as virtual classroom: Social networking in learning and teaching among Serbian students. *Telematics and Informatics* 32 (2015) 576–585
- Monkhouse, H., & Forbes, A. (2015) The use of YouTube to improve students' acuity and analytic skills in discussion of issues in music performance. *Literacy Information and Computer Education Journal (LICEJ)*, 6(3), 1964-1970.
- Negussie, N & Ketema, G. (2014) Relationship between Facebook practice and academic performance of university students. *Asian Journal of Humanities and Social Sciences (AJHSS)*, 2(2), 31-37.
- Nemetz, P.L. (2010). Faculty social networking interactions: using social domain theory to assess student views. *Journal of Instructional Pedagogies*, 1-17.
- Neumann D. L. & Hood, M. (2009) The effects of using a wiki on student engagement and learning of report writing skills in a university statistics course. *Australasian Journal of Educational Technology*, 25(3), 382-398.
- NOI-Polls (2016) *Facebook ranked No. 1 social media and online dating platform in Nigeria*. Retrieved April 14, 2016, from: <http://www.noi-polls.com/root/index.php?pid=373&parentid=14&ptid=1>
- Nwafor, J. C. & Godwin-Maduiké, C. C. (2015) Social media and academic performance of business education students in South-East Nigeria. *Journal of Education and Practice*, 6(25), 127-134.
- Omonijo, D. O. & Nnedum, O. A. U. (2012) A study of e-cheating habit of students in three selected universities in Nigeria. *Wulfenia Multidisciplinary Journal*, 19(9), 387-402.
- Onah, N. G. & Nche, G, C. (2014) The moral implication of social media phenomenon in Nigeria. *Mediterranean Journal of Social Sciences*, 5(20), 2231-2237.
- Owusu-Acheaw, M. & Larson, A. G. (2014) Use of social media and its impact on academic performance of Tertiary Institution students: A study of students of Koforidua Polytechnic, Ghana. *Journal of Education and Practice*, 6(6), 94-101
- Oye, N., (2012). Students' Perception of Social Networking Sites Influence on Academic Performance. *International Journal of Social Networking and Virtual Communication*. 1(14), 60-85.
- Papp, R. (n.d.) Virtual worlds and social networking: Reaching the millennials. *Journal of Technology Research*.
- Pasek, J., More, E., and Hargittai, E. (2009) Facebook and academic performance: Reconciling a media sensation with data, *First Monday*, 14(5).
- Peluchette, J. and Karl K. (2008). Social networking profiles: an examination of student attitudes regarding use and appropriateness of content. *Cyber-psychology Behavior*,

- Perrin, A. (2015) Social networking usage: 2005-2015. Pew Research Center. October 2015. Available at: <http://www.pewinternet.org/2015/10/08/2015/Social-Networking-Usage-2005-2015/>
- Petrović, N., Petrović, D., Jeremić, V., Milenković, N. & Ćirović, M. (2012) Possible educational use of facebook in higher environmental education. *ICICTE 2012 Proceedings*, 355-362.
- Roblyer, M. D. (2013) *Educational technology in context: The big picture*. In M. D. Roblyer & A. H. Doering (Eds.) Integrating educational technology into teaching (6th Ed.). Boston, MA: Pearson.
- Rouis, S. Limayem, M. & Salehi-Sangari, E. (2011) Impact of Facebook usage on students academic performance: The roles of self-regulation and trust. *Electronic Journal of Research in Educational Psychology*, 9(3), 961-994.
- Sajithra, K. & Patil, R. (2013) Social media: History and components. *IOSR Journal of Business and Management (IOSR-JBM)*, 7(1), 69-74
- Salvation, M. & Adzharuddin, N. A. (2014) The influence of social network sites (SNS) upon academic performance of Malaysian students. *International Journal of Humanities and Social Science*, 4(10)(1), 131-137.
- Seaman, J. & Tinti-Kane, H. (2013) *Social media for teaching and learning*. Boston, MA: Pearson.
- Shana, L.B., (2012). The Influence of Social Networking Sites on Students' Academic Performance in Malaysia. Retrieved from <http://utechacademic.edu.shanleebrown>.
- Simpson, J.A. & Weiner E.S.C., (1989). *The Oxford English Dictionary*(2nd Ed.).Oxford: Clarendon Press.
- Singer, J. (1999). Opinion gap: Measuring Public School Academic Performance. *Annual Review of Sociology*.18(3),137-212.
- Skiera, B., Hinz, O. & Spann, M. (2015) Social media and academic performance: Does the intensity of Facebook activity relate to good grades. *Schmalenbach Business Review*, 67, 54–72.
- Social Media Week (2014) *African digital statistics 2014*. Accessed 24th, December 2015, from: <http://www.socialmediaweek.org/lagos/2014/02/03/african-digital-statistics-2014>
- Statista: <http://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>. Accessed 24th, December 2015.
- Svorc, J. (2012). Consumer's intentions to shop medicaments on-line: A survey from Czech Republic market. *Journal of Systems Integration*, 3(2), 3 – 28.
- Terenzini, P. T. (1989). Assessment with Open Eyes: Pitfalls in Studying Student Outcomes. *The Journal of Higher Education*. 60(6),644-664.
- Ünal, A. T. & Köroğlu, O. (2013) A comparative study of social network usage and adoption among Turkish prospective teachers. *Mevlana International Journal of Education (MIJE)*, 3(4), 24-42.
- Ward, A., Stoker, H. W. & Murray-Ward, M. (1996) Achievement and ability tests: Definition of the domain. *Educational Measurement*, 2, 2-5.
- Wentworth, D.K. and Middleton, J.H. (2014) Technology use and academic performance. *Computers and Education*, 78, 306-311.

- Willems, J. & Bateman, D. (2011) The potentials and pitfalls of social networking sites such as Facebook in higher education contexts. *Proceedings of ASCILITE, Hobart Tasmania, Australia, 4-7 December, 2011.*
- Wolf, M. M., Wolf, M., Frawley, T., Torres, A. & Wolf, S. (2012) Using social media to enhance learning through collaboration in higher education: A case study. *Selected paper prepared for presentation at the Applied and Agricultural Economics Association's 2012 AAEA Annual Conference, Seattle, Washington, August 12 – 14, 2012.*
- Yang, C. & Chang, Y. S. (2011) Assessing the effects of interactive blogging on student attitudes towards peer interaction, learning motivation, and academic achievements. *Journal of Computer Assisted Learning* (2012), 28, 126–135.
- York, T., Gibson, C. & Rankin, (2015). Defining and Measuring Academic Success. *Practical Assessment & Evaluation*. 20(5):1-10.
- Yusuf, A., (ND). *Interrelationship among Academic Performance, Academic Achievement and Learning Outcomes*. Department of Curriculum Studies and Educational Technology. University of Illorin.
- Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-Efficacy, Stress, and Academic Success in College. *Research in Higher Education*. 46 (6): 677-706. 1-251.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the various methods used for the study. It contains and explains the research design, population of the study and sampling technique, operationalization and measurement of variables, research instrument, sources of data, method of data collection, and method of data analysis. This chapter thus detailed the explanation of how this research was carried out and the generated data analysed. It is hoped this will help the reader to have a clear understanding of how this research was carried out.

3.2 Research Design

Research design according to Wilson (2013) entails considering the type of evidence required and how it is to be collected and interpreted. A survey research design was used for the study. Survey according to Nwodu (2006) is a research method which focuses on a representative sample derived from the entire population of study. This design is considered apt because it enables the researcher to generate data through the standardized collection procedures based on highly structured research instrument and well defined study concepts and related variables.

3.3. Population of the Study and Sampling

Population according to Ogbeide (2011) refers to entire group of persons, objects or events about which information is sought. The population for this study therefore comprised of all full time undergraduate students of the University of Benin enrolled for the 2015/2016 academic session. Sample is a subset of the population selected in place of studying entire population (Agbonifoh & Yomere, 1999). Sampling is the practical way of studying people and their activities, thoughts, attitudes, abilities, relationships etc in relation to our interest (Greener, 2008).

To determine the sample size for the study, the Cochran (as cited in Israel, 2013) statistical formula for determining sample size was used. The Cochran statistical formula for determining sample size is given as:

$$n_o = \frac{Z^2 pq}{e^2} .$$

Where n_o = the sample size.

Z^2 = the abscissa of the normal curve that cuts off an area α at the tails ($1 - \alpha$ equals the desired confidence level, which in this study has been put at 95%).

p = the estimated proportion of an attribute that is present in the population is assumed at 0.5.

$q = 1 - p$ is 0.5

e = level of significance or precision which in this case has been put at 0.08.

$n_o = 110.25$. This value is rounded up to 112.

Hence the sample for this study is 112.

Sampling technique has to do with specifying how elements are to be drawn from the population. There are fourteen (14) faculties and schools in the University of Benin. The various faculties are: Agriculture, Arts, Education, Engineering, Environmental Sciences, Law, Management Sciences, Life Sciences, Pharmacy, Physical Sciences, Social Sciences; and the schools which include: Basic Medical Sciences, Dentistry and Medicine. Simple random sampling techniques was adopted for the study. Eight students were randomly sampled from each of the faculty and school at the University of Benin. Random sampling technique was used because it gives the elements of the population equal opportunity of being part of the sample. To allow equal representation of the various schools and faculties, a quota sampling technique was adopted. This was achieved by selecting eight (8) each from faculties and schools through random sampling technique. The target students represent homogenous mix comprising male and female full time undergraduates.

3.4 Operationalization and Measurement of Variables

S/N	Variables	Operationalization	Measuring Scale	Question Number
1	Faculty	The various faculties students belong	Open ended question	Q1 in sec. A
2	Gender	Sex of respondents	Two point categorical	Q2 in sec. A
3	Age	Respondents age grade	Four point interval scale	Q3 in sec. A
4	Level	Level to which students belong	Four point interval scale	Q4 in sec. A
5	Student performance	This was operationalized to include; students grade point average, extent of accomplishment of learning objectives, acquisition of skills and competencies, satisfaction with education and persistent in pursuit of knowledge	Likert Scale	Q5-Q20
6	Social media usage	The students' level of engagement on social media	Likert Scale	Q21-Q30
7.	Reasons for use of social media	The various reasons cited by students for their usage of social media platforms and sites	Open-ended question	Q31

Source: *Author's Design*

3.5 Research Instrument

In carrying out this research, a well-constructed and self-developed questionnaire was used to get the desired information from the students. Questionnaire according to Aborisade (1997) is a research instrument constructed such that respondents answer questions about their opinion, attitudes, preferences, activities in a written form and is usually structured based on scale adequate enough to obtain quantitative analysis. 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 about the dependent variable and the independent variables from the respondents with response options: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD). Anonymity was ensured

in this process to ensure confidentiality for all participants. Students were also reminded not to write their names and that their response was completely voluntary.

3.6 Sources of Data

As earlier pointed out, the focus of the gathered data was undergraduate students studying on a full time basis. Based on a random sample of the undergraduate population in University of Benin, questionnaires were personally administered to gather primary data for the purpose of analysing them for result that could be generalized from the sample to the population. Secondary data was obtained from different textbooks, journals and academic publications.

3.7 Method of Data Collection

The researcher collected the needed data through the use of questionnaire and its administration was at the various faculties. The administration of copies of the questionnaire was carried out by the researcher and colleagues in other faculties. To ensure that each faculty is represented, a total of 112 questionnaires was equally distributed (eight each) to elicit responses from the students and retrieved on the spot by the researcher and those who assisted.

3.8 Method of Data Analysis

Responses from the questionnaire were analysed using the Statistical Packages for Social Science 21. Descriptive statistics of frequency counts and percentages were used in analysing demographic variables and research questions while the Pearson correlation matrix was used to test the stated hypotheses at a 0.05 level of significance.

○ REFERENCES

- Aborisade, F. (1997) *Research methodology: A student's handbook*. Ibadan: Multifirm Limited
- Agbonifoh, B. A. & Yomere, G. O. (1999) *Research methodology in management and social sciences*. Benin: Uniben Press.
- Greener, S. (2008) *Business research methods*. Retrieved from <http://www.bookboon.com>.
- Israel, G. D. (2013) Determining sample size. *Institute of Food and Agricultural Sciences (IFAS), University of Florida*
- Nwodu, L. C. (2006) *Research in communication and other behavioural sciences: Principles, methods and issues*. Enugu: Rhyce Kerex Publishers.
- Ogbeide, U. (2011) *Statistical techniques for social and management sciences* (2nd Ed.). Lagos: Amfitop Books.
- Wilson, J. (2013) *Essentials of business research: A guild to doing your research project* (2nd Ed.). London: Sage.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter presents the analysis of the data collated from the administered questionnaire. The analysis was carried out with the aid of the IBM SPSS Statistics 21 software. The IBM SPSS Statistics 21 software is a statistical software used for data analysis in the social sciences. The presentation and analysis of the data in this chapter was guided by the underlying rationale of achieving the research objectives stated earlier in previous chapters. Also, the author strictly adhered to the format stipulated for writing undergraduate projects in the Department of Business Administration, University of Benin.

4.2 Presentation and Analysis of Data on Sample Background Variables

The demographic variables of respondents that pertain to this study are *faculty*, *gender*, *age* and *current level*. The demographic distribution of the respondents is presented in table 4.1 below.

Table 4.1 Demographic Distribution of Respondents

VARIABLES	CATEGORY	FREQUENCY	PERCENTAGES (%)
FACULTY	Medicine	8	7.4
	Basic Medical Sciences	8	7.4
	Dentistry	7	6.5
	Social Sciences	8	7.4
	Physical Sciences	8	7.4
	Pharmacy	8	7.4
	Life Sciences	7	6.5
	Management Sciences	8	7.4
	Agriculture	7	6.5
	Arts	8	7.4
	Education	8	7.4
	Engineering	8	7.4
	Environmental Sciences	8	7.4
	Law	7	6.5
		108	100
	UNDER20 YEARS	49	45.4
	20-25 YEARS	47	43.5

AGE	26-30 YEARS	10	9.3
	ABOVE 30 YEARS	2	1.8
	TOTAL	108	100
GENDER	MALE	50	46.3
	FEMALE	58	53.7
	TOTAL	108	100
CURRENT LEVEL	100L	35	32.4
	200L	24	22.2
	300L	18	16.9
	400L & Above	31	28.7
	TOTAL	108	100

Source: Field work, August, 2016.

The information in the table shows that although copies of the questionnaire were shared to equally to all faculties, the rate of retrieval was not the same. Also, with respect to age, of the 108 copies of the questionnaire was retrieved from the 112 administered, 49 (45.4%) of the respondents were under 20 years of age, 47 (43.5%) of the respondents were between 20-25 years, 10 (9.3%) of the respondents were between 26-30 years and 2 (1.8%) of the respondents were over 30 years of age. With respect to gender, 50 (46.3%) of the respondents were male while 58 (53.7%) of the respondents were female. As regards the *current level* of respondents, 35 (32.4%) of the respondents were in 100 level, 24 (22.2%) of the respondents were in 200 level, 18 (16.9%) of the respondents were in 300 level while 31 (28.7%) were in 400level.

4.3 Descriptive Analysis of Data Collated from Respondents

In this section, the collated data will be presented and analysed in terms of the frequencies of the various responses. Subsequently, the first research objective will be addressed with the aid of frequency distribution and percentage analysis in this section.

Table 4.2 Field Frequencies on Student Performance

S/ N	Statements	Frequencies					\bar{X}	Verdict
		1	2	3	4	5		
1	Please indicate your 100L G.P.A or class of result in the next cell in the table	0	0	3	26	27	4.43	High

2.	Please indicate your 200L G.P.A or class of result in the next cell in the table	0	0	3	21	12	4.25	High
3	Please indicate your 300L G.P.A or class of result in the next cell in the table	0	0	2	14	9	4.28	High
4	Please indicate your 400L G.P.A or class of result in the next cell in the table	0	0	1	9	5	4.20	High
5.	I usually understand the lectures	3	11	3	43	48	4.13	High
6.	I apply knowledge from my lectures to my daily activities	6	14	15	33	40	3.81	High
7.	I am capable of teaching my colleagues any topic within my academic curriculum	5	9	15	36	40	3.95	High
8.	I have acquired unique skills in the course of my studies	4	13	8	46	36	3.91	High
9.	My level of competence has improved since I commenced my academic program	1	8	12	44	42	4.10	High
10.	I apply the unique skills I have acquired to my daily activities	5	25	15	38	24	3.48	High
11	I am highly satisfied with the quality of my education	6	11	16	28	45	3.90	High
12	My value of my university education has been demonstrated with public praise, word-of-mouth referrals and recommendations to other peers	5	19	13	34	34	3.70	High
13	I have little or no regret with my university education	5	6	9	37	47	4.11	High
14	I have successfully completed every aspect of my programme	3	30	10	36	27	3.51	High
15	I have refrained from participating in activities that could sabotage the completion of my academic programme	1	9	12	42	42	4.08	High
16	I consistently make efforts to maintain and improve my academic performance	1	4	6	37	58	4.39	High

Source; Author's field work

Decision rule: There is unanimous agreement about a particular statement when the mean value of the item in the questionnaire is above 3, otherwise a unanimous disagreement is said to be the case.

Interpretation: All the mean values of items in the questionnaire that pertains to the overall performance of students in the areas of their academic achievements, accomplishment of learning objectives, acquisition of skills and competencies, satisfaction and persistence are above 3. Thus, it can be inferred that students generally perform excellently in their academics.

Table 4.3 Field frequencies on Usage of Social Media

S/ N	Statements	Frequencies					\bar{X}	Verdict
		1	2	3	4	5		
1	I have highly demanding network of friends on my social media accounts	4	23	6	43	31	3.69	High
2.	I interact frequently with a lot of friends on my social media accounts	4	29	7	50	17	3.44	High
3	I feel very bad when I cannot access my social media accounts	11	35	11	37	13	3.06	High
4	I would rather chat on social media site than read a book	22	39	12	20	13	2.65	Low
5.	I could spend long hours on my social media accounts without getting bored	20	32	13	27	14	2.86	Low
6.	I agree that social media platforms should be used for entertainment and social purposes and not academic purposes	28	19	11	26	22	2.95	Low
7.	I consistently make efforts to make new friends on social media	13	30	10	39	14	3.10	High
8.	I am very affected by the opinions and comments of my friends on my social media	12	30	12	32	19	3.15	High
9.	I am registered on a lot of social media apps and forums	17	22	14	36	16	3.11	High
10.	I maintain a strong presence and identity on all my social media sites and forums	11	36	16	32	12	2.98	High

Source; Author's field work

Decision rule: There is unanimous agreement about a particular statement when the mean value of the item in the questionnaire is above 3, otherwise a unanimous disagreement is said to be the case.

Interpretation: All the mean values of items in the questionnaire that pertains to students' extent of social media usage are above 3 except for the some of the items: I would rather chat on social media site than read a book (with mean value of 2.6; I could spend long hours on my social media accounts without getting bored (with mean value of 2.86; I agree that social media platforms should be used for entertainment and social purposes and not academic purposes (with mean value of 2.95); and I maintain a strong presence and identity on all my social media sites and forums (with mean value of 2.98). Thus, it can be inferred that students generally use social media at a level above average as evidenced by a grand mean of 3.10.

Objective 1: To ascertain the purposes for which students use the social media

This objective will be achieved with the aid of descriptive analysis through the presentation of the frequencies and percentages of the various reasons provided by respondents when they were asked: “please, kindly share your reasons(s) for using social media applications and forums”.

Table 4.4 Field Frequencies of Reasons for Use of Social Media

S/n	Reasons	Frequencies	Percent(%)	Rank
1.	To learn new things and acquire information	24	12.5	5 th
2.	To share knowledge or an information with other people	35	18.2	1 st
3.	To improve academic performance	10	5.2	7 th
4.	To make new friends and build existing network of contacts	25	13.0	4 th
5.	To stay in touch with family and maintain valued relationships with other people	30	15.6	2 nd
6.	For online dating purposes	7	3.6	9 th

7.	To stay updated with recent events and trends in the environment	21	10.9	6 th
8.	For entertainment purposes	26	13.5	3 rd
9.	To promote business interests	5	2.6	10 th
10.	To get in touch with long lost contacts for re-connection purposes	9	4.6	8 th
	Total	192	100	

Source: Author's field design, August, 2016.

Table 4.4 above shows that there are various reasons for which students use social media with respect to the frequencies and percentages of each reason. Also, for the purpose of providing a comprehensive explanation of the analysis carried out, the reasons were ranked in the order of their frequencies. A detailed analysis of the responses reveals that the most popular reason for which students use social media platforms is *to share knowledge and information with other people* as evidenced by the highest frequency value of 35 (18.2%). The second most popular reason discovered in the course of this study was *to stay in close touch with family and maintain valued relationships with other people* as evidenced by the second highest frequency value of 30 (15.6%). Other popular reasons include *for entertainment purposes*, *to build existing new friends and build existing network of contacts* and *to learn new things and acquire new information*.

Hypotheses Testing

Objective 2 : To explain the nature of the relationship between the usage of social media and students' academic performance.

This objective will be achieved with the aid of Pearson's correlation matrix. The means of the items that pertain to both variables in the questionnaire will be tested against each other.

Thus, the hypothesis -there is a statistically significant relationship between students' academic performance and their usage of social media- will be tested at a significance level of 0.05.

Table 4.3 Pearson's Correlation Matrix on Students' Performance and Social Media Usage

		Social Media	Academic Performance
Social media	Pearson Correlation	1	.000
	Sig. (2-tailed)		.999
	N	108	108
Student Performance	Pearson Correlation	.000	1
	Sig. (2-tailed)	.999	
	N	108	108

Source; *Author's field design, August, 2016.*

In the light of the above results from table 4.3, it can be inferred that there is zero (0.000) correlation or no relationship whatsoever between students' level of social media usage and their academic performances. Therefore, the hypothesis is unacceptable. However, a probability value of 0.999 renders the result inconclusive and statistically negligible.

Objective 3: To find out if there is a difference in students' usage of social media by gender.

In order to achieve this objective, the means of students' social media usage will be compared with respect to their gender with the aid of the analysis of variance (ANOVA) statistical tool. The hypothesis - there is a difference in the level of activity on social media between male and female student - will be tested at a significance level of 0.05.

Table 4.4 ANOVA table of social media usage with respect to gender

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.408	1	4.408	5.140	.025
Within Groups	90.893	106	.857		
Total	95.301	107			

Source; *Author's field design, August, 2016.*

The results in table 4.4 above show that there is no significant difference between male and female level of engagement on social media. This is corroborated by the probability value

of 0.025 which is higher than the specified level of significance, i.e. 0.05. Thus, the hypothesis is unacceptable.

Objective 4: To determine if age has a significant relationship with students' level of engagement on social media.

This objective will be addressed with the aid of the Pearson correlation matrix in order to determine the nature of the relationship between the two variables. The hypothesis –there is a significant relationship between students' level of engagement on social media and their ages- is tested in table 4.5 below at a significance level of 0.05.

Table 4.5 Pearson's correlation matrix on age and social media usage

		Social Media	Age
Social Media	Pearson Correlation	1	-.054
	Sig. (2-tailed)		.577
	N	108	107
AGE	Pearson Correlation	-.054	1
	Sig. (2-tailed)	.577	
	N	107	107

Source; *Author's field design, August, 2016.*

The results in table 4.5 above show that there is a negative and very weak relationship between age and social media as evidenced by the Pearson correlation coefficient of -0.054. Also, it can be observed that the relationship is statistically insignificant as evidenced by the high probability value of 0.577 which is greater than the specified level of significance, 0.05. Thus, there is no statistically significant relationship between age and students' level of engagement on social media.

4.4. Discussion of Findings

In the course of addressing the first objective of the study, it was discovered that the main reason for which students visit social media platforms and sites is to share information and share knowledge perceived by them to be of relevance to others who may access the

information. Other notable reasons were to stay in close touch with family and friends and maintain valued relationship with others and entertain themselves when bored and less busy.

Aghaunor and Ekuobase (2015) previously suggested that results of available studies indicate that while some students use social media for socializing, others might use it for learning activities thus enhancing academic performance. On the other hand, Haseena and Rasith (2016) who conducted a survey of 200 students among the students of Eastern University, Sri Lanka indicated that if the students spend more time on social media it will help them easily discuss their the study tasks, assignment and exams easily. In the same vein, Oye (2012) noted that most of the younger students use social networking sites mainly for socializing activities, rather than for academic purposes. Oye (2012) further observed that students were of the view that social media have a more positive impact on their academic performance and this may be a reason for their increased presence on various social media platforms. In another study conducted by Shana (2012), it was revealed that students use social media mainly for making friends, chatting and interacting. According to Shana (2012), very few use the social media for academic purposes. While no study was found to corroborate or refute the findings of this study with respect to reasons adduced for students' use of social media, it is hoped these reasons may be able to offer future researchers a basis for the formulation of key variables in their research. To achieve this aim, it is advocated that empirical study should investigate social media logs of students.

Another remarkable finding was the fact that students' activities or level of engagement on social media has zero correlation with their academic performances. This is rather remarkable and somewhat new because previous studies such as Kirschner and Karpinski (2010) have reported a negative correlation between both variables. Similarly, Khan (2009), Enikuomelin (2011) and Hasnain, Nasreen and Ijaz (2015) indicated that the usage of social media has an inverse relationship with academic performance of students. This implies that the

more students spend time on social media, the more their GPA is affected. According to Khan (2009), social media users often time experience poor performance academically. On the other hand, some scholars such as Boyd and Ellison (2007), Griffith and Liyanage (2008), Pasek, Hargittai (2009) and Haseena and Rasith (2016) have all reported a positive relationship between social media usage and academic performance. Interestingly, Kirschner and Karpinski (2010) reported a negative correlation between both variables while Haseena and Rasith (2016) reported a positive relationship between social media usage and academic performance but no study to the best of knowledge reported a zero correlation.

In addition, while addressing the third objective of this study, it was found that the level of engagement on social media is the same for both genders. In other words, male and female students use social media platform and sites at a similar rate. This is not dissimilar to the study of Perrin (2015) who posited that there was little or no difference in the usage of social media by men and women. Other authors such as Akyildiz and Argan, (2012), Brenner (2013) and Skiera *et al.* (2015) have differed with respect to their contributions to this subject. Akyildiz and Argan, (2012) found that male students use Facebook more frequently than female students with more friends and spend significantly more time on Facebook than female students. A study conducted by Brenner (2013) found that 71% of women were users of SNSs compared with 29% of men. Also, Skiera *et al.* (2015) found that women and men seem to use the social network differently, and even went ahead to suggest that it may explain the observed differences in their respective academic performances. Regardless of the foregoing, on the basis of the results from the analysis of data collated, the author submits that there is little or no difference in the rate of social media usage by men and women.

Lastly, it was also discovered that age has no significant relationship with the rate of social media usage. This finding is supported by the works of scholars such as Kwon and Noh, (2010) and Svorc (2012) who suggest that age has limited influences on individuals' perceptions and

usage of the internet. However, Peluchette and Karl, (2008), Nemetz, (2010), Akindehin and Akindehin (2011), Alvarez (2015) have all offered counter propositions to the above finding. Dissimilar findings in extant literature may be explained by reasons such as a different population, sample, methodology or time of study. Thus, on the basis of the methodology adopted by the author and the collated data, the author hereby submits that age has no relationship with students usage of social media platform and sites.

○ REFERENCES

- Aghaunor, C. T. & Ekuobase, G. O. (2015) ICT social services and students' academic performance. *A Multidisciplinary Journal Publication of the Faculty of Science, Adeleke University, Ede, Nigeria*, 2, 29-46.
- Akyildiz, M. & Argan, M, (2012), Using online social networking: Students' purposes of Facebook usage at the University of Turkey.
- Alvarez, L. (2015) Developing the network for growth and equality of opportunity. *The Global Information Technology Report 2015*, 67-72.
- Boyd, D. & Ellison, N. B. (2007) Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*. Retrieved on: 24 December 2015, doi:10.1111/j.1083-6101.2007.00393.x
- Brenner, J. & Smith, A. (2013) 72% of Online Adults are Social Networking Site Users. *Pew Research Centre, August 5, 2013*.
- Enikuomelin, A. O (2011) ICT, CGPA: Consequences of social networks in an Internet driven learning society. *International Journal of Computer Trends and Technology*, 2(2) 9-14.
- Griffith, S., & Liyanage, L. (2008). An Introduction to the Potential of Social Networking Sites in Education (Powerpoint Slides).Johannesburg: Leedsburg.
- Haseena, M. L. F. & Rasith, P. M. M. (2016) Impact of social media on students' academic performance; special reference to Eastern University, Sri Lanka. *Journal for Studies in Management and Planning*, 2(3), 13-19.
- Hasnain, H., Nasreen, A. & Ijaz, H. (2015) Impact of social media usage on academic performance of university students. *Proceedings of the 2nd International Research Management and Innovation Conference (IRMIC 2015)* Langkawi, Malaysia.
- Khan, Z. R. & Balasubramanian, S. (2009). Students go click, flick and cheat: E-cheating, technologies and more. *Journal of Academic and Business Ethics*, 1-26
- Kirschner, P. A., & Karpinski, A. C. (2010). Facebook and academic performance. *Computers in Human Behaviour*, 26, 1237–1245.
- Kwon, W. and Noh, M. (2010). The influence of prior experience and age on mature consumers' perceptions and intentions of internet apparel shopping. *Journal of Fashion Marketing and Management*, 14(3), 335 - 349.
- Nemetz, P.L. (2010). Faculty social networking interactions: using social domain theory to assess student views. *Journal of Instructional Pedagogies*, 1-17.
- Oye, N., (2012). Students' Perception of Social Networking Sites Influence on Academic Performance. *International Journal of Social Networking and Virtual Communication*. 1(14), 60-85.

- Pasek, J., More, E., and Hargittai, E. (2009) Facebook and academic performance: Reconciling a media sensation with data, *First Monday*, 14(5).
- Peluchette, J. and Karl K. (2008). Social networking profiles: an examination of student attitudes regarding use and appropriateness of content. *Cyber-psychology Behavior*, 11(1), 95-7.
- Perrin, A. (2015) Social networking usage: 2005-2015. Pew Research Center. October 2015. Available at: <http://www.pewinternet.org/2015/10/08/2015/Social-Networking-Usage-2005-2015/>
- Shana, L.B., (2012). The Influence of Social Networking Sites on Students' Academic Performance in Malaysia. Retrieved from <http://utechacademic.edu.shanleebrown>.
- Skiera, B., Hinz, O. & Spann, M. (2015) Social media and academic performance: Does the intensity of Facebook activity relate to good grades. *Schmalenbach Business Review*, 67, 54–72.
- Svorc, J. (2012). Consumer's intentions to shop medicaments on-line: A survey from Czech Republic market. *Journal of Systems Integration*, 3(2), 3 – 28.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

This chapter provides the summary of findings, contributions to knowledge/practice, conclusions as well as the necessary recommendations.

5.2 Summary of Findings

- There are many reasons why students use social media platform and sites. In this study, the most common reasons in the order of their popularity include; *to share knowledge and information with other people, to stay in close touch with family and maintain valued relationships with other people and for entertainment purposes.*
- There is no relationship at all between social media usage and student academic performance among students in the University of Benin
- There is no difference between male and female students in the University of Benin with respect to their level of engagement on social media.
- Age has no significant relationship with social media usage among students in the University of Benin.

5.3 Conclusions

The present study set out to investigate the impact of social media on the academic performance of the students in the University of Benin. Also, the nature of the relationship between social media usage and certain demographic variables such as age and gender was examined. The Cochran formular for estimating sample size was applied in obtaining a value of 112 respondents who were selected such that the fourteen faculties in the University were ably represented. Of the three hypotheses put forward in the study, none was deemed as fit for acceptance. However, the descriptive analysis revealed some interesting findings such as the

fact that the main reason why students used social media was to share information and knowledge.

5.4 Recommendations

This section contains the policy recommendations/implications and possible areas of further studies.

5.4.1 Policy Recommendations/Implication

- i. Parents and guardians should help to ensure that students utilize the benefits of social media.
- ii. Scholars and opinion leaders should make efforts to eliminate the paradigm that social media is harmful to the academic development of students.

5.4.2 Further Studies

The findings and reports submitted by the author, although authentic and fascinating are somewhat liable to be taken with a pinch of salt in certain academic quarters. The main reason for this is the fact that the choice of methodology, research design, sampling and specification of geographical domain of study were all influenced by the author's awareness of certain limitations such as the complexity involved in collection and analysis of data from a very large sample and their implications for the successful completion of the study. Thus, scholars and researchers who may be interested in carrying out research in this area should endeavour to make improvements in the areas specified above in order to allow for valid generalizations of their research findings.

APPENDIX I
DEPARTMENT OF BUSINESS ADMINISTRATION
FACULTY OF MANAGEMENT SCIENCES
UNIVERSITY OF BENIN

Dear respondent,

The researcher is carrying out a study whose main objective is to determine the impact of social media on academic performance of undergraduate students at the University of Benin. You have been selected as one of the respondents for the study and the information you will give will be treated with utmost confidentiality and used purely for academic purposes.

Kindly answer the following questions as sincere as possible. All you are required to do is to simply the answer that corresponds with your opinions. Your cooperation is highly appreciated.

SECTION A: DEMOGRAPHICS

Please kindly indicate the category to which you belong by ticking the empty parenthesis beside the categories or filling the space provided:

1. Faculty: _____
2. Gender: Male [] Female []
3. Age: under 20yrs [] 20 – 25yrs [] 26-30yrs [] 31yrs and above []
4. Current Level: 100L [] 200L [] 300L [] 400L and above []

SECTION B: STUDENT ACADEMIC PERFORMANCE

Instruction: Please kindly fill in your G.P.A in the space provided for it in the table below in questions 5-8. Also, kindly tick the option that agrees the most with your view by indicating the extent to which you agree or disagree with any of the statements below. Please note the meaning of the following abbreviations. Strongly Agree(SA); Agree(A); Undecided(U); Disagree(D); Strongly Disagree(SD).

Purpose students use social media

S/N	Variable	Options
	Academic Achievements (G.P.A)	Session G.P.A
5	Please indicate your 100L G.P.A or class of result in the next cell in the table	
6	Please indicate your 200L G.P.A or class of result in the next cell in the table	
7	Please indicate your 300L G.P.A or class of result in the next cell in the table	
8	Please indicate your 400L G.P.A or class of result in the next cell in the table	

	Accomplishment of Learning Objectives	SA	A	U	D	SD
9	I usually understand the lectures					
10	I apply knowledge from my lectures to my daily activities					
11	I am capable of teaching my colleagues any topic within my academic curriculum					
	Acquisition of Skills and Competences	SA	A	U	D	SD
12	I have acquired unique skills in the course of my studies					
13	My level of competence has improved since I commenced my academic program					
14	I apply the unique skills I have acquired to my daily activities					
	Satisfaction	SA	A	U	D	SD
15	I am highly satisfied with the quality of my education					
16	My value of my university education has been demonstrated with public praise, word-of-mouth referrals and recommendations to other peers					
17	I have little or no regret with my university education					
	Persistence	SA	A	U	D	SD
18	I have successfully completed every aspect of my programme					
19	I have refrained from participating in activities that could sabotage the completion of my academic programme					
20	I consistently make efforts to maintain and improve my academic performance					

SECTION C: SOCIAL MEDIA

Kindly tick the option that agrees the most with your view by indicating the extent to which you agree or disagree with any of the statement below. Please note the meaning of the following abbreviations. Strongly Agree(SA); Agree(A); Undecided(U); Disagree(D); Strongly Disagree(SD).

	Variable	Options				
	Use of Social Media	SA	A	U	D	SD
21	I have highly demanding network of friends on my social media accounts					
22	I interact frequently with a lot of friends on my social media accounts					
23	I feel very bad when I cannot access my social media accounts					
24	I would rather chat on social media site than read a book					
25	I could spend long hours on my social media accounts without getting bored					
26	I agree that social media platforms should be used for entertainment and social purposes and not academic purposes					
27	I consistently make efforts to make new friends on social media					
28	I am very affected by the opinions and comments of my friends on my social media					
29	I am registered on a lot of social media apps and forums					

30	I maintain a strong presence and identity on all my social media sites and forums					
-----------	---	--	--	--	--	--

31. Please, kindly share your reason(s) for using social media applications and forums

(i)

(ii)

(iii).....

APPENDIX II

Computation of Sample Size

The Cochran statistical formula for determining sample size is given as:

$$n_o = \frac{Z^2 pq}{e^2}.$$

Where n_o = the sample size.

Z^2 = the abscissa of the normal curve that cuts off an area α at the tails ($1 - \alpha$ equals the desired confidence level, which in this study has been put at 95%).

p = the estimated proportion of an attribute that is present in the population is assumed at 0.5.

$q = 1 - p$ is 0.5

e = level of significance or precision which in this case has been put at 0.08.

Therefore, $n_o = \frac{Z^2 pq}{e^2}$

$$n_o = \frac{1.68^2 \times 0.5 \times 0.5}{0.08^2} \text{ for respective values}$$

$$n_o = \frac{2.8334 \times 0.5 \times 0.5}{0.0064}$$

$$n_o = \frac{0.7056}{0.0064}$$

$n_o = 110.25$. This value is rounded up to 112.

Hence the sample for this study is 112.