PERCEPTIONS OF FACULTY MEMBERS ON THE ADOPTION AND USE OF SOCIAL MEDIA FOR TEACHING, LEARNING AND RESEARCH IN AHMADU BELLO UNIVERSITY, ZARIA

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DECLARATION

I, Zakaria, Ahmed do hereby declare that this dissertation entitled "Perceptions of Faculty Members on the Adoption and Use of Social Media for Teaching, Learning and Research (TLR)" in Ahmadu Bello University, Zaria has been written by me in the Department of Library and Information Science, Ahmadu Bello University, Zaria under the supervision and guidance of Dr. Abdullahi I. Musa and Dr. Babangida U. Dangani. All information used from the literature has been duly acknowledged in the text (body of the work) and a list of references is provided. No part of this dissertation was previously presented elsewhere for another degree or diploma at any university.

_____ _____

ZAKARIA, Ahmed **Date**

CERTIFICATION

This Dissertation entitled ― Perceptions of Faculty Members on the Adoption and Use of Social media for Teaching, Learning and Research (TLR) in Ahmadu Bello University, Zaria (2016-2017) by Zakaria, Ahmed meets the regulations governing the award of Master of Philosophy (M.Phil.) degree of Ahmadu Bello University, Zaria; and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

I dedicate this work in loving memory of my late father, my mother, my brothers and sisters and my uncle, Alh. Sani Mohammed (Babban Mutum). Their wisdom and belief in lifelong learning motivated this journey. Their memories continue to support me through challenges along the way.

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ABSTRACT

Social media (SM) have dramatically improved teaching, learning and research (TLR) in universities. For instance, many universities in both developed and developing countries are using social media to improve TLR. However, despite the wide diffusion, adoption, and use (DAU) of social media for TLR, we do not have a clear picture on the DAU of social media in many universities particularly in developing nations. This study used Unified Theory of Acceptance and Use of Technology (UTAUT) model as a theoretical framework to answer the following questions: What types of SM technologies faculty members (FMs) are aware of in Ahmadu Bello University, Zaria? What are the perceptions of FMs on the Adoption and Use of SM for TLR? What factors facilitate the DAU of SM by the FMs in Ahmadu Bello University, Zaria? How can the UTAUT be used to explain the perceptions of FMs on the DAU of SM for TLR? Finding answers to these questions is critical to the successful adoption, use, and implementation of SM to enhance TLR in universities within the context of developing countries. A qualitative research methodology was adopted to answer the research questions raised through maximum variation sampling technique and in-depth interviews with 12 FMs who have had life experiences with using SM for TLR from various faculties in ABU, Zaria. A manual thematic analysis technique of these interviews provides perceptions of FMs on the DAU of social media in TLR. Findings from this study revealed that, the FMs were aware of everyday life SM and academic SM. Faculty members also have favourable perceptions on the adoption and use of social media for TLR in Ahmadu Bello University, Zaria but unfavourable perceptions on the existing facilities. Accordingly, FMs perceived low use of SM for TLR in the University. It was also found that being technologically savvy, SM as a tool for interactions and collaborations, FM's exposure abroad (training), familiarity with the technology, family relations, academic colleagues, SM benefit, SM relative security, its wide acceptability and the affordability of data subscription and devices were found to be the factors that facilitate DAU of social media for TLR by the FMs. It was finally found that UTAUT provided useful explanations on the perceptions of FMs for academic use of social media in the University. The study recommended that the University management should introduce conscious programme aimed at promoting the application of social media in TLR in the University and policy guides lines on its usage should be designed for proper use and successful implementation. Training programmes in the form of workshops, seminars and symposia on how SM is to be utilized for academic use should be organized regularly. Most of all, the University should improve on its existing power supply and network facilities for the successful take up of this media. Finally, the study has recommended that the UTAUT Social Influence construct should be expanded to include both influence from within and outside the organization and to consider influence that may come from either senior or junior colleagues, staff, students or family relations. It was concluded that the UTAUT constructs were useful tools for studying perceptions of FMs on the DAU of SM in TLR for this group of participants. This study provides methodological contributions to knowledge as it is among the pioneer research to employ UTAUT to interpret the perceptions of FMs on the adoption and use of SM for TLR in Ahmadu Bello University, Zaria-Nigeria.

Keywords: Perception, faculty members (FMs), diffusion, adoption and use (DAU), social media (SM), teaching, learning and research (TLR), Unified Theory of Acceptance and Use of Technology (UTAUT)

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Social media is revolutionizing teaching, learning and research (Uloma et al., 2011; Gikas et al., 2013; Liman, 2014; Balakrishnan et al., 2015; Chen et al., 2015). It promotes active, collaborative learning (Harris, 2002). Active learning is a constructivist pedagogical approach that stresses the critical role of social interactions in the learning process (Prince, 2004). Collaborative learning is a major feature of high ranking universities; they mostly achieve this through using Social media (Babson Research Groups, 2011). However, despite the advantages of Social media in promoting collaborative learning, we do not have a better understanding of the adoption and use of social media for teaching, learning and research (TLR) from the perspective of faculty members within the context of universities in developing nations, particularly in Nigeria (Dar es Salam, 2011; Liman, 2014).

Lack of understanding of Social media from the perspective of faculty members may restrain the management of Nigerian universities, particularly the units responsible for general planning and oversight of academic activities, from taking good decisions and applying effective strategies for the adoption of this technology in teaching, learning, and research (TLR). This could directly slow down management from adopting Social media for academic purposes, thereby losing an important opportunity to improve learning. To accelerate the use of Social media for TLR, scholars have buttressed the need to uncover the perceptions of communal members about social media, Seaman et al. (2013) and Zgheib et al., (2013). This study specifically explores the perceptions of faculty members on the adoption and use of Social media for TLR.

1.1.1 Perceptions and Behavior of Faculty Members

Perception is the process whereby people select, organize, and interpret sensory stimulations into meaningful information about their work environment (Rao and Narayan, as cited in Unumeri et al., 2009). They emphasized that perception ranks among the most important cognitive factor[s] of human behaviour or psychological mechanisms that enable people to understand their environment. In essence, perception is the act of being aware of one's environment, which denotes the individual ability to understand.

Understanding the perceptions of individual faculty members is critical in studying the adoption and use of new technology in institutions of higher learning. This is because perception determines human behavior. Understanding the perceptions of individual faculty members about new technology will determine their tendencies to accept or reject the new technology. It will, therefore, help in identifying conceptual constructs that will be used in designing programs to change beliefs and attitude towards the adoption and use of a particular technology. Furthermore, it is important to note that for any organization to be successful, it must embrace the use of technology. For technology to improve productivity and to enhance performance in an organization, the employees of the organization must accept and use it (Venkatesh et al., 2003).

1.1.2 Social Media in TLR from the Lecturer's Perspectives

Many studies on the use of Social media technologies in the learning environments in developing countries have examined the adoption and usage behaviour from students' perspectives, Balakrishnan et al., (2015); Chen et al., (2011); Gikas et al., (2013); Liman, (2014); Uloma et al., (2011). These studies indicated that the majority of students make use of Social media technologies for social interactions more than for academic purposes, but agreed that the use of these technologies has a positive influence on students' academic performance. A good number of these studies recommended that to maximize its educational potentials,

students should devote more of their time spent on Social media to academics than to social interactions.

In order for students to adopt and use Social media for academic purposes, faculty members, must adopt and deploy this technology effectively. Since faculty members are the drivers and principal actors in the application and promotion of relevant methodologies/technology adoption and their subsequent integration in higher institutions of learning (Mohammed, 2015), they must be convinced of the feasibility of using a particular technology before adoption and integration can occur (Sugar, Crawley, and Finn, 2004). In addition, Dooley and Lynham (2003) asserted that to improve performance, one must first understand the current system and that without this understanding, change and its outcomes become unrecognizable.

From the foregoing, faculty members' perceptions and experiences in the use of a particular technology play an essential role in the successful adoption and implementation of the technology (Muhammadali, 2012) by both faculty members and students. However, not many have conducted studies on the use of Social media from the perspective of faculty members, and so there is very little information about their use and or nonuse, and their perceptions on the adoption and use of this media in TLR. This is why this study attempted to provide an understanding of the perceptions of the faculty members of Ahmadu Bello University (ABU) regarding the adoption and use of Social media for TLR.

1.1.3 Social Media for TLR in Higher Institutions of Learning

The use of social media in higher institutions of learning has transformed TLR in significant ways. For instance, the interactive nature of social media allows students to share information and generate dialogues with their teachers and other students at the same time. It also gives an opportunity for both faculty members and students to build professional networks and create a better learning environment (Mhunpiew and Purayidathil, 2015) in which they

learn from and share knowledge and information in their fields of specialization in colleges of education, polytechnics, and universities. Universities and colleges are rapidly embracing these new technologies and leveraging them not only to enhance their traditional curriculum, but also to extend course offerings beyond the college campus (Li and Pitts, as cited in Enonbun, 2010).

Social media technologies provide an opportunity for both faculty members and students to download and upload video files on different topics from the classes of experts across the globe. Using these technologies in TLR also helps students to develop the 21st-century skills (digital media skills) needed for successful recruitment after school. Social media give opportunities for both synchronous and asynchronous communications in the learning environment. These opportunities help in addressing the problem of large classes through creating virtual classes for students. Besides, they also promote the effective adoption of widely accepted, student-centered approaches of teaching, the constructivism which promote and improve students' learning. Therefore, the use of social media in the learning environment creates harmony between faculty members and their students by enabling a teaching methodology that further enhances both students' and faculty members' performance. Thus, faculty members' use of Social media to promote student-faculty interaction, which, according to Endo and Harpel as cited in (Association of College & University Telecommunications Administrators (Association of College & University Telecommunications Administrators, 2010), has a notable impact on students' academic performance. Furthermore, as Social media technologies continue to progress and new ways of thinking, interacting, and learning evolves, it is becoming important for educators to become familiar with what Social media offers. Social media technologies include LinkedIn, Facebook, Twitter, blogs, wikis, Skype, podcasts, WhatsApp, etc.

In sum, Social media provide a learning environment that enhances critical thinking, communication skills, digital literacy skills, leadership, teamwork, time management, interpersonal and intrapersonal skills (Jenkins et al., 2009). In this regard, the advantages of social media are enormous, which makes it imperative for every learning institution to use Social media for academic purposes.

1.2 Statement of the Problem

Nigerian Universities have high student enrollments. However, this high number is not commensurate with the teaching facilities (Udoh, 2008). This results in high student/teacher ratios and overcrowded classrooms, resulting in inadequate attention given to students, with students learning passively. Part of the ways to overcome overcrowded classrooms and passive learning by students is for faculty members to adopt and use Social media in teaching, Udoh, (2008); Adamson, (2012); Johannes et al., (2014); Mohammed, (2015). Teachers use Social media to reach hundreds of students. Many institutions in the developed and developing countries have taken the advantage of Social media in this way. For instance, many institutions in the United States have adopted Social media for academic purposes (Babson Research Survey Group, 2011). Similarly, 94% of teachers in Croatia are familiar with Social media, and 60% used it for teaching (Matesic et al., 2009). In the same vein, 90% of teachers in the South East European University in the Republic of Macedonia are aware of Social media, out of whom 52% used it in teaching (Bexheti et al., 2013).

In spite of the wide diffusion, adoption, and use of Social media for TLR, there is a paucity of research in Nigeria on the adoption and use of Social media for scholarly activities (Gulati, 2008; Liman, 2014; Zanamwe et al., 2013). In particular, there is little understanding of faculty members' perceptions on the adoption and use of Social media for TLR in ABU, Zaria (Liman, 2014). To embed the use of Social media in TLR successfully, understanding the faculty member's perceptions is critical. This is because perception influences people's

behaviour (Rao and Narayan, as cited in Unumeri et al., 2009), along with willingness and readiness to adopt and use the new technology. Moreover, faculty members are the principal actors in the adoption and use of technology in institutions of higher learning. They must be convinced of the feasibility of using a particular technology before adoption and integration can occur (Sugar, Crawley, and Fine, 2004).

This study explored the perceptions of faculty members of ABU, Zaria on the adoption and use of Social media technologies in TLR, through the lens of a widely-accepted technology acceptance model called the unified theory of acceptance and use of technology (UTAUT).

1.2.1 Justification for the Choice of Ahmadu Bello University, Zaria as a Case Study

This research endeavor, in its conception adopted, single case study approach. The choice of Ahmadu Bello University, Zaria, as a single case, was informed by some vital arguments below.

The University is one of the oldest among the first generation Universities in Nigeria (ABU News, 2015, and ABU News, 2017). It is founded on the 14th October, 1962 by the Government of the then Northern Region of Nigeria with the explicit mission to impart knowledge and learning to men and women of all races without distinction on the grounds of race, religion or political beliefs (Ahmadu Bello University, Zaria Annual Report, 2016). In the same spirit it became a federal university in 1975. Being the oldest University, it has gained some stability in maturity and many of its programmes are matured. The faculty members therefore have gone through many faces of adoption of teaching methodology. Having attended that maturity makes the University also to likely have highly experienced faculty members who have seen the transmission occurrence within the University regarding the various teaching methodologies.

In terms of academic programmes, the University offers both undergraduate and postgraduate diverse courses in Agriculture, Veterinary Medicine, Public Administration, Business Administration, Engineering, Environmental Design, Education, Biological and Physical Sciences, Medical and Pharmaceutical Sciences, the Humanities, Law and Social Sciences (Ahmadu Bello University, Zaria Annual Report, 2016). Some of these courses are amenable to technological methods. Some of which are driven around networking and information sharing. This diversity and mix in discipline will help determine answers to a number of questions regarding DAU of social media for TLR in the University. It will help determine the nature of influences determined by the nature of the disciplines.

The University also has one of the largest postgraduate academic programmes amongst Nigerian Universities of about 500. This size provides a large population from which to explore the likely hood of influences that exist associated with the maturity of the student body associated with the hierarchy of academic programmes (undergraduate and postgraduate).

The University also has the advantage of being the leading Nigerian University with vast ICT logical and physical infrastructures necessary for this kind of study. The vast ICT infrastructures available would naturally give the researcher an opportunity to have in depth appreciation of the subject of interest.

The university's comparative strength lies also in its large population (ABU News, 2017). It has been confirmed that, the University is one of the largest Universities in Sub-Saharan Africa (Müller, Salim, Ssemwanga, Nyomakwa-Obimpeh and Lee, 2012, Dikko, 2017) with the largest number of faculty members as well. It has current academic staff strength of about 3,000 out of which 485 are professors of varying disciplines. Therefore, the study of the application of social media as TLR tool in a large population based University would be highly practical. It would allow users to conversely and actively generate content and share across the large population of faculty members within a short period. Thus, uncovering

perceptions from such population would provide more promising results compared to a university with a smaller population of faculty members.

1.3 Research Questions

In order to uncover the perceptions of faculty members on the Adoption and Use of social media for TLR, the following research questions were raised:

1. What types of social media technologies are faculty members aware of in Ahmadu Bello University, Zaria?
2. What are the perceptions of faculty members on the adoption and use of social media for TLR?
3. What factors facilitate the diffusion, adoption and use of social media by faculty members in Ahmadu Bello University, Zaria?
4. How can the UTAUT be used to explain the perceptions of faculty members on the diffusion, adoption and use of Social media for TLR?

1.4 Objectives of the Study

The study has the following objectives:

1. To identify the types social media faculty members of Ahmadu Bello University, Zaria are aware of.
2. To determine the perceptions of faculty members on the adoption and use of Social media for TLR.
3. To identify factors that facilitate the diffusion, adoption and use of social media in TLR by faculty members in Ahmadu Bello University, Zaria,
4. To understand how can the UTAUT be used to explain the perceptions of faculty members on the diffusion, adoption, and use of social media for TLR.

1.5 Significance of the Study

This study though, not the first of its kind, has adopted a unique approach in the sense that it is teacher centered whereas most previous works are student centered. It has made its principal target population to be the faculty members only.

The recommendations from this research would guide university managements in designing programs and strategies for the successful adoption, integration, and use of Social media for TLR in Ahmadu Bello University, Zaria. This is because having a good understanding of key conceptual constructs about the perceptions of faculty members with regards to the adoption and use of Social media technologies for TLR would directly reveal their use and or nonuse; their likelihood to accept or to reject Social media. This will allow management to design programs for integrating Social media in universities.

This study would also help faculty members to gain a better understanding of the factors that determine social media acceptance for TLR. This would help in transforming teachers' beliefs and their intentions to adopt this technology for TLR, and this transformation would further facilitate teachers' and students' academic use of Social media technologies which in turn, promote student-faculty interaction, which has a notable impact on students' performance. Furthermore, the study would serve as a basis for further research. It would, therefore, help faculty members, students, and other researchers with the knowledge about Social media adoption and use for TLR, thereby providing an addition to the body of knowledge on the subject matter.

1.6 Scope of the Study

The main focus of this research work is on Social media diffusion, adoption and use in TLR by faculty members in ABU, Zaria. The research was conducted within the larger context of the second generation of web technology (i.e., web 2.0) and education. However, the

research focused on the faculty members of ABU, Zaria Samaru and Kongo Campuses. Furthermore, theory was used as a tool in this research to help explain the perceptions of faculty members on the adoption and use of social media for TLR not as a guide to the study.

1.7 Operational Definition of Terms

The following terms are defined within the context of this study:

1. **Adoption:** is the act of accepting social media innovation to make full use of it as the best course of action available. It represents the positive outcome of a decision process that ranges between rejecting and accepting social media for TLR.
2. **Diffusion:** is the process by which social media innovation is communicated through certain channels over time among faculty members. It is simply refers to spread of social media information to the University faculty members.
3. **Learning:** is the process through which faculty members use their experience to deal with new situations and to develop relationships.
4. **Research:** is a systematic investigative process employed by the faculty members to increase or revise current knowledge by discovering new facts about reality. It all about finding, determining, exploring and or confirming about reality by applying scientific method and procedures.
5. **Social constructivism:** is a theory of learning that stresses the critical need for mental construction and reconstruction of social reality in relation to acquiring and imparting knowledge through reflection and collaboration among faculty members and their students.
6. **Social Media:** are group of Internet-based applications that allows for the creation and exchange of faculty member's generated content. Social media applications, therefore, allow faculty members and students to converse and interact with each other; to create,

edit, and share new forms of textual, visual, and audio content. They include Facebook, Twitter, blogs, MySpace, wikis, Skype, Podcast and WhatsApp etc.

7. **Teaching:** is the process of attending to student's needs, experiences and feelings, and making specific interventions to help them learn particular things. It involves the interaction of three elements: the teacher, student and the object of knowledge
8. **Technology:** are group of internet based applications available that facilitates, and sustains the effective and efficient performance of tasks of TLR in Universities.
9. **Use:** is the act of consuming or positive application of social media innovation to enhance the work of TLR in Universities.
10. **Web Technologies:** are Internet-based devices, tools, systems, and services that support and facilitate easy retrieval, and dissemination, of information online without a barrier to user location and time, especially in a real-time network environment.
11. **Web 2.0:** refers to the second generation of web development and design that facilitates communications and secures information sharing, interoperability, and collaboration on the World Wide Web.

1.8 List of Abbreviations

1. **TLR:** Teaching Learning and Research
2. **FMs:** Faculty Members
3. **DAU:** Diffusion, Adoption and Use
4. **SM:** Social Media
5. **UTAUT:** Unified Theory of Acceptance and Use of Technology
6. **ABU:** Ahmadu Bello University

References

ABU News (2015). A publication of Ahmadu Bello University, Zaria. Volume 2 (3). Ahmadu Bello University Press.

ABU News (2017). A publication of Ahmadu Bello University, Zaria. Special Edition. Volume 4 (2). Ahmadu Bello University Press.

Adamson C. (2012). The Role of Social Media in Education. Retrieved from http://www.icwe.net/oeb_special/OEB_Newsportal/the-role-of-social-and-mobile-media-in-education/. Accessed on 21st January, 2015.

Ahmadu Bello University, Zaria, Annual Report (2016). Summary of the Activities of the University.

Association of College & University Telecommunications Administrators. (2010). Social Media and Higher Education Literature Review. The Literature Review Compiled in Conjunction with the Survey Research Group. Retrieved from www.fullerton.edu/technologyservices/_.../SC10SemerLitReview.pdf. Accessed on 22nd February, 2015.

Babson Research Group. (2011). Teaching, Learning, and Sharing: How Today's Higher Education Faculty Use Social Media. The Education Resources Information Center (ERIC).

Balakrishnan V., Liew K.T. and Pourgholiminejad, S. (2015). Fun Learning with Edoorwere-A Social Media Enables Tool. *Computers and Education*, 80 (2015) 39 – 47.

Bexheti, A. L., & Ismaili, E. B. & Cico, H. B. (2013). An Analysis of Social Media Usage in Teaching and Learning: The Case of SEEU. Recent Advances in Electrical and Computer Engineering. Retrieved from http://inase.org/library/2014/venice/bypaper/OLA/OLA-14.pdf. ISBN. Accessed on 21st January, 2015.

Chen, C., Lai, H., and Ho, C. (2015). Why Do Teachers Continue to Use Teaching Blogs? The Role of Perceived Voluntariness and Habit. *Computers and Education*, 82 (3), 236-249 Science Direct.

Dar es Salam, L. K. (2011). Unleashing Web 2.0 for African Education. *International Conference Proceeding on "Perspective on ICT, Education and Development in Africa*" eLearning Africa News.

Dikko H. G. (2017). HOD's Welcome Message. Department of Statistics, Faculty of Physical Sciences, Ahmadu Bello University, Zaria. Retrieved from https://statistics.abu.edu.ng. Accessed on 26th February, 2018.

Dooley, L. M. & Lynham, S. A. (2003). Using Phenomenology to Come to Know and Understand in Human Resource Development. Paper Presented at the Academy of Human Resource Development 2003 Conference, Minneapolis, MN.

Enunbun, O. (2010). Constructivism and Web 2.0 in the Emerging Learning Era: A global Perspective. *Journal of Strategic Innovation and Sustainability*, 6 (4), 74.

Gikas, J. and Grant, M. M. (2013). Mobile Computing Devices in Higher Education:

Students Perspective on Learning with Cellphones, Smartphones, and Social Media. *Internet and Higher Education*, 19. 18 – 26.

Gulati, S. (2008). Technology-Enhanced Learning in Developing Nations: A Review. *The International Review of Research in Open and Distributed Learning,* 9 (1) Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/477/1012. Accessed on 12th March, 2016.

Harris, S. (2002). Innovative pedagogical Practices Using ICT in Schools in England. Journal of Computer Assisted Learning, No. 18, Pp;449-458.

Jenkins, H., Purushortma, R., Weigel, M., Clinton K., and Robinson A. J. (2009). Confronting the Challenges of Participatory Culture: Media Education for the 21st Century. Cambridge, MA: MIT Press. Retrieved from http://henryjenkins.org/blog/2010/05/why_participatory_culture_is_n.html Jenkins 2009. Accessed 0n 14th April, 2015.

Johannes, A., Michael, C. & Corinne, E. (2014). Perception and Uses of Social Media Networking Systems by South African Students. *International Business and Economics Research Journal*, 13 (4).

Kuhn, T. S, (1996). The Structure of Scientific Revolutionsn.3rd ed' p.cm.ISBN: 0-226-45808-3 (paPer). The University of Chicago Press, Ltd., London.

Liman, S. (2014). *New Media in Higher Education: A Study of Social Media Use among Students of Ahmadu Bello University, Zaria, Nigeria.* (Unpublished Dissertation, Department of Theatre and Performing Arts, Faculty of Arts, Ahmadu Bello University, Zaria).

Matesic, M., Vockovic, K., Doveda, Z., and Lucica, I. (2009). Social Software: A Teaching Tool or Not? INFuture 2009, *Digital Information and Heritage*, 3.

Mhunpiew N., Purayidathil J. (2015).Social Networks as a Tool for Education: An awareness of School Leaders. US-China Education Review A, February, Vol., No. 2, 135-141. Doi: 10.17265/2161-623X/2015.02.006. David Publishing

Mohammed, Z. (2015). Exploring the Potentials of Web Technologies in Education, Training, Teaching, Learning and Research in Educational Institutions in Nigeria: A Lead Paper Presented at the Workshop on Web Technology Fluency for Teaching and Research held at the MTN Connect Library, Kashim Ibrahim Library, Ahmadu Bello University, Zaria.

Muhammadali, K. S. & Azizah, N. (2012). Exploring New Factors and the Question "Which" in User Acceptance Studies of Healthcare Software.

Müller W., Salim B. A., Ssemwanga A., Nyomakwa-Obimpeh J. and Lee T. (2012). Evaluation Report of Ahmadu Bello University, Zaria, Negeria. *Europe – Africa Quality Connect/Ahmadu Bello University/April 2012.* Retrieved from www.eua.be/Libraries/qa-connect/qa_connect_abu_final_report.pdf?sfvrsn=0. Accessed on 27th February, 2018.

Prince, M. (2004). Does Active Learning Work? A Review of the Research. *Journal of Engineering Education*, 93 (3), 223-231.

Sandars, J. & Schroter, S. (2007). Web 2.0 Technologies for Undergraduate and Postgraduate

Medical Education: *An Online Survey Postgraduate Medical Journal*, *83*, *759–762.*

Seaman, J. & Tinti-Kane, H. (2013). Social Media for Teaching and Learning: Pearson Learning Solutions and Babson Survey Research Group. Retrieved from https://www.onlinelearningsurvey.com/reports/social-media-for-teaching-and-learning-2013-report.pdf. Accessed on 29th May, 2017.

Sugar, W., Crawley, F., & Fine, B. (2004). Examining Teachers' Decisions to Adopt New Technology. *Educational Technology and Society*, 7 (4), 201-213.

Udoh, G. (2008). Alternative Sources of Funding University Education in Nigeria. *An International Multi-Disciplinary Journal*, 2 (3), 98 – 110.

Uloma, D. O. and Fidimaye, O. S. (2011). Perceived Influence of Online Social Networks on Academic Performance: A Study of Undergraduates in Selected Universities in Ogun State Nigeria. *The Information Manager,* 11, 1 – 2.

Unumeri, O. G., Ayo, T. H., Babatunde, O. D. (2009). Perception and Conflict. PCR 276, Course in National Open University of Nigeria.

Venkatesh, V., Davis, D., F., Davis, B., G. & Moris, G., M. (2003). User Acceptance of Information Technology: Toward A Unified View. *MIS Quarterly,* 27 (3). 425-478. Retrieved from http://www.jstor.org/stable/30036540. Accessed on 16th January, 2016.

Zanamwe, N., Rufere, T., & Kufandirimbwa, O. (2013). Use of Social Networking Technologies in Higher Education in Zimbabwe: A Learners' Perspective. *International Journal of Computer and Information Technology*, 2 (1).

Zgheib, G. and Dabbagh, N. (2013). Exploring Perceptions of Faculty and Students' Use of Social Media in Higher Education. Retrieved from http://www.aect.org/pdf/proceedings13/2013/13_39.pdf. Accessed on 26th April, 2017.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1 Introduction

The Chapter presents you with an analytical literature review and it begins with a brief explanation of the research philosophy/research paradigm (Section 2.2); it reviewed perception from the theoretical approach (Section 2.3); the theoretical frame guiding the study (section 2.4). It then reviewed several studies in different disciplines that have adopted the theoretical framework guiding the research, the UTAUT (Section 2.4.2). It also provides a discussion of the application of UTAUT in understanding the adoption and use of Social media in TLR (Section 2.5). The Use of Social Media For TLR (Section 2.6). It concludes with a summary of the related literature reviewed (Section 2.7).

2.2 Research Paradigm

Research is based on some underlying philosophical assumptions about reality. Even though philosophical assumptions remain largely hidden in research (Slipe and Williams, as cited in Creswell, 2009), they still influence the practice of research, and researchers need to identify them. Individuals preparing research proposals or plans should explicitly include their philosophical ideas, because these ideas help to explain the choice of qualitative, quantitative, or mixed methods for the research. Stating philosophical ideas also helps researchers to ensure the soundness of their research and to make its outcome convincing by pointing out the theoretical assumptions underpinning the study and determining the status of its outcomes (Crotty, 1998). Moreover, there is a close relationship between the researcher's knowledge's claims, i.e., the researcher's underlying assumptions about what knowledge is, how we know it, what values go into it, how we write about it, and processes for studying it (Creswell, 2007), and the type of understanding and interpretations that the researcher derives from the research (Kuhn, 1996). It is, therefore, necessary for the researcher to explain his or her philosophical

and paradigmatic stance clearly to enable proper evaluation of theory construction (Walsham, as cited in Tobbin, 2014).

A paradigm describes the researcher's assumptions, beliefs, and ways of interpreting data. It is a way of examining social phenomena from which particular understandings of these phenomena arise that enable explanations. The term paradigm is often used in the Social Science to refer to a research culture with a set of beliefs, values, and assumptions that communities of researchers have in common regarding the nature and conduct of research (Kuhn, 1996). A paradigm defines the nature of inquiry along three dimensions: ontology, epistemology, and methodology.

Ontology refers to the study or science of being; it encompasses claims about what exists, what it looks like, what units make it up, and how these units interact with each other (Blaikie, as cited in Petty et al., 2012). According to Flowers (2009), ontology simply describes a particular view, and its claims and assumptions about the nature of reality. This reality could be objective, that is, one that really exists, or it could be subjective, something that the mind creates. When considering that there are different views on what constitutes reality, the next question must be how does one measure that reality and what constitutes knowledge of that reality? This leads us to the question of epistemology.

Epistemology is the study of the grounds and nature of knowledge itself. It is the study of our method of acquiring knowledge. It analyzes the nature of knowledge and how it relates to similar notions such as truth, belief, and justification. Blaikie (1993) described epistemology as the theory or science of the method or grounds of knowledge. It is a set of claims or assumptions about the ways in which it is possible to gain knowledge of reality, how it is possible to know what exists, what knowledge is available, and what the criteria are for describing discoveries as knowledge. Epistemology considers views about the most appropriate ways of inquiring into the nature of the world (Easterby-Smith et al., 2008). Hatch

and Cunliffe (2006) summarized epistemology as knowing how you can know and expanded this summary by asking how one generates knowledge, what criteria differentiate good knowledge from bad knowledge, and how one should represent or describe reality.

The main epistemological stances are positivism and interpretivism. The positivist position is derived from natural science and characterized by testing hypotheses that emerge from the existing theory (deductive or theory testing) through the measurement of social reality. Thus, the positivist assumes the scientific approach to knowledge generation as the only valid and certain means (Flowers, 2009). Ontologically, it assumes the existence of a single objective reality. However, these assumptions hold true more for a quantitative research approach than a qualitative approach (Creswell, 2009). By contrast, the interpretivists contend that one can only fully understand reality through a subjective interpretation of and intervention in that reality. They assume that people seek understanding of the world in which they live. Individuals also develop their own subjective meanings of their experiences; to them the reality is multiple (Creswell, 2009), and ontologically, reality is a social construct. Thus, it is not possible to research the social world in the same way as the natural world. Therefore, their epistemological stance involves understanding the multiple views of people in a particular situation. This assumption is common in qualitative research (Creswell, 2009). These two epistemological stances shape the research methodology.

The main focus of this work is to understand the perceptions of faculty members of the adoption and use of Social media for TLR. This study is the result of an attempt to make sense of their lives by understanding multiple realities about Social media use in TLR. This fits well with the philosophy and intent of interpretivist paradigm. The basis of this paradigm is the epistemology of idealism … and [it] encompasses a number of research approaches, which have a central goal of seeking to interpret the social world (Ajjawi and Higgs, 2007). This approach was chosen because the reality is socially constructed and knowledge of this reality

involves understanding multiple views of people in a particular situation, and there may be many perspectives, better described as the reality of technology acceptance (Moats, 2013). In this regard, the interpretivist paradigm provides a philosophical approach for identifying theories that can act as a framework to explore the multiplicity of views concerning faculty members' perceptions of the use of Social media for TLR. However, all our empirical knowledge is grounded in how we see, hear, touch, smell and taste the world around us (O'Brien, 2013). This led us to clearly explain the concept of perception from the theoretical point of view.

2.3 Perception: Theoretical Approach

Perception is a critical aspect in this research. It is the process by which we interpret the world around us, forming a mental representation of the environment. So, perception is one of the basic ways of meeting reality or it is actually the reality (King, 2015). Therefore, to study the world means to study perceptions and ideas we created, and the world is mainly the world of perceptions, images or ideas (Sola and Smith, 2009).

Human Perception and Human Information, (2014) defined perception as the process of recognizing (being aware of), organizing (gathering and storing), and interpreting (binding to knowledge) sensory information. Therefore, perception deals with the human senses to generate signals from the environment through sight, hearing, touch, smell and taste (Hatfield, 2009). Saks and Johns (1970) cited in (Sincero, 2013), proposed three components of perception:

I. **The Perceiver:** the person who becomes aware about something and comes to a final understanding. There are 3 factors that can influence his or her perceptions: experience, motivational state and finally emotional state. In different motivational or emotional states, the perceiver will react to or perceive something in different ways. Also in

different situations, he or she might employ a "perceptual defense" where they tend to "see what they want to see".

II. **The Target:** this is the person, object, process or idea that is being perceived or judged. "Ambiguity or lack of information about a target leads to a greater need for interpretation and addition."

III. **The Situation:** this also greatly influences perceptions because different situations may call for additional information about the target.

In this regard, faculty members can be seen to represent the perceivers of the target diffusion, adoption and use (DAU) of social media in a situation of teaching, learning and research (TLR) in institutions of higher learning.

Furthermore, the key fundamental subjects of the theories of perceptions are internalism, and externalism. Internalism postulates an approach which explains the existence of intuitive and innate cognition, but at the same time it does not clarify how, from where and why the ideas themselves get into the mind, why we all do not have the same knowledge, why we are not aware of it already at birth and why we have sensibility at our disposal (Demuth, 2013). The internalists believed that pieces of knowledge or their sources and principles can be found within the subject, and cognition is nothing else but discovering them or developing already existing (a priori) pieces of knowledge. For example, Descartes who believed in innate ideas is the proponent of this approach, as well as Plato, who asserted that knowledge is nothing else but recollecting already acquired contents (Stanford Encyclopedia of Philosophy, 2016).

Externalism advocates the belief that all our knowledge has an external source experience. The externalists assert that the mind is more or less a blank sheet of paper (tabularasa) and all knowledge is being imprinted in us from external reality. However, the explanation of how information (external or internal) is being perceived and imprinted in the

subject or simply how we meet the world, present one of the key problems of both approaches (Demuth, 2013).

2.4 The Unified Theory of Acceptance and Use of Technology

This theory explains what encourages people to accept and use a particular technology in a workplace. Researchers commonly use it in studies aimed at predicting and explaining individual behaviours regarding the acceptance and usage of new technologies (Dulle & Minishi-Majanja, 2011). This is a hybrid theory developed by Venkatesh, et al., (2003) through conducting an extensive review and analysis of eight prominent technology acceptance and use models. The eight models they reviewed are the theory of reasoned action, the technology acceptance model, the motivational model, the theory of planned behavior, a model combining the technology acceptance model and the theory of planned behavior, the model of PC utilization, the innovation diffusion theory, and the social cognitive theory. UTAUT was chosen, because it fits well with the interpretative paradigm and because it will allow the researcher to explore the multiple realities of social actors, or rather the perceptions and experiences of faculty members on the adoption and use of Social media for TLR.

2.4.1 Unified Theory of Acceptance and Use of Technology (UTAUT): Constructs

According to Venkatesh et al. (2003), UTAUT proposed four main factors that influence the intention to use and the usage of information technology. These four constructs are (a) performance expectancy, (b) effort expectancy, (c) social influence, and (d) facilitating conditions.

Performance expectancy is “the degree to which an individual believes that using the system will help him or her to attain gains in job performance” (Venkatesh et al., 2003); Effort expectancy is “the degree of ease associated with the use of the system” (p. 450) Facilitating conditions are “the degree to which an individual believes that an organizational and technical

infrastructure exists to support the use of the system" (p. 453); Social influence is "the degree to which an individual perceives that important others believe he or she should use the new system" (p. 451), i.e., the person's perception that most people who are important to him or her think he or she should or should not perform the behaviour in question.

Venkatesh et al. (2003) also examined three other constructs, namely anxiety, self-efficacy, and attitude toward using technology, but found them nonsignificant. In addition to the four main factors, the UTAUT model includes four additional moderating factors: gender, age, experience, and voluntariness of use, which may increase or decrease the influence of the four main factors on the dependent variables, intention to use and use behaviour. UTAUT has about 70% variance in usage intention, which is a substantial improvement over any of the original eight models and their extensions (Venkatesh et al., 2003).

2.4.2 Previous Studies That Have Adopted the Unified Theory of Acceptance and Use of Technology

Ever since the development of UTAUT model in 2003, scholars have already used it in several studies from a variety of disciplines to investigate information technology use behaviour. This section discusses some of the previous studies that used UTAUT to study technology adoption.

Gruzd et al. (2011) investigated the role of Social media in the research practices of faculty at the Dalhousie University School of Information Management. The basis of their study was the content analysis of 51 semi-structured interviews of scholars in the Information Science and Technology field. They aimed not only to highlight the specific Social media tools used, but also to discover the factors that influence intention to use and use of Social media by scholars. To achieve this, they raised the following research questions: What are the most popular Social media tools among scholars? Why are scholars starting to use Social media? What is the perceived utility of Social media for scholarly practices? What are the perceived

problems associated with Social media? Their paper used the UTAUT, a widely-adopted technology acceptance theory. Gruzd et al. found that the UTAUT constructs were useful starting points in studying scholarly behavioural intention to use and use of Social media.

Wikis, nonacademic social networking tools, listservs, blogs, and video & teleconferencing tools emerged as the five most frequently used tools among scholars (Gruzd et al., 2011). Scholars are turning to Social media tools professionally, because the tools are more convenient for making new connections with peers, collaboration, and research dissemination (Gruzd et al., 2011). They also found that scholars who used Social media sites in their professional lives found them useful for making new connections, as well as strengthening existing connections, keeping up to date in their field, promoting their work online, and maintaining their professional images. They anticipated that the facilitating conditions construct would have a negative effect on the scholarly use of Social media for this group. The primary reason for this is that many participants reported concerns about time constraints and a related feeling of information overload. The social influence construct played an important, positive role in decisions to use Social media. Gruzd et al. also found that protection of privacy is the number one concern of scholars when using Social media tools, and finally, they indicated that scholars are increasingly adopting Social media in their professional lives for research-related activities. The results of this study also suggest that the adoption rate will likely continue to rise as Social media tools become widely accessible, widely adopted, and more specialized. They also commented that the lack of Social media tools specifically designed for academia may be one of the main reasons why some scholars are still hesitant about adopting Social media wholeheartedly.

San Martin and Herrero (2012) explored the process of adoption of new information technologies by the users of rural tourism services and, more concretely, the underlying psychological factors of individuals that explained their intentions to make bookings or

reservations directly through the websites of the rural accommodations (online purchase intentions). Based on the UTAUT model, San Martin and Herrero found out that the online purchase intention depended on the levels of performance and the necessary effort by the user in the electronic transaction. The higher the individual's innovativeness in the domain of information technology, the higher the online purchase intention. Their research also indicated that social influence and the facilitating conditions have no significant impact on the online purchase intention.

Onyebuchi (2009) carried out a study on how students in Europe use Social media for educational purposes. It included the following research questions: Do students of European higher institutions use Social media for educational purposes? If they do, what are their perceptions of Social media applications on learning outcomes? Are there differences in the distribution of Social media use in European higher institutions? Do Hofstede's dimensions apply to ways Social media applications are used in higher institutions? Onyebuchi conducted an online survey of 285 undergraduate and graduate students in selected higher institutions in the Netherlands, Great Britain, and Ireland. The survey was based on the UTAUT, combined with the cultural dimensions as described by Hofstede. Onyebuchi found that two key variables of the UTAUT were good predictors of intention to use Social media in higher education. These variables are performance expectancy and social influence. Onyebuchi also discovered that two additional constructs, control belief and community identity, influence the intention to use Social media. Given the social characteristic of these media, Onyebuchi found that Hofstede's cultural dimensions, namely individualism, power distance, masculinity, and technological experience, significantly mediate these relationships. Onyebuchi concluded that culture is a vital factor, as it relates to the intention to use and usage of Social media in European higher education, and also found that Social media applications are becoming potential tools for educational purposes.

Workman (2013) investigated the importance of task pursuit, social influence, experience in new media, and information technology use. Workman conducted a field study of non-work-related and discretionary use of Social media and smart device applications by randomly sampling 382 participants entering and leaving a large shopping mall and commercial complex in central Florida. Workman found an association between performance expectancies and smart applications, but not Social media. Conversely, Workman found an association between social influence and Social media, but not smartphone applications. Workman concluded that the primary interest in the use of Social media is to reach out to connect with others and share experiences, either socially or for business networking-related purposes. The opposite appears to be the case with smartphone applications. Social influences appear less important. Instead, the use of smartphone applications seems geared toward task-goal accomplishment. Workman also indicated that the adoption and use of smartphone applications lags behind the use of Social media.

Blackwell et al., (2013) conducted research on the adoption and use of technology by early educationalists, and the interplay of extrinsic barriers and teacher attitudes. Blackwell et al. argued that despite the increased access to computers and smartphone devices, there is still infrequent use of technology in a classroom, especially in early childhood education. They used an online survey research method to examine 1,329 early childhood educators who taught children aged four and younger. Applying the UTAUT model, they raised the following research questions: How do extrinsic and personal teacher demographic characteristics influence a teacher's access to technology? How do teachers' personal beliefs about the affordances of technology and their real and perceived extrinsic constraints influence whether and how much they use technology?

Blackwell et al. (2013) found that both facilitating extrinsic characteristics and personal attitudes toward technology predict use. However, positive attitudes are strong predictors of

use above and beyond real and perceived extrinsic barriers. Furthermore, there is no evidence from Blackwell et al.'s research that the teachers' inhibitions about using technology predicted its actual use. They concluded that while extrinsic properties influenced childhood educators' access to technology, personal attitudes matter, especially in actual use on the affordances of the technology. Further, the frequency of professional development initiatives, providing technology policy and concentrated efforts to adjust teacher attitudes towards technology, could produce a more effective result.

In an online survey on understanding Internet banking adoption, Martins, Oluveira, and Popovic (2014) used a UTAUT and a perceived risk application as a theoretical perspective. They pointed out that in order for both customers and organizations to take advantage of new web-based applications, it is crucial to analyze the genuine perceptions of and the main reasons for people's willingness to adopt these technologies. Thus, their study may help banks to understand the determining factors that influence users and to create the right policies and actions to attract customers to use this service. Martins et al. found that perceived risks, Internet banking platforms' performance, and ease of use affect intentions of users to use the platforms, while facilitating conditions was not important in explaining the usage. Therefore, they recommended that managers should ensure that Internet banking platforms are technically sound, with good security practices in place, and that they should promote clarification workshops among staff and users.

A survey by Huang, et al., (2013) on the gender divide and acceptance of web 2.0 applications for learning in higher education investigated the role of computer anxiety in influencing college female students' perceptions towards web 2.0 applications for learning. One of their research questions was do college students have different perceptions towards web 2.0 applications for learning based on their gender as explained by UTAUT? Their findings revealed that male and female college students in the learning context perceived web 2.0

applications differently. They observed different anxiety levels between genders, with a higher percentage of females experiencing anxiety. Accordingly, they suggested that providing social support for females while working on computer-related learning tasks may result in a lower anxiety levels.

Escover-Rodridguez and Carvajal-Trugillo (2014) conducted a survey of 1,096 Spanish consumers of low-cost carrier (LCC) flights. They focused on examining the customer factors affecting intentions to purchase online and the use of LCC e-commerce websites to make actual purchases of air tickets directly through these websites by assessing the impacts of perceived trust and innovativeness on the intention to use LCC e-commerce' website to purchase tickets, finding how price saving can influence the intention to use and the actual use of LCC e-commerce websites to purchase tickets, and analyzing the influence of perceived privacy, perceived security, and information quality on consumer trust in the website.

Their findings showed that the main predictors of online purchase intention are, in order of importance, trust, habit, price saving, facilitating conditions, performance expectancy, effort expectancy, innovativeness, hedonic motivation, and social influence, while the actual use depends on online purchase intention, consumers' habits of using the website, and facilitating conditions available to consumers. However, price saving did not influence the actual usage behavior. The studies also found that information quality, perceived security, and perceived privacy were antecedents of consumers' perceived trust, in order of importance. Thus, Escover-Rodridguez and Carvajal-Trugillo (2014) concluded that consumer trust is the strongest predictor of online purchase intention in the context of online purchasing of LCC air tickets; this suggested that LCC managers in Spain should direct their marketing strategies towards creating and maintaining consumer trust and creating the habit of using this technology in their online transactions. They also recommended that LCC should elaborate a friendly, easy, effective, and entertaining online purchasing process. They finally recommended that

managers should aim to strengthen consumers' intentions to purchase online, because this would lead to more actual use.

Teo (2011) conducted an online survey of 592 school teachers to examine factors influencing teachers' intentions to use technology. Teo developed and tested a model to explain the intention to use technology among school teachers. Teo demonstrated that the proposed model has a good fit to the data and that other factors should validate it. In addition, while perceived usefulness, attitude towards Social media use, and facilitating conditions had direct influences on behavioral intention to use technology, perceived ease of use and subjective norm had an indirect influence on behavioral intention to use technology through attitude towards the use of technology and perceived usefulness. Teo inferred that when teachers have positive feelings towards the use of computers, these feelings reinforce their intentions to use technology. Teo recommended that teacher professional development should be central to the management of technology integration of teaching and learning. School administrators should, however, manage the teaching environment in a way that makes teachers feel supported in terms of technical and human resources to provide training and guidance on technology usage and troubleshooting.

Similarly, Mohammadi (2015) examined the social and individual antecedents of m-learning adoption in Iran. The purpose of Mohammadi's study was to explore the effects of perceived ease of use, perceived usefulness, subjective norm, perceived image, personal innovativeness, individual mobility, absorptive capacity, and self-efficacy on user intention and satisfaction, alongside the mediating effect of usability towards the use of m-learning in Iran. Mohammadi's study adopted the integrated model of TAM (UTAUT) and expectation-confirmation theory. Mohammadi raised the following research questions: Do the individual and social factors have positive effects on mobile learning adoption in Iran? Are learners' intentions and their actual use of m-learning determined by their satisfaction? The results

revealed that intention and user satisfaction both predicted the actual use of m-learning. Subjective norm and perceived image were the most important antecedents of user intention towards the use of m-learning, while perceived usefulness mediated the relationship between ease of use and user intention. Mohammadi recommended that providing m-learning adopters with both technical and organizational support would encourage and enhance their social sense. Mohammadi also recommended that in order to improve the self-efficacy of the adopters, e-learning staff should identify and train individuals with potential capabilities in using information technologies and should encourage participants to invite their relatives and friends.

Lee, Yen, Peng, & Wu (2010) examined the influence of change agents' behavioral intention on the usage of an activity-based costing management system (ABC/M) and firm performance from the perspective of the UTAUT. The aim of Lee et al.'s study was to explore whether the use of the ABC/M system produced an improved effect on performance. The findings from their survey indicated that performance expectancy and social influence directly affect change agents' behavioral intentions. However, both change agents' behavioral intentions and facilitating conditions are important constructs that affect the extent of usage of ABC/M systems. There is also a significant association between the extent of ABC/M usage and relative financial and non-financial performance. Lee et al. found that the adaptive UTAUT model is applicable for measuring change agents' behavioral intentions in the implementation of ABC/M. They also revealed the positive effect of change agents on the performance of ABC/M systems. They recommended that this research study could help to increase the adoption rates of ABC/M systems from these two viewpoints.

2.5 Application of the Unified Theory of Acceptance and Use of Technology (UTAUT) in Understanding Perceptions of Faculty Members on Social Media Adoption and Use

This section discusses of the application of UTAUT in understanding the adoption and use of Social media in TLR (Figure 1).

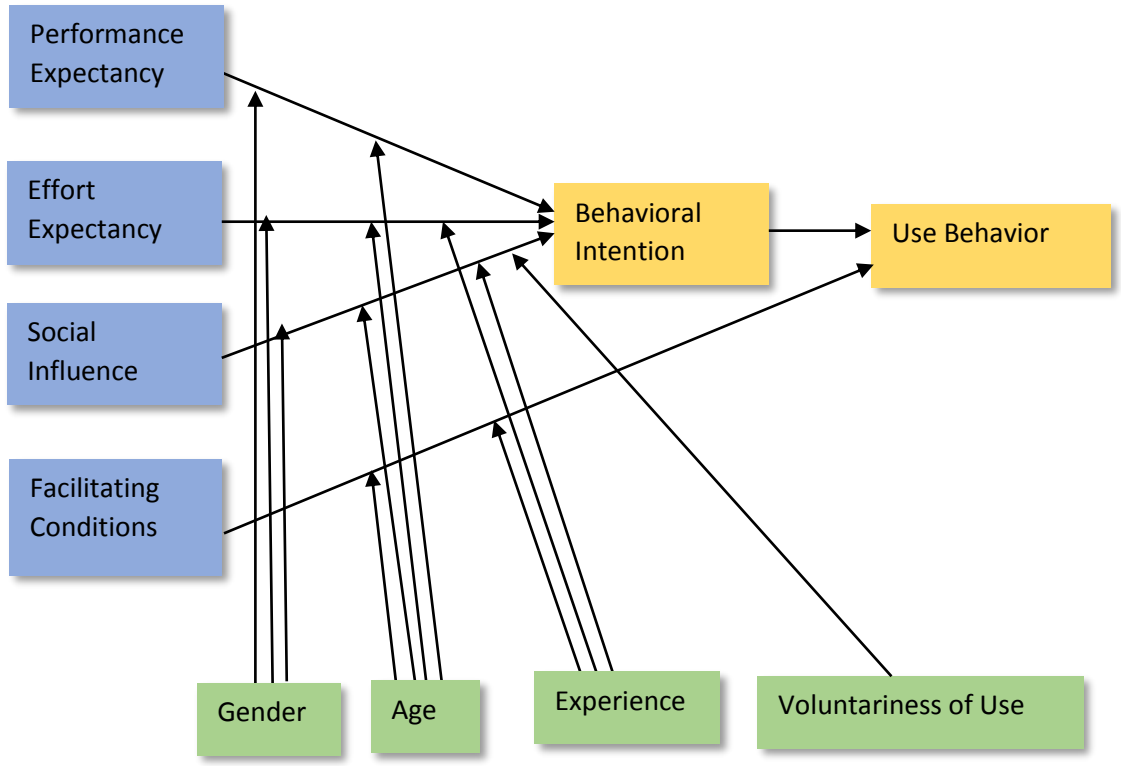


Figure 1. UTAUT Research Model **Source: Creswell (2003).**

Performance Expectancy is the degree to which an individual believes that using the system will help him or her to attain gains in job performance. This construct measures users' intentions to accept a particular technology based on its perceived usefulness and its relative advantage. It focuses on the outcome of adopting the new system. The perception is that users will want to perform an activity because it will help them to achieve valued outcomes that are distinct from the activity itself, such as improved job performance, pay, or promotion. The influence of performance expectancy on the decision to accept and use Social media technologies has a stronger effect on men, particularly younger men, because younger men are more likely to accept meager rewards than women, and men tend to be more highly task-oriented than women. Accordingly, gender and age moderate it (Minton and Scheneider, as cited in Venkatesh et al., 2003). This construct can help to answer questions such as what is the perception of faculty members of the usefulness of Social media in TLR?

Effort Expectancy is the degree of ease associated with the use of the system. Effort expectancy determines individual intention to use a particular technology due to individual perceived ease of use. This construct is more salient with women than with men. It is also more salient with older workers with experience, because women and older workers are more inclined to accept something that is easy (Minton and Scheneider, as cited in Venkatesh et al., 2003). This construct can answer questions such as what is the faculty members' perceived ease of use of Social media in TLR?

Social Influence is the degree to which an individual perceives that important others believe he or she should use the new system. This is the person's perception that most people who are important to him or her think he or she should or should not perform the behavior in question. For instance, the perception that use of Social media by a lecturer in an institution would enhance his or her image or status among his or her colleagues. This construct could be the result of compliance in a mandatory context as a result of social pressure and could have a direct effect on one's intention, but it could also have a direct effect on one's perception of voluntary context. This effect reduces over time, once an individual has accumulated some experience of the particular technology, and instrumental rather than social pressure becomes more important in making a decision. However, social influence is significant to women and older men and it decreases with experience, since women tend to be more sensitive to other people's opinions and since affiliation needs increase with age. Therefore, gender, age, voluntariness, and experience moderate the influence of social influence on intention such that the effect is stronger for women, particularly older women, and in mandatory settings in the early stage of experience (Minton and Scheneider, as cited in Venkatesh et al., 2003). This construct can answer questions such as how do faculty members perceive that important people around them believe that the use of Social media will enhance their work?

Facilitating Condition is the degree to which an individual believes that an organizational and technical infrastructure exists to support the use of the system. This is the extent to which individuals have control over, resources, and knowledge of the use of Social media in teaching and learning (Minton and Scheneider, as cited in Venkatesh et al., 2003). It also raises the question of how compatible Social media is with, for instance, the traditional teaching mode. Therefore, this construct can address the following questions: How compatible is Social media with the traditional teaching mode? What are the resources available to support proper adoption of Social media in TLR? What existing facilitating conditions will help in the integration of Social media for TLR?

2.6 The Use of Social Media for Teaching, Learning and Research (TLR)

Social media has a major role in improving and developing TLR in higher institutions of learning, (Raut and Patil, 2016). Although a considerable number of faculty members have begun to explore the potential benefits in it (Lupton, 2014), but they are still contemplating on how significantly the ways in which this new Internet can enhance their own practice and their students' learning" (Richardson, 2008). Social media is a story about community and collaboration on a scale never seen before (Burns, 2009). It's about the cosmic compendium of knowledge (Dijck, 2009) that promotes Social Constructivist Learning practice (Schrader, 2015). It is therefore, suggested that the main points of what social media offers and the elements of social constructivism are very compatible (Bonzo et. al, 2010). This is because; social media is a participatory web (Decrem, 2006). It interlinks people together, allows users to engage actively and interactively to create content. Elements of social constructivist learning are all similar to principles of social media (Yilmaz, 2008, & Bonzo et. al, 2010) in that learning requires active participation by the learner, while Social media are dynamic and based on active participation rather than passive viewing; previous experience is important in understanding new knowledge, while information sharing, a key

element in social media helps in sharing of experience among users which is also important in understanding new knowledge; individual knowledge construction requires a social interaction element within the environment while in social media, information is created through individual participation and interactivity; negotiation within the learning environment is essential to the development of shared meaning and common knowledge while collaboration is also very essential in social media; and lastly, learning best takes place within a sociocultural context - a community of practice and social media is all about community and is all about collaboration.

Even though, collaborative production of knowledge, where people meet and relate with one another to get something accomplished is harder than simple sharing; however, the results can be more profound (Bonzo et. al, 2010). Social media allow large groups to collaborate, by taking advantage of nonfinancial motivations, and by allowing for wildly differing levels of contribution (Shirky, 2009). Therefore, social media give opportunities for collaborations and for constructivist learning, and allow students to become meaningful contributors to the vast body of knowledge that is the Internet (Richardson, 2008).

Social media evolved because of revolution in internet and web technology. The revolution has changed the way the new generational students think, it changes how they learn and how they interact. The new generation of students represents the first generation to grow up with this new technology; they spend their entire lives surrounded by tools of the digital age (Prensky, 2001). The native speakers of this digital age form the large number of students in higher institutions worldwide and they engage in using the technology as their personal learning environment (Prensky, 2001) which explains their reasons for greater inclusion of this media within the learning arena (Clark et al., 2009). Thus, faculty members who are immigrant to this technology are struggling to teach the population that speaks an entirely new language (Prensky, 2001). This presents more reasons for faculty members to adopt and

use social media in TLR, so as to bridge their differences with their students to improve TLR.

In this regard, if higher educational institutions can understand and adopt some of their practices to the principles of social media, there is a chance for significant change in how tutors teach and how students learn (Bonzo et al., 2010). But, how the technology is used and how it is integrated into the learning process is also something worth considering (Dunn, 2017); because, despite this number of benefits it offers to learning, there are still ranges of concern about its use in higher education. Social media is a new and exciting space for exploration, discovery, and learning. But this space is also relatively new and unknown. Higher education institutions have existed for hundreds of years and are not so unknown; melding the known and the unknown can be problematic and creates a space where there is conflict (McConnell, 2006, Begg et al., 2007 and Bonzo et al., 2010). Social media are a 'disruptive technology' because of the way the traditional learning setting is disrupted. This can be quite threatening to the existing academic structures. It is a potentially disruptive technology because of its potential to change the model of higher education from the traditional classroom framework to an asynchronous 24/7 mode (Thompson, 2014). The challenge here is to discover how to manage this change. Thus far, understanding how it works in enhancing TLR may be of great importance to TLR.

2.6.1 How Social Media works in TLR

Social media allows faculty members to harness several benefits for TLR. For instance, with the aid of social media, a researcher can collaborate with his colleagues outside the country and come-up with articles. However, a lecturer can post videos of lectures delivered on Skype for students who missed out lectures to find out what they missed and the reactions of other students on the lectures or in the case where students are too large in a class. Using these technologies in teaching can also help students develop the 21st century skills (Digital Media Skills) needed for a successful recruit after school.

Among the social media tools, Facebook was found to be the world largest tool with about one billion active users (Petronzio, 2012). It is one of the most commonly used sites by people of all age groups (Facebook, 2013). It provides a platform for meeting the new generation students. Through the online discussion forum of Facebook, students can socially interact with each other and conveniently communicate about their school work in a less threatening space. The use of discussion forum utility of a Facebook provides a team-based learning environment which is believed to enhance cognitive and critical thinking skills, (Vygotsky, 1978). The use of Facebook in a formal setting enhances students' engagement and learning experience while creating a stronger rapport between each other and with their faculty members.

Another frequently visited site is twitter. Twitter and Facebook are all social networking sites. But twitter is a microblogging platform which allows users to independently generate and publish content allowing for instantaneous feedback and ongoing commentary. Twitter allows the maximum of 140 characters per tweet (post). It is increasingly being used during scientific conferences to allow for real time parallel conversation, dissemination, critique and open appraisal of studies, collaboration and professional networking (Ferguson et al, 2014). Twitter users create hashtag symbol (#) which they use to highlight keywords or topics in a tweet (Twitter, 2014). For instance, the hashtag symbol for Cardiac Society of Australia and New Zealand 61st Scientific Annual Meeting held on the Gold Cost, in Australia in August 2013 was represented by #CSANZ2013 as hashtag that allows users or followers to easily search and follow the conference. The # tag also allows attendees to contribute to debate before, during and after the conference. According to Ebner and Reinhardt (2009) twitter can be used to exchange resources including hyperlinks, images, photos, videos, social activities such as conferences, tours, practice workshop etc. It can be used for documentation and promotion of conference activities as posters, slides and notes. It can also serve as medium for delivering

rapid conference announcement (Ferguson et al, 2014). Therefore, twitter can help researchers to collaborate and communicate ideas about their research in a closely similar way with blog.

Whilst blog is a social media site, twitter is a microblogging social networking site; b**log** is derived from the name "web log". It is one of the most popular online communication journals which contain entries that are arranged in a reverse chronological order in form of text, links, images, videos audio etc. (Chai, Das, & Rao, 2011). Blog can be used as reflective diaries to develop online communities of practice and to enhance communication between students and teachers (Sandars and Schroter, 2007, Kim (2008), Osman and Koh, (2013). It also allows teachers to upload teaching materials, review students' homework, interact with students, post information related to courses, and review students' learning processes as highlighted below:

> *I think blogging is... ...a genre that may have great value in terms of developing all sorts of critical thinking skills, writing skills and information literacy among other things. We teach exposition and research and some other types of analytical writing already, I know. Blogging, however, offers students a chance to a) reflect on what they are writing and thinking as they write and think it, b) carry on writing about a topic over a sustained period of time, maybe a lifetime, c) engage readers and audience in a sustained conversation that then leads to further writing and thinking and d) synthesize disparate learning experiences and understand their collective relationship and relevance. This just seems to me to be closer to the way we learn outside of school, and I see those things sorely lacking anywhere in traditional education. (Richardson, 2004b)*

Another important social media tool that stresses collaboration is Wikis. A wiki is a Webpage that can be viewed and modified by anybody with a web browser and access to the internet (EDUCAUSE, 2005). It allows user group to collaborate online and to edit the structure and the actual content of the webpage. Therefore, it provides users with both authors and editor privileges. Wiki keeps track of all document history, in case of any modifications or deletions by the users. The most popular wiki on the public web in terms of page views is Encyclopedia project Wikipedia, but there are many sites running many kinds of wiki software. Wikis can serve many different purposes both public and private, including knowledge management, note taking, community websites and intranets. It allows faculty members and students to engage in collaborative activities. Faculty members use wikis to collaborate on project activities, ranging

from preparing journal article, assembling syllables to editing textbook. It is also an excellent medium for asking for input of a research development where community input can inform and direct subsequent investigation. In addition, wikis serve as a tool or platform for collection and reflection of huge academic documents for which it gives various sites access and control to team members, offering a fine-tuning element that enhances the teaching and learning experience.

2.7 Summary of the Review

The researcher was able to review some empirical studies which include among the following: The role of Social media in the research practices of faculty at the Dalhousie University School of Information Management, the process of adoption of new information technologies by the users of rural tourism, how students in Europe use Social media for educational purposes, the importance of task pursuit, social influence, experience in new media, and information technology use. Others include research on the adoption and use of technology by early educationalists, and the interplay of extrinsic barriers and teacher attitudes, facilitating extrinsic characteristics and personal attitudes toward technology predict use, In an online survey on understanding Internet banking adoption, UTAUT and a perceived risk application as a theoretical perspective among others. However, the gap in the findings of these studies is that none of them was able to look at social media from the three major cardinal principles of the university that is teaching, learning and research. Furthermore, the same gap was identified between the summary of the empirical studies reviewed and the researcher's work in the sense that the researcher studied teaching, learning and research vis a vis the Perceptions of Faculty members of Ahmadu Bello University, Zaria on the Adoption and Use of the Social media.

References

Ajjawi, R. & Higgs, J. (2007). Using Hermeneutic Phenomenology to Investigate How Experienced Practitioners Learn to Communicate Clinical Reasoning. *The Qualitative Report, 12* (4), 26.

Blackwell, C. K., Lauricella, A. R., Watella, E., Robb, M., & Schomburg, R. (2013). Adoptionand Use of Technology in Early Education. The Interplay of Extrinsic

Blaikie, N. (1993). Approaches to Social Enquiry. Cambridge: Polity.

Bonzo, J. & Pachoma, G. (2010). The Paradox of Social Media and Higher Education Institutions. *Proceedings of the 7th International Conference* on Networked ISBN 978-1-86220-225-2.

Burns, K. S. (2009). Celeb 2.0: How Social Media Foster Our Fascination with Popular Culture. Greenwood Publishing Group.

Clark, W., Logan, K., Luckin, R., Mee, A., & Oliver, M. (2009). Beyond Web 2.0: Mapping the Technology Landscapes of Young Learners. Journal of Computer Assisted Learning, 25(1), 56–69. doi:10.1111/j.1365-2729.2008.00305.x. Retrievedonhttp://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.697.7863&rep=rep1&type=pdf. Accessed on May, 2015.

Creswell, J. W. (2007). Qualitative Inquiry and Research Design: Choosing among Five Approaches (3rd edition). Thousand Orks, CA: Sage Publication.

Creswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, Third Edition. Library of Congress Cataloging in Publication Data by Sage Publication.

Crotty, M. (1998). The Foundations of Social Research: Meaning and Perspective in the Research Process. London: Sage Publication.

Demuth, A. (2013). Perception Theories. Faculty of Philosophy and Arts. 1st Ed. Tranava University in Trnava in Cooperation with Towarzystwo Słowaków Polsce. ISBN 978-83-7490-606-7.

Dijck, J. V. (2009). Media, Culture & Society: Users Like You? Theorizing Agency in User-Generated Content, DOI: 10.1177/0163443708098245. Accessed on 29th May, 2016.

Dulle, F. W. & Minishi-Majanja, M. K. (2011).The Suitability of the Unified Theory of Acceptance and Use of Technology (UTAUT) Model in Open Access Adoption Studies. *Information Development,* 27 (1), 32-45.

Dunn, L. A. (2017). Teaching in Higher Education: Can Social Media Enhance The Learning Experience? Retrieved from www.gla.ac.uk/media/media_276225_en. Accessed on 7th January, 2016.

Easterby-Smith, M., Thorpe, R. and Jackson, P. (2008). Management Research. 3rd Ed, SAGE Publications Ltd., London.

EDUCAUSE (2005). Learning Initiative: Seven Things You Should Know About Blogs. Available at: www.educause.edu/ir/library/pdf/ELI7006.pdf. Accessed on 25th November, 2017.

Escover-Rodriguez, T. & Carvajal-Trujillo, E. (2014). Online Purchasing Tickets for Low-cost Carriers: An Application of the Unified Theory of Acceptance and Use of Technology (UTAUT) Model. *Tourism Management*, 43, 70-88. Retrieved from www.sciencedirect.com. Accessed on 23rd March, 2016.

Ferguson, C., Sally, C. I., Newton, J. P., Peter, J. S. C., Peter, S. M., Macdonald, P. J. (2014). Social Media: A Tool to Spread Information: A Case Study Analysis of Twitter Conversation at Cardiac Society of Australia & New Zealand 61st Annual Scientific Meeting 2013, Collegian (2014) 21, 89-93.

Flowers, P. (2009). Research Philosophies: Importance and Relevance. 1.

Gruzd, A., Staves, K. & Wilk, A. (2011). Tenure and Promotion in the Age of Online Social Media. *Proceedings of the American Society for Information Science and Technology,* 48 (1), 1–9. Retrieved from http://dx.doi.org/10.1002/meet.2011.14504801154. Accessed on 12th November, 2015.

Hatch, M. J. and Cunliffe, A. L. (2006). Organization Theory 2nd edition, Oxford: Oxford University Press.

Hatfield, G. (2009). Perception & Cognition. Oxford : Oxford University Press.

Kim, H. (2008). The phenomenon of blogs and theoretical model of blog use in educational contexts.Computers & Education, 51(1), 1342–1352. Retrieved November 23rd, 2014, from http://etec.hawaii.edu/otec/classes/645/sdarticle.pdf

Kuhn, T. S. (1996).The Structure of Scientific Revolutions. (3rd edition). Chicago: University of Chicago Press. ISBN: 0-226-45808-3.

Lee, C., Yen, D., Peng, K. & Wu, H. (2010). The Influence of Change Agents' Behavioural Intention on the Usage of the Activity Based Costing Management System and Firm Performance: The Perspective of the Unified Theory of Acceptance and Use of Technology. Advances in Accounting. *Incorporating Advances in International Accounting.* 26, 314-324. Retrieved from www.sciencedirect.com. Accessed on 12th October, 2015.

Martins, C., Oliveira, T. & Popovic, A. (2014). Understanding the Internet Banking Adoption: A Unified Theory of Acceptance and Use of Technology and Perceived Risk Application. *International Journal of information Management,* 34 (1),1-13.

Moats, J. B. (2013). A Close Look at Technology Acceptance: A Phenomenological Study. (Unpublished Theses, Office of Graduate and Professional Studies of Texas A & M University).

Mohammadi, H. (2015). Social and Individual Antecedents of M-learning Adoption in Iran. *Computers in Human Behaviour*, 49, 191 – 207. Retrieved from www.sciencedirect.com. Accessed on 15th June, 2015.

O'Brien, S. (2013). The borrowers: Researching the Cognitive Aspects of Translation. Target, 25(1): 5-17.

Onyebuchi, E. (2009). *Making sense of Web 2.0 Technologies: Do European Students Use*

the Social Media Applications for Educational Goals? (Unpublished Master's Thesis, University of Twente, Easchede, Netherlands).

Osman, G. & Koh. J. H. L. (2013). Understanding Management Students' Reflective Practice Through blogging. *The Internet and Higher Education, 16, 23–31.*

Petty, N. J., Thompson, O. P. & Stew, G. (2012). Ready for a Paradigm Shift? Part 1: Introducing the Philosophy of Qualitative Research.

Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon*, 9 (5). Retrieved from http://www.marcprensky.com/writing/Prensky-Digital.pdf. Accessed on 29th May, 2017.

Raut, V. & Patil, P. (2016). Use of Social Media in Education: Positive and Negative Impact on the Students. *International Journal on Recent and Innovation Trends in Computing and Communication,* 4 (1). Retrieved from http://www.ijritcc.org/download/conferences/ICRRTET_2016/ICRRTET_Track/1455261816_12-02-2016.pdf. Accessed on 29th May, 2017.

Richardson, W. (2008). Blogs, Wikis, Podcasts, and other Powerful Web Tools for Classrooms. Thousand Oaks: CA: Corwin Press. A Sage Publication. ISBN 978-1-4129-7747-0 (pbk)

Sandars J, Schroter S (2007). W eb 2.0 Technologies for Undergraduate and Postgraduate Medical Education: An Online Survey. Postgrad. Med.J.,83:759-762[Online]. Retrieved at http://www.scribd.com/doc/45817302/Web-2-0-technologies-for-undergraduate-and-postgraduate-medical-education-an-online-survey. Accessed on 17th July, 2016

San, M. H. & Herrero, Á. (2012). Influence of the User's Psychological Factors on the Online Purchase Intention in Rural Tourism: Integrating Innovativeness to the UTAUT Framework. *Tourism Management,* 33 (2), 341 - 350.

Schrader, D. E. (2015). Constructivism and Learning in the Age of Social Media: Changing Minds and Learning Communities. DOI: 10.1002/tl.20160. Accessed on 29th May, 2017. Shirky, C. (2008).

Sincero, S. M. (2013). Perception. Retrieved from https://explorable.com/perception. Accessed on 20th June, 2017.

Sola, N. F. and Smith, M. (2009). Perceptions and Policy in Transatlantic Relations: Prospective Visions from the U.S. and Europe. London: Routledge Taylor and Francis Group. Retrieved from https://books.google.com.ng/books?isbn=0415454875. Accessed on 20th June, 2017.

Stanford Encyclopedia of Philosophy. (2016). Plato on Knowledge in the Theaetetus. Retrieved from https://plato.stanford.edu/entries/plato-theaetetus/. Accessed on 20th June, 2017.

Teo, T. (2011). Factors Influencing Teachers' Intention to Use Technology: Model Development and Test. *Computers & Education*, 57. Retrieved from www.sciencedirect.com. Accessed on 12th June, 2016.

Tobbin, P. E. (2014). Examining the Adoption and Use Mobile Data Services: A Consumer Behaviour Analyses. Unpublished Doctoral Dissertation in the Center for Communication, Media and Information Technologies, Aalborg University, Denmark.

Venkatesh, V., Davis, D., F., Davis, B., G. & Moris, G., M. (2003). User Acceptance of Information Technology: Toward A Unified View. *MIS Quarterly*, 27 (3). 425-478. Retrieved from http://www.jstor.org/stable/30036540. Accessed on 16th January, 2016.

Vygotsky, L. *(*1978*).* Interaction Between. Learning and Development. In Gauvain &. Cole (Eds) Readings on the Development of Children. New York: Scientific American Books. Retrieved at https://www.colorado.edu/physics/phys4810/phys4810_fa08/.../vygot_chap6.pdf. Accessed on 13th November, 2014.

Workman, M. (2013). New Media and the Changing Face of Information Technology Use: The Importance of Task Pursuit, Social Influence, and Experience. *Computers in Human Behaviour* 31, 111-117.

Yilmaz, K. (2008) Constructivism: Its Theoretical Underpinnings, Variations, and Implications for Classroom Instruction. Educational Horizons, 86(3), 161-172.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This Chapter addresses the methodological issues related to this study. It begins with brief descriptions of the research design, population of the study, sample and sampling techniques, instrument for data collection, procedure for data collection, analysis and presentation. The Chapter concludes with a description of strategies to ensure the trustworthiness or rigor of the study.

3.2 Research Design

The researcher used single case study research design for this study. The choice of case study was because, it is appropriate when there is a need to understand and explain social phenomena (Merriam, 1988). This research has explored and provided an in-depth understanding of the meaning faculty members ascribe to the use of social media technologies in TLR. Thus, the research provides a better understanding of the case of individual lectures' perceptions of the use of Social media technologies within the context of TLR in a single learning environment (ABU). A case study is a research design in which the researcher explores in depth a program: an event, an activity, a process, or one or more individual (Creswell, 2009). Case study research is mainly qualitative, involving non-numerical data or information, but it examines and reflects on a few perceptible features of study subjects, such as attitudes, beliefs, perceptions, opinions, experience, etc. (Collis & Hussey, 2003). Similarly, (Gerring, 2004) defined Case study as an intensive study of a single unit for the purpose of understanding a larger class of (similar) units.

3.3 Population of the Study

A population is the totality of the entire individual groups that have certain characteristics that are of interest to a researcher (Mbachuku, 2005). It is the designated part of the whole from which researcher draws the sample. Sometimes researchers make a

distinction between the target population and the accessible population. The target population refers to all members of a well-defined group to which the investigation relates, while the accessible population refers to those elements in the group that are within the reach of the researcher. The population of this study comprised all the faculty members including staff in training in the 12 faculties of ABU, Zaria with a total number of One thousand nine hundred and fifty nine (1, 959) as obtained from the Management Information System of the Institute of Computing & ICT, ABU, Zaria, 2016.

3.4 Sample and Sampling Technique

Sampling is the process of selecting a group of subjects for a study in such a way that the individuals represent the larger group from which they came. This representative portion of a population is called a sample. Mbachuku (2005) defined a sample as a representative group from the population and sampling as the procedure for selecting the sample from the population. In qualitative research, sampling is the selection of specific data sources from which data are collected (Gentles et al. 2015). And in qualitative case study, sampling applies to selecting cases and selecting data sources that best help the researcher understand the case (Stake, 1995) to address the research objectives. In this study, the researcher adopted a nonprobability sampling procedure that does not afford any basis for estimating the probability that each item in the population has an equal chance of being included in the sample (Battaglia, 2008). This study used nonprobability sampling technique, because the interest of the study was to understand the perceptions of faculty members in the adoption and use of Social media for TLR and not to generalize the result to the whole population.

In other to obtain a more credible result, a wide range of informants with different viewpoints and different disciplines was selected from each faculty. Here, individual faculty members' viewpoints have been verified against others' and, ultimately, a rich picture of their perceptions and or behaviour has been constructed based on the contributions of the range of

faculty members from the 12 faculties. Accordingly, a maximum variation sampling technique was used in selecting the participants from various disciplines. A maximum variation sample (sometimes called a maximum diversity sample or a maximum heterogeneity sample) is a special kind of purposive sample (List et al, 2004) that allows inclusion of representative groups from extreme cases in a population. It is usually applied to a small sample size.

Furthermore at the faculty level, the researcher selected participants purposefully who must have had life experiences with using social media in TLR; that can assist the researcher to understand the perceptions of faculty members with regards to the use of Social media technologies for TLR (Creswell, 2003). The choice of purposive sampling technique here is because it often features in qualitative research studies as a purposeful way to inform an understanding of the research problem and the central phenomenon in the study (Creswell, 2007). Moreover, purposive sampling is appropriate for the selection of participants with life-experience about the issue under investigation, hence the researcher used the technique. Also, in purposive sampling technique generalizability of the population is not the priority (Battaglia, 2008), which fits well with the intent of understanding the perceptions of a small group of faculty members on the use of Social media for TLR in ABU, Zaria.

The participants for this study has been selected purposefully based on the following criteria: (a) faculty members who have knowledge of Social media technologies and are using it for TLR, (b) faculty members who have knowledge of Social media technologies and have used it for TLR, Thus, the researcher used these criteria to select 12 faculty members for the interview, one from each faculty. This is supported by Latham (2014) who established that in qualitative research irrespective of the total number of the population and if the population is homogeneous, 12 samples can be used. This is because at this sample size, saturation stage is often reached. Similarly, the population of this study is also homogeneous because the researcher only used senior faculty members to maintain the homogeneity.

The idea behind selecting 12 faculty members as a representation of the whole population is also in line with the proposition of Bryan et al. (2013) who proposed that there is no standard for sample size in qualitative research but rather the qualitative researcher is expected to reach data saturation stage then later after data collection he/she will report the statistical figure for the sample size. While quantitative researchers usually have an idea of how many cases they will need in order to test their hypotheses at the beginning of a project, qualitative researchers may not know how much data to gather in advance (Adler et al., 2012) because of its exploratory nature. And while quantitative research requires sufficiently large sample sizes to produce statistically precise quantitative estimates, smaller samples are used in qualitative research because of the general aim of sampling in qualitative research is to acquire information that is useful for understanding the complexity, depth, variation, or context surrounding a phenomenon, rather than to represent populations as in quantitative research (Gentles et al. 2015). Therefore, the prevailing concept for sample size in qualitative studies is "saturation." (Malterud et al., 2015). Data saturation is described as the ability of the researcher to understand that based on each interview question asked, there were no any interesting themes, ideas or patterns coming up from the research participants (Bryn, 2013). It usually refers to reaching a point of informational redundancy where additional data collection contributes little or nothing new to the study (Lincoln & Guba, 1985). As such, based on the data collected and analyzed in this study, the researcher has reached data saturation stage with twelve (12) faculty members which formed the sample size of the study.

Accordingly, several scholars selected very few numbers of participants for their qualitative studies. For instance; Milas (2015) selected 10 participants and investigated the roles of graduate theological students' religious faith and degree program affiliation in their information behaviors, particularly their degree-related research behaviors; while 5 was selected by Martiz (2015) and investigated on cell phone appropriation for language learning

purposes in a dominican context. A case study of the information needs of nurses at a university hospital trust in the East Midlands was also conducted by Thomas (2012) through interviewing 12 participants. Similarly, Dodge (2011) selected 11 sample and conducted study on managing school behaviour. It is also on this regard, that the researcher found it feasible to select 12 faculty members for the study.

3.5 Instrument for Data Collection

The most common instruments for collecting data in social science research are questionnaires, interviews, tests, observation checklists, rating scales, cameras, tape recorders, computers, etc. This study employed interviews as the instrument for collecting data on the perceptions of faculty members on the adoption and use of Social media for TLR, because- this study useed a qualitative methodology, and interview is one of the best instruments for collecting qualitative data.

3.5.1. Interviews

The interview method of collecting data involves presentation of oral-verbal stimuli and replies in terms of oral-verbal responses (Kothari, 2004). It therefore involves asking questions and getting answers from participants in a study. In this study, the researcher used semi-structured in-depth interviews. In-depth interviewing is a qualitative research technique that involves conducting intensive individual interviews with a small number of participants to explore their perspectives on a particular idea, program, or situation (Boyce & Neale, 2006).

The interview can be structured, unstructured, or semi-structured, depending on the research design. This study adopted semi-structured, in-depth interviews; because they are the most widely used interviewing format for qualitative research (DiCicco-Bloom & Crabtree, 2006) and researchers can use them either with individuals or in groups. They take between 30 minutes to several hours to complete. The researcher usually schedules them in advance at a designated time and location. They also use both closed- and open-ended questions, with

other questions emerging from the dialogue between interviewer and interviewees. This type of interview helps to co-create meaning with interviewees by restructuring perceptions of events and participants' experiences. However, the interview data allow the researcher to identify and explore a wide range of possible factors that influence the adoption and use of Social media by the faculty members as well as determine the appropriateness of UTAUT for conducting research in this domain.

3.6 Procedure for Data Collection

During this procedure, potential participants was contacted through e-mail, phone and in person to identify their willingness and interest in participating in this study. The researcher drew a convenience sample from the eligible participants based on considerations of time, expense, and access. A formal introductory letter was sent to each potential participant. The introductory letter explained the purpose of the study and the extent of the participant's involvement. The background data of each potential participant and his experience with various Social Media technologies, including blogs and wikis were collected during the initial meeting with the participants. The background information assisted the researcher in determining the individuals' experience within their profession and with the technology.

The researcher provided informed consent form to each participant at the time of the interview. The consent forms outlined the nature and purpose of the study, the participant's right to stop or withdraw from the study at any time, and his or her right to review statements made in the interview. The researcher asked the participants to sign the informed consent forms in order to participate in the research study.

3.7 Procedure for Data Analysis and Presentation

The procedure for data analysis involves making sense out of the text and image data, preparing the data for analysis, conducting different analyses, gaining a deeper understanding

of the data, representing the data, and making an interpretation of the larger meaning of the data. Data analysis involves collecting open-ended data, based on asking general questions and developing an analysis of the information supplied by the participants (Creswell, 2009). This research adopts the thematic process of data analysis, as shown in Figure 2.

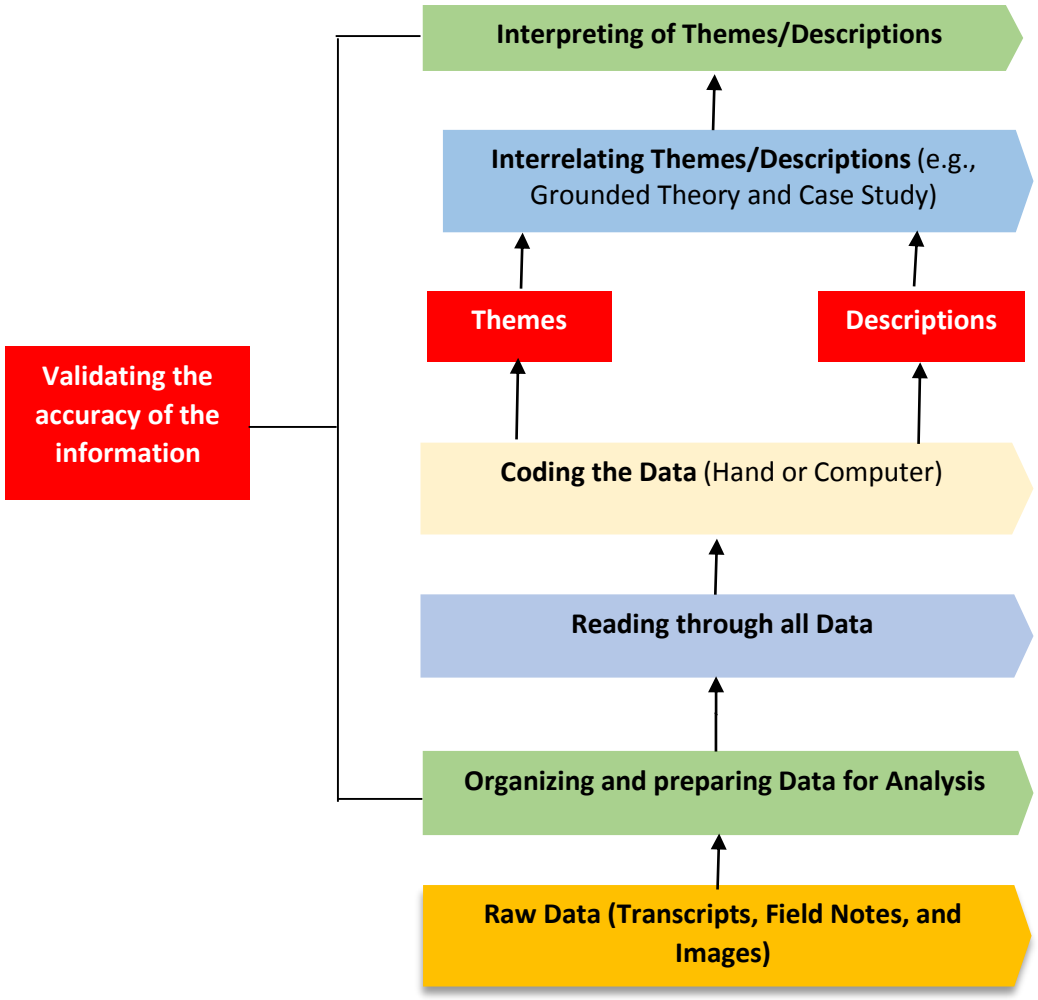


Figure 2: The Process of Data Analysis *Source: Adopted from Creswell (2009).*

The process of data analysis begins with organizing and preparing the data for analysis. This involves transcribing interviews, optically scanning material, typing up field notes, and sorting and arranging the data into different types, depending on the sources of information (Creswell, 2009). The researcher obtained the general sense of the information and reflects on its overall meaning. This was done by reading through all the data. In this step, the researcher obtained information such as participants' general ideas about the perceptions of faculty

members on the adoption and use of social media for TLR in the University, the tone of the ideas, and the impression of the overall depth, credibility, and use of the information (Creswell, 2009). The next step is to begin the detailed analysis with a coding process. Coding is the process of organizing the material into chunks or segments of text before bringing meaning to information.

3.8 Rigor in Qualitative Research

Rigor in qualitative research means the quality of the research process (Saumure & Given, 2008). In essence, a more rigorous research process will result in more trustworthy findings. Rigorous (trustworthy) research is research that applies the appropriate research tools to meet the stated objectives of the investigation. Merriam (1998) asserted that the key concept that explains the soundness of qualitative research is trustworthiness, while reliability and validity measure the soundness of quantitative research. In this study, the researcher adopted Lincoln and Guba's (1985) proposed framework of four constructs to assess the soundness of the research: (a) credibility (in preference to internal validity), (b) transferability (in preference to external validity/generalizability), (c) dependability (in preference to reliability), and (d) confirmability (in preference to objectivity) (Marshall & Rossman, 1999; Schwandt, 2001; Shenton, 2004).

In addressing credibility, the researcher attempted to demonstrate that a true picture of the phenomenon of Social media adoption and use in TLR is being presented. Confidence in the truth of the findings would be built in the demonstration. The researcher also ensured that the study test or display the true perceptions of faculty members on the adoption and use of Social media for TLR. Lincoln and Guba (1985) argued that ensuring credibility is one of the most important factors in establishing trustworthiness (Shenton, 2004). Therefore, the researcher maintained the following techniques described by Lincoln and Guba to establish the

credibility of the research: prolonged engagement, persistent observation, triangulation, peer debriefing, negative case analysis and member checking.

In ensuring prolonged engagement, the researcher tried to familiarize himself with the entire environment of ABU in order to gain sufficient understanding of the academic culture of faculty members and to create rapport or relationships of trust with them. The researcher achieved persistent observation by identifying those elements and characteristics that are most relevant to the situation of Social media used for teaching to analyze them in detail.

Triangulation was also achieved through the use of a wide range of informants with different viewpoints. Here, individual faculty members' viewpoints and experiences has been verified against others' and, ultimately, a rich picture of their perceptions and experiences or behaviour has been constructed based on the contributions of the range of faculty members from the 12 faculties.

The researcher ensures frequent debriefing with the team of supervisors. Through discussion with the supervisors, the vision of the researcher was widened (Shenton, 2004). These meetings also help the researcher to test his developing ideas and interpretations, and probing from others has helped the researcher to recognize his own biases and preferences.

The researcher achieved negative or deviant case analysis by searching and discussing elements of the data that do not support or appear to contradict patterns or explanations that are emerging from data analysis. According to Lincoln and Guba (1985), deviant case analysis is a process for refining an analysis until it can explain or account for a majority of cases. Analysis of deviant cases may revise, broaden, or confirm the patterns emerging from data analysis.

Lincoln and Guba (1985) posited that member checking is the most crucial technique for establishing credibility. This is when members of the groups from which the researcher

originally obtained the data test the data, analytic categories, interpretations, and conclusions. Checks relating to the accuracy of the data may take place on the spot in the course and at the end of the data collection (Shenton, 2004). In this research, individual faculty members were asked to read any transcripts of dialogues in which they have participated. The emphasis should be on whether the individual lecturer considers that their words match with what they actually intended. This provided the researcher with an opportunity to understand and assess what the participant intended to do through his or her actions, and it also gave participants the opportunity to correct errors and challenge what seemed wrong interpretations.

In order to achieve transferability, the researcher provided sufficient details of the context of the fieldwork for a reader to be able to decide whether the prevailing environment is similar to another situation with which he or she is familiar and whether he or she can justifiably apply the findings to the other settings. Although meeting with the dependability criterion is difficult in qualitative research, the researcher tried to enable a future investigator to repeat the study. In this study, the researcher tried to establish confirmability by demonstrating that the findings emerged from the data, not from his own predispositions. The researcher demonstrated that the work's findings are the result of the experiences and ideas of the individual faculty members, rather than his characteristics and preferences. In this technique, it is necessary to acknowledge beliefs underpinning decisions made and methods adopted within the research report, including explaining the reasons for favoring one approach when others could have been taken has been explained and has admitted any weaknesses in the techniques employed (Shenton, 2004). This is important, because detailed methodological description enables the reader to determine how far to accept the data and constructs emerging from it.

In sum, the researcher maintained the highest ethical standard and obeyed all postgraduate school guidelines for writing research thesis/dissertation accordingly. However,

each person who was approached to participate in the study has been given opportunities to refuse to participate in the project to ensure that the data-collection sessions involve only those who are genuinely willing to take part and prepared to offer data freely. Therefore, during data collection process, each participant have been provided with an informed consent form prior to participating in the study. The form explained participants' rights, including the right to withdraw at any time before, during, and after the study. In order to protect the confidentiality of the participants, a code has been assigned to all recordings, and then the researcher transcribed all the interviews. All study-related data has been kept on a separate media drive and has been encrypted to avoid unauthorized access to the files. The researcher kept the electronic and hardcopy files securely; which will be destroyed eventually, 5-10 years after the completion of the research project (Creswell, 2009). The informed consent form explicitly state that by signing the form, participants grant the researcher the permission to publish the results in a thesis or other publication, with the provision that any quotations will be anonymous.

References

Adler, P. A. & Adler, P. (2012). Keynote Address. Tales from the Field: Reflections on Four Decades of Ethnography. Retrieved from http://www.qualitativesociologyreview.org/ENG/Volume21/QSR_8_1_Adler_Adler.pdf. Accessed on 3rd June, 2017.

Battaglia, M. P. (2008). Nonprobability Sampling. *Encyclopedia of Survey Research Methods*, Retrieved from http://dx.doi.org/10.4135/9781412963947.n3378. Accessed on 12th June, 2016.

Boyce, C. and Neale, P. (2006). Conducting In-Depth Interview: A Guide for Designing and Conducting In-Depth Interviews for Evaluation Input. Pathfinder International Tools Series.

Bryan, M., Cardon, P., Podder, A., and Fontenot, R. (2013). Does Sample Size Mater in Qualitative Research? Review of Qualitative Interview in IS. *Research Journal of Computer Information System*. 54, 1. Retrieved www.tandfonline.com/doi/pdf/10.1080/08874417.2013.11645667. Accessed on 10th June, 2017.

Collis, J. and Hussey, R. (2003), Business Research: A Practical Guide for Undergraduate and Postgraduate Students, Palgrave Macmillan, Houndmills, Basingstoke, Hampshire.

Creswell, J. W. (2002). Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research. Upper Saddle River, N.J.: Merrill Prentice Hall.

Creswell, J. W. (2007). Qualitative Inquiry & Research Design: Choosing among Five Approaches (2nd ed.). Thousand Oaks: Sage Publications.

Creswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, Third Edition. Library of Congress Cataloging in Publication Data by Sage Publication.

DiCicco-Bloom, B. & CrabTree, B. F. (2006). Making Sense of Qualitative Research: The Qualitative Research Interview: Medical Education. Blackwell Publishing Ltd.

Dodge, Pamela R., "Managing school behavior: a qualitative case study" (2011). Graduate Theses and Dissertations. Paper 12038.

Garring, G. (2004). What a is Case Study and What is it Good for? *American Political Science Review*, 98, (2).

Gentles, S. J., Charles, C., Ploeg, J., & McKibbon, K. (2015). Sampling in Qualitative Research: Insights from an Overview of the Methods Literature. *The Qualitative*

Report, 20 (11), 1772-1789. Retrieved from http://nsuworks.nova.edu/tqr/vol20/iss11/5. Accessed on 12th May, 2015.

Kothari, C. R. (2004). Research Methodology: Methods and Techniques (Second revised edition). New Age International Publishers. ISBN 13: 978 – 81 – 224 – 2488 – 1.

Latham, J. (2014). Qualitative Sample Size- How Many Participants is Enough? Retrieved from http://johnlatham.me/many-participants-enough/. Accessed on 17th June, 2017.

Lincoln, Y. S. & Guba, E. G. (1985). Naturalistic Inquiry. Beverly Hills, CA: Sage. ISBN: 9780803924314. Retrieved from https://uk.sagepub.com/en-gb/afr/naturalistic-inquiry/book842. Accessed on 8th June, 2017.

Malterud, K., Siersma, V. D., and Guassora, A. D. (2015). Sample Size in Qualitative Interview Studies: Guided by Information Power. Qualitative Health Research, Sage Journals. Retrieved from http://journals.sagepub.com/doi/abs/10.1177/1049732315617444. Accessed on 3rd June, 2017.

Management Information System of the Institute of Computing & ICT, ABU, Zaria. (2016). Staff Statistics of the University Faculty Members.

Marshall, C. and Rossman, G. B. (2006). Designing Qualitative Research (4th ed.). Thousand Oaks. CA: Sage.

Martiz G. (2015). A qualitative case study on Cell Phone Appropriation for Language Learning Purposes in a Dominican Context. All Graduate Theses and Dissertations. Paper 4414.

Mbachu O. (2005). Social Science Research Methods for Policy and Strategic Studies. ISBN 978-978-198-064-8

Merriam, S. B. (1998). Qualitative Research and Case Study Applications in Education (2nd ed.). San Francisco: Jossey-Bass.

Milas T. P. (2015). Information Behavior at Highpath School of Theology: A Case Study. Published by ProQuest LLC.

Saumure, K. & Given, M. L. (2008). Rigor in Qualitative Research. The Sage Encyclopedia of Qualitative Research Methods. Retrieved from http://dx.doi.org/10.4135/9781412963909. Accessed on 17th April, 2016.

Shenton, A. K. (2004). Strategies for Ensuring Trustworthiness in Qualitative Research Projects. *Education for Information* 22, 63 – 75.

Stake, R. E. (1995). The Art of Case Study Research. Thousand Oaks, CA: Sage.

Schwandt, T. A. (2000). Three Epistemological Stances for Qualitative Inquiry in N. K Denzin and Y. S., Lincoln (Eds). Handbook of Qualitative Research (2nd ed., pp189 -213). Thousand Oaks, CA: Sage.

The Association for Educational Communications and Technology. (2001). What Is Descriptive Research? Retrieved from http://www.aect.org/edtech/ed1/41/41-01.html. Accessed on 17th June, 2017.

Thomas S. (2012). A case study of the information needs of nurses at a university hospital

trust in the East Midlands: looking towards how information provision could be improved. Unpublished.

Vohra, V. (2014). Using the Multiple Case Study Design to Decipher Contextual Leadership Behaviors in Indian Organizations. Retrieved from http://www.ejbrm.com. Accessed on 17th June, 2017.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This Chapter analyzed the findings derived from the interview data collected from the faculty members regarding their perceptions on the adoption and use of social media for TLR.

Data in the form of phrases and sentences about the perceptions of the faculty members on the diffusion, adoption and use of Social media for TLR were collected from twelve (12) faculty members from various faculties in the University. The responses received, provided the researcher with multiple views and insights regarding the perceptions of faculty members on the diffusion, adoption and use of social media for TLR.

4.2 Interview Analysis

Each of the twelve (12) interviews were transcribed, read, examined, and re-examined using an analytic inductive process whereby the "researcher works back and forth between the themes and the database until the researcher had established a comprehensive set of themes" (Creswell, 2013). Thus, while reading the transcribed interviews, the researcher underlined sentences, phrases, and words that best described the participants' perception of faculty members in ABU about the adoption and use of social media for TLR. Subsequently, an iterative method was used to employ a series of steps for coding the highlighted narratives (Krathwohl, 1998). Following these steps, the researcher read through the narratives looking for variances and similarities in the narratives. This procedure produced two hundred and fifty-four (254) open codes from the three research questions. The open codes were further categorized into sixty-eight (68) sub-categories and twenty-eight (28) categories per similarities. In essence, the use of open code, sub-categories and categories was informed by

the submission of Creswell (2014) who proposed this linear qualitative analysis method. The categories and the subcategories are presented and discussed in the following sections per research questions:

4.3 Awareness of Social Media Technologies by Faculty Members in Ahmadu Bello University, Zaria

In this section, the researcher asked faculty members to discuss their awareness of Social media. Out of the two hundred and fifty-four (254) open codes that emerged from the analysis; forty-three (43) codes represent the types of Social media faculty members are aware of. The forty-three (43) open code were collapsed into two subcategories, and the subcategories were categorized into two (2) categories. The categories are: *Everyday life social media* and *Academic Social media* (see figure 3.) These are explained:

Illustrative Chart

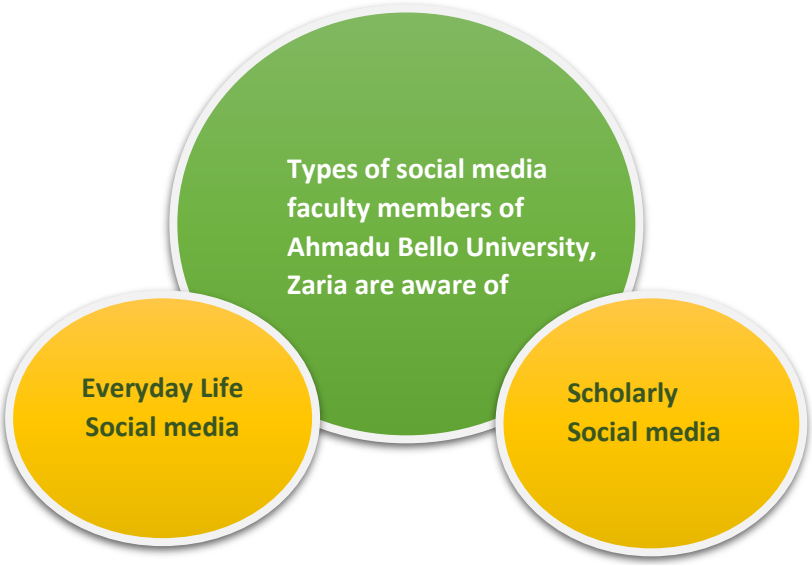


Figure 3: Typologies of Social Media Faculty Members are Aware of

(a) Category One: Everyday Life Social Media

This category explained the typology of Social media faculty members in ABU Zaria are aware of. Faculty members in ABU, Zaria are particularly aware of the Social media that enable them to carry out their day-to-day activities. Popular types of Social media that feature under this category include Facebook, twitter, WhatsApp, and e-mail platforms.

In explaining the knowledge of Facebook, Twitter and WhatsApp as a Social media a lecturer from the Faculty of Veterinary Medicine asserts that:

> *I think there are so many ranging from the Facebook, the Twitter, I think they are plenty and these are the common ones especially the Twitter and the Facebook I think is one that is most patronize virtually all the Social media to the best of my knowledge particularly the Facebook, the WhatsApp.*

(b) Category Two: Academic Social Media (Scholarly Social Media)

Another category that explained the typology of Social media ABU faculty members are aware of is: *Academic Social Media*. Academic Social media are Social media platforms which allow faculty members, students and/or researchers to collaborate with one another, to conduct research, to send and receive messages/information for academic purposes, or to interact with one another via classroom forums. Some of the participants disclosed that they find academic Social media very valuable because they enable them to share their research work and review research results conducted by other researchers around the globe. Some examples of the academic Social media that ABU FM are aware of are: *Research gate, Academia.edu, Mendeley, Moodle and Blog.* In discussing the knowledge of Research gate, Academia.edu, Mendeley, Moodle and Blog as academic Social media, a lecturer from the Faculty of Science highlighted that:

> *Firstly, I think I use a number of Social media ranging from Facebook, WhatsApp, Twitter and the Research Gate, LinkedIn and Academia.edu and so on. I use quite a number of them*

4.3.1 Discussion and Implications of Findings

This section discusses the findings of the study regarding the types of social media the faculty members are aware of. The findings revealed that the faculty members are aware of social media related to everyday life which include Facebook, WhatsApp, and Twitter. The fact that the faculty members are aware of Facebook, WhatsApp, and Twitter is not surprising because social media continue to diffuse in both developed and developing economies. The

diffusion of social media is because of the rising Internet penetration (de Zuniga et al., 2012). In essence, more than half of the world populations are connected to Internet (Hootsuite et al., 2017), this makes it possible for more and more people to gain access to information via WhatsApp, YouTube, Skype, etc. More so, the increase in access to Internet is by day resulting to the shrinking of the digital divide which is the gap between the nations having Internet connectivity and those who do not have (Kende, 2017). To bridge the digital divide, organizations at international, regional, and local levels are funding programmes aimed at bridging the gap (World Information Society Report, 2007).

As Internet access is becoming cheaper, the technologies for accessing the Internet are becoming cheaper by the day. For instance, Smartphones which cost several hundreds of dollars are now readily available at affordable prices (Humphreys et al., 2013). The affordability of Smartphones and mobile phones devices have significantly accelerated the rate of diffusion of social media. Many people in the developed and developing countries connect to social media through their mobile phones to access news and stories. As such, a high number of people including faculty members prefer to access their profiles on social media first before visiting news sites. Therefore, with the rise in the awareness of social media sites such as Facebook and Twitter, more and more people are logging in everyday to interact and share information with friends and followers thereby changing the way they socialize and interact with one another. The awareness of social media has tremendously changed the way people spend their leisure time. The era of which people meet one another or new people through traditional venues such as Cafes, Parks and so on, is gradually fading away, more people are discovering friends via social media.

Nevertheless, the awareness of social media informed faculty members about product and services, about online transaction and E-Government. They seized this opportunity to communicate with their client and shop online. Therefore, social media allows entrepreneurs

to discover its great potential in reaching out to potential clients. Social media is used as a way of attracting new clients and promoting products and services. For instance, Facebook's Express Wi-Fi let entrepreneurs to set up a hot spot to help their community access apps and services built by local developers. The era of manual transactions in businesses is fading away. Banks use the power of this media to interact with their customers and advertise their products and services. Subsequently, more people are subscribing to e-banking and e-businesses. Also, E-Government is gradually gaining ground in both developed and developing economy arising from effective cultivation strategy offered by social media. From the foregoing, the awareness and use of social media by the faculty members in their daily lives promotes student-faculty interactions, and by Endo and Harpel (as cited in Acuta, 2010) has a notable impact on students' academic performance.

Closely related to the awareness of everyday life social media is another interesting finding; awareness of social media related to academic activities. The finding revealed that the faculty members are aware of the social media related to academic activities which include ResearchGate, Academia.edu, Mendeley, and Moodle. This is also not surprising because the fact that the participants are aware and engage in using social media for their daily lives makes it easier to become aware of its academic potentials. Traditionally, faculty members do engage in physical interaction, collaboration, discussion and sharing of information about their academic activities among themselves and with their students. But today, social media open-up new ways for collaboration and discussion thereby making it easier for them to interact and share information and knowledge via these media.

The scholarly awareness and use of social media by the faculty members give them opportunity to enhance their academic activities of TLR. In terms of teaching, it allows them to interact more with their students and have a better understanding; thereby encouraging students to maximize its educational potentials. This is especially important, when considering

the growing number of students that are digitally natives in higher institutions worldwide and their engagements in using the technology as their personal learning environment (Prensky, 2001). These students are borne and brought up in the world of digital computing. They find comfort in using this technology to interact, discuss, share, socialize and learn. Similarly, Social media help faculty members to interact with their students using a more constructive approach instead of a normal traditional teaching philosophy which is mostly adopted in the developing nations and which is predominantly on power relationship between the teachers and the students. In the traditional philosophy, the teacher is assuming to be the all knower of knowledge; always having the superior ideas. This approach of teaching discourages student's participation in the knowledge creation. Students receive knowledge only to enable them pass exams and for the awards of certificates. Students find it difficult to reflect and effectively use the knowledge acquired to solve problem. This approach is slowly giving way to a new way of teaching and learning (Champoux, 2008) the student-centered learning. The idea of students-centered learning emerged out of the works of John Dewey, Jean Piaget, Lev Vygotsky, and Carl Rogers (Rogers, 1983); which focused on how student construct their own learning; the social constructivist learning. Thus, the main points of what social media offers and the elements of social constructivism are very compatible (Bonzo et. al, 2010). Therefore, as the web continues to progress and new ways of thinking, interacting, and learning evolves; it will become even more important that faculty members become aware of the different social media platforms and what they offer in teaching. The scholarly social media awareness and use enhances research by giving faculty members the opportunity to build professional network and to promote collaboration among global scholars. This is also increasing the visibility of the researcher and promotes the image of the institutions which later determine its ranking. The importance of scholarly awareness and use of social media by the faculty members is enormous.

Findings also revealed that, the faculty members are aware of a very few scholarly social media site like ResearchGate, Academia.edu, Mendeley and Moodle. And many of them are not even aware of the emerging Social media platforms such as Zotero, Altmetric, AnswerGarden, Google Scholars, Delicious, Diigo, Survey-monkey, podcast, Wikis, Dropbox, Quora, Kudos, YouTube, Hootsuite and Skype etc. because, none of these emerging technologies appeared in the narration of this research. However, many more social media applications are continuously evolving; which shows that the faculty members are aware of very few and most popular social media sites for TLR. Ideally, faculty members are expected to be the drivers of technology adoption in the learning environment. They are expected to be more dynamic in exploring, adopting and adapting to new technologies to enhance TLR. Consequently, the faculty members' little awareness of social media applications for TLR could reduce the effectiveness of their work of TLR. Therefore, the dynamic awareness of social media by the faculty members is important.

More so, the dynamic awareness of social media by the faculty members is needed to understand the trend in social media revolution. The revolution in social media is transforming many existing applications to begin to assume features of social media. Applications like Moodle, Mendeley, Google and email engines etc. are now having futures of social media. Social media has offered necessary and better improvement to these applications and has made them more dynamic in their operations. For instance, Gmail circle in Gmail, Google Plus in Google search engine, citations software or reference managers like Mendeley and Zotero are also taking features of social media and are now referred to as social media applications. All the same, it is thus important to note that there are many existing applications that are continually transforming to assume features of social media. It is all about transformation, more and more applications are still emerging with features of social media. It is a social media revolution which has come to stay. This suggests reasons for regarding applications such as

email, Mendeley and Moodle by the participants as social media platforms despite their life experiences with the use of social media.

From the forgoing, knowledge, awareness and use of everyday life social media and scholarly social media by the faculty members are very critical to TLR. There is no doubt; faculty members believed that scholarly social media awareness and use enhance TLR. But, they are still not very clear on how everyday life social media awareness and use could enhance their work of TLR. They use everyday life social media for social interaction alone without realizing its academic potentials. Faculty members are known to follow everyday life social media, such as Facebook and Twitter, with great reluctance (Mendez et al., 2009). They perceived it to be for social interaction alone. But, even the social connection they set up with their colleagues and with their students through the Facebook and Twitter enhances TLR. On this, everyday life social media allow discussion, knowledge creation and knowledge sharing; which are all important to academic activities. In this sense, ignoring the scholarly applications of either everyday life social media or scholarly social media may lead to a misrepresentation of their academic achievements and may come with unforeseen consequences, not only to them and their institutions, but also to their colleagues and students (Ward, 2015). The complete lack of social media presence can limit the institutions/ researcher's visibility, and undesirable search results may be discovered before desirable ones (Bik & Goldstein, 2013).

In sum, the two findings discussed above properly explained the general awareness of the participants about everyday life social media technology and their awareness for academic usage. The explanation revealed how everyday life awareness of social media led to scholarly awareness and to its use by the faculty members among themselves and with their students which has the tendency to encourage students to maximize its educational potentials. It further highlighted how social media revolution continued to transform relevant applications like Mendeley, Zotero, E-mail and Moodle to assume features of social media thereby making them

more dynamic and useful to TLR. It also provides explanations of the implications of the faculty members' awareness of everyday life and scholarly social media.

4.4 Perceptions and Challenges of Faculty Members on the Adoption and Use of Social Media for TLR

In order to provide useful explanations on the perceptions of faculty members on the adoption and use of social media for TLR the following questions were asked:

i. What are the perceptions of faculty members about Social media for teaching?

ii. What are the perceptions of faculty members about Social media for learning?

iii. What are the perceptions of faculty members about Social media for research?

4.4.1 Perceptions and Challenges of Faculty Members on the Adoption and Use of Social Media for Teaching

The faculty members were asked to discuss their perception on the use of Social media for teaching. Out of the two hundred and fifty-four (254) open codes, thirty (30) codes explored the perceptions of Ahmadu Bello University faculty members on the use of Social media for teaching. Five (5) categories emerged from these codes: (a) *Social media Facilitate Teaching process, (b) Lack of Enabling Environment, (c) Inappropriate tool for large class, (d) ABU should consider a dedicated platform and (e) ABU has adopted Social media in its Distant Learning Programme.* This is explained in Figure 4.



(a) Category One: Social Media Facilitate Teaching Process

This category discusses the perception of faculty members in ABU Zaria about the use of Social media for teaching. The participants proved the use of social media to be one of the effective teaching processes because; it aids faculty members to teach thereby imparting useful knowledge to their students by facilitating the traditional teaching method.

In a similar vein, this category discusses the application of Social media in addressing the problem of large classes. Here, some ABU faculty members expressed their belief that, Social media can be used to reach out to large number of students synchronously or asynchronously in the learning environment. They highlighted that large number of students can be divided into two or more classes; a lecturer can deliver his/her lectures to these classes at the same time through the use of Social media technology like skype which offers video conferencing facility to enable students attend lectures at the same time.

This category comprises of Six (6) sub-categories: i) *Innovation for Communication, ii) A Platform for Academic Interactions, iii) Tools for Learning, Iv) Provides Easy and Free Access to Materials, v) Appropriate tool for large class, Vi) facilitate Lecturer-Students Interaction.*

i) **Innovation for Communication:** Faculty members in ABU Zaria are particularly aware that Social media is an innovation for communication. This refers to the applications of better solutions that meet new requirement for communicating knowledge, ideas and or information to students by the faculty members. In explaining the knowledge of Social media as an innovation for communication, a lecturer from the Faculty of Environmental Design pointed out that:

Well the Social media is an innovation. Let me start from there. And a good innovation for communication so, I believe that it can be used for teaching to a certain extent, such

as the exchange of ehh! Materials or reference items also. For a little bit of information to be passed on to the student

ii) **A Platform for Academic Interactions:** This sub-category describes the perception of faculty members about the use of Social media for teaching in ABU Zaria. A Platform for Academic Interactions refers to an avenue through which faculty members and students communicate synchronously thereby sharing and generating knowledge and ideas within an academic environment. In discussing social media as a platform for academic interaction, a participant from the Faculty of Education sheds more light on this:

The way I understand Social media is Social media is a platform that encourages interaction between people and this interaction can be synchronous or asynchronous, meaning it might be delayed but is a two-way thing, when it is synchronous, it is real, if you say hello, somebody is saying hi… for twitter for instance, you can start a topic and then start a comment on a topic and then asked your students to follow and make their own contribution

iii) **Tools for Learning:** Another sub-category that discussed the perception of faculty members about the use of Social media for teaching in ABU Zaria is '*Tools for Learning'.* This entails a situation where faculty members converse on Social media to share knowledge and information among themselves. In this case, faculty members of ABU Zaria affirmed that academic materials can be downloaded and shared among network of faculty members within and outside the university. In explaining the knowledge of tools for learning, a lecturer from the Faculty of Pharmaceutical Sciences illustrated:

They are used to facilitate learning because in so many cases you don't have to look for the hard copies of journals and most of the journals you can get in these sites you can accessed them free, you don't need to buy

iv) **Provides Easy and Free Access to Materials:** This sub-category also explained the perception of faculty members about the use of Social media for teaching in ABU Zaria. The participants were positive about the fact that Social

media serves as a platform for easy and free access to information. Social media offers an avenue through which lecture notes and other academic materials are made available on the Social media to students for easy access through downloads and sharing. In explaining the perception of faculty members for using Social media in academic activities, a lecturer from the Faculty of Arts disclosed that:

One special thing with these tools is that, you can use them to access the views of other researchers and articles uploaded on the site and if you have any criticism you can also express it

v) **Appropriate tool for large class:** One sub-category that explained the views and opinions of ABU faculty members about the use of Social media platforms to address the problem of large class is its suitability for large class. The faculty members highlighted that Social media technologies facilitate the exchange of materials between faculty members and students. With the aid of Social media, faculty members can reach out to several numbers of students; what has been transpired in the class can directly reach students irrespective of physical location. Similarly, lecture materials can be uploaded to reach large number of students via You-tube, Twitter, WhatsApp etc. The appropriateness of using Social media for large class in ABU Zaria, is evident by a statement made by one of the participants from the Faculty of Education as stated below:

If you are using Social media, all of them get to see whatever you have to do at once, ... you can deliver your lectures on your office, post these videos on u-tube, WhatsApp and all these Social media, all the students get to download them and then get this content as they are and every group get the same thing, everybody gets the same thing. All you need do is to get to the class once or twice and tell them what you want them to do

vi) **Social Media Facilitate Lecturer-Students Interaction:** Another subcategory that explained the views of faculty members about the use of Social media platforms to address the problem of large class in ABU Zaria is that Social media

facilitates lecturer-students' interactions. The interaction could be one lecturer to one student or one lecturer to many students; it could be among faculty members and or among students. This gives room for online discussion forum where knowledge, ideas and information are being shared among members of the group. With the aid of Social media platforms such as WhatsApp, Twitter, Skype etc., a lecturer can initiate an argument demanding students to actively participate by making comments or answering the query as the case may be, thereby generating knowledge. This has been described by a participant from the Faculty of Medicine:

I have seen this being done in the US so you can communicate with your teacher, you can submit your assignment, you can get response to your assignment even the teacher can have sessions with the different groups in a particular class at different time you understand, so it is very interesting because the teacher can plan his classes at his own convenience and then the students can attend their own classes at their own convenience and there would be like one to one interaction with the teacher

(b) Category Two: Lack of Enabling Environment

The category discusses negative opinion of the participants in that *Lack of Enabling Environment* has been identified as one of the challenges that are facing the adoption of Social media technology in addressing the problem of large class in educational environment and in Ahmadu Bello University in particular. They expressed their displeasure about the university's unfavorable conditions which are attributed to the lack of efficient infrastructural facilities required for the successful implementation, adoption and use of Social media platforms for academic purposes in ABU Zaria. This category comprises of three (3) related sub-categories which include: *ABU lacks steady power supply, Lack of Familiarity and Outdated Facilities.*

i) **ABU lacks Steady Power Supply:** This sub-category highlighted the perception of ABU faculty members about the use of Social media for teaching as 'steady power supply is very essential' when it comes to the diffusion, adoption and use of Social media platforms in teaching processes. In order to explain the essentiality of

power supply in adopting and using social media for teaching, one lecturer from the Faculty of Social Science disclosed that:

It is a very important space for interaction between faculty members and students. For teaching to take place using social media, you need uninterrupted electricity supply, you need efficient internet connection and to have every student equipped with computers and Social media phones. Looking at our context here at Ahmadu Bello University, these requirements are not there and so it is difficult for us to apply them, the social media in our teaching

ii) **Lack of Familiarity:** In this sub-category, the faculty members affirmed that most of their colleagues are not conversant with the social media applications and their use in TLR. They stressed the fact that rapid advances in the technology and the faculty members' inability to move in phase with the new innovations attributed to this challenges. They also believed that lack of necessary facilities for Social media use contributed to the challenges. It is evident from many participants that Most ABU faculty members continue to develop resistance towards the positive usage of this media as quoted by a lecturer in the faculty of Engineering as:

The challenges of most social media are how to use, familiarity, once you become familiar with it, you overcome the initial resistance to change, it becomes more easier to use

iii) **Outdated Facilities:** This sub-category explained the belief of the participants in that, the inability of the University Management to sufficiently provide and manage the state of the art equipment for the successful take up of this media poses serious challenges to its proper usage. They believed that outdated facilities hindered proper diffusion of this technology among faculty members in Ahmadu Bello University. In explaining the issue of outdated facilities in ABU, Zaria, a lecturer from faculty of Arts disclosed:

We don't even have the facilities; most of the facilities that are here in Ahmadu Bello University are out dated, and are substandard facilities really. Where you have good

facilities, you don't even have to tell students to come to the classroom they can be on their bed in the hostel and they can access lectures

(c) Category Three: Inappropriate Tool for Large Class

This category highlighted the views of some faculty members about the use of Social media in addressing the problem of large class. Some faculty members pointed out that Social media is inappropriate tool for teaching large class of students. They firmly disagree with the fact that Social media technology could be used as a remedy in addressing the problem of large class in Ahmadu Bello University. They believed that Social media are mainly dedicated for sending messages, sensitization and other informal chats and cannot be utilized for teaching, learning and research in academic institutions. Others, believed that it can only be use on one-to-one basis; meaning one lecturer to a student. According to them, it may only be utilized to postgraduate class where there are fewer number of students compared to the undergraduate class; even at that, they also stress the use of this media to be more suitable for research than teaching. This fact was highlighted by one of the participants from the Faculty of Social Science that:

I do not see how Social media can be used to reduce the problem of large classes at academic institutions but I do see the Social media as the platforms for mobilization, for sensitization and for information dissemination on a mass, large scale.

(d) Category Four: ABU Should Consider a Dedicated Platform

In this category, faculty members emphasize the need for Ahmadu Bello University to have a dedicated Social media platform which will be used by faculty members for improved academic performance. One of the faculty members highlighted that the platform should be a controlled-type which will mitigate perceived risk and disadvantages, and should encourage interactive chats like other Social media applications. This point was highlighted due to the perceived benefit of Social media technology. One of the faculty members from faculty of Law highlighted this by the response below:

The University could consider or institution could consider having dedicated platforms which are interactive in nature that would chat in Social media.... I think it is better to have a regulate platform where the interaction would be there and the benefit would be realized but some of the ills (social ills) may be mitigated.

(e) Category Five: ABU has Adopted Social Media through Distant Learning Programme

This category revealed the view of faculty members, that ABU has already adopted Social media platforms through its Distant Learning Programme. In this programme, online students receive lectures through its learning management software (LMS). Meanwhile, Social media is incorporated into the distance learning system (LMS) in order to make it more feasible for communication between faculty members and students. One of the participants from faculty of Social Sciences testified this:

But here in Ahmadu Bello University, we are already moving in that direction, we have a new center called the Distant Learning Center which is a place where online programmes are managed and administered, so we now have students who do their courses online and in addition to using Distant Learning Platforms. They also use Social media platforms to communicate to their students.

4.4.2 Perceptions and Challenges of Faculty Members on the Adoption and Use of Social media for Learning

The faculty members were asked to discuss their perceptions on the use of Social media for learning. Out of the two hundred and fifty-four (254) open codes, twenty-eight (28) codes highlighted the understanding of Ahmadu Bello University faculty members on the use of Social media for learning. Three (3) categories emerged from these codes, these include; *(a) Enhances Learning, (b) Social media Paradox, and (c) Inadequate Facilities.* See Figure 5.

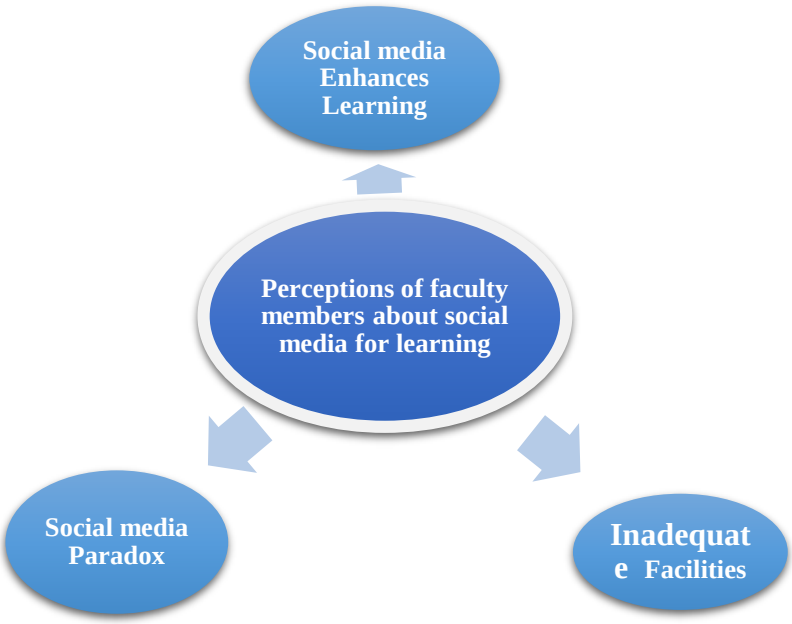


Figure 5: Perceptions of Faculty Members on the Adoption & Use of Social Media for Learning

(a) Category One: Social media Enhances Learning

This category discussed the perceptions of faculty members on the use of Social media for learning in ABU Zaria. Enhances Learning implies effective use of Social media to increase learning efficiency amongst faculty members and students in Ahmadu Bello University Zaria. Meanwhile, the category was divided into two (2) sub-categories which in detailed elaborate the learning enhancement of Social media applications. These include;

i) *Information Sharing Platform and ii) social media facilitate learning'*, these are further described below:

i) Information Sharing Platform:

In this sub-category, faculty members of Ahmadu Bello University, Zaria use social to share information among themselves. They use Social media to exchange knowledge, ideas and facts using the various Social media platforms. The faculty members believed that lecture materials can be shared online, research outcome, and faculty members can easily communicate to their students through these platforms such as Facebook, WhatsApp, Twitter

etc. In discussing the understanding of faculty members on the adoption and use of social media as Information Sharing Platform, a lecturer from the Faculty of Education highlighted that:

> *I found youtube very-very helpful. Whatever the lecturer give as an assignment, I typed it on u-tube and because they are videos I would take my time listen to them, rewind them if I like over and over and over and on Facebook a group to for that particular class that whatever comes up that whoever get any material, we've very good colleagues that we are doing the course at the same time and they were better in searching for information. What they do is when they get an article they post it or share it on Facebook among our group*

ii) Social media Facilitate Learning: This sub-category also explained the understanding of faculty members about the use of Social media for learning in Ahmadu Bello University Zaria. The faculty members affirmed that Social media makes learning much easier; they can easily search, download and share relevant materials that immensely assist their learning ability. In explaining Social media use in facilitating learning process, some of the participants from faculty of Social Science**,** noted that *"social media at first can be used to facilitate learning"*

(b) Category Two: Social Media Paradox

In discussing the understanding of faculty members on the use of Social media for learning, Faculty members of ABU Zaria affirmed that unlimited freedom of Social media leads to conflict with the existing conventional system. Faculty members explained that through the use of Social media they often present their ideas freely without any restrictions. However, they believed that this unlimited freedom poses a lot of threat to the system where there is control (i.e. a system where there is power relationship between faculty members and students). Similarly, they also highlighted that unlimited freedom disallows them to have total control over the content posted on Social media platforms. Thus, users often freely download and steal ideas (plagiarism) from other researchers who upload their work for comments/critics with the intent of enriching their research ideas. Others download fully completed articles and

simply assumed the ownership. One of the participants from faculty of Arts disclosed that:

> *I think the question that you should have asked is the nature of learning itself, the type of learning we are doing is an institutionalized type of learning which has some ethics, some discipline, some order, and a kind of control type of learning. But the internet really offers a lot of freedom that you can't restrict people to what they want to do with the internet but here is a control type of learning you know there is curriculum, there is course contain and some selected materials books that we prescribe let me put it that way. We prescribe actually with the teacher-learner relationship is kind of power relationship, in the relationship while the teacher is dominant the learner is subordinate is supposed to be receiver of knowledge and the teacher is the provider of knowledge that is a traditional arrangement of learning but increasingly learning is becoming democratized things that you don't expect people to access in the internet today they are available.*

(c) Category Three: Inadequate Facilities

This category explained faculty members understanding in adopting and using Social media for learning. Some of the participants revealed that facilities that are required for learning via Social media are inadequate in Ahmadu Bello University Zaria. In explaining the necessity of Social media facilities, one of the participants from the Faculty of Social Science captured that:

> *The requirements have to be there for this to happen, for the process to flow, you need to have the hardware components of it in place, the tools and the infrastructure for the learning to take place. So, in order context where the infrastructure is there, are indeed social media platforms have improved learning in such environment.*

4.4.3 Perceptions and Challenges of Faculty Members on the Adoption and Use of Social Media for Research

The faculty members were asked to discuss their perceptions on the use of Social media platforms in the conduct of research work in the university. Out of the two hundred and fifty-four (254) open codes, forty (40) codes represent faculty members' perceptions about Social media use in the conduct of research. Three categories emerged from these codes; *(a) A Viable Tool for Research, (b) Social media Facilitate University Ranking, and (c) Social Media should be integrated'.* See figure 6. Illustrative Chart

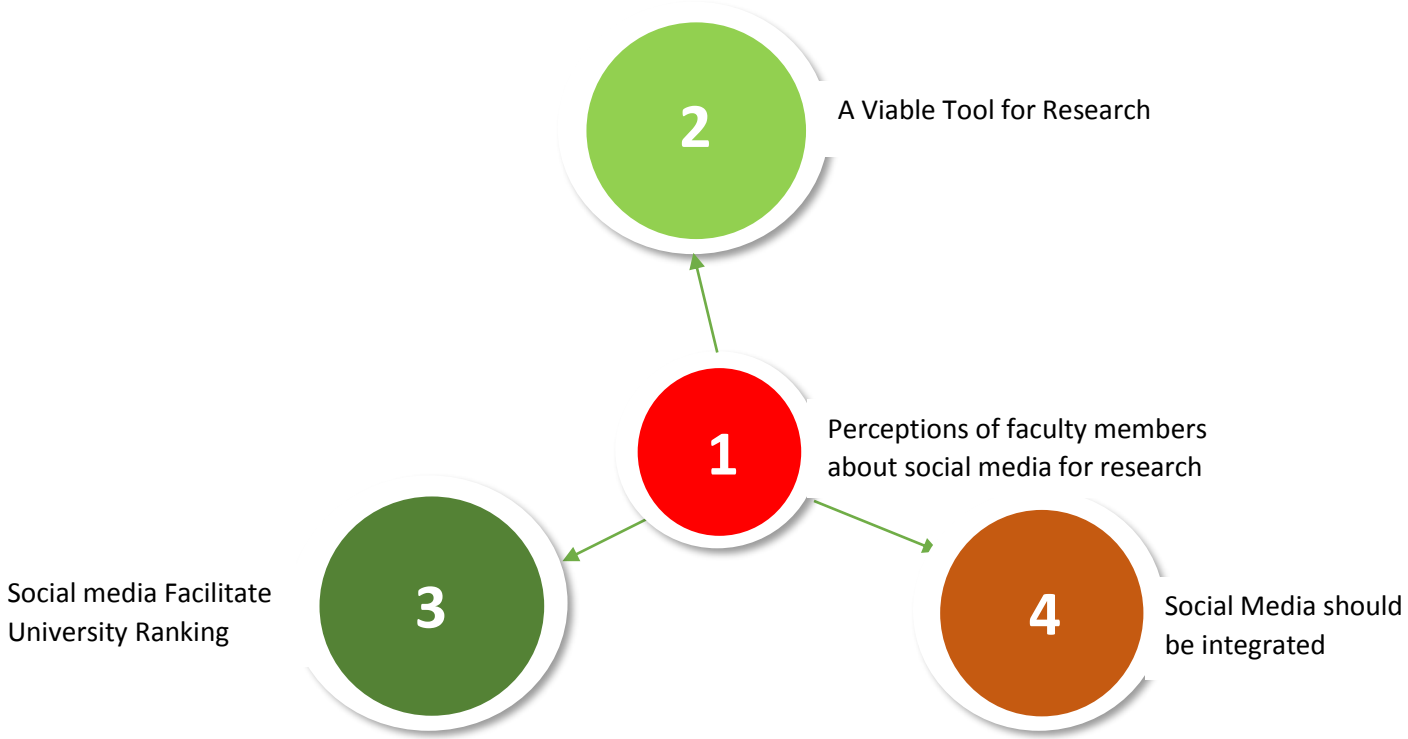


Figure 6: Perceptions of Faculty Members on the Adoption & Use of Social Media for Research

(a) Category One: A Viable Tool for Research

This category explained the relevance of Social media in the conduct of research work amongst Ahmadu Bello University faculty members. The category has eight (8) related sub-categories; i*) Provides Easy and Free Access to Information, ii) Data Gathering Platform, iii) Information Storage, and iv) Platform for Advertisements, v) A tool for Collaboration, vi) Platform for Comment/Criticisms, vii) Networking/Connection, and viii) Research-Oriented Platforms'.*

i) Provides Easy and Free Access to Information: In order to uncover the understanding of faculty members on the use of Social media for research, some faculty members of Ahmadu Bello University Zaria were affirmative about the ease of accessing journals and other research materials free of charge, relating with other researchers via Social media and having access to information regarding their own area of research interest. This sub-category discussed the capability of Social media in providing easy and round-the-clock access to information materials that are

essential in the conduct of research work among faculty members in the University. Examples of these Social media platforms include; research gate, You-tube, Facebook etc. A lecturer from the Faculty of Pharmaceutical Science highlighted that:

You can use them to assess the views of other researchers and articles uploaded on the site… most of the journal you can get in these sites you can accessed them free, you don't need to buy.

ii) Data Gathering Platform: In this sub-category, faculty members expressed their understanding about the use of Social media for research, as it serves as an interface for administering research instruments and easily obtaining data for analysis. Here the researcher (lecturer) administers his/her research questionnaire, interview guide to an online community requesting for response, or conduct the interview via Social media platforms such as skype, twitter, Facebook etc. In explaining the knowledge of data gathering of Social media, a lecturer from the Faculty of Environmental Design disclosed that:

You design a survey instrument like say most social research is done through survey so you design this instrument and you administer it on the participant. The interface of the administration is where Social media comes. Most of the time you see questionnaire are received through on line (Social media) through emails, I don't know if you call that a Social media, but you receive on Facebook, you receive on WhatsApp and then once you target your participant, you just forward this questionnaire and you get your feedback from them. So easy, so you can collect your data through.

iii) Information Storage: In this sub-category, some of the faculty members highlighted that they use Social media platforms to store research materials and outcome of the research work online via the storage medium of Social media. This allows them to easily access and retrieve information stored whenever it is needed by users. One of the participants from the Faculty of Law categorically stated that he never uses any hard drive in storing his research materials; rather he uses Drop Box throughout his Ph.D. thesis as quoted:

I have used Dropbox a lot I can tell you that throughout the period of my Ph.D. I have never for ones save my work in hard drive, I always directly save it in Dropbox and I realized that there a lot of Social media attachment to it where you can share, where you can discuss to other platforms, especially if you use android phones, it is very convenient to have access to some of these things...

iv) **Platform for Advertisements:** In a like manner, faculty members of ABU Zaria also explained their understanding that Social media are used to advertise and promote research works by researchers and scholars of various disciplines around the globe. For example, LinkedIn and Twitter offers a very good medium for advertisement of research outcome. They highlighted that a researcher can log in and get updates of new research studies in line with his/her area of interest. In an attempt to explain Social media as platform for advertisement, a lecturer from the Faculty of Arts revealed that:

I use some well, for LinkedIn is from the onset academically oriented, yes if you are not into academics or into learning seriously you will find it boring really because you will find scholars there advertising their research, there publication and so many things, and you can exchange with so many people so many scholars in different part of the world.

v) **A tool for Collaboration:** This sub-category also discussed faculty members understanding that Social media are tools for collaboration. Faculty members in Ahmadu Bello University use Social media to create online community for the sole aim of sharing knowledge and ideas in order to improve their research or produce joint research work. This statement is evident from this participant from the Faculty of Administration:

there are some new techniques in which people would upload them and ask colleagues to try it in their research and see what are the results so some of these is you upload and ask your student to try it and see what are the results and we try to compare results and see how favorable they are and how we can amend some of the difficulties that we encountered, yes, I do apply it for research.

vi) **Platform for Comment/Criticisms:** The faculty members in ABU Zaria also disclosed that Social Media provides a platform for researchers and scholars to

converse and present constructive criticism thereby generating new knowledge for the research development. In explaining how users can use this platform to make comments and critics in research, a participant from the Faculty of Pharmaceutical Science said:

The advantage of uploading your materials on the LinkedIn is the comments you get from people. In a number of instances people comment or critic what is uploaded by colleagues and others

vii) Networking/Connection: This sub-category described the understanding of faculty members on the use of Social media as: It allow them to connect to scholars and professionals with similar research focus locally, regionally, and globally. Connecting to scholars enable faculty members in ABU to share knowledge with regards to three core academic routines: teaching, learning, and research. With regards to engaging with scholars for improved research, one participants from the Faculty of Medicine observed:

In the area of research, these media like the LinkedIn, you tend to be connected to people who have common research interest with you and then there is also another Social media research gate I don't know whether you know about that, so when you have connection with those people and then you google some of their materials that could be of help to you in your research work and you do not have access to it most times you can be given access if you are on those Social media.

viii) Research-Oriented Platforms: This sub-category revealed the understandings of faculty members in ABU about the use of Social media for research. Findings revealed that faculty members in ABU considered Social media as a tool that facilitates the collection of information for research. Consequently, ABU faculty members identified LinkedIn, Research Gate and Academia.edu as social media that have academic orientation. Additionally, ABU faculty also believed that Social media is much more integral for research than for teaching in Ahmadu Bello University. It enables researchers (faculty members) to be able to upload,

download, make comments or critique, and share research outcome among themselves irrespective of geographical coverage. In explaining research-oriented platforms of Social media, a lecturer from the Faculty of Science revealed:

You can follow researchers in a particular area, you have an update of their publications and their research interest and so on. Even if there are research related jobs, you get alert on that platform and apart from that also academia.edu just as the name implies is purely for academics, you would meet a lot of people who uploaded their publications and then you see the research trend and of course for LinkedIn it also facilitates some social and some professional links between individuals of like mines or interest.

(b) Category Two: Low Use of Social Media for Research Ranked ABU low

This subcategory expresses the understanding of faculty members of Ahmadu Bello University on the value and relevance of social media with regards to research. The category consist of the following subcategories: i) *Social Media Facilitate University Ranking, ii) Low Use of Social Media by the Faculty Members in ABU, Zaria, iii) Low Use of Social Media for Research, ABU Ranked Low ,iv) Lack of Awareness as the Major Reason for Low Use, v) Social Media is Time Consuming, vi) Lack of Commitment.*

i) **Social Media Facilitate University Ranking:** Here, the faculty members said that the use of Social media platforms for research facilitates university ranking within the country. They highlighted that the adoption and use of Social media in TLR is one of the important criteria in which regulatory bodies like Nigerian University Commission (NUC) based their ratings. Here, the faculty members pointed out that lack of complete adoption of Social media platforms in TLR is one of the factors that makes NUC to rate Ahmadu Bello University low among other Universities within the country. The faculty members also believed that most western universities adopt the use of Social media in TLR which results to their excellent performance. In explaining Social media to facilitate university ranking, one of the participants from the Faculty of Veterinary Medicine noted that *"Most of the*

institutions that have been graded the best in the world is because of their participation in Social media"

ii) **Low Use of Social Media by the Faculty Members in ABU, Zaria:** This subcategory highlighted that Social media platforms are being under-utilized by faculty members in Ahmadu Bello University. Many faculty members pointed out that, only few of them used or take advantage of the huge opportunity offered by these technologies in their academic activities. In explaining the knowledge of low use of Social media by ABU faculty members, a lecturer from the Faculty of Pharmaceutical Science asserts that *"Actually based on my own judgment, a lot of our colleagues are not using these platforms to facilitate their work."*

iii) **ABU Ranked Low:** This subcategory discussed how the adoption and utilization of Social media technologies for academic purposes has become an important criterion for measuring a university performance. Some of the faculty members disclosed that low use of Social media in the conduct of academic activities in Ahmadu Bello University is among the major reasons that ranked ABU low among other universities in Nigeria. One of the Faculty members from the Faculty of Education disclosed:

You see in my inquisitive…ehh… job I have learnt that Ahmadu Bello University is ranked in the world among the universities 1884th university in the world and I attribute this problem to lack of use of this media.

iv) **Lack of Awareness, Commitment and Time:** These subcategories also expressed the views of ABU faculty members about the use of Social media for academic purposes. The categories disclosed that lack of awareness, commitment and Time has been identified as the major challenges for the low use of Social media for academic purposes in Ahmadu Bello University. Most of the faculty members revealed that they are not aware of the effective technique of utilizing this

technology and many are just paying *'lip service'* in expressing their positive views without actualizing its use. Moreover, social media in itself, is time consuming. Users spent several hours searching for information without actually getting the intended materials. This is evident from the following response by a lecturer from the Faculty of Arts:

> *Actually, based on my own judgment, a lot of our colleagues are not using these platforms to facilitate their work. And the simple truth is that maybe they are not aware or they are not ready to learn how to use this gadget*

(c) Category Three: Social Media Should be integrated

This subcategory expresses the opinion of some faculty members in regards to their understanding of Social media for research, that Social media should be incorporated in TLR processes in Ahmadu Bello University, Zaria. This is due to its perceived usefulness in facilitating academic work, aiding easy communication and sharing of information amongst researchers and scholars around the globe. This category has two subcategories: i) *Social Media should be integrated, and ii) Staff Training is required*

Social Media should be integrated: In stressing their opinion in integrating social media in Ahmadu Bello University Zaria, one of the participants from the Faculty Veterinary Medicine highlighted that:

> *Social media should be integrated; it should even be made compulsory in all academic activities. We even have to compete with other parts, with other institutions around the world, most of the institutions that have been graded the best in the world is because of their participation in Social media, yes everything about the school you just click and know about it. I think it should be made compulsory if really, we want to move forward in education.*

ii) Staff Training is Required: Here, ABU faculty members expressed their views in that staff training is required for effective utilization of Social media for academic purposes. The subcategory discussed that in order to achieve the desired objectives of social media use for academic purposes; an organized training programme should be organised for faculty members

in the University. Some faculty members stressed the need for the University management to intervene by providing training such as workshops, conferences and symposia. One of the participants from the Faculty of Pharmaceutical Sciences asserts that:

The school authority should come in by providing training and a reliable internet services in the University.

4.4.4 Discussion and Implications of Findings

This section discusses the findings regarding the perceptions and challenges of faculty members on the adoption and use of social media for TLR in Ahmadu Bello University, Zaria: Findings revealed that most faculty members believed that the use of social media facilitates TLR activities. They believed that they can use this technology to engage students to produce more meaningful and deep learning experiences by using films, television shows, popular music, news stories, literature, documentaries, and videos from sources such as YouTube (Meteer, 2014). Faculty members believed that the use of social media enhances traditional learning, through promoting active learning strategies. An active learning helps builds bridges between students' knowledge and the learning objectives of the course (Bonzo et. al, 2010). This aids student retention of knowledge, motivates interest in the subject matter, and illustrates the relevance of many concepts. Similarly, faculty members believed that the use of social media in research promotes the visibility of the researcher as well as the image of his/her institutions in the educational arena. From this analogy, several literatures found social media to be very useful tools in TLR. Therefore, the perception from this group of participants is in conformity with the reality of social media in TLR as revealed by the literature.

Whilst most of the faculty members had positive believes on the use of social media to ease TLR, finding also revealed that some faculty members had slightly different perceptions on the use of social media in teaching. They do not believe social media can be used to reduce the problem of large classes at academic institutions but can be used as a platform for mobilization, for sensitization and for information dissemination on a large scale. On closer

examination of this perception, one can easily notice a misconception. Here, the participants misunderstood the concept of social media in relation to teaching; because teaching is as good as passing information to students and if social media can be used for information dissemination to a large group of people, then it can equally be used to send lecture information to a large group of students without them physically coming to the class. For instance, a lecturer can organize his lectures in a form of audio or video podcast and allow students to easily have access to it online; thereby reducing the number of physical contacts with the students. Here, the participants made two different statements with the assumption that they opposed each other but the two statements support each other in the sense that, the statement "social media cannot be used to address the problem of large class", can easily go with an opposite statement 'social media can be used conveniently in teaching on one-to-one interaction'. Surprisingly, the second statement reads "social media is just a tool for sensitization and for mobilizing large group of people" which is completely in support of the first statement. Thus, the two statements made by the participants' conflict with each other. The conflict is likely due to the participants' belief arising from lack of their experience with the use of social media in teaching. They may be belonging to the category that are using social media for only learning and or research or informal communications. It is clear from the belief of this category of participants that social media is more suitable for research than for teaching. In teaching, they believed it may only be applied to postgraduate class where there are fewer number of students compared to the undergraduate class; where one lecturer may be attending to several hundreds of students.

Furthermore, findings revealed that despite the participants' perception on the usefulness of social media in teaching; they participants still believed that ABU lacks the enabling environment for teaching to take place effectively using social media. They believed that ABU lacks steady power supply and good network facilities which are necessary requirements for social media to facilitate teaching process. It is surprising from this finding

that despite the huge amount of resources the university is spending to provide sufficient power supply and effective network connection to its staff and students, many participants raised concern on the lack of enabling environment for the effective use of social media in TLR. Nevertheless, on the problem of poor network facilities, perhaps, the existing network facilities in the University can be said to be relatively better than that of many other universities in the country. But, the real issues here may depend on the inability of the University IT unit to sufficiently provide help desk assistance on the network and other related issues including the use of social media across the departments; that could otherwise make users appreciate the existing network facilities and increases the rate of social media adoption and use in TLR. This is evident from narration that "*the university does not even recognize the use of social media in TLR*"; talk less of providing help desk assistance to specifically support its use. The existing digital centers apparently pay more attention to repairing faulty machines and providing support to undergraduate students during semester registration.

Similarly, despite the University's relative efficient power supply; the finding of this study present unsteady power supply as another challenge that slows down the rate of diffusion, adoption and use of social media in TLR by the faculty members. This may be also an indication of conflict on the participants' expectation about the required power infrastructures to deploy social media in TLR and the existing facilities. The conflict could be attributed to the lack of sufficient maintenance services by the Maintenance Unit of the University to urgently rectify and repair power failures without delay. It can also be argued from the psychology of the participants to erroneously compare ABU with other universities they came across in the developed nations; where the use of this media was successfully effective. They assumed that for ABU to successfully adopt this technology, it must have to attain similar level of efficiency on power supply with those institutions they likely came across which is not

necessarily the case. But whatever may be the case, the fact is that most of the participants have developed negative perception on the network facilities and power supply.

Furthermore, the adoption and use of social media for TLR in institutions of higher learning is also conflicting with the traditional teaching philosophy. The traditional teaching philosophy mostly adopted in the developing countries is largely on power relationship between the teacher and the learner (McCroskey J. C et al., 1983). In this system of teaching, institutions and or teachers are assumed to be all knowers of knowledge which they transfer to learners without much effort from the part of the learner. The learner is just a passive receiver of knowledge. The system, therefore, provide a control-type of learning that is based on some hierarchical structure which limit learner to reflect and construct new knowledge independent of the teacher. However, social media allow learners to autonomously organize themselves and construct knowledge freely without any control by the teacher. In this regard, some faculty members had shown concern over the use of social media in teaching. Because, they believed the free nature of social media poses serious threat to the existing controlled-type of learning. Similarly, this free nature allows people to download and use information without considering the ethics in scholarship; thereby promoting plagiarism among scholars. It also misleads scholars by feeding them with un-substantiated information. However, the problem of enabling environment such as lack of steady power and network, and the problem of conflict with the traditional system, including free spaces that it gives to scholars plus other related problems can lead to the low adoption and use of social media by the faculty members.

Findings also revealed low use of social media as one of the reasons for low ranking of the University. The low use of this media reduces the visibility of the individual researchers that is meant to globally promote the image of the University which later determines the ranking of the University. Thus far, this is stressing the critical role of social media in academics. What is

more important from this information is that, ABU faculty members have adopted the use of social media in their TLR.

Even though, few individual faculty members within their respective departments have adopted the use of social media in TLR, and most of them have positive believe that social media enhances their work; but the university is yet to officially recognize the use of this media in its respective departments for TLR. Coupled with the fact that some faculty members even highlighted that the new Distant Learning Centre (DLC) of the university have begun to use social media in communicating with their students. Consequently, the low use of social media is attributed to the lack of awareness, commitment and time on the part of the University Management and the Faculty Members on its adoption and use for TLR. Some faculty members are just paying lip service in expressing their positive opinion of social media in academics but, something is keeping them away from its actual use. Certainly, the problem of steady power and network along with the freedom social media offers buttressed some of the challenges that are keeping them away plus lack of good awareness, commitment and time.

4.5 Factors that Facilitate Diffusion, Adoption and Use of Social Media by the Faculty Members in Ahmadu Bello University, Zaria

The following questions were asked to provide meaningful explanations on the factors that facilitate diffusion, adoption and use of social media by the FMs:-

i. What factors facilitate the diffusion and adoption of social media for TLR?

ii. What factors facilitate the use of social media for TLR?

4.5.1 Factors that Facilitate the Diffusion and Adoption of Social Media for TLR

Faculty members were asked to discuss factors that facilitate the diffusion and adoption of social media for academic purposes in Ahmadu Bello University, Zaria. In a simpler form, how faculty members came to know about the use of social media in TLR. Out of the two hundred and fifty-four (254) open codes, twenty-nine (29) codes represent the different ways in which ABU faculty members came to know about the use of Social media for academic

purposes. A total of four (4) categories emerged from these codes, these are: (a) Being Technologically Savvy (*Curiosity), (b) Academic Network,* (c) *Official Academic Gathering, and (d) Family Members.* See Figure 7. Illustrative Chart

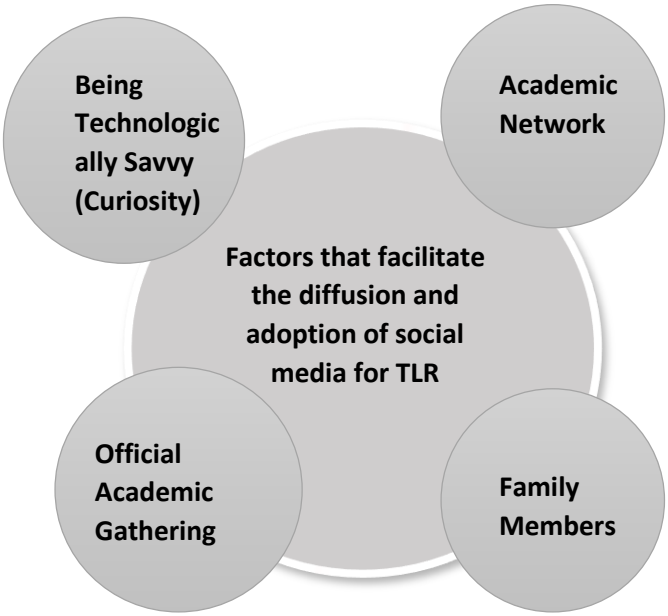


Figure 7: Factors that Facilitate the Diffusion and Adoption of Social Media for TLR

(a) Category One: Being Technologically Savvy (Curiosity)

This discussed one of the ways in which faculty members of Ahmadu Bello University came to know about the use of social media for academic purposes. The category revealed that some ABU faculty members came to know about the application of Social media for academic purposes because of their curiosity. This subject refers to faculty members' inquisitiveness; that is their ability to explore new knowledge from extensive reading or research. Some of the faculty members affirmed that nobody introduced them to using the social media technology for their academic work they only came to know about it on their own. In explaining faculty members' curiosity as a way of knowing about Social media use for academics, a lecturer from faculty of Pharmaceutical Sciences pointed out that *"I get to know all those things as a result of curiosity …nobody introduced me to it"*

However, the category has three (3) related sub-categories, which include; i) *Articles, ii) Internet (Google), and iii) Research.*

i) **Articles:** This sub-category elaborates one of the ways in which ABU faculty members explore Social media through curiosity. Through both print and online scholarly publications on a particular subject matter or on Social media itself, faculty members read to gain or expand knowledge. The article could come [be] from a newspaper, magazines, journals, periodicals etc. One of the faculty members from the Faculty of Education revealed how he curiously gained knowledge of Social media from articles he read as quoted *"I learned also from the article I get, so most of these articles would point you to Facebook"*

ii) **Internet:** The internet as a sub-category, offers faculty members an opportunity to get information on variety of topics of interest. With a network connection, lecturers can easily search and access vital information on how to use some social media technologies for academic purposes. Some of the faculty members pointed out that the information may come from advertisement using social media platforms such as email, LinkedIn, WhatsApp etc. where you receive updates or messages about the relevance of social media and how to use Social media in academic work from friends and or from colleagues. It may also be during searching for other articles on internet. One of the Faculty members from faculty of Administration revealed that "*Partly when I started using Social media, I get to know them…I get to know the other ones through the internet actually."*

iii) **Research:** On this sub-category, a lecturer engaged in an extensive study on a particular subject of interest in order to get a solution or answer to a particular problem. One of the participants emphasized that he gets to learn about the Social media for academic purpose from his research work. Moreover, the knowledge

about the use of Social media in academics by faculty members could be from the point of reviewing related literature, to findings and recommendations. The knowledge of social media through researching was highlighted by a lecturer from the Faculty of Science as seen *"I know it from the research I do as an academic since research is a major component of my work."*

(b) Category Two: Academic Network

This category also discusses the way through which some faculty members of Ahmadu Bello University get to know about the use of Social media for academic purposes to include their academic contacts. In this category (Academic Network), faculty members get to know the relevance of Social media for academic activities through their relationships and connections with other faculty members and scholars around the globe within academic circle. They created fora through social networking platforms, and or online community where people of similar interest meet and share knowledge including knowledge on the usefulness of Social media to education. The category comprises of four (4) related subcategories. These include: i) *Academic Colleagues, ii) Online Forums, iii) My Students, and iv) from Friends.*

i) **Academic Colleagues:** This explained academic colleagues as part of academic network which faculty members of Ahmadu Bello University come to know about the use of Social media for academic purposes. Academic colleagues refer to the cycle of academic friends and coworkers who share similar interest in regards to teaching, learning and research. Academic colleagues range from lecturer-to-lecturer relationship, a student lecturer-to-supervisor and a lecturer to a non-teaching staff within academic cycle. Some of the faculty members revealed that they get to know about Social media for academic purposes through some of these cycles of colleagues. A lecturer from Faculty of Education shares his knowledge of

Social media through academic colleagues as: *"I get to know Social media from my academic colleagues"*

ii) **Online Forums:** This sub-category explained that some of the faculty members of ABU, Zaria get to know about the use of Social media for academic work via online forum. With the help of online communities created in the online forum of some Social media platforms, ABU faculty members with similar interest are linked together to share knowledge, ideas, facts or information. They utilize platforms such as the LinkedIn, WhatsApp, Facebook, etc. to create group page and share information that is of interest to them. This sharing capability of Social media motivates non-users to begin to adopt these platforms in ABU, Zaria. In explaining online forum, as a factor for that motivates faculty members to begin to use Social media for academic purposes, a lecturer from faculty of Sciences confirmed in his response *"A lot of forums where people teach you how to create a standard power points."*

iii) **My Students:** This highlighted the lecturer-to-student relationship to be the way through which some faculty members came to know about the use of Social media for academic purposes in Ahmadu Bello University, Zaria. In explaining this one of the participants from faculty of Law revealed that: "*I cannot quite say how I came to know about these things, maybe in academics from or among students. That, it appears that we discuss… we get to know about it and other activities."*

iv) **From Friends:** The finding from this sub-category reveals that lectures' personal acquaintance has played a significant role in influencing them to start using Social media platforms for academic purposes. This is referring to the positive or beneficial contacts faculty members established within or outside the academic environment or within or outside the country in sharing information. Some of the

faculty members get motivated to use these platforms because of the perceived benefits. Among the participants, a lecturer from Faculty of Veterinary Medicine disclosed that *"Through...friends who are doing Ph.D. and other programmes abroad"*

(c) Category Three: Official Academic Gathering

This category discusses *Official Academic Gathering* to be one of the ways through which some ABU faculty members came to know about the use of Social media for academic purposes. Some faculty members became aware of the immense benefit of Social media to academics through organized official meeting or training programme arranged by some departments in the University, where issues of importance about current research trends are discuss. Official academic gathering comes in the form of workshops, conferences, symposia, seminars, meetings etc. This category constitutes of three (3) related sub-categories. These include: i) *Conferences, ii) Post Graduate Studies Abroad, iii) Departmental Meetings:*

i) **Conferences:** This sub-category also described the way in which faculty members came to know about the use of Social media for academic purposes in ABU, Zaria. The faculty members pointed out conference as one of the ways they got motivated to using Social media for academic purposes. Meanwhile, conference is a formal meeting organized by a particular professional body in order to discuss, enlighten and impact knowledge about current trends in [to] its members. The conference could be local or international. Faculty members of ABU, Zaria disclosed that knowledge about the application of Social media for academic purpose is mostly being discussed in such kind of gatherings. One of the participants from faculty of Law confirmed this *"I remember I got to know Dropbox in South Africa when I was attending a conference."*

ii) **Post Graduate Studies Abroad:** Some ABU faculty members become exposed to the use of Social media technology for academic purposes as result of advance studies and experiences in another [developed] country. Other faculty members expressed their experiences to be during their M.Sc. or PhD programmes that they were encouraged by the foreign institution as well as their supervising lecturer. This knowledge of postgraduate studies in the use of Social media was reflected from a lecturer's response in faculty of Engineering below:

I know about Social media during my postgraduate studies abroad, South Africa and France, the name of the university is UVSQ France. Now that school, most of our supervisors are not available, they do travel a lot, the only way you can discuss with your supervisor is through Social media, the fact that my supervisor is in France or in South Africa, I cannot wait, so I would just use the WhatsApp.

iii) **Departmental Meeting:** Here, faculty members unveil their intentions and suggestions regarding ways of improving performance during meetings organized by a particular Department of the University. This usually provides a ground of discussing topical issues that relate to social media. In this vein, faculty members affirmed that they discover the usefulness of this media through such meetings. A lecturer from the Faculty of Veterinary Medicine noted:

We had a Departmental meeting, initially we use Social media but we never knew it would be of importance to our teaching, until when we had the Departmental meeting under the then Head of Department …who felt that why can't we look at that method of teaching, since then it became a challenge, one began to see if really its true. Through that one, we come across friends abroad in which, we communicate with them, they tell us how it is. So the initiator is right from the Department, we realize we have been living with a lot of things that are supposed to give us advantage in what we do but we don't know.

(d) Category Four: Family Members

This category highlighted f*amily members* to be one of the ways some faculty members in Ahmadu Bello University, Zaria came to know about Social media use for academic purposes. Family members include all relations from a nuclear to an extended family

perspective. One of the Faculty members disclosed that he was introduced to these media by one of his sons. The knowledge of Social media through family members was disclosed by one of the participants from the Faculty of Environmental Design as:

> *My student actually introduced me and my son introduced me to social eemm…WhatsApp. Before I taught it was a waste of time but they said no sir. One of my close student and then my son, they said no-no old man it's because you are getting old this is very useful.*

4.5.2 Factors that Facilitate the Use of Social Media for TLR by the Faculty Members

ABU faculty members were asked to discuss factors that facilitate social media use for TLR. In a simple form, what encourages their use of Social media for TLR in Ahmadu Bello University, Zaria. Of the two hundred and fifty-four (254) open codes, twenty-four (24) codes represent what encourages faculty members' use of social media in academic work. A total of four (4) categories derived from these codes. These include: i) *Social Media benefit, ii) ease of use, iii) security and iv) Exposure of faculty members abroad (Training). See Figure 8 for Illustrative Chart*

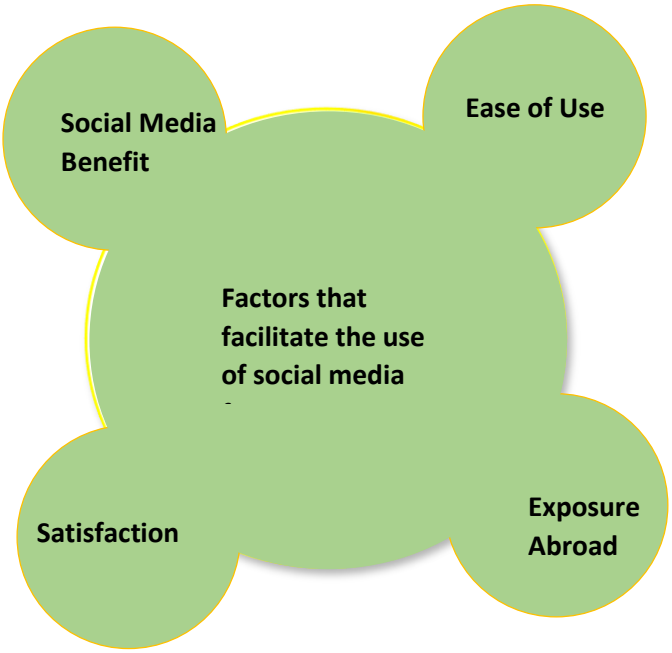


Figure 8: Factors that Facilitate the Use of Social Media for TLR

(a) Category One: Social Media Benefits

This category discussed one of the factors that encouraged faculty members to engage in using Social media in TLR in ABU, Zaria. Some of the faculty members claimed that they were motivated by the benefits that are attached with the Social media. The category revealed that perceived benefits attract faculty members in using Social media applications for academic purposes in Ahmadu Bello University, Zaria. This category has three (3) related sub-categories. These include; i) *Availability of Information, ii) Beneficial Networks, and iii) Social Interactions.* These have been explained below:

i) **Availability of Information:** In this sub-category, some ABU faculty members expressed their belief in that availability of information on Social media platforms as one of the attached benefits of Social media that encouraged them to continue using Social media in their academic work. According to the participants, the bulk of the information that has been uploaded online via this media can be readily accessed and used by different users. Similarly, the online community or forum that are created in some of these applications made it possible for professionals, scholars or experts from all fields of study around the globe to meet and share knowledge and outcome of their researches. Some of the faculty members disclosed that Social media such as Facebook, LinkedIn and WhatsApp offer an interesting avenue for having access to interesting research materials and up-to-date information that assist them in conducting their research. One of the participants from the Faculty of Arts confirmed this, thus:

Well, as I said there are materials, interesting materials particularly the LinkedIn very current articles that people write, academics write and they are looking for opinions, comments that is why they put them on the LinkedIn that is I think the most fundamental reason why people post their articles really even before publishing them, they want to see what comments …before completing they want to see so that they will intergrade different perspectives, different opinions to enrich whatever it is that they are doing …even on the Facebook there are interesting write ups for my area of research.

ii) **Beneficial Networks:** Here, ABU faculty members keep positive relationship and contacts with the aid of Social media platforms usually for the purpose of career advancement. They believe that these platforms provide interface for active interaction among them. It provides them with an opportunity to interact with authors, researchers and other experts to discuss, and share information, make comments and critics on a particular research work. In explaining beneficial network, as one of the factors that motivate them in using Social media for academic purposes; a participant from the Faculty of Medicine highlighted that:

when you go on Social media you tend to meet the authors directly and then when you start to interact with them, they give you more than you can imagine, they would give you access to their recent publication, they want to know you and then this at times could serve as an open door for you to work with them in their lab, gain more experience and that could help you get recommendations in your career dreams.

iii) **Social Interactions:** This sub-category explained social interaction as part of what encourages ABU faculty members to use social media for academic purposes. Social interaction in this respect refers to informal forms of interactions with friends and families with the aim of moving in pace with information society. One of the participants from faculty of Law highlighted that social interaction is one of the factors that attracts him to start using social media thus: "*I am a person that also likes socializing and these are Social media platforms, that could have been the reason and of course as I said, I am a curious person."*

(b) Category Two: Ease of Use

This category also highlighted *Ease of Use* to be one of the factors that attracts ABU faculty members to use social media for academic purpose. Faculty members narrated that they find the use of social media application very easy and friendly. They work and manipulate the Social media application without much difficulty. The category has four related sub-categories.

These include; i) *Accessibility to Information, ii) Acceptability, iii) Affordability, and iii) Freedom of Expression.*

i) **Accessibility to Information:** Social media provides ABU faculty members with an opportunity to easily identify, access, and retrieved information of interest remotely at any given period of time. The friendliness nature of this technology encourages them to use it in their academic life. Some of the participants pointed out that with the aid of Social media, they had the opportunity to directly meet with authors and interact thereby getting the required information they need either through online voice communication or sharing of author's latest publication without even going to the library physically. The knowledge of accessibility to information is reflected in the following responses by lecturer from faculty of Administration: "*What really encourages me to start using Social media is the access, I think it is readily accessible; you can access them any time, even if you are travelling".*

ii) **Acceptability:** This sub-category depicts that wide coverage and acceptance of Social media technology amongst different classes of people around the globe suggest the reasons for some of the participants' use of social media technology in their academic work of TLR. This was disclosed by a lecturer from the Faculty of Science:

"One major driven force is I think is because of the proliferation, the wideness, the coverage...so mainly is because of usage and acceptance generally within different class of people."

iii) **Affordability:** This sub-category refers to the cost effectiveness of Social media applications ranging from the cost of buying compatible devices (PC or mobile phones) to data subscription cost. Some of the participants highlighted this as one of the factors that attracts them to embrace the use of Social media platforms for

academic purpose. This was further portrayed by a lecturer from faculty of Administration that Social media: *"It is cost effective"*

iv) **Freedom of Expression:** This is referring to lack of restriction in using Social media by the users. Users can freely organize and express their opinion without any strict policies. Faculty members can constructively criticize or make comments on a post without any fear or favor. They can initiate an argument to get different opinions from within or outside their group with the sole aim of enriching their research ideas. In expressing their opinion on the freedom of expression as one of the factors that encourages faculty members to use Social media, one of the participants from faculty of Pharmaceutical Sciences said: *"What encourages me is one, you can express your own view without any restriction"*

(c) Category Three: Satisfaction

This category highlighted satisfaction to be one of the factors that attracts ABU faculty members to use social media for academic purposes. By the word satisfaction, they are referring to the faculty members feeling of achievements and safety that a user derived from using Social media. This could be explained from the perspective of users' right and privileges in controlling and monitoring who will receive a post, who can access the profile pictures and who is to be a friend etc. One of the participants from the Faculty of Law asserts that *"...and I feel safe as well"*

(d) Category Four: Training Attended

Training Attended was stressed by many participants as one of the critical factor that encourages them in using social media for their academic activities; this is because, training creates awareness about the usability of the application. A participant pointed out that, he became interested in the use of social media for academic activities due to the training programme he attended. He was informed on the immense benefit that Social media platform

offered to education. In explaining Training Attended as one of the factors that encourages faculty members in using Social media for their academic activities, a lecturer from the Faculty of Law proclaimed that *"I attended a workshop on writing first scholarly publishing and on how to access data for research, to publication and so on"*

4.5.3 Discussion and Implications of Findings

This section discusses the findings regarding the factors that facilitate the diffusion, adoption and use of social media by the faculty members on TLR in Ahmadu Bello University, Zaria. The findings revealed that Exposure of faculty members abroad arising from c*uriosity,* Academic Network *(including academic colleagues, online forums, students and other non-academic colleagues)* Official Academic Gathering, *Family Members,* Social Media Benefits *(including beneficial connections, availability of required information, and social interaction),* Ease of Use, *(including* accessibility to information, acceptability, affordability, freedom of expression) Satisfaction, and Exposure of faculty members abroad (Training) were found to be the factors that facilitates the diffusion, adoption and use of social media for TLR activities by the faculty members.

The faculty members' ability to seek and acquire new knowledge, skills, and ways of understanding the world is very critical in the diffusion, adoption and use of any technology in the learning environment. This is because, the desire to gain new knowledge facilitate engagement, critical thinking and reasoning which in turn give huge opportunity for the faculty members to discover new innovations. Therefore, a faculty member that is more curios stand a better chance of understanding innovations such as social media than his/her counterpart. At this point, it is very important to consider cultivating faculty members' curiosity; to further spread the use of social media in TLR in the academic environment. This is because curiosity super charges learning (Price-Mitchell, 2015) and drives lifelong learning which enhances social inclusion, active citizenship and personal development (Commission of the European

Communities, 2006) which are all tantamount to the benefits and skills drives from the use of social media. Curiosity also, facilitates and faculty member's ability to understand new technologies thereby breeding more technologically savvy teachers.

Another factor that enhances diffusion, adoption and use of social media for TLR is interaction among faculty members and among friends. This is especially when considering the constructivist approach that says learning requires social interaction elements and learning through interaction foster collaborations among learners which again help in the widespread use of social media in the learning environment. However, interactions with the academic colleagues, and or within the official academic gathering, forms part of faculty members' academic interactions; while interaction with friends and family members, forms part of the social interaction; both of which are important for the diffusion, adoption and use of social media in the academic environment.

The diffusion, adoption and use of social media in the academic environment are also enabled by the existing organizational infrastructural facilities. Facilities such as power, network, smartphones and computers are very crucial in the use of social media technologies for TLR. It is however, surprising that on this section none of these facilities were mentioned by the participants as factors that help in the diffusion, adoption and use of social media for TLR. But, the fact that it has been stated by several other participants and thoroughly explained in section 4.4 of this research work has settled the scores beyond any reasonable doubt. Therefore, stable power, efficient internet bandwidth, affordability of smartphones and computers is counted among the crucial factors that facilitate the diffusion, adoption and use of social media technology for TLR by the faculty members. Similarly, technological infrastructures of social media such as accessibility to information, making new friends and keeping existing connections, acceptability, affordability, freedom of expression and the

satisfaction in terms of use also forms other factors that facilitate diffusion, adoption and use of this media.

4.6 UTAUT's Explanations of the Perceptions of Faculty Members on the Diffusion, Adoption and Use of Social Media for TLR

The researcher applied the UTAUT theory to the interview data by examining each of the four main UTAUT constructs (‘‘performance expectancy", ‘‘effort expectancy", ‘‘facilitating conditions" and “social influence’’). In actualizing this, the researcher relates all the four constructs with the categories that emerged from the manual thematic analysis of the transcripts. This facilitated a critical evaluation of the data, and also enabled the researcher to draw conclusions regarding the suitability of UTAUT in studies of academic use of social media. By so doing, it brought forth a general exploration of UTAUT's main constructs as applied to the interview data.

4.6.1 Performance Expectancy

In the UTAUT model, the constructs of performance expectancy are represented by the following four statements: (1) the usefulness of technology in accomplishing of tasks (2) accomplishing tasks quickly (3) increasing productivity and (4) “increase the chances of getting a raise.” Based upon the thematic analysis of the data collected, the most relevant categories to the first three statements that underpin this construct are the ones that relate to the general benefits associated with Social media use. As for the Statement “increase the chances of getting a raise” in the university system, a raise in salary is often associated with promotion. Therefore, the interview topic that would be relevant to this construct is a question that would be asking the participants whether university recognizes the scholarly social media activities/publications as part of the requirement for the promotion of faculty members, and if Social media activities/publications are not officially recognized, then whether the faculty members think

they should be. But, since this question was not part of the interview question of this research, there won't be any explanation now.

Regarding the first Three Statements above, based on the thematic analysis of the transcripts, six different categories from various interview questions highlighted the top major benefits associated with using Social media in educational environment. These categories are 'Attached *Benefit', 'A Viable Tool for Research', 'Class Decentralization'; 'Social media will improve TLR', 'Enhances Learning', and 'Social media Facilitate Teaching Process'.* Among these categories the first two categories 'Social Media Benefit' and a viable tool for research summarized the most critical benefits as indicated by some of its related sub-categories which include social media as a *source of information, provide beneficial network* and *social interaction, provides easy and free access to information, data gathering platform, information storage platform, a platform for advertisement, a tool for collaboration, a platform for comment/critics, a networking/connection tool and research oriented platform*. Some of these benefits coincided with the findings of Brandtzeg and Heim (2009) who found that connecting with new people, keeping in touch with friends and generally socializing were the top three reasons people use Social media.

One can deduct from the above mentioned related sub-categories, the statement 'source of information' represents the participants' belief that Social media provide useful information that aids their job of TLR; and it directly matched with the statement from the UTAUT model 'I would find the system useful in my job'. Meanwhile, 'Beneficial *network'* is directly referring to Social media as a tool that enables the participants to establish new connections and strengthening on the existing one, this can help one to accomplish tasks more quickly; thereby increasing ones' productivity.

The remaining four categories (*Class Decentralization, Social media will improve TLR, Enhances Learning, and Social media Facilitate Teaching Process*) mentioned earlier also pointed out the usefulness of Social media in accomplishing academic task which includes dividing class so that lectures can be carried out to various groups of students at the same time; getting relevant research information/materials that will facilitate the conduct of research work and active learning by the students arising from teaching via Social media. These benefits are directly linked to the two statements of the construct as *"(2) Using the system enables me to accomplish tasks more quickly", (3) "Using the system increases my productivity".*

Moreover, in relation to the first three Statements above (the usefulness of technology in accomplishing of tasks; accomplishing tasks quickly and increasing productivity), the other two popular benefits of social media use were keeping up to date with topics in the field and promoting one's own academic work. These are both important factors contributing to the participant's career success. Here many participants attested to the believed that Social media facilitate their teaching, learning and research process. Similarly, this can be explained by the following categories *Social media will improve TLR', and 'A Viable Tool for Research', 'Enhances Learning', and 'Social media Facilitate Teaching Process'.* These sub-categories are directly referring to Social media making them more productive or more efficient in their academic work. Therefore, most of the benefits emerged from these categories can be directly related to keeping up to date with topics in the field and promoting one's own academic work. For example, by gathering data to help the researcher in conducting research or gathering research data from the participants and finding new collaborators to work on various projects, a scholar may increase his or her research output. 'Pao (1992) found collaboration helps to advance one's research and increases productivity. Similarly, Stvilia et al. (2011) found that collaborating outside one's disciplinary boundaries increases team productivity as measured in the number of publications,' cited from Johannes et Al (2013).

On the other hand, and analyzing from the component of teaching, the category ‘Social media Paradox’ is referring to the unlimited freedom of Social media lead to conflict with the existing conventional system of education as evident from one of the participant from the Faculty of Arts as follows:

> *I think the fundamental difference between the freedom that the internet compass on learners and the control that you find in a kind of institutionalized arrangement like ours in the university there is this conflict exactly is difficult to reconcile the demand of the type of learning that we do and the unlimited freedom that is there in the air on the internet.*

This is the problem of control that the participant belief that social media poses a lot of threat to the existing conventional system of teaching. Thus, this belief is not in harmony with any of the four statements of the UTAUT Model. In fact, it is simply a negation of the model.

Overall, it was confirmed that Social media use supports many key tasks in an academic life of faculty members from building and supporting peer networks to staying informed on the relevant research topics and promoting ones academic work. Therefore, it is expected that ‘‘performance expectancy" will be positively associated with diffusion, adoption and use of Social media for this participant.

4.6.2 Effort Expectancy

This construct is characterized by the following statements: *(1) Clear and understandable interaction with the system, (2) Easily becoming skillful at using the system, (3) the system would be easy to use and (4) Learning to operate the system would be very easy.* From the model perspective, these four statements, although very similar, they are designed to measure slightly different aspects of the same construct. Such an approach is very common when collecting data through surveys, especially when trying to capture an abstract concept such as ‘‘effort expectancy". However, when dealing with semi-structured interviews it can be very difficult to distinguish between each of these four similar statements. Hence, all the four statements were evaluated collectively, focusing on interview statements that are related to ease

of use, clarity and learnability of social media tools. The categories that emerged and the issues raised by the participants which are related to these statements of the construct in the coding sheet were used in the evaluation and they include: Ease of using the Social media platforms (Ease of Use), the safety attached to using the system (Security), Lack of control which relates to who access the content, and the time-consuming nature of Social media (Lack of Awareness, Commitment, and Time).

The category 'Ease of Use' provides useful understanding of the participants believed on the easiness associated with the use of Social media technology on their work of TLR. Since all the participants are faculty members in the University with life experience about Social media use, most of them highlighted their satisfaction on the simplicity in the use of Social media to carry out their academic tasks. From the related subcategories of ease of use: Easy Accessibility to Information, Wide Acceptability, Affordability of Data Subscription and Freedom of Expression'; the participants pointed out that Social media gives them the ability to directly meet and interact with authors and other scholars, thereby easily getting the required information they need through sharing of author's latest publication and other research work without even going to the library. In addition, some of the participants disclosed that, their use of Social media technology for academic activities is linked to its wide geographical coverage and the rate of acceptance of this technology in large population around the globe. This makes it possible for individual faculty members to embrace the technology and become so much familiar with it thereby making them to operate with ease. Further analysis from the factors that encouraged the participants in using the social media platforms include; affordability of data subscription and freedom of expression. The data and the hardware devices can be bought at a justifiable price and the ability to express one's opinion with ease, without any restriction; all of which can fit in to the statement of the construct '*the system would be easy to use'.*

Further explanation on ease of use from the interview transcript revealed that, social media platforms allow the participants to express themselves freely with their colleagues and other scholars around the world in other to share research outcomes, communicate, comment/critics other researches etc. Users can freely organize and express their opinion without any restriction or binding policies. Moreover, one of the participants revealed that he feels safe and secure using the social media platforms to interact with his colleagues. Thus, all these relate to the *ease of use, clarity and learnability* of the Social media tools which describes the construct "Effort Expectancy".

The two major concerns around ''ease of use" ''clarity" and "learnability" in relation to social media use among these participants were 'Lack of control which relates to who access and use the content, the time-consuming nature of Social media platforms and its rate of awareness (Lack of Awareness, Commitment, and Time)' as pointed out by some participants. Even though, social media tools allow for free uploads and downloads of information, but are still ill-equipped to completely tackle issues related to control which open doors for plagiarism. For example, one of the participants from the Faculty of law disclosed that:

> *am a little bit selfish in that regard, I download a lot of materials from friends and colleagues all over the world but when they ask me to upload my research I find it difficult to do that…I intend to publish books out of the research that am doing so I don't want to preempt myself at this stage and that is one problem that I see.*

This issue is believed to pose serious problem for the participants because, they admitted that information posted in this platform is not fully secured, anybody can access your research ideas and develop on it without any privacy policy to guard it. Due to inadequate control measures in the system, one's research idea can easily be plagiarized by other individuals who might illicitly show interest in it. In order to address these issues, one of the participants decided to restrain himself from posting and uploading his research outcome and ideas on the social media platform as quoted above. This creates fear and makes the use of Social media very difficult

for this group of participants; since they have no much control over their post. Hence, this difficulty is negatively associated with the ease of use of Social media for this participant. However, it was also found that time consuming nature of Social media and lack of awareness present other challenges. The participants revealed that, they spent several hours searching for information without actually getting the intended results. This is due to the large number of information residing in these platforms which make users to have access to several information that are not relevant thereby making the search process difficult to get the desired information, resulting to possible frustration and resistance to use. Users also need much time to respond to huge number of issues raised by friends and colleagues. They need to be more organized in managing their time. Therefore, lack of time management skills make the use of this technology very difficult to handle. This can be seen as negatively affecting the perception of the participants on the adoption and use of this technology for their academic activities. It is evident from one of the participants from the Faculty of Science thus:

> *The only disadvantage is that, it is a time-consuming event, because the number of issues you would respond to, there may be time that you have to respond to it, so if you don't know how to control it, it would start controlling you.*

More so, many faculty members are not aware of the effective technique of utilizing this technology for academic activities. It is stated by a participant that the rate of faculty members' awareness on how to use this media for academic purposes is very low in the University. This is invariably referring to low level of diffusion and adoption by the faculty members in ABU, and this relates to the issue of clarity and the learnability statement of the construct.

In summary, the construct "effort expectancy" was confirmed to be very important and influential factor in determining the participants' perception on the diffusion, adoption and use of Social media for TLR; since it directly affects the participants' intention to use and the actual use behaviour. The technology was said to be easy to operate and very safe to use. It also has

negative impacts as seen from many instances above, it adds considerable amount of stress leading to frustration and possible resistance in the actual usage. The participants highlighted their concerns on the issue of lack of control over the content which they post; not knowing who access and use the content. More so, Social media platforms happen to be a time-consuming technology. Similarly, the faculty members are not very much aware of how these platforms can be effectively utilized for academic purposes. Aside from this, learnability of this technology was a lesser issue for this group because the participants have had some life experience in using the technology for TLR.

4.6.3 Social Influence

In analyzing the Social Influence constructs, Venkatesh et al. (2003) used statements such as (1) ‘‘People who influence my behaviour think that I should use the system", (2) ‘‘People who are important to me think that I should use the system", (3) ‘‘The senior management of this business has been helpful in the use of the system" and (4) ‘‘In general, the organization has supported the use of the system". The first two statements of this construct (‘‘People wo influence my behaviour think that I should use the system", and ‘‘People who are important to me think that I should use the system") could be evaluated through the interview categories that addressed the question of how the participants know about Social media for Academic Purposes which is revealed by the following categories (Curiosity, Academic Network, Official Academic Gathering and Family Members).

The third and fourth statements regarding the managerial and organizational support (‘‘the senior management of this business has been helpful in the use of the system" and ‘‘In general, the organization has supported the use of the system".) are closely related to the questions around the tenure and promotion review. This is earlier explained in the performance expectancy section that the interview topic that would be relevant to this construct is a question that would be asking the participants whether the University recognizes social media scholarly

activities/publications as part of the requirement for the promotion of faculty members, and if social media scholarly activities/publications are not officially recognized, then whether a faculty member think they should be. From the interview questions, there are no questions raised related directly to this questions, but based on some statements made by some participants, for instance, a participant from the Faculty of Agriculture said that ABU does not officially recognizes the academic use of social media provides a very good response that directly answered this questioned as highlighted "*Ahmadu Bello University is not using much of social media, in fact is not using it at all officially….as at now I cannot clearly say that Ahmadu Bello University is utilizing this avenue to its fullest."* Then, for the second part of the question that is whether a faculty member thinks that university should recognized social media scholarly activities/publications as part of the requirement for the promotion of faculty members. All the same, nothing similar to faculty members' promotion was raised during the interview session. Therefore, we couldn't find any category pointing directly at faculty members' promotion from this question. But, based on some responses made by the participants from other questions, we could gather several evidences that are directly associated with the participants' belief on social media use as a requirement for promotion. Some participants suggested mandatory use of social media by the faculty members as quoted by a participant from the Faculty of Agriculture "*I think if ABU would make application of social media mandatory it would help a lot.*" In the same vein, a participant from the Faculty of Veterinary Medicine said *"Social media should be integrated; it should even be made compulsory in all academic activities."* From the above analysis, one can easily infer that ABU does not support the use of social media for TLR. It was however discovered that many of the participants are of the opinion that the use of social media should be part of their requirement for promotion. Here, social influence has a very positive influence.

As for the first two statements of this construct (‘‘People who influence my behaviour think that I should use the system", and ‘‘People who are important to me think that I should use the system"); When describing why they started using Social media tool, many interviewees referred to a situation when the platform was recommended by other colleagues (Academic Network), in a workshop or conferences (Official Academic Gathering), by relations and friends (Family Members), and as a result of their inquisitiveness or research (Curiosity). Academic network refers to faculty members’ relationships and connections with other faculty members and scholars within the university or other connections around the globe and within academic settings. These could be senior colleagues, colleagues on the same level or nonacademic counterpart. To further buttress this point, one of the participants from the Faculty of Engineering described this, thus, *“I get to know Social media from my academic colleagues…”* Interestingly, other participants disclosed a situation where they communicate and use social media with other colleagues who are not in the university. This is evident from the following quotation in one of the participants’ narration from the Faculty Environmental Design:

> *I know about Social media during my own postgraduate studies abroad, South Africa and France, the name of the university is UVSQ France. Now in that school, most of our supervisors are not always available, they do travel a lot, the only way you can discuss with your supervisor is through Social media, the fact that my supervisor is in France or in South Africa, I cannot wait, so I would just use the WhatsApp… I think my supervisor actually sent one video through WhatsApp and the video had very substantial information and it helped me immensely in my research.*

The above quote is a good example of how Social media helps to build research connections outside of one's own institution. Moreover, Official Academic Gathering is an organized official meeting or training programme (in the form of workshops, conferences, symposia, departmental meetings, etc.) arranged to discuss issues of importance and to impact knowledge about current happenings in a particular field of study or on a given subject to faculty members. One of the faculty members highlighted this as “*I remember I got to know*

Dropbox in South Africa when I attended a conference." Therefore, it is important to note that Social Influence does not necessarily come from peers or in a social gathering as meetings. It may also come from friends or family members in cases when personal adoption of Social media preceded their professional use in TLR. There were also instances when Social Influence came from students in or family members as revealed in this statement, in the narration from the Faculty of Environmental Design:

> *My student actually introduced me and my son introduced me to social eemm…WhatsApp. Before I thought it was a waste of time but they said no sir. One of my close student and then my son said no-no old man it's because you are getting old this is very useful.*

Social Influence may have negative impact. In some instances, we found that it may add a considerable amount of stress into one's academic life arising from social pressure from friends, family members and colleagues and also its time-consuming nature. As one lecturer from the Faculty of Science pointed out:

> *The only disadvantage is that, it is a time consuming, because there are number of issues you would respond to, there may be time that you have to respond to it, so if you don't know how to control it, it would start controlling you.*

The example above demonstrates that under certain conditions, Social Influence may lead to stress and anxiety about Social media use and may in turn lead some scholars to decide not to adopt social media.

In summary, ''social influence" was found to play a positive role in faculty members' perception in the diffusion, adoption and use of Social media for TLR. The influence does not necessarily come from within their home institution but may come from other colleagues within or outside the University. Moreover, as the UTAUT theory predicts, Social Influence may have a much stronger effect on behavioral intention rather than on the actual use of social media. For example, Social Influence may encourage someone to start using Social media tool, but it is not necessary that the person stays with the tool.

4.6.4 Facilitating Conditions

This construct "facilitating conditions"" is characterized by the following four statements: (1) The availability of resources necessary to use the system (2) The existence of sufficient knowledge necessary to use the system, (3) The system is not compatible with other systems and (4) A specific person (or group) is available for assistance with the system difficulties. To evaluate the ''facilitating conditions'' construct for social media in TLR, we will see how the emergent categories fits under each of the four statements above. Perhaps, one of the most precious resources that faculty members have (or do not have) is time and related to it is lack of time, as they said "Social media is time consuming". In addition to this, the following categories that emerge from the thematic coding also explained further: *'Lack of enabling environment, ABU lacks steady power supply, Inadequate facilities and Social media paradox'* all of which relate to statement one of the construct (The availability of resources necessary to use the system). All of the above categories are found under perceptions of ABU faculty members on the adoption and use of social media for TLR and factors that encouraged ABU faculty members to start using social media for TLR.

The second statement about ''having sufficient knowledge necessary to use the system" can be related to the following emergent categories as *'Lack of Awareness, lack of Familiarity, Lack of Staff Training'.* Therefore, this statement is very relevant to this group of participants, because the group constitute faculty members from all faculties in the university with life experience on the use of Social media for TLR. Thus, we expect that most of these participants would have the necessary knowledge required to use the social media platforms for academic purposes. But most of the participants have shown concern about the *'Lack of Awareness, lack of Familiarity, and Lack of and Staff Training'* from the part of their colleagues.

The third statement (The system is not compatible with other systems) is of little importance or not relevant to this study because no point has been highlighted in relation to the

compatibility of this media, no interview question related to this statement was raised. Lastly, the fourth statement *'A specific person (or group) is available for assistance with system difficulties'* is also not relevant in this study because most of the participants revealed that the university does not recognize (has not adopted) the use of Social media in facilitating its academic activities of TLR. As a result, the researcher doesn't expect the University to deploy any help desk assistance to assist in solving the system difficulties in relation to social media. Most of the participants said that the major challenges they have with social media use in TLR is its time-consuming nature, stating that

> *The only disadvantage is that, it is time consuming, because there are number of issues you would respond to, there may be time that you have to respond to it, so if you don't know how to control it, it would start controlling you.*

This was the most common concern shared by this group of faculty members. As such the faculty members expressed their concern that Social media require them to constantly monitor messages coming through different Social media platforms.

Secondly, 'Lack of enabling environment' refers to the unfavorable conditions which are attributed to the lack of basic infrastructural facilities required for the successful implementation, adoption and use of social media platforms for academic purposes in the university. Hence, the participants highlighted the inability of the university management to sufficiently provide and manage the state of the art equipment for the successful take up of this media. They revealed that most of these facilities are out-of-date As such, this hinders proper diffusion, adoption and use of this technology among faculty members in Ahmadu Bello University; as indicated by a response of a lecturer from the Faculty of Science:

> *We don't even have the facilities; most of the facilities that are here in Ahmadu Bello University are out dated, and are substandard facilities really. Where you have good facilities, you don't even have to tell students to come to the classroom they can be on their bed in the hostel and they can access lectures.*

In another category, the participants also pointed out that *'Inadequate Facilities'* present a big challenge of using social media for TLR in the University. Some of the

participants affirmed that essential infrastructures that are needed for improved use of Social media platforms for TLR are not available in the University. This was revealed by one of the participants from Faculty of Social Science as: "*.... the requirements have to be there for this to happen, for the process to flow, you need to have the hardware components of it in place, the tools and the infrastructure for the learning to take place."*

This is indicating that when the above conditions are met, facilitating condition could have a positive impact on faculty members' decisions to adopt and use Social media for academic purpose. In the same vein, uninterrupted power supply was disclosed to be a necessity for using social media in academic works. But ABU lacks steady power supply. This point was proved by one of the participants that steady power supply, strong internet connection and availability of suitable devices are very essential in the adoption and use of Social media applications for TLR in the University as said by a faculty member from the Faculty of Social Science:

> *For teaching to take place using social media, you need uninterrupted electricity supply, you need efficient internet connection and to have every student equipped with computers and social media phones. Looking at our context here at Ahmadu Bello University, these requirements are not there and so it is difficult for us to apply them, the Social media in our teaching.*

Furthermore, considering the statement two of the construct, 'the existence of sufficient knowledge necessary to use the system', it can be seen that the following categories *"Lack of Familiarity, Lack of Awareness, and Staff Training Needed"* as highlighted earlier are closely related to this statement. The participants disclosed that most of their colleagues are not conversant with the use of social media for academic purpose in the university. It is evident from most of the participants as quoted by one participant from faculty of arts, thus:

> *The challenges of most social media are how to use, familiarity, once you become familiar with it, you overcome the initial resistance to change, it becomes easier to use.*

Similarly, the faculty members in the university admitted that most of their colleagues are not aware about the use of Social media for academic purposes, though one of them still

affirmed that the diffusion, adoption and use of this technology in the university will greatly improve TLR. This was described by this response;

> *The simple truth is that maybe they are not aware or they are not ready to learn how to use this gadget. But to me if you are to adopt the use of these facilities, it would seriously improve the quality of your teaching and learning and it also improves the way you conduct research.*

The faculty members added that there is a need for staff training with regards to the use of social media platforms in TLR in the university. The participants reiterate that professional training in the form of workshops and conferences is indispensable in order to enlighten them on how to effectively utilize social media for TLR in the University. This was captured by one of the participants as follows:

> *There is need to have a kind of sensitization in the form of workshop for our senior colleagues if we want to improve the teaching and learning activities in the university, to a certain level.*

This suggests *that "Lack of Familiarity, Lack of Awareness, and Staff Training Needed"*, will negatively affect faculty members' perceptions in the diffusion, adoption and use of this technology for TLR for this group of participants. Hence, in order to positively influence faculty members' perception in adopting and using Social media for academic purposes in the University, all of these factors must be provided by the relevant authorities.

Based on the explanations thus far, it was discovered that ''facilitating conditions" negatively affect faculty members perceptions with regards to the diffusion, adoption and use of social media platforms for academic purposes, basically due to its '*Time Consuming Nature, Lack of enabling environment, lack of steady power and inadequate facilities'.* It was also discovered that *'lack of familiarity, lack of awareness and the need for staff training'* also negatively affect faculty members' perception with regards to the diffusion, adoption and use of Social media for TLR. Hence, it can be anticipated that once these factors are in place faculty members' perception could be positively influenced by the decision to adopt and use this media for the academic activities. Consequently, in regards to statement four of the construct (A

specific person or group is available for assistance with the system difficulties), it was deduced that the university has not adopted the use of social media in the academics; as such the construct is negatively affected.

From the foregoing, it was discovered that the UTAUT constructs are very useful tool in explaining faculty members' perception in regards to the diffusion, adoption and use of Social media for TLR for these participants. Whilst performance expectancy was found to be the most influential factor that positively affects users' perceptions for these participants, facilitating conditions construct was found to be the most influential factor that negatively affect users' perceptions to adopt and use social media for TLR. The main results that were discovered during this research study are reviewed here and some of the limitations of using UTAUT to examine scholarly use of Social media were also highlighted. Some suggestions were also outlined as to how UTAUT can be expanded to make it more suitable for studying social media diffusion, adoption and use for academic purposes and conclude with suggestions for future studies in this area.

4.6.5 Discussion and Implications of Findings

From this study, it was found that ‘‘performance expectancy" positively affect the perceptions of faculty members on the diffusion, adoption and use of Social media for TLR. The primary performance booster that faculty members saw in Social media technology is their ability to find new professional connections and maintaining on the existing contacts plus keeping up to date on topic on the field and promoting one's own research as can be seen from many of the following related sub-categories: *source of information, beneficial network* and *social interaction, provides easy and free access to information, data gathering platform, information storage platform, a platform for advertisement, a tool for collaboration, a platform for comment/critics, a networking/connection tool and research oriented platform.* Other common benefits of using the technology include "*Facilitates Class Decentralization,*

Enhances Learning, Social media Facilitate Teaching Process, and it facilitates lecturer-students' interaction," The chart below summarizes the major benefit.

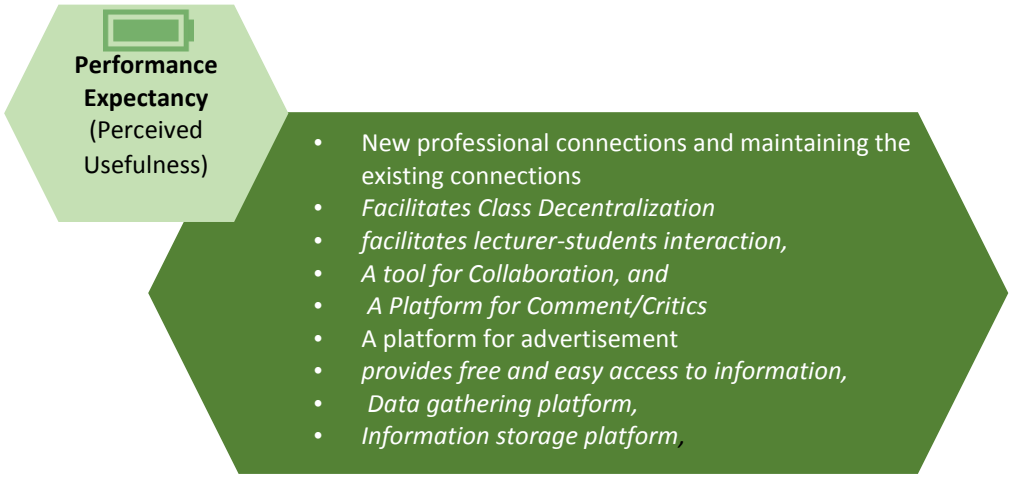


Figure 10: Performance Expectancy

Similarly, the construct "effort expectancy" was discovered to be a very essential and influential factor in determining the participants' perceptions on the diffusion, adoption and use of Social media for TLR. The technology was said to be easy to operate and very safe to use. Conversely, effort expectancy was also seen to have a negative impact on the perception of faculty members in using Social media for academic purposes. This relates to issues raised by the participants which include: lack of control over the content which they post; not knowing who access and use the content, social media is a time-consuming technology because it adds considerable amount of stress which leads to possible resistance in the actual usage by faculty members, faculty members are not very much aware of how these platforms can be effectively utilized for academic purposes.

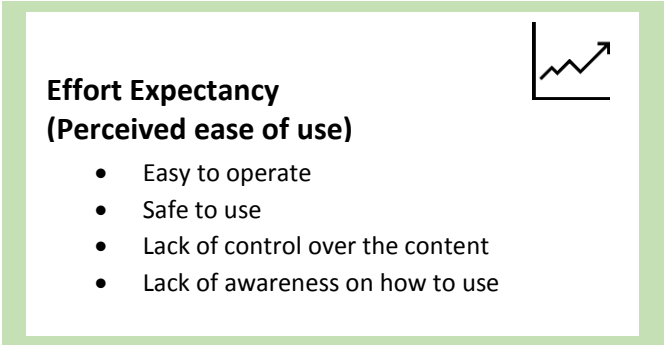


Figure 11: Effort Expectancy

Furthermore, most of the Social media use for academic purpose can be considered deliberate in nature (as in the faculty members' curiosity discussed above), there may be situations where social influence can turn into social pressure in a situation where adoption and use come because of its wide acceptability, recommendation by the senior colleagues, to feel among friends etc. This could result in a possible resistance of Social media by some faculty members in the University. Therefore, we would expect this to have a negative effect on the intention and use behaviour of faculty members on social media in certain conditions. The pressure does not necessarily come from within their home institution but may also come from other colleagues within and outside the University, in official academic gathering (such as workshops and conferences).

On the other hand, ''Social Influence" was found to play a positive role in faculty members perception in the diffusion, adoption and use of Social media for TLR. Entrenched in organizational studies, this construct primarily focuses on the influence that is coming from within the organization, and basically from the top to down. But the findings from this study reveal that Social Influence can come from all directions: from senior colleagues and administrators within the institution, students, peers at other institutions and even non-academic friends or family members who first introduced a Social media platform to a faculty member. In line with this observation, we propose that UTAUT theory should be expanded to include other forms of Social Influence as discussed above. This is illustrated

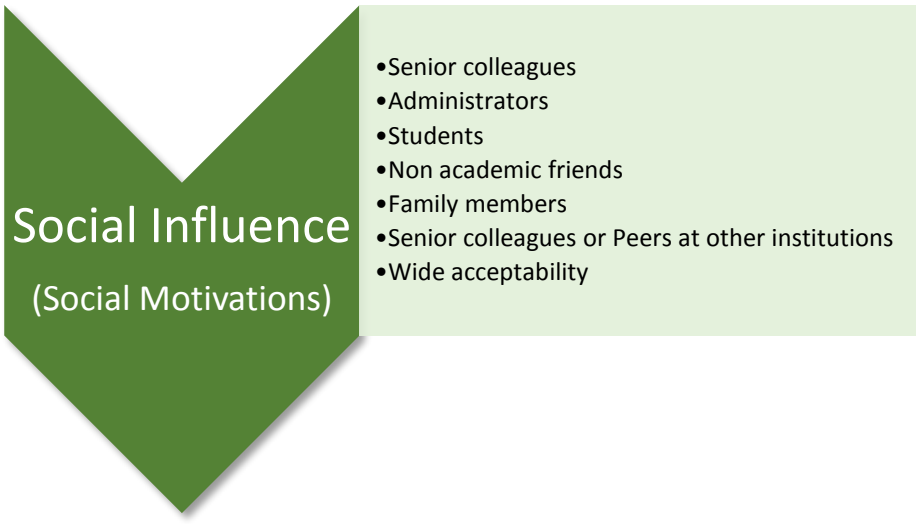


Figure 12: Social Influence

Finally, ‘‘facilitating conditions" construct was discovered to have a negative effect on the perception of faculty members with regards to the diffusion, adoption and use of Social media platforms for academic purposes, basically due to its ‘Time Consuming Nature, and Lack of enabling environment. It was also discovered that ‘lack of familiarity, lack of awareness, lack of commitment and lack of staff training’ are closely related with insufficient knowledge on the use of social media in TLR. This also is expected to affect faculty members’ perceptions negatively with regards to both adoption and use of Social media. This implied that the University has not adopted the use of social media in academics, and therefore there is no expectation from the faculty side to receive technical support from the university. However, facilitating conditions construct from the UTAUT Model was referring to organizational and technical infrastructures that exist to support use of the system but findings from this study also revealed that the researcher expect important resources to come from the users themselves. This can be illustrated from users’ prior knowledge, awareness and familiarity with the new technology which could positively affect users’ perception to adopt and use the new system in an organization. This could be largely achieved from training. Therefore, this study provides useful explanations of UTAUT facilitating conditions construct to recognize users’ prior

knowledge, awareness, familiarity and commitments in addition to organizational and technical infrastructures as part of the construct.

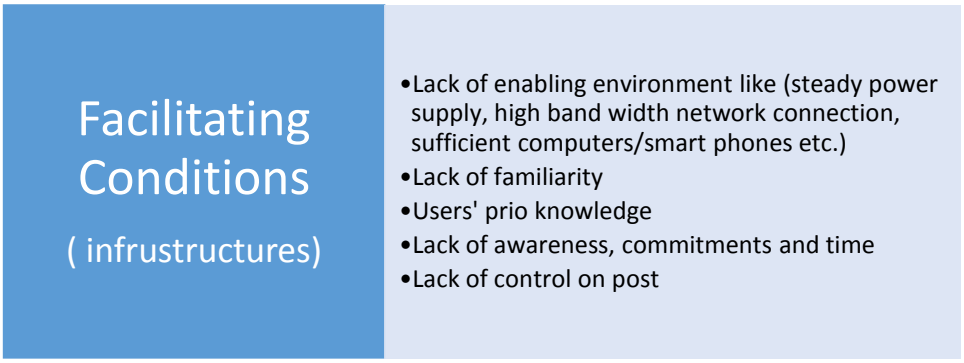


Figure12: Facilitating Conditions

References

Bik, H. M. & Goldstein, M. C. (2013). An Introduction to Social Media for Scientists. *PLoS Biology*, 11(4). Retrieved from http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1001535. Accessed on 25th April, 2017.

Bonzo, J. & Pachoma, G. (2010). The Paradox of Social Media and Higher Education Institutions. *Proceedings of the 7th International Conference* on Networked ISBN 978-1-86220-225-2.

Creswell, J. W. (2014). Research Design: Qualitative, Quantitative and Mixed Methods Approaches. Lincoln: Sage Publishers. Retrieved from https://www.researchgate.net/file.PostFileLoader.html?id...assetKey... Accessed on 19th June, 2017.

De Zuniga, G. H., Jung, N. and Valenzuela, S. (2012). Social Media Use for News and Individuals' Social Capital, Civic Engagement and Political Participation. *Journal of Computer-Mediated Communication*, 17 (3). Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.2012.01574.x/pdf. Accessed on 29th May, 2017.

Humphreys, L., Pape, T. V. and Karnowski, V. (2013). Evolving Mobile Media: Uses and Conceptualizations of the Mobile Internet. *Journal of Computer-Mediated Communication*, 18 (4). Retrieved at http://onlinelibrary.wiley.com/doi/10.1111/jcc4.12019/pdf. Accessed on 29th May, 2017.

Kende, M. (2017). The Shrinking Digital Divide. Retrieved from https://techcrunch.com/2015/07/12/the-shrinking-digital-divide/. Accessed on 25th March, 2017.

McCroskey, J. C. and Richmond, V. P. (1983). Power in the Classroom I: Teacher and Student Perceptions. Retrieved from www.jamescmccroskey.com/publications/112.pdf. Accessed on 29th May, 2017.

Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon*, 9 (5). Retrieved from http://www.marcprensky.com/writing/Prensky-Digital. Natives Digital Immigrants-Part1.pdf. Accessed on 29th May, 2017.

Venkatesh, V., Davis, D., F., Davis, B., G. & Moris, G., M. (2003). User Acceptance of Information Technology: Toward A Unified View. *MIS Quarterly*, 27 (3). 425-478. Retrieved from http://www.jstor.org/stable/30036540. Accessed on 16th January, 2016.

Ward, J. (2015). Scholarly Social Media Profiles and Libraries: A Review – Liber Quarterly. *The Journal of the Association of the European Research Libraries*. Retrieved from https://www.liberquarterly.eu/articles/10.18352/lq.9958/. Accessed on 25th April, 2017.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses summary of the findings of the study, conclusion and recommendations based on the perceptions of faculty members on the diffusion, adoption and use of social media platforms for TLR and factors that encourage faculty members to adopt and use social media for TLR in Ahmadu Bello University, Zaria.

5.2 Summary of the Study

The purpose of this study was to uncover the perceptions of faculty members on the diffusion, adoption and use of social media for TLR and also to find factors that encourage faculty members to adopt and use social media for TLR in Ahmadu Bello University, Zaria. The study adopted the UTAUT theory as a lens to examine each of the four constructs (“performance expectancy", ‘‘effort expectancy", ‘‘facilitating conditions" and “social influence”). This research sought and found answers to the following questions: What types of social media technologies are faculty members of Ahmadu Bello University, Zaria aware of? What are the perceptions of faculty members about social media for TLR? What factors facilitate the diffusion, adoption and use of social media by the faculty members in Ahmadu Bello University, Zaria? How can the UTAUT be used to explain the perceptions of faculty members on the diffusion, adoption, and use of social media for TLR?

A qualitative research methodology was adopted using descriptive-multiple case study research design. The data were collected using in-depth interview conducted with twelve (12) faculty members from all the twelve faculties of Ahmadu Bello University Zaria who have had life experience using the Social media technology. Purposive sampling was used to identify and select participants. The data collected from the participants were analyzed using thematic analysis technique.

5.3 Summary of the Major Findings

The findings of this study answered the research questions raised by providing detailed information about the awareness of the faculty members on social media types; their perceptions and reasons for diffusion, adoption and use of Social media for TLR in ABU, Zaria. The researcher used the four constructs of Unified Theory of Acceptance and Use of Technology (UTAUT); "performance expectancy, effort expectancy, facilitating conditions and social influence" to explain the findings. The summary of the major findings are stated according to the research questions raised.

1. What types of social media technology are faculty members aware of in ABU, Zaria?
   Faculty members were aware of two types of social media: I. Everyday life Social Media and ii. Scholarly Social Media

2. What are the perceptions of faculty members on the adoption and use of social media for TLR?
   i. Faculty members have favorable perceptions on the adoption and use of social media for TLR in Ahmadu Bello University, Zaria

   ii. Faculty members have unfavorable perceptions on the existing facilities.

   iii. Accordingly, faculty members perceived low use of social media in TLR in Ahmadu Bello University, Zaria.

3. What factors facilitate the diffusion, adoption and use of social media by the faculty members in Ahmadu Bello University, Zaria?

   i. Factors that facilitate the diffusion of social media for TLR are: being technologically savvy (curiosity), social media as a tool for interactions, social media as a tool for collaboration and Interactions among faculty members.

ii. Factors that facilitate Adoption of social media for TLR by the faculty members are academic network, official academic gathering, and family members.

iii. Factors that facilitate the Use of social media by the faculty members are social media benefit, ease of use and Exposure of faculty members abroad (training), and the faculty members' feeling of satisfaction plus stable power supply, efficient internet bandwidth, affordability of smartphones and computers.

4. How can the UTAUT be used to explain the perceptions of faculty members on the diffusion, adoption and use of social media for TLR?

The explanations of the UTAUT constructs have wonderful agreements with the conceptual constructs of the perceptions of faculty members from this study. Therefore, UTAUT provides useful explanations on the perceptions of this group of faculty members as explained below:

a. The Subcategories: Social media as a source of information, social media provide beneficial network and social interaction, provides easy and free access to information, data gathering platform, information storage platform, a platform for advertisement, a tool for collaboration, a platform for comment/critics, a networking/connection tool and research oriented platform and class decentralization relates to UTAUT constructs of performance expectancy.

b. Subcategories: Ease of using the Social media platforms, being technologically savvy, safety, lack of control and the time-consuming nature of social media are directly related to Effort Expectancy constructs of UTAUT.

c. The Categories: Academic Network, Official Academic Gathering, Friends and Family Members, students are related to Social Influence constructs of UTAUT.

But, the social influence according UTAUT is limited to influence within the organization and from senior colleagues; this study in addition, considers influence that may come from outside the organization and or from junior colleagues.

d. Categories: Lack of enabling environment, ABU lacks steady power supply, inadequate facilities and social media paradox, lack of awareness, familiarity and exposure of FMs abroad has agreed with organizational facilitating conditions construct of UTAUT.

5.4 Contributions to the Body of Knowledge

The following contributions to the body of knowledge were made:

1. The research is able to find the conceptual constructs that explain the perceptions of faculty members on the adoption and use of social media for TLR in Ahmadu Bello University, Zaria.

    i. The conceptual constructs for favorable perceptions are: Downloading and sharing of relevant information, discussion and collaborations, platform for advertisement, a platform for interaction, ease of use, safety, a networking/connection tool and research oriented platform and class decentralization, provides easy and free access to information, data gathering platform, information storage platform.

    ii. The conceptual constructs for unfavorable perceptions are: unstable power supply, insufficient network connection, social media is time consuming and social media lack control, Social media paradox

2. This study provides methodological contributions to knowledge as it is among the pioneer research to employ the use of UTAUT to interpret the perceptions of faculty members on the adoption and use of social media for TLR in Ahmadu Bello University, Zaria-Nigeria.

5.5 Conclusion

The study concluded that Faculty members were aware of scholarly social media and everyday life social media. Faculty members have favorable perception on the adoption and use of social media for TLR but, have unfavorable perceptions on the existing facilities. Accordingly, faculty members perceived low use of social media in TLR in Ahmadu Bello University, Zaria. Being technologically savvy, social media as a tool for interactions, social media as a tool for collaboration, academic network, official academic gathering, and family members social media benefit, ease of use and exposure of faculty members abroad (training), stable power supply and sufficient network facilities are factors that facilitate diffusion, adoption and use of social media for TLR. It was finally resolved that, the UTAUT constructs provide useful explanations that are directly related to the perceptions of faculty members on the adoption and use of social media for TLR in Ahmadu Bello University, Zaria.

5.6 Recommendations

Based on the findings of this study, the following recommendations were made:

1. Although, faculty members were aware of social media related to everyday life and scholarly social media, their awareness of everyday life social media is for social interaction alone without realizing its academic potentials. Therefore, the University management should mount training programmes aimed at creating awareness on the academic implication of the two social media types and how best to apply in TLR. Training programmes in the form of workshops, conferences and symposium etc. would ensure increased awareness and encourage best practice.

2. Since findings from this study revealed both favorable and unfavorable perceptions of faculty members on the adoption and use of social media for TLR; and the perceived low use; the following recommendations were made:

   i. The favorable perceptions indicate ripe condition for the University Management to introduce conscious programmes aimed at promoting the application of social media in TLR in the University.

   ii. For the unfavorable perceptions on the existing facilities; the University management should provide and or improve on the existing social media facilities to include stable power supply, sufficient network connection, and availability of computers.

   iii. The findings also showed perceived low use of social media by the faculty members; thus, the Management of the University should officially integrate social media along with the design of social media policy guides to ensure some level of control, encouragement and commitment on use.

   iv. Similarly, University management should also consider a control and dedicated social media platform for teaching. This is to mitigate some of its social ills.

   v. Ultimately, staff in the existing digital centres should also provide technical support on the scholarly application of social media for the faculty members.

3. Findings shows that, being technologically savvy (curiosity), social media as a tool for interactions, social media as a tool for collaboration, interactions among faculty members, academic network, official academic gathering, family members, social media benefits, ease of use, exposure of faculty members abroad (training), and the faculty members' feeling of satisfaction plus stable power supply, efficient internet bandwidth, and affordability of smartphones and computers are factors that facilitate diffusion, adoption and use of social media for TLR. Therefore, in designing

programmes to accelerate the scholarly application of social media, the Management of the University and the faculty members should put in to consideration these construct in the following ways:

i. Faculty members should endeavor to acquire technology savvy skills as it will help in upstanding social media technologies which will improve TLR in the University.

ii. The University Management should strive to improve the level of interaction among faculty members, by constructing more seats out parks and gardens, sports and recreational centres and other interactive arena that brings together the faculty members to freely interact and share ideas such as social media use in TLR.

iii. Faculty members should also be encouraged to attend postgraduate programmes and other scholarly events outside the country; to enable them build global connections to find opportunities and explore new ideas and innovations such as social media to help them improve TLR.

4. Considering the enormous importance of all the UTAUT constructs in explaining perceptions of the faculty members; it is recommended that, UTAUT constructs should be used in guiding similar studies but the expansion of UTAUT social influence constructs should be considered to include both influence from within and outside the organization and to consider influence that may come from either senior or junior colleagues, staff, students or family relations. The expansion of UTAUT is to better fit the examination of social media adoption and use in TLR.

5.7 Areas for Further Studies

This study is among the few pioneer researches that have begun to uncover the perceptions of faculty members on the use of social media platforms for TLR in universities in Nigeria. In Ahmadu Bello University and other neighboring universities" in Nigeria, a new approach to information on the use of Social media for TLR is

necessary to improve academic performance. Therefore, the following areas were suggested for research:

i. Further research should place more emphases on developing better understandings of how social media could be utilized in accomplishing academic task of TLR in Ahmadu Bello University.

ii. And in order to achieve that, effort should be geared towards understanding the experiences of faculty members on the use of academic social media in particular research gate and or academia.edu for research purposes.

BIBLIOGRAPHY

ABU News (2015). A publication of Ahmadu Bello University, Zaria. Volume 2 (3). Ahmadu Bello University Press.

ABU News (2017). A publication of Ahmadu Bello University, Zaria. Special Edition. Volume 4 (2). Ahmadu Bello University Press.

Adamson C. (2012). The Role of Social Media in Education. Retrieved from http://www.icwe.net/oeb_special/OEB_Newsportal/the-role-of-social-and-mobile-media-in-education/. Accessed on 21st January, 2015.

Association of College & University Telecommunications Administrators. (2010). Social Media and Higher Education Literature Review. The Literature Review Compiled in Conjunction with the Survey Research Group. Retrieved from www.fullerton.edu/technologyservices/_.../SC10SemerLitReview.pdf. Accessed on 22nd February, 2015.

Babson Research Group. (2011). Teaching, Learning, and Sharing: How Today's Higher Education Faculty Use Social Media. The Education Resources Information Center (ERIC).

Balakrishnan V., Liew K.T. and Pourgholiminejad, S. (2015). Fun Learning with Edoorwere-A Social Media Enables Tool. *Computers and Education*, 80 (2015) 39 – 47.

Bexheti, A. L., & Ismaili, E. B. & Cico, H. B. (2013). An Analysis of Social Media Usage in Teaching and Learning: The Case of SEEU. Recent Advances in Electrical and Computer Engineering. Retrieved from http://inase.org/library/2014/venice/bypaper/OLA/OLA-14.pdf. ISBN. Accessed on 21st January, 2015.

Chen, C., Lai, H., and Ho, C. (2015). Why Do Teachers Continue to Use Teaching Blogs? The Role of Perceived Voluntariness and Habit. *Computers and Education*, 82 (3), 236-249 Science Direct.

Dar es Salam, L. K. (2011). Unleashing Web 2.0 for African Education. *International Conference Proceeding on "Perspective on ICT, Education and Development in Africa*" eLearning Africa News.

Dooley, L. M. & Lynham, S. A. (2003). Using Phenomenology to Come to Know and Understand in Human Resource Development. Paper Presented at the Academy of Human Resource Development 2003 Conference, Minneapolis, MN.

Enunbun, O. (2010). Constructivism and Web 2.0 in the Emerging Learning Era: A global Perspective. *Journal of Strategic Innovation and Sustainability*, 6 (4), 74.

Gikas, J. and Grant, M. M. (2013). Mobile Computing Devices in Higher Education: Students Perspective on Learning with Cellphones, Smartphones, and Social Media. *Internet and Higher Education*, 19. 18 – 26.

Gulati, S. (2008). Technology-Enhanced Learning in Developing Nations: A Review. *The International Review of Research in Open and Distributed Learning*, 9 (1) Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/477/1012. Accessed on 12th March, 2016.

Harris, S. (2002). Innovative pedagogical Practices Using ICT in Schools in England. Journal of Computer Assisted Learning, No. 18, Pp;449-458.

Jenkins, H., Purushortma, R., Weigel, M., Clinton K., and Robinson A. J. (2009). Confronting the Challenges of Participatory Culture: Media Education for the 21st Century. Cambridge, MA: MIT Press. Retrieved from http://henryjenkins.org/blog/2010/05/why_participatory_culture_is_n.html Jenkins 2009. Accessed 0n 14th April, 2015.

Johannes, A., Michael, C. & Corinne, E. (2014). Perception and Uses of Social Media Networking Systems by South African Students. *International Business and Economics Research Journal*, 13 (4).

Kuhn, T. S, (1996). The Structure of Scientific Revolutionsn.3rd ed' p.cm.ISBN: 0-226-45808-3 (paPer). The University of Chicago Press, Ltd., London.

Liman, S. (2014). *New Media in Higher Education: A Study of Social Media Use among Students of Ahmadu Bello University, Zaria, Nigeria.* (Unpublished Dissertation, Department of Theatre and Performing Arts, Faculty of Arts, Ahmadu Bello University, Zaria).

Matesic, M., Vockovic, K., Doveda, Z., and Lucica, I. (2009). Social Software: A Teaching Tool or Not? INFuture 2009, *Digital Information and Heritage*, 3.

Mhunpiew N., Purayidathil J. (2015).Social Networks as a Tool for Education: An awareness of School Leaders. US-China Education Review A, February, Vol., No. 2, 135-141. Doi: 10.17265/2161-623X/2015.02.006. David Publishing

Mohammed, Z. (2015). Exploring the Potentials of Web Technologies in Education, Training, Teaching, Learning and Research in Educational Institutions in Nigeria: A Lead Paper Presented at the Workshop on Web Technology Fluency for Teaching and Research held at the MTN Connect Library, Kashim Ibrahim Library, Ahmadu Bello University, Zaria.

Muhammadali, K. S. & Azizah, N. (2012). Exploring New Factors and the Question "Which" in User Acceptance Studies of Healthcare Software.

Prince, M. (2004). Does Active Learning Work? A Review of the Research. *Journal of Engineering Education*, 93 (3), 223-231.

Sandars, J. & Schroter, S. (2007). Web 2.0 Technologies for Undergraduate and Postgraduate Medical Education: *An Online Survey Postgraduate Medical Journal*, *83, 759–762.*

Seaman, J. & Tinti-Kane, H. (2013). Social Media for Teaching and Learning: Pearson Learning Solutions and Babson Survey Research Group. Retrieved from https://www.onlinelearningsurvey.com/reports/social-media-for-teaching-and-learning-2013-report.pdf. Accessed on 29th May, 2017.

Sugar, W., Crawley, F., & Fine, B. (2004). Examining Teachers' Decisions to Adopt New Technology. *Educational Technology and Society*, 7 (4), 201-213.

Udoh, G. (2008). Alternative Sources of Funding University Education in Nigeria. *An International Multi-Disciplinary Journal*, 2 (3), 98 – 110.

Uloma, D. O. and Fidimaye, O. S. (2011). Perceived Influence of Online Social Networks on Academic Performance: A Study of Undergraduates in Selected Universities in Ogun State Nigeria. *The Information Manager*, 11, 1 – 2.

Unumeri, O. G., Ayo, T. H., Babatunde, O. D. (2009). Perception and Conflict. PCR 276, Course in National Open University of Nigeria.

Venkatesh, V., Davis, D., F., Davis, B., G. & Moris, G., M. (2003). User Acceptance of Information Technology: Toward A Unified View. *MIS Quarterly*, 27 (3). 425-478. Retrieved from http://www.jstor.org/stable/30036540. Accessed on 16th January, 2016.

Zanamwe, N., Rufere, T., & Kufandirimbwa, O. (2013). Use of Social Networking Technologies in Higher Education in Zimbabwe: A Learners' Perspective. *International Journal of Computer and Information Technology*, 2 (1).

Zgheib, G. and Dabbagh, N. (2013). Exploring Perceptions of Faculty and Students' Use of Social Media in Higher Education. Retrieved from http://www.aect.org/pdf/proceedings13/2013/13_39.pdf. Accessed on 26th April, 2017.

Ajjawi, R. & Higgs, J. (2007). Using Hermeneutic Phenomenology to Investigate How Experienced Practitioners Learn to Communicate Clinical Reasoning. *The Qualitative Report, 12* (4), 26.

Blackwell, C. K., Lauricella, A. R., Watella, E., Robb, M., & Schomburg, R. (2013). Adoptionand Use of Technology in Early Education. The Interplay of Extrinsic

Blaikie, N. (1993). Approaches to Social Enquiry. Cambridge: Polity.

Bonzo, J. & Pachoma, G. (2010). The Paradox of Social Media and Higher Education Institutions. *Proceedings of the 7th International Conference* on Networked ISBN 978-1-86220-225-2.

Burns, K. S. (2009). Celeb 2.0: How Social Media Foster Our Fascination with Popular Culture. Greenwood Publishing Group.

Clark, W., Logan, K., Luckin, R., Mee, A., & Oliver, M. (2009). Beyond Web 2.0: Mapping the Technology Landscapes of Young Learners. Journal of Computer Assisted Learning, 25(1), 56–69. doi:10.1111/j.1365-2729.2008.00305.x. Retrievedonhttp://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.697.7863&rep=rep1&type=pdf. Accessed on May, 2015.

Creswell, J. W. (2007). Qualitative Inquiry and Research Design: Choosing among Five Approaches (3rd edition). Thousand Orks, CA: Sage Publication.

Creswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, Third Edition. Library of Congress Cataloging in Publication Data by Sage Publication.

Crotty, M. (1998). The Foundations of Social Research: Meaning and Perspective in the Research Process. London: Sage Publication.

Demuth, A. (2013). Perception Theories. Faculty of Philosophy and Arts. 1st Ed. Tranava University in Trnava in Cooperation with Towarzystwo Słowaków Polsce. ISBN 978-83-7490-606-7.

Dijck, J. V. (2009). Media, Culture & Society: Users Like You? Theorizing Agency in User-Generated Content, DOI: 10.1177/0163443708098245. Accessed on 29th May, 2016.

Dulle, F. W. & Minishi-Majanja, M. K. (2011).The Suitability of the Unified Theory of Acceptance and Use of Technology (UTAUT) Model in Open Access Adoption Studies. *Information Development*, 27 (1), 32-45.

Dunn, L. A. (2017). Teaching in Higher Education: Can Social Media Enhance The Learning Experience? Retrieved from www.gla.ac.uk/media/media_276225_en. Accessed on 7th January, 2016.

Easterby-Smith, M., Thorpe, R. and Jackson, P. (2008). Management Research. 3rd Ed, SAGE Publications Ltd., London.

EDUCAUSE (2005). Learning Initiative: Seven Things You Should Know About Blogs. Available at: www.educause.edu/ir/library/pdf/ELI7006.pdf. Accessed on 25th November, 2017.

Escover-Rodriguez, T. & Carvajal-Trujillo, E. (2014). Online Purchasing Tickets for Low-cost Carriers: An Application of the Unified Theory of Acceptance and Use of Technology (UTAUT) Model. *Tourism Management*, 43, 70-88. Retrieved from www.sciencedirect.com. Accessed on 23rd March, 2016.

Ferguson, C., Sally, C. I., Newton, J. P., Peter, J. S. C., Peter, S. M., Macdonald, P. J. (2014). Social Media: A Tool to Spread Information: A Case Study Analysis of Twitter Conversation at Cardiac Society of Australia & New Zealand 61st Annual Scientific Meeting 2013, Collegian (2014) 21, 89-93.

Flowers, P. (2009). Research Philosophies: Importance and Relevance. 1.

Gruzd, A., Staves, K. & Wilk, A. (2011). Tenure and Promotion in the Age of Online Social Media. *Proceedings of the American Society for Information Science and Technology*, 48 (1), 1–9. Retrieved from http://dx.doi.org/10.1002/meet.2011.14504801154. Accessed on 12th November, 2015.

Hatch, M. J. and Cunliffe, A. L. (2006). Organization Theory 2nd edition, Oxford: Oxford University Press.

Hatfield, G. (2009). Perception & Cognition. Oxford : Oxford University Press.

Kim, H. (2008). The phenomenon of blogs and theoretical model of blog use in educational contexts.Computers & Education, 51(1), 1342–1352. Retrieved November 23rd, 2014, from http://etec.hawaii.edu/otec/classes/645/sdarticle.pdf

Kuhn, T. S. (1996).The Structure of Scientific Revolutions. (3rd edition). Chicago: University of Chicago Press. ISBN: 0-226-45808-3.

Lee, C., Yen, D., Peng, K. & Wu, H. (2010). The Influence of Change Agents' Behavioural Intention on the Usage of the Activity Based Costing Management System and Firm Performance: The Perspective of the Unified Theory of Acceptance and Use of Technology. Advances in Accounting. *Incorporating Advances in International Accounting*. 26, 314-324. Retrieved from www.sciencedirect.com. Accessed on 12th October, 2015.

Martins, C., Oliveira, T. & Popovic, A. (2014). Understanding the Internet Banking Adoption: A Unified Theory of Acceptance and Use of Technology and Perceived Risk Application. *International Journal of information Management,* 34 (1),1-13.

Moats, J. B. (2013). A Close Look at Technology Acceptance: A Phenomenological Study. (Unpublished Theses, Office of Graduate and Professional Studies of Texas A & M University).

Mohammadi, H. (2015). Social and Individual Antecedents of M-learning Adoption in Iran. *Computers in Human Behaviour,* 49, 191 – 207. Retrieved from www.sciencedirect.com. Accessed on 15th June, 2015.

O'Brien, S. (2013). The borrowers: Researching the Cognitive Aspects of Translation. Target, 25(1): 5-17.

Onyebuchi, E. (2009). *Making sense of Web 2.0 Technologies: Do European Students Use the Social Media Applications for Educational Goals?* (Unpublished Master's Thesis, University of Twente, Easchede, Netherlands).

Osman, G. & Koh. J. H. L. (2013). Understanding Management Students' Reflective Practice Through blogging. *The Internet and Higher Education, 16, 23–31.*

Petty, N. J., Thompson, O. P. & Stew, G. (2012). Ready for a Paradigm Shift? Part 1: Introducing the Philosophy of Qualitative Research.

Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon,* 9 (5). Retrieved from http://www.marcprensky.com/writing/Prensky-Digital.pdf. Accessed on 29th May, 2017.

Raut, V. & Patil, P. (2016). Use of Social Media in Education: Positive and Negative Impact on the Students. *International Journal on Recent and Innovation Trends in Computing and Communication,* 4 (1). Retrieved from http://www.ijritcc.org/download/conferences/ICRRTET_2016/ICRRTET_Track/1455261816_12-02-2016.pdf. Accessed on 29th May, 2017.

Richardson, W. (2008). Blogs, Wikis, Podcasts, and other Powerful Web Tools for Classrooms. Thousand Oaks: CA: Corwin Press. A Sage Publication. ISBN 978-1-4129-7747-0 (pbk)

Sandars J, Schroter S (2007). W eb 2.0 Technologies for Undergraduate and Postgraduate Medical Education: An Online Survey. Postgrad. Med.J.,83:759-762[Online]. Retrieved at http://www.scribd.com/doc/45817302/Web-2-0-technologies-for-undergraduate-and-postgraduate-medical-education-an-online-survey. Accessed on 17th July, 2016

San, M. H. & Herrero, Á. (2012). Influence of the User's Psychological Factors on the Online Purchase Intention in Rural Tourism: Integrating Innovativeness to the UTAUT Framework. *Tourism Management,* 33 (2), 341 - 350.

Schrader, D. E. (2015). Constructivism and Learning in the Age of Social Media: Changing Minds and Learning Communities. DOI: 10.1002/tl.20160. Accessed on 29th May, 2017. Shirky, C. (2008).

Sincero, S. M. (2013). Perception. Retrieved from https://explorable.com/perception. Accessed on 20th June, 2017.

Sola, N. F. and Smith, M. (2009). Perceptions and Policy in Transatlantic Relations: Prospective Visions from the U.S. and Europe. London: Routledge Taylor and Francis Group. Retrieved from https://books.google.com.ng/books?isbn=0415454875. Accessed on 20th June, 2017.

Stanford Encyclopedia of Philosophy. (2016). Plato on Knowledge in the Theaetetus. Retrieved from https://plato.stanford.edu/entries/plato-theaetetus/. Accessed on 20th June, 2017.

Teo, T. (2011). Factors Influencing Teachers' Intention to Use Technology: Model Development and Test. *Computers & Education*, 57. Retrieved from www.sciencedirect.com. Accessed on 12th June, 2016.

Tobbin, P. E. (2014). Examining the Adoption and Use Mobile Data Services: A Consumer Behaviour Analyses. Unpublished Doctoral Dissertation in the Center for Communication, Media and Information Technologies, Aalborg University, Denmark.

Venkatesh, V., Davis, D., F., Davis, B., G. & Moris, G., M. (2003). User Acceptance of Information Technology: Toward A Unified View. *MIS Quarterly*, 27 (3). 425-478. Retrieved from http://www.jstor.org/stable/30036540. Accessed on 16th January, 2016.

Vygotsky, L. *(*1978*).* Interaction Between. Learning and Development. In Gauvain &. Cole (Eds) Readings on the Development of Children. New York: Scientific American Books. Retrieved at https://www.colorado.edu/physics/phys4810/phys4810_fa08/.../vygot_chap6.pdf. Accessed on 13th November, 2014.

Workman, M. (2013). New Media and the Changing Face of Information Technology Use: The Importance of Task Pursuit, Social Influence, and Experience. *Computers in Human Behaviour* 31, 111-117.

Yilmaz, K. (2008) Constructivism: Its Theoretical Underpinnings, Variations, and Implications for Classroom Instruction. Educational Horizons, 86(3), 161-172.

Adler, P. A. & Adler, P. (2012). Keynote Address. Tales from the Field: Reflections on Four Decades of Ethnography. Retrieved from http://www.qualitativesociologyreview.org/ENG/Volume21/QSR_8_1_Adler_Adler.pdf. Accessed on 3rd June, 2017.

Battaglia, M. P. (2008). Nonprobability Sampling. *Encyclopedia of Survey Research Methods*, Retrieved from http://dx.doi.org/10.4135/9781412963947.n3378. Accessed on 12th June, 2016.

Boyce, C. and Neale, P. (2006). Conducting In-Depth Interview: A Guide for Designing and Conducting In-Depth Interviews for Evaluation Input. Pathfinder International Tools Series.

Bryan, M., Cardon, P., Podder, A., and Fontenot, R. (2013). Does Sample Size Mater in Qualitative Research? Review of Qualitative Interview in IS. *Research Journal of Computer Information System*. 54, 1. Retrieved www.tandfonline.com/doi/pdf/10.1080/08874417.2013.11645667. Accessed on 10th June, 2017.

Collis, J. and Hussey, R. (2003), Business Research: A Practical Guide for Undergraduate and Postgraduate Students, Palgrave Macmillan, Houndmills, Basingstoke, Hampshire.

Creswell, J. W. (2002). Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research. Upper Saddle River, N.J.: Merrill Prentice Hall.

Creswell, J. W. (2007). Qualitative Inquiry & Research Design: Choosing among Five Approaches (2nd ed.). Thousand Oaks: Sage Publications.

Creswell, J. W. (2009). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, Third Edition. Library of Congress Cataloging in Publication Data by Sage Publication.

DiCicco-Bloom, B. & CrabTree, B. F. (2006). Making Sense of Qualitative Research: The Qualitative Research Interview: Medical Education. Blackwell Publishing Ltd.

Dodge, Pamela R., "Managing school behavior: a qualitative case study" (2011). Graduate Theses and Dissertations. Paper 12038.

Garring, G. (2004). What a is Case Study and What is it Good for? *American Political Science Review*, 98, (2).

Gentles, S. J., Charles, C., Ploeg, J., & McKibbon, K. (2015). Sampling in Qualitative Research: Insights from an Overview of the Methods Literature. *The Qualitative Report*, 20 (11), 1772-1789. Retrieved from http://nsuworks.nova.edu/tqr/vol20/iss11/5. Accessed on 12th May, 2015.

Kothari, C. R. (2004). Research Methodology: Methods and Techniques (Second revised edition). New Age International Publishers. ISBN 13: 978 – 81 – 224 – 2488 – 1.

Latham, J. (2014). Qualitative Sample Size- How Many Participants is Enough? Retrieved from http://johnlatham.me/many-participants-enough/. Accessed on 17th June, 2017.

Lincoln, Y. S. & Guba, E. G. (1985). Naturalistic Inquiry. Beverly Hills, CA: Sage. ISBN: 9780803924314. Retrieved from https://uk.sagepub.com/en-gb/afr/naturalistic-inquiry/book842. Accessed on 8th June, 2017.

Malterud, K., Siersma, V. D., and Guassora, A. D. (2015). Sample Size in Qualitative Interview Studies: Guided by Information Power. Qualitative Health Research, Sage Journals. Retrieved from http://journals.sagepub.com/doi/abs/10.1177/1049732315617444. Accessed on 3rd June, 2017.

Management Information System of the Institute of Computing & ICT, ABU, Zaria. (2016). Staff Statistics of the University Faculty Members.

Marshall, C. and Rossman, G. B. (2006). Designing Qualitative Research (4th ed.). Thousand Oaks. CA: Sage.

Martiz G. (2015). A qualitative case study on Cell Phone Appropriation for Language Learning Purposes in a Dominican Context. All Graduate Theses and Dissertations. Paper 4414.

Mbachu O. (2005). Social Science Research Methods for Policy and Strategic Studies. ISBN 978-978-198-064-8

Merriam, S. B. (1998). Qualitative Research and Case Study Applications in Education (2nd ed.). San Francisco: Jossey-Bass.

Milas T. P. (2015). Information Behavior at Highpath School of Theology: A Case Study. Published by ProQuest LLC.

Saumure, K. & Given, M. L. (2008). Rigor in Qualitative Research. The Sage Encyclopedia of Qualitative Research Methods. Retrieved from http://dx.doi.org/10.4135/9781412963909. Accessed on 17th April, 2016.

Shenton, A. K. (2004). Strategies for Ensuring Trustworthiness in Qualitative Research Projects. *Education for Information* 22, 63 – 75.

Stake, R. E. (1995). The Art of Case Study Research. Thousand Oaks, CA: Sage.

Schwandt, T. A. (2000). Three Epistemological Stances for Qualitative Inquiry in N. K Denzin and Y. S., Lincoln (Eds). Handbook of Qualitative Research (2nd ed., pp189 -213). Thousand Oaks, CA: Sage.

The Association for Educational Communications and Technology. (2001). What Is Descriptive Research? Retrieved from http://www.aect.org/edtech/ed1/41/41-01.html. Accessed on 17th June, 2017.

Thomas S. (2012). A case study of the information needs of nurses at a university hospital trust in the East Midlands: looking towards how information provision could be improved. Unpublished.

Vohra, V. (2014). Using the Multiple Case Study Design to Decipher Contextual Leadership Behaviors in Indian Organizations. Retrieved from http://www.ejbrm.com. Accessed on 17th June, 2017.

Bik, H. M. & Goldstein, M. C. (2013). An Introduction to Social Media for Scientists. *PLoS Biology*, 11(4). Retrieved from http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1001535. Accessed on 25th April, 2017.

Bonzo, J. & Pachoma, G. (2010). The Paradox of Social Media and Higher Education Institutions. *Proceedings of the 7th International Conference* on Networked ISBN 978-1-86220-225-2.

Creswell, J. W. (2014). Research Design: Qualitative, Quantitative and Mixed Methods Approaches. Lincoln: Sage Publishers. Retrieved from https://www.researchgate.net/file.PostFileLoader.html?id...assetKey... Accessed on 19th June, 2017.

De Zuniga, G. H., Jung, N. and Valenzuela, S. (2012). Social Media Use for News and Individuals' Social Capital, Civic Engagement and Political Participation. *Journal of Computer-Mediated Communication*, 17 (3). Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1083-6101.2012.01574.x/pdf. Accessed on 29th May, 2017.

Humphreys, L., Pape, T. V. and Karnowski, V. (2013). Evolving Mobile Media: Uses and Conceptualizations of the Mobile Internet. *Journal of Computer-Mediated Communication*, 18 (4). Retrieved at http://onlinelibrary.wiley.com/doi/10.1111/jcc4.12019/pdf. Accessed on 29th May, 2017.

Kende, M. (2017). The Shrinking Digital Divide. Retrieved from https://techcrunch.com/2015/07/12/the-shrinking-digital-divide/. Accessed on 25th March, 2017.

McCroskey, J. C. and Richmond, V. P. (1983). Power in the Classroom I: Teacher and Student Perceptions. Retrieved from www.jamescmccroskey.com/publications/112.pdf. Accessed on 29th May, 2017.

Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon*, 9 (5). Retrieved from http://www.marcprensky.com/writing/Prensky-Digital. Natives Digital Immigrants-Part1.pdf. Accessed on 29th May, 2017.

Venkatesh, V., Davis, D., F., Davis, B., G. & Moris, G., M. (2003). User Acceptance of Information Technology: Toward A Unified View. *MIS Quarterly*, 27 (3). 425-478. Retrieved from http://www.jstor.org/stable/30036540. Accessed on 16th January, 2016.

Ward, J. (2015). Scholarly Social Media Profiles and Libraries: A Review – Liber Quarterly. *The Journal of the Association of the European Research Libraries*. Retrieved from https://www.liberquarterly.eu/articles/10.18352/lq.9958/. Accessed on 25th April, 2017.

Appendix A

INTERVIEW GUIDE

Perception of faculty members on the Adoption and Use of Social media for Teaching, Learning and Research in Ahmadu Bello University Zaria

Date:
_____

Start Time: _____End Time: _____

Location: _____

Interviewer: _____

Interviewee: _____

Role of
Interviewee_____
_____

a. Establish a Rapport

I am a postgraduate student in the Department of Library and Information science, Faculty of Education, Ahmadu Bello University, Zaria. I would like to discuss with you about my dissertation research investigating on the Perceptions of faculty members of Ahmadu Bello University, Zaria on the Adoption and use of Social media technologies for Teaching, Learning and Research.

By Social media technologies, I mean those internet and mobile applications that include Facebook, Twitter, LinkedIn, and blogs, Myspace, Delicious, List-serve, and WhatsApp etc. This tool or technologies allow for instant communication and sharing of information among users. Users can exchange, comment, discuss and create information and knowledge in a collaborative way which is very suitable for teaching, learning and research.

Research Questions

1. **What types of social media technologies are faculty members aware of in Ahmadu Bello University, Zaria?**
    a. Can you share with me different types of Social media you know?
2. **What are the perceptions of faculty members about Social media for scholarly activities?**
    a. Share with me your understanding of Social media for teaching?
    b. Tell me your understanding of Social media for learning?
    c. Discuss with me your understanding of Social media for research?
3. **What factors facilitate the diffusion, adoption and use of Social media by faculty members in Ahmadu Bello University, Zaria**
    a. Can you share with me how you know about Social media for Academic Purposes?
    b. Can you share with me what encourages you to start using Social media for TLR?

Appendix B

INFORMED CONSENT FORM

Participant's Informed Consent for Participation in the Research Study:

Perceptions of Faculty members of Ahmadu Bello University, Zaria, on the Adoption and Use of Social media for Teaching, Learning and Research

Purpose of the research

Studies have shown that social media has the potential to overcome the problem of overcrowded classrooms and passive learning by students if faculty members adopt and properly use it in teaching. However, there is little understanding of faculty members' perceptions on the adoption and use of social media for teaching, learning and research (TLR) in ABU, Zaria. And in order to embed the use of social media in TLR successfully, understanding the lecturer's perception is critical. This is because perception influences people's behaviour, along with the willingness and readiness to adopt and use the new technology. Therefore, it is my desire to study the perceptions of participants, such as you, on the adoption and use of social media technologies in TLR to better understand the decision-making process to accept technology in scholarly activities.

This dissertation is in partial fulfilment of the requirements for the award of Master of Philosophy degree in Information Management from Ahmadu Bello University, Zaria.

Participant's Consent Declaration

By my signature on this form I acknowledged the following:

1. My participation is voluntary, and I understand that I may choose to respond to any, all or none of the questions asked in the individual interview session.
2. I was informed that I may withdraw my consent to participate in the study at any time without penalty by advising the researcher.
3. I have been assured that my responses will remain strictly confidential with regard to my identity

4. I am also aware that excerpts from the interview may be included in the thesis and/or publications to come from this research, with the understanding that the quotations will be anonymous.
5. I understand the research requirement that the individual interview session is audio-taped and/or videotaped and that no identifying information will be associated with individuals in the study.
6. I understand that I will not receive any direct personal rewards from participating in this study, and my participation will not affect my occupational standing.
7. I understand that I may be given opportunity to review the transcribed audio/video taped individual interview session of my comments and input before the transcripts are finalized for analysis.
8. I will have the opportunity of seeing the results of this study if I so request.

Participant Signature_____Date_____

Name_____

Participant's Email Address_____

Signature of person obtaining consent_____Date_____

Name_____

Principal Investigator: Ahmed Zakaria Mobile Number: 08036630915

☐ I request a copy of the research results be sent to me at the following address:

_____

_____

_____

Any questions about this research may be directed to the Principal Investigator or to the researcher's major supervisor Dr. Abdullahi I. Musa, Department of Library and Information Science, Ahmadu Bello University Zaria.

Appendix C

Dear Sir,

INVITATION TO PARTICIPATE IN A RESEARCH

This email is an invitation for you to participate in a qualitative research study that I am conducting as partial fulfillment of the requirements for obtaining a Master of Philosophy degree from the Department of Library and Information Science, Faculty of Education, Ahmadu Bello University, Zaria. I would like to provide you with further information about this project and what your involvement would require.

It is my desire to study the Perceptions of participants, such as you, on the Adoption and Use of Social media Technologies in Teaching, learning and Research to better understand the decision-making process to accept technology in scholarly activities.

Participation in this study is voluntary. It will involve only personal interview. The interview will be audio recorded to facilitate collection of information, and later transcribed for analysis. It will also take place at a mutually agreed upon confidential setting.

As a participant, you may decline to answer any of the interview questions, should you so desire. You may also decide to withdraw from this study at any time without any negative consequences by advising the researcher.

After the interview, I may send you a copy of the transcribed conversations to give you the opportunity to confirm the accuracy of our conversation and to add or clarify any points that you wish. All of this information is considered strictly confidential, and your name will not appear anywhere in my dissertation or in any written reports from the study. However, with your permission and under a pseudonym, anonymous quotations from the sessions may be used in the written dissertation or reports.

Following the completion of the study, you may have the results sent to you upon request. All data collected during this study will be retained for a period of three years in a locked file in my office where no one but me has access to it. There are no known or anticipated risks to you as a participant in this study.

Thank you

Yours faithfully,

Ahmed Zakaria

M.Phil./Ph.D./Educ/40233/2012-2013

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