

OFFICE SOCIAL MEDIA AND ADMINISTRATIVE COMMUNICATION HEALTH OF PUBLIC UNIVERSITIES IN SOUTH-SOUTH, NIGERIA**¹Dr Emenike U. Amadi and²Opara, Irene Ure****¹Department of Educational Management, Faculty of Education****²PhD Student, Department of Office and Information Management****^{1&2}Ignatius Ajuru University of Education, Rumuolumeni Port Harcourt, Rivers State, Nigeria****ABSTRACT**

The study examined the relationship between office social media and administrative communication health of public universities in south-south, Nigeria. The objective of the study was to examine how office social media relates with measures of administrative communication health of public universities in south-south, Nigeria. The cross-sectional explanatory survey research design was adopted for the study. The population of the study consisted of twenty (20) public (Government-owned) universities across the six (6) States in South-South, Nigeria. The sample size comprised of two hundred and eighty (280) administrative staff in twenty (20) public universities in south-south, Nigeria. This was obtained using the Taro Yamene formula and the public university sample size was calculated using the Bowley's (1960) population proportionate allocation. Structured questionnaire was used as instrument for data collection after face-validation. Cronbach alpha was used to test the internal consistency of the instrument. Out of 280 copies of the questionnaire administered, a total of 250 were retrieved. Arithmetic mean was used for the univariate analysis while the test of hypotheses was done using Correlational Statistical tool such as Spearman Rank Order Correlation. The findings revealed that office social media had a high positive correlation with administrative communication health of public universities in south-south, Nigeria. The study concluded that office virtualization in terms of virtual office data management bring about improvement in administrative communication health of public universities in south-south, Nigeria. The study therefore recommended that management should procure digital gadgets such as laptops, ipads among orders for administrative office usage in other to enable the use of Microsoft office suite for data processing tasks among others.

Keywords: Office Social Media, Administrative, Communication Health

INTRODUCTION

Office social media can be defined as forms of electronic communication through which users interact among people in which they create, freely share, exchange and discuss information, ideas, business and personal messages, and other content about each other and their lives using a multimedia mix of personal words, pictures, videos and audio, utilizing online platforms while they are connected to the internet (Kuppuswamy & Narayan, 2010). Office social media is a means that employs mobile and web based technology to create highly interactive platforms which individuals, community and businesses share, co-create, discuss and modifies users' generated content. Social media is a phrase being tossed around a lot. It is a website that does not just give you information but interact with you while giving you information. It is a group of internet based application that allows the creation and exchange of users generated content. Today, various administrative units like Faculties, Departments, and Committees use WhatsApp Group chat to stay in touch. Office social media is becoming a veritable tool for virtual office practices in our public universities. However, we are yet to embrace its full usage in the administrative system. There are still mixed feelings about whether office virtualization should be fully embraced or not. One of the causes of this ugly scenario is the seeming low digital literacy level of most of the staff. Running a virtualized office system requires some level of advanced digital literacy on the part of the workforce. The issue of office virtualization in the administrative system of public universities in Nigeria is shredded

with lots of concerns and there appears to be a dearth of empirical studies on how office virtualization interacts with the administrative communication health of public universities in South-South, Nigeria. It was against this backdrop that the researcher chose to delve into this study.

Office Social Media and Administrative Communication Health

Almost every employee of modern organization have a Smartphones, these Smartphones are not only used for calls making and receiving, but also serve as tool for carrying out administrative activities. This is noted on the fact that the development of new communication technologies operationally known in this work as social media has led to the development of the virtual workplace. Thus, various departments of public universities in South-South, Nigeria make use of social media tools such as Facebook, WhatsApp, Instagram, twitter, telegram etc., to facilitate the creation and sharing of information, ideas, career interests and other forms of expression to both employees and clients concerned to the conduct of their business. Other social media tools used by public universities include blogs, Microblogs, social networks, media-sharing sites, social bookmarking and voting sites, evaluation sites, forums, and virtual worlds (Zarella in Ardam & Mohammad, 2019). These tools help user (management, employees, customers, government, etc.,) generated content, which are effective in managing knowledge within or without an organization as it facilitates effective operations of their corporations. Organizations such as public universities now use social media to promote their products and services in a new way, and each social media tool per se has its distinct purpose that the other media may not have. Social media helps public universities and their claimant access, share, co-create, discuss and participate in business dealings. This in turn enhances administrative communication health in terms of information dissemination (access to correspondences, information justice and feedback), administrative coordination (decision making/implementation, smooth workflow and resource maximization) and information accuracy (detailed account of events, error free correspondence and content comprehensibility).

Apparently, public universities which are savvy to the use of social media tools such as office telegram and twitter makes online journals or informational website displaying information about their offers, products, services and as well their corporate social responsibilities to their respective claimants (Syed, 2009). Today, many institutions are integrating blogs into their sites to perform the same function. Product and service brands are been pivoted toward more video and social media marketing, as businesses are beginning to flesh out a marketing strategy and other knowledge management indices to boost administrative communication health in terms of information dissemination (access to correspondences, information justice and feedback), administrative coordination (decision making/implementation, smooth workflow and resource maximization) and information accuracy (detailed account of events, error free correspondence and content comprehensibility). This is because office telegram possesses range of advantages such as sharing photos, videos, audio messages, marketing, connecting to web-based resources, and sending files (up to 1.5 gigabyte in size) as well as sending messages to other users individually or to groups of up to 5000 members for broadcasting to infinite audiences.

Office WhatsApp is one office media platform or application that has come to stay as far as communication in the business world is concerned. Johnson and George (2016) to investigate how WhatsApp usage influences students' performance in public universities in Ghana using 50 students from five public universities were interviewed and 500 questionnaires were administered to students from same institutions, it was found that WhatsApp instead of making communication easier and faster thereby enhancing effective flow of information and idea sharing among students, rather has impacted negatively on the performance of tertiary students in Ghana. The study also revealed that the use of WhatsApp among students has resulted to the following issues academic procrastination impairs students' spellings and grammatical construction of sentences, attention deficiency during lectures, and inability to complete assignments on time. Similarly, Kuppuswamy and Shankar (2010) found that the social network grabs the total attention and concentration of the students and diverts it towards non educational, unethical and inappropriate actions such as

useless chatting, time killing by random searching and not doing their jobs. With recent application upgrades, WhatsApp has a lot of interesting features such as video calls among other that catches students' fancy.

Englander et al. (2010) asserted that students dedicate more of their time to WhatsApp and other social media platform which makes it difficult for them to give attention to their studies and negatively affects their academic performance in the long run. Students belong to two or more WhatsApp group chats which makes myriad of messages to pop in and the student spends more time reading, replying and downloading videos, voice messages, images and audio files on WhatsApp even during classes. However, a study conducted in selected universities in South Africa by Bere (2013) revealed that the use of WhatsApp enhances lecturer-student academic interactions, enhances feedback for group works and makes learning more interesting. Similarly, a study conducted in two universities in Catonia, by Plana, et al. (2013) found that the incorporation of instant WhatsApp messaging in teaching and learning English language increased students' motivation and enthusiasm. We live in social technology-driven society and young students are interested in online activities, so any learning activity that incorporate social media platform such as WhatsApp messenger can be very interesting for students.

From the empirical studies reviewed above, it can be deduced that the use of WhatsApp (both business and ordinary WhatsApp) both positive and negative effect on individuals including administrators. These studies are centered on how the use of WhatsApp (business WhatsApp inclusive) affects performance. Invariably, the literature x-rayed above shows a connectivity between business WhatsApp and communication health by administrative staff. Relating it to the workplace, the literature suggest that with the adoption and use of new media in the workplace, thus, administrative communication health could be enhanced in terms of information dissemination (access to correspondences, information justice and feedback), administrative coordination (decision making/implementation, smooth workflow and resource maximization) and information accuracy (detailed account of events, error free correspondence and content comprehensibility).

Theoretical Review

This work is mainly anchored on Diffusion of Innovation Theory, seconded by Socio-Technical Theory and Person-Environment Fit Theory.

Diffusion of Innovation Theory

Diffusion of Innovation Theory was propounded Roger in 1962. Roger's Diffusion of Innovation Theory explains the process and benefits of allowing emerging digital practices to diffuse into a work system (Rogers' 1962 in Ikemefuna, 2016). It explains the processes involved in the adoption of innovations such as new technologies, techniques, and procedures as well as the resultant effects of such steps on organizational processes (Rogers in Creswell, 2014; Ahiauzu & Asawo, 2016).

The diffusion of innovation theory assumes that

- i) In a social system, there will always be a disparity in the level and time at which individuals within a given social system adopt new ideas, techniques, and technology.
- ii) Individuals and arms of institutions that adopt innovations early will naturally outperform late adopters and the laggards (Rogers as cited in Ayodele, 2012; Odu, 2017; George-Amadi, 2018).

This theory was succinctly adopted as the theoretical underpinning of this study because it is related to the predictor variable of this study (office virtualization as an innovation) and its accurate prediction of how innovations such as office virtualization could affect organizational activities such as administrative communication health in public universities of south-south geo-political zones in Nigeria.

The theory predicts that firms that adopt innovations such as office virtualization on time will experience better organizational success than those who stick to traditional systems of operations. The process of adopting new innovations has been studied for over 30 years, and one of the most popular adoption models is described by Rogers in his book, *Diffusion of Innovations* (Sherry & Gibson, 2002). Much research from a broad variety of disciplines has used the model as a framework. Dooley (1999) and Stuart (2000) mentioned several of these disciplines as political science, public health, communications, history, economics, technology, and education, and defined Rogers' theory as a widely used theoretical framework in the area of technology diffusion and adoption. There are four main elements in the diffusion of innovation, they are

- Innovations
- Communication Channels
- Time
- Social System

Rogers' diffusion of innovations theory is the most appropriate for investigating the adoption of technology in higher education and educational environments (Medlin, 2001; Parisot, 1995). In fact, much diffusion research involves technological innovations so Rogers (2003) usually used the word technology and innovation as synonyms. Rogers (2003), asserts that a technology is a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome. It is composed of two parts hardware and software. While hardware is the tool that embodies the technology in the form of a material or physical object, software is the information base for the tool (Rogers, 2003). Since software (as a technological innovation) has a low level of observability, its rate of adoption is quite slow. For Rogers (2003), adoption is a decision of full use of an innovation as the best course of action available and rejection is a decision not to adopt an innovation. Rogers defines diffusion as the process in which an innovation is communicated through certain channels over time among the members of a social system. As expressed in his definition, innovation, communication channels, time, and social system are the four key components of the diffusion of innovations.

Innovation: Rogers offered the following description of an innovation An innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption (Rogers, 2003). An innovation may have been invented a long time ago, but if individuals perceive it as new, then it may still be an innovation for them. The newness characteristic of an adoption is more related to the three steps (knowledge, persuasion, and decision) of the innovation-decision process. Rogers claimed there is a lack of diffusion research on technology clusters. Rogers (2003), explains that technology cluster consists of one or more distinguishable elements of technology that are perceived as being closely interrelated. Uncertainty is an important obstacle to the adoption of innovations. An innovation's consequences may create uncertainty Consequences are the changes that occur in an individual or a social system as a result of the adoption or rejection of an innovation (Rogers, 2003). To reduce the uncertainty of adopting the innovation, individuals should be informed about its advantages and disadvantages to make them aware of all its consequences. Moreover, Rogers claimed that consequences can be classified as desirable versus undesirable (functional or dysfunctional), direct versus indirect (immediate result or result of the immediate result), and anticipated versus unanticipated (recognized and intended or not).

Communication Channels: The second element of Rogers's diffusion of innovations process is communication channels. For Rogers (2003), communication is a process in which participants create and share information with one another in order to reach a mutual understanding. This communication occurs through channels between sources. Rogers states that a source is an individual or an institution that originates a message. A channel is the means by which a message gets from the source to the receiver. Rogers states that diffusion is a specific kind of communication and includes these communication elements an innovation, two individuals or other

units of adoption, and a communication channel. Mass media and interpersonal communication are two communication channels. While mass media channels include a mass medium such as TV, radio, or newspaper, interpersonal channels consist of a two-way communication between two or more individuals. On the other hand, diffusion is a very social process that involves interpersonal communication relationships (Rogers, 2003). Thus, interpersonal channels are more powerful to create or change strong attitudes held by an individual. In interpersonal channels, the communication may have a characteristic of homophily, that is, the degree to which one or more individuals who interact are similar in certain attributes, such as beliefs, education, socioeconomic status, and the like, but the diffusion of innovations requires at least some degree of heterophily, which is the degree to which two or more individuals who interact are different in certain attributes. In fact, one of the most distinctive problems in the diffusion of innovations is that the participants are usually quite heterophilous (Rogers, 2003). Communication channels also can be categorized as localite channels and cosmopolite channels that communicate between an individual of the social system and outside sources. While interpersonal channels can be local or cosmopolite, almost all mass media channels are cosmopolite. Because of these communication channels' characteristics, mass media channels and cosmopolite channels are more significant at the knowledge stage and localite channels and interpersonal channels are more important at the persuasion stage of the innovation-decision process (Rogers, 2003).

Time According to Rogers (2003), time aspect is ignored in most behavioral research. He argues that including the time dimension in diffusion research illustrates one of its strengths. The innovation-diffusion process, adopter categorization, and rate of adoptions all include a time dimension.

Social System: Another aspect of Rogers' theory is the Social system which is the last element in his diffusion process. Rogers (2003) defined the social system as a set of interrelated units engaged in joint problem solving to accomplish a common goal. Since diffusion of innovations takes place in the social system, it is influenced by the social structure of the social system. For Rogers (2003), structure is the patterned arrangements of the units in a system. He further claimed that the nature of the social system affects individuals' innovativeness, which is the main criterion for categorizing adopters. Rogers (2003) describe innovation-decision process as an information-seeking and information-processing activity, where an individual is motivated to reduce uncertainty about the advantages and disadvantages of an innovation.

Rogers (2003), the innovation-decision process involves five steps (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation. These stages typically follow each other in a time-ordered manner.

The Knowledge Stage: The innovation-decision process starts with the knowledge stage. In this step, an individual learns about the existence of innovation and seeks information about the innovation. What? how?, and why? are the critical questions in the knowledge phase. During this phase, the individual attempts to determine what the innovation is and how and why it works (Rogers, 2003). According to Rogers, the questions formed three types of knowledge Awareness-knowledge, how-to-knowledge, and Principles-knowledge.

- i) Awareness-knowledge Awareness-knowledge represents the knowledge of the innovation's existence. This type of knowledge can motivate the individual to learn more about the innovation and, eventually, to adopt it. Also, it may encourage an individual to learn about other two types of knowledge.
- ii) How-to-knowledge The other type of knowledge, how-to-knowledge, contains information about how to use an innovation correctly. As Wetzel (1993) stated, even the faculty who have technical backgrounds may not use technology in teaching, if they do not have knowledge of how to use it correctly. Thus, technology is not used at an expected level, since they need help in how to use the technology effectively in teaching (Spotts, 1999).

Rogers saw this knowledge as an essential variable in the innovation-decision process. To increase the adoption chance of an innovation, an individual should have a sufficient level of how-to-knowledge prior to the trial of this innovation. Thus, this knowledge becomes more critical for relatively complex innovations.

- iii) Principles-knowledge The last knowledge type is principles-knowledge. This knowledge includes the functioning principles describing how and why an innovation works. An innovation can be adopted without this knowledge, but the misuse of the innovation may cause its discontinuance. Sprague, (1999), asserted that the biggest barrier to faculty use of technology in teaching was that faculty lack a vision of why or how to integrate technology in the classroom. To create new knowledge, technology education and practice should provide not only a how-to experience but also know-why experience (Seemann, 2003). In fact, an individual may have all the necessary knowledge, but this does not mean that the individual will adopt the innovation because the individual's attitudes also shape the adoption or rejection of the innovation.

METHODOLOGY

The explanatory cross sectional survey research design was adopted for this study. The population of this study consisted of twenty (20) public (Government-owned) universities across the six (6) states in South-South, Nigeria. The entire population of twenty (20) public universities in South-South, Nigeria was used as the study sample. Thus, this study is census research. The collection of primary data was done using a questionnaire designed by the researcher. Arithmetic Mean and Standard Deviation was used for Univariate Analysis, Spearman Rank Order Correlation was applied for the Bivariate Analysis while. The test of hypotheses was done at 95% confidence level.

RESULTS

Office Social Media and Administrative Communication Health

- Ho₁ There is no relationship between office social media and information dissemination of public universities in South-South, Nigeria.
- Ho₂ There is no significant relationship between office social media and administrative coordination of public universities in South-South, Nigeria.
- Ho₃ There is no significant relationship between office social media and information accuracy of public universities in South-South, Nigeria.

Correlations between Office Social Media and Administrative Communication Health

			Office social Media	Information Dissemination	Administrative Coordination	Information Accuracy
Spearman's rho	Office social Media	Correlation Coefficient	1.000	0.539**	0.519**	0.498**
		Sig. (2-tailed)	.	.000	.000	.000
		N	250	250	250	250
	Information Dissemination	Correlation Coefficient	0.539**	1.000	0.785**	0.786**
		Sig. (2-tailed)	.000	.	.000	.000
		N	250	250	250	250
Administrative Coordination	Correlation Coefficient	0.519**	.785**	1.000	0.646**	
	N	250	250	250	250	

	Sig. (2-tailed)	.000	.000	.	.000
	N	250	250	250	250
	Correlation Coefficient	0.498**	0.786**	0.646**	1.000
Information Accuracy	Sig. (2-tailed)	.000	.000	.000	.
	N	250	250	250	250

** . Correlation is Significant at the 0.01 level (2-tailed).

Source SPSS Output

Column two of table above shows r value of 0.539 at a significance level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating office social media and information dissemination. Since the significance value is less than the alpha level of 0.05, the null hypothesis (H_{01}) which states that there is no significant relationship between office social media and information dissemination of public universities in South-South, Nigeria is rejected and the alternate hypothesis (H_{a2}) is accepted. This implies that there is a moderate positive relationship between office social media and administrative communication health in terms of information dissemination in public universities in south-south, Nigeria.

Column three of table above shows r value of 0.554 at a significance level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating office social media and administrative coordination. Since the significance value is less than the alpha level of 0.05, the null hypothesis (H_{02}) which states that there is no significant relationship between office social media and administrative coordination of public universities in South-South, Nigeria and administrative communication health in public universities in south-south, Nigeria is rejected and the alternate hypothesis (H_{a2}) is accepted. This implies that there is a significant moderate positive in the relationship between office social media and administrative communication health in terms of administrative coordination in public universities in south-south, Nigeria. Column four of table above shows r value of 0.498 at a significance level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating office social information accuracy. Since the significance value is less than the alpha level of 0.05, the null hypothesis (H_{03}) which states that there is no significant relationship between office social media and information accuracy of public universities in South-South, Nigeria is rejected and the alternate hypothesis (H_{a3}) is accepted. This implies that there is a moderate positive relationship between office social media and administrative communication health in terms of information accuracy in public universities in south-south, Nigeria. These results show that office social media has moderate significant positive relationship between administrative communication health in terms of information dissemination, administrative coordination and information accuracy in public universities south-south Nigeria.

Office Social Media and Administrative Communication Health

The test of hypothesis seven to nine revealed that there is a moderate positive relationship between office social media and administrative communication in terms of information dissemination, administrative coordination and information accuracy in public universities south-south, Nigeria. The finding implies that office social media such as office Whatsapp, business twitter and office telegram attribute to administrative communication health in terms of office dissemination, administrative coordination, and information accuracy. Administrative units like Faculties, Departments, and Committees use Whatsapp Group chat to stay in touch. Office social media as becomes a veritable tool for virtual office practices in our tertiary institutions. Boyd and Ellison (2017) averred office social media also known as social media also or social networking as web-based services that allow individuals to construct a public or semi-public profile within a bounded system, to articulate a list of other users with whom they share a connection, and to view and navigate their list of connections and those made by others within the system. Office social

media is based on developing communication and building relationships through sharing views and information even in the work place. Various well known new media software applications have been developed for smooth social and business networking and can be regarded as components of new media (social media). The most well-known new software applications are wikis, weblogs, social networking sites, instant messaging (Assaad & Gómez, 2011), social book-marking, podcasting, social search engines and RSS (Rich Site Summary) feeds (Maged et al., 2017). The term of social software is being described as the tools, which support the social relationships between people using the web (Mathiasen & Dalsgaard, 2016).

Office social media is user generated content that is shared over the internet via technologies that promote engagement, sharing and collaboration. Kaplan and Haenlein (2010) developed their own technical definition of social media Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content. Social media can be defined as forms of electronic communication through which users interact among people in which they create, freely share, exchange and discuss information, ideas, personal messages, and other content about each other and their lives using a multimedia mix of personal words, pictures, videos and audio, utilizing online platforms while they are connected to the Internet (Cox & Rethman, 2011). Office social media sites are virtual platforms for interactivity and information exchange where issues are debated and defined (Smith, 2010). Social media users collaborate in content creations are proactive in searching information, and value control in social media participation.

Office social media or software may provide different services for community members such as finding members with similar interests, finding information on interesting subjects, discussing common problems, or simply the storing of private or publicly-accessible documents. Generally, subscribers are habituated to use Wikis for easily adding, removing, and otherwise editing and changing available content (Dorn, 2010). Weblogs are usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video (Assaad & Gómez, 2011), new or social media sites are used as instruments for building virtual communities, or social networks, for individuals and businesses with similar goals, objectives, interests, or activities (Bolotaeva & Cata, 2011) i.e. Business whatsapp, instagram, Skype, Hi5, Orkut, MySpace and LinkedIn, etc. (Musiał & Kazienko, 2013). Instant messaging is a form of real-time communication between two or more people based on typed text (chatting) is transmitted over the Internet (Dorn, 2010) i.e. Whatsapp, Google Talk, Google Mail and Yahoo Messenger etc. (Maged et al., 2017). There are several social media used in business environment, such as facebook, whatsapp, telegram, instagram, twitter, etc. however, office social media in this study is indicated through office whatsapp, business twitter and office telegram.

CONCLUSIONS

The study concluded that office social media is a major determinant of administrative communication health of public universities in South-South, Nigeria. The quality of office virtualization enhances learning and general performance of the institutions by ensuring that there is information dissemination through the use of virtual office data management. Virtual meeting enhances administrative communication health by fostering administrative coordination through the application of virtual platforms such as zoom, Microsoft team as well as Skype meeting which eliminates distance barriers.

RECOMMENDATIONS

Based on the conclusions of this study, the following were recommended

1. Management team should adopt the culture of using virtual meeting platforms such as Zoom to curb distance barrier among its management staff. This will allow meetings to take place anywhere and at any time at the comfort of their homes and offices.

2. Management should ensure that the use of Microsoft Team is encouraged among the management units, as this will enhance communication and collaboration, thereby leading to smooth workflow.
3. Management should provide digital incentives in form of smart-phones, paid data subscription to enable the management staff to properly make use of Skype application to enhance interaction between colleagues through video calls, conference calls, etc.
4. Management should ensure that office Whatsapp is created to enhance virtual access to managerial information and as well as sharing of managerial information due to the instant feedback nature of the application.

REFERENCES

- Ahiau, A. I. & Asawo, S. P. (2016). *Advanced social research methods*. CIMRAT Publications.
- Assaad, W. & Gómez J.M. (2011). Social network in marketing (social media marketing) opportunities and risks. *International Journal of Managing Public Sector Information and Communication Technologies*, 2(1), 13-22.
- Ayodele, P. (2012). *Advantages and disadvantages of virtual server ESDS*. <https://www.esds.co.in/kb/advantages-and-disadvantages-of-virtual-server/>
- Bere, A. (2013). A comparative study of student experiences of ubiquitous learning via mobile devices and learner management systems at a South African university. *Proceedings of the 14th Annual Conference on World Wide Web Applications; Durban*.
- Boyd, G. & Ellison, J. (2017). Video conferencing as a technology to support group work A review of its failures. *In Proceedings of the 1989 ACM conference on Computer-supported cooperative work*, 4 (1), 13–24.
- Cox, S. & Rethman, L. (2011). Facebook and academic performance. *Computers in Human Behavior*, 26(2), 1237-1245.
- Creswell, N. (2014). Evaluation of the implementation use and effects of computerized management information systems in English secondary schools. *British Journal of Educational Technology*, 34 (3), 357-366.
- Dorn, J. (2010). *Social software in Pagani. Encyclopedia of multimedia technology and networking*. IGI Global.
- George-Amadi, D. (2018). Video conferencing and its application in distance learning. *Journal of Educational Psychology*, 4 (1), 34-46.
- Johnson, G. & George, I. (2016). The impact of whatsapp messenger on students' performance in public universities in Ghana. *Journal of Business*, 3 (2), 111-135.
- Kaplan, A.M. & Haenlein, M., (2010). Users of the world, Unite! The challenges and opportunities of social media. *Science Direct*, 53 (1), 59-68.
- Kuppuswamy, S., & Narayan, P. (2010). The impact of social networking websites on the education of youth. *International Journal of Virtual Communities and Social Networking*, 2(1), 67-79.

- Maged, N., Boulus, K. & Wheeler, S. (2017). The emerging Web 2.0 social software An enabling suite of sociable technologies in health and health care education. *Health Information and Libraries Journal*, 5(24), 2-23.
- Mathiasen, H. & Dalsgaard, C. (2016). Students' use of social software in self-organized learning environment. Conference of *Informal Learning and Digital Media Constructions, contexts and consequences*, Odense, 21-23.
- Odu, S. (2019). Current office skills and office administrators' job performance A literary discussion. Department of Office and Information Management, Ignatius Ajuru University of Education.
- Rogers, E. M. & Rekha A. R. (2016). *Communication in organizations*. Free Press.
- Saeed, A. M. (2015). Role of database management systems (DBMS) in supporting information technology in sector of education. *Education*, 6 (5), 1462-1466.
- Smith, B.M. (2010). *New media practices in a 21st work environment*. Johnson Publications.