



Exploring the Knowledge Sharing Practices among Medical Doctors in Ibadan Metropolis, Nigeria

Funmilola O. Omotayo & Taiwo A. Orimolade

University of Ibadan
Ibadan, Nigeria

Correspondence: fo.omotayo@mail1.ui.edu.ng

Received: May 5, 2020, Accepted: November 17, 2020

Abstract: Medical doctors constitute a vital component of the health sector's workforce. One major factor that aids their efficiency is knowledge of practice and what they do with it. Literature is replete with knowledge-sharing cases among other professionals but less visible concerning physicians, especially in Nigeria. This study investigates the knowledge-sharing practices among doctors in Ibadan, one of the country's major cities. The descriptive survey research design was adopted, and data collected through interviews with sixteen doctors selected through convenience sampling. Findings show that the doctors shared knowledge regularly through social media, formal discussions, and informal deliberations. The findings also indicated that the doctors derive benefits from exchanging information, while the knowledge-sharing process challenges stem from adverse social factors. This study is useful to medical practitioners, medical associations, and policymakers who need data for staff development and how that impacts the health sector.

Keywords: Medical doctors, knowledge sharing, social media, Ibadan, Nigeria.

Introduction

Knowledge is one of the most vital assets of any organization as people develop strategies to create a productive working environment. Knowledge sharing (KS) is one of the essential components of any knowledge management (KM), and it is a critical activity that boosts innovation and increases productivity. Knowledge sharing is a social interaction culture involving the exchange of knowledge, experiences, and skills. Organizations consider it an essential element for individuals and organizations (Radaelli, Lettieri, & Masella, 2015).

The medical field is an essential component of any society that ensures people's safety and care. With the growing complexities of the modern healthcare environment, an effective knowledge management system is necessary and indispensable for ensuring and advancing healthcare service quality (Zhou, Baptista-Nunes, Huang, & Liu, 2015). Life is at the center of health care, so minimizing errors is crucial (Anastasia, 2013; Adesina et al., 2019). This field faces daunting pressure to deliver care of excellent quality at a minimal cost. Sheffield (2008) asserts that healthcare delivery is a complex activity, making it quite

different from other sectors. The quest for due diligence and dedication put more pressure on healthcare organizations as they most often work in teams (Chmielewska, Stokwiszewski, Filip, & Hermanowski, 2020; Taplin, Foster, & Shortell, 2013). Quality healthcare service delivery depends on collaboration and cooperation among health workers.

Health care delivery relies much on knowledge and an evidence-based approach. According to El Morr and Subercaze (2010), evidence-based medicine practice integrates both the practitioners' professional knowledge and clinical expertise while utilizing the empirical findings from current research. Studies have revealed the merits of KS in the healthcare system, which are reduction in medical error, increased cooperation among workers, innovation, improvement of quality of care, reduction in health costs, improvement of health knowledge organization and health organizational learning (Bolarinwa, Salaudeen, & Akande, 2012).

Medical doctors are knowledge-intensive professionals and primary professional groups in the health industry. They possess incredibly specialized knowledge and are trained and licensed to treat people with the utmost care. Ryu, Ho

and Han (2003) assert that out of the whole group of health organizations, professionals, medical doctors, regardless of their specialized knowledge, are the leading professional group. Their roles in communities are so crucial that the extent of their clinical expertise and professional knowledge determines the communities' strength and performance. As a result of this vital role, the authors aver that medical doctors should be ready to acquire new knowledge critical to patients' care, quality of health services, patient safety, cost-effectiveness, and reduction in medical errors (Gider, Ocak, & Top, 2014). Therefore, it is imperative and almost inevitable for medical professionals to update and share their knowledge to practice high-quality medicine continually.

Sharing is an essential process for knowledge management (Rehman, Ilyas, & Asghar, 2015; Yu, Lu, & Liu, 2010); a social interaction culture and activity through which knowledge (information, skills, or expertise) exchanges among people, communities or organizations. Wei et al. (2012) explain that KS is the dissemination or exchange of explicit or tacit knowledge, ideas, experiences, or even skills from one individual to another individual; while Cheng, Ho, and Lau (2009)

posit that KS is about communicating knowledge within a group of people. Thus, it is crucial to translate individual learning into organizational capability as the act improves the competence of the people involved in the process and benefits the community or organizations by speeding up knowledge deployment.

KS has received immense attention due to its value in learning, knowledge creation, and innovation. Sharing brings about an increase in productivity, work-quality, decision-making skills, problem-solving efficiency, as well as competency (Parekh, 2009; Yang and Chen, 2007). While KS is related to individuals' willingness and readiness to share their knowledge with others (Lin, 2007); however, useful KS among individuals depends on the individuals' knowledge sharing behavior (KSB). Previous studies have shown that people that share knowledge are aware of the importance of sharing knowledge as a useful way to develop their relationships with colleagues or derive pleasure in helping others.

People may also not share knowledge because they do not know the importance of sharing or feel they may lose their superiority, power, or recognition by sharing what they

know with others. Hence, individuals' behavior toward knowledge is essential to successful KS. Studies (e.g., Asumptha, Punniyamoorthy, & Rayen, 2018; Balamurugan & Abdul Zubar, 2019; Bolarinwa et al., 2012; Sabeeh, Syed, & Mohamad, 2018). These authors have also highlighted KS's importance in the medical field and reiterated that the medical field is an essential component of any society that ensures people's safety and care.

Statement of the Problem

There are values, such as autonomy, sincerity, justice, and confidentiality, that the medical professionals pursue, thereby making them uninclined to sharing knowledge (Kim, 2013). While KM applications are extensively being employed in businesses and other sectors, its use in the health sector has been limited. Many studies have tried to investigate the KS behaviors of many professions; however, few studies have endeavored to investigate the KS behavior of medical personnel, especially in Nigeria. This gap creates the motivation to investigate the country. The third-largest city in Nigeria, Ibadan, with about five million people, is the focus. The KS investigation among the medical doctors practicing in the city has

helped buoy up the subject's sparse literature.

Research Questions

The study provides answers to the following questions:

1. Do medical doctors in the Ibadan metropolis share knowledge?
2. What media do the doctors use to share knowledge?
3. How frequently do they share knowledge?
4. What benefits do they derive from sharing knowledge?
5. What are the challenges faced while sharing knowledge?

Significance of the Study

Organizations that do not implement knowledge management practices may find it quite difficult to realize their goals and objectives. Healthcare organizations' evidence-based nature makes it imperative to adopt knowledge management techniques to generate new knowledge. The study is an addition to the existing literature on knowledge sharing. It provides empirical data on knowledge sharing among medical doctors in the Ibadan metropolis as there is a paucity of information on knowledge sharing among medical doctors.

This study's findings reveal the doctors' current knowledge sharing status and how this can be improved

upon to realize the immense benefits of the knowledge management process fully. This study's findings can also provide substantial evidence for health administrators, policymakers, health professionals, non-governmental organizations, and researchers to plan and make interventions to improve knowledge and experience sharing practices in the study area. The study presents considerable information about practical knowledge sharing practices that can improve work efficiency, best practices, and avoid errors.

Literature Review

Desouza (2009) describes KM as a useful recipe to optimally achieve high-quality healthcare delivery at a minimal cost. The study identifies KM's specific processes, namely knowledge creation and elicitation, knowledge capture and storage, knowledge transfer and dissemination, knowledge application, and exploitation, which it considers essential. The study emphasizes the importance of KS and dissemination in hospitals, especially when there is a central data repository. However, the study stresses the need for adequate data or information security to prevent illegal and unauthorized access.

Guptill (2005), in her study of KM in healthcare, explains that KM, when appropriately implemented, could transform the health care delivery system into a more cost-effective, error-averse, and accountable public resource. The author reiterates that KM is a sustainable commitment intended to change the health care culture to a more collaborative, more transparent, and pro-active institution. However, this could be achieved when there is a collaboration among healthcare practitioners. The study identifies five components of KM applicable to healthcare. These are communities of practice (COP) and content management. Others are knowledge and capacity transfer, performance result tracking, and technology and support infrastructure. The COP includes the concept of collaboration among individuals with a shared and common purpose or interest. It is one of the means used to share knowledge.

The content management component has to do with the creation of a centralized knowledge library. Knowledge and capacity transfer are expected to cause innovation and improvement in organizational performance to ensure the spread or transfer of clinical knowledge within and across hospitals, emphasizing the

relationship between hospitals, physicians, and consumers in healthcare. Capacity or skill transfer involves how personnel is taught new skills necessary to engender knowledge applied and shared for improved organizational performance. The performance result tracking component involves a rigorous measurement of the results of a KM program. The measurement procedure entails outcome measure, process measure, and satisfaction measure. Technology and support infrastructure is a good enabler of KM, thus simplifying the collaborative and sharing processes and restructures the knowledge form to make it easy to capture and re-use.

The study of Bordoloi and Islam (2012) investigated KM practices' application and impact in healthcare delivery. It explored how different KM practices affect the performance of healthcare delivery through technical and interpersonal care. The paper identifies some essential KM practices and explores their connections with technical and interpersonal care. At the same time, from a practical point of view, it provided implications for administrators and practitioners in healthcare delivery on the management of contingency factors so that the KM practices can be

implemented appropriately. The paper brings to fore the importance of KS in the healthcare sector. Authors (Lindsay & Gitelman, 2012; Folayan et al., 2018; Igbino et al., 2020; Amodu et al., 2019) Weaver, explored the potential uses of communication technology to seek healthcare solutions for such challenges as modifying behaviors related to chronic conditions, improving efficiency, and decreasing costs. The study revealed that electronic communication technologies such as e-mail, social media, text messaging, and electronic health records enhanced patient-provider e-communication in nursing.

Ventola (2014) studied the best practices, benefits, and risks of social media among health care professionals. The findings showed that many social media tools are available for KS among health care professionals, such as social networking platforms, blogs, microblogs, wikis, media-sharing sites, virtual reality, and gaming environments. These tools could be used to enhance professional networking and education, and public health programs.

Ryu et al. (2003) investigated the KSB of 286 physicians practicing in 28 types of subunits in 13 tertiary hospitals in Korea. They found that

the medical personnel engaged in KS and that the young doctors were always delighted when older doctors shared their knowledge with them. Lee and Hong (2014) also established that medical personnel do engage in KS. They identified three individual factors (reciprocity, subjective norms, and behavioral control) and three organizational factors (CEO support, IT system, and trust) that influence KS intention, behavior, and innovation behavior of university hospitals' employees in South Korea. Okoroji, Velu, & Sekaran's (2013) investigation found that there was general awareness by the medical and non-medical staff of an ophthalmology hospital about KS's importance. Some other studies, for example, Alade (2019), Asemahagn (2014), and Balogun (2014) found that medical personnel shared knowledge and had a positive attitude and predispositions towards KS.

These studies revealed that medical doctors engage in KS and thus exhibit KSB as they have recognized the importance of KS in the medical profession. However, a literature review reveals sparse literature investigating medical doctors' knowledge sharing behavior in Nigeria. No study was found significantly visible to have investigated medical doctors'

knowledge sharing behaviors in Oyo state, Nigeria. One of the main requirements for disseminating research results is appropriate knowledge sharing (Firdaus, Suryadi, Govindaraju, & Samadhi, 2011; Head, 2010), which calls for the need to improve knowledge sharing among medical professionals. This study covers the gap concerning Nigeria.

Methodology

The study adopted a descriptive survey research design. The location of the study is Ibadan metropolis, Oyo state, Nigeria. The location is appropriate because of convenience and the fact that many hospitals operate in the area. This study used the semi-structured interview to investigate KS among medical doctors working in hospitals in the five local government areas. The areas are Ibadan North, Ibadan North East, Ibadan North West, Ibadan South East, and Ibadan South West) that make up the Ibadan metropolis. The convenience sampling technique helped select sixteen medical doctors who were available and willing to participate in the study. The selection ensured the requisite representation from all areas.

The data emerged through semi-structured interviews. These are

informal. They give the interviewee the chance to talk freely and provide answers about how they share knowledge (tacit/explicit), the media they use for KS, frequency of KS, benefits derived from KS, and challenges face while sharing knowledge. The interview sessions afforded the researchers to have an in-depth discussion about the subject with the respondents. The interview schedule had 11 questions. The doctors' interviews, each of which lasted between 20 and 30 minutes, did hold inside their hospitals. The structured interview was digitally

recorded, transcribed, and analyzed using version 12 of Nvivo software.

Analysis and Results

RQ1: Do medical doctors in Ibadan metropolis share knowledge?

The numbers in Table 1 show the word frequency count identified from the responses.

Table 1: Word query frequency count for KS

Word	Count	Weighted Percentage (%)
Yes	8	50.00
Definitely	1	6.25
Do share knowledge	1	6.25
I actually share knowledge	1	6.25
Maybe	1	6.25
Not sure	1	6.25
Of course	1	6.25
Sure	1	6.25
Sure I share knowledge	1	6.25

Figure 1 identifies the themes as: “Yes,” “Definitely,” “I do share knowledge,” “I actually share

knowledge,” “Maybe,” “Not sure,” “Of course,” “Sure,” and “Sure I share knowledge.” However, the word “Yes” shows most prominently, with the frequency count showing that eight of the sixteen doctors answered “Yes”.

Deducible from this data is that medical doctors in the Ibadan metropolis share knowledge affirmatively.

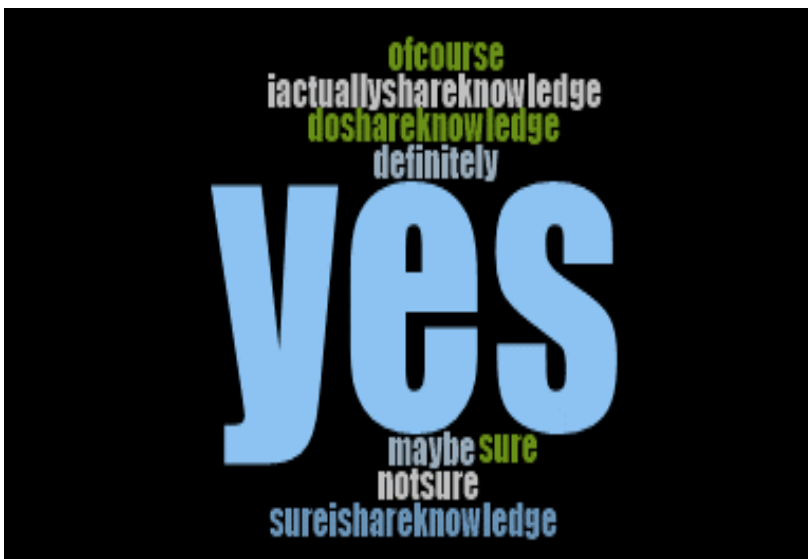


Figure 1: Word cloud showing the KSB of the doctors

RQ 2: What medium/media do medical doctors in Ibadan metropolis use to share knowledge?

Findings show that the media and means used by the doctors in sharing

knowledge are Whatsapp, phone call, continuous medical education, text messages, Facebook, phone chat, verbal discussion, e-mails, formal meetings, interpersonal meeting/counseling, letter,

online sites, and Telegram in that order of count, as shown in Table 2. However,

WhatsApp is the most frequently used media to share knowledge.

Table 2: Word query frequency count for media used for KS

Media used for KS*	Count	Weighted %
Whatsapp	10	25.00
Phone call	6	15.00
Continuous medical education	4	10.00
Text messages	3	7.50
Facebook	2	5.00
Phone chat	2	5.00
Verbal discussions	2	5.00
E-mails	1	2.50
Formal meetings	1	2.50
Interpersonal counseling	1	2.50
Letter	1	2.50
Online sites	1	2.50
Telegram	1	2.50
Verbal discussion	1	2.50
Websites	1	2.50
* Multiple choice answers		



Figure 2. Word cloud showing the media used for KS

knowledge?

RQ3: How frequently do medical doctors share

Table 3: Frequency of “frequently” of KS among the doctors

Frequency of KS	Count	Weighted %
Daily	7	39.17
When needed	3	12.50
Every month	4	16.66
Not very frequently	2	8.33
Anytime	1	4.17
Once in two days	1	4.17
Three times a week	1	4.17
Twice a month	1	4.17
Weekly	1	4.17

The identified themes concerning the frequency of KS by the doctors, as shown in the word cloud (Figure 3), are “daily,” “when needed,” “every

month,” “not very frequently,” “anytime,” “once in two days,” “three times a week,” “twice a month,” and “weekly.”



Figure 3. Word cloud how frequent each KS item is

Research Question Four: What benefits do the doctors derive from KS?

The study also sought to know if the doctors derive benefits from sharing knowledge. Table 4 shows the results of the Nvivo analysis.

The results show that doctors identify many benefits they derive from KS. The identified themes are “better patient management,” “better professional advice,” “confidence in handling cases,” “better relationship,” among others.

Table 4: Frequency of benefits from sharing knowledge

Benefits	Count	Weighted %
Better patient management	5	15.15
Better professional advice	4	12.12
Confidence	3	9.09
Knowledge update	3	9.09
Bette relationship	2	6.06
Fulfillment	2	6.06
Feel happy	2	6.06
Broaden one's horizon	1	3.03
Enrich our knowledge	1	3.03
Enhances reading culture	1	3.03
Identify errors	1	3.03
Interpersonal skills	1	3.03
Productivity	1	3.03
Reciprocal gains	1	3.03
Reciprocate help	1	3.03
Respect	1	3.03
Satisfaction	1	3.03
Trust	1	3.03
Versatile	1	3.03

One doctor made a statement of note:

Knowledge sharing has a lot of benefits. Knowledge sharing improves ways of patient management and innovations. It reinforces knowledge, helps identify lapses and inadequacies. It creates a good

interrelationship between you and the person. It builds confidence and good interpersonal relationship. (Male; 31-35 years; Family medicine specialty; Ring Road Specialist Hospital, Adeoyo, Ibadan)

Figure 4 shows the identified theme in the word cloud



Figure 4: Word cloud showing the benefits derived by the medical doctors from KS.

RQ4: What are the challenges the doctors face while sharing knowledge?

Results in Table 5 show that the doctors faced some challenges in the knowledge-sharing process. Some of the challenges identified are “credibility of knowledge shared,” “ego of knowledge sharer,” “pride,” “superiority,” “adequacy of

knowledge,” “competition,” “lack of facilities,” “fear of criticism,” “late response,” “no motivation,” among others.

Table 5 and word cloud (Figure 5) shows visibly that the credibility of knowledge shared, the ego of knowledge sharer, pride, superiority, adequacy of knowledge, and competition are some of the challenges the doctors faced while sharing knowledge.

Table 5: Frequency of challenges faced by doctors while sharing challenge

Word	Count	Weighted %
Credibility of knowledge	3	9.09
Ego	3	9.09
Pride	3	9.09
Superiority	3	9.09
Adequacy of knowledge	2	6.06
Competition	2	6.06
Lack of facility	2	6.06
None	2	6.06
Rigid	2	6.06
Betrayal	1	3.03
Fear of criticism	1	3.03
Late response	1	3.03
No motivation	1	3.03
Poor cordiality	1	3.03
Self centred	1	3.03
time	1	3.03
trust	1	3.03

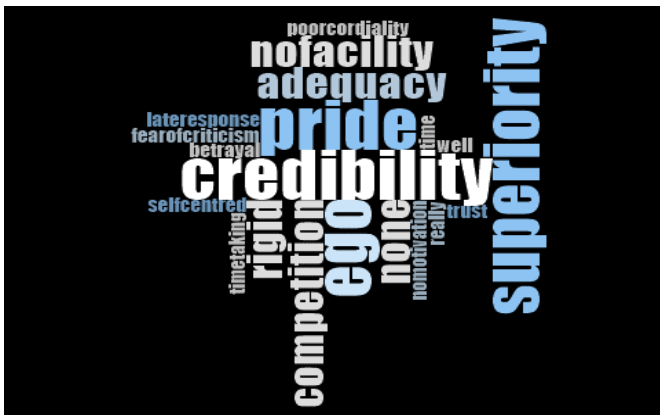


Figure 5. Word cloud showing the challenges face while sharing knowledge

A doctor responded thus:

Some medical doctors are rigid. They don't like to teach others. It is ego. Some are self-centered. Some just try to outshine you. They know that you are good; they just want to outshine you. There is competition. That is why doctors sometimes have conflict. Some like to show seniority; they like to be distinct, so they are reluctant to share what they know. (Male; 36-40 years; Paediatrician; Group Medical Hospital, Mokola)

Another doctor explained:

Sharing knowledge often takes time. We do not usually have that time in this profession. Imagine having done so much work over the day, and someone is trying to tap knowledge from you. It takes a lot of patience. Also, there is something about sharing knowledge, not everything you get may be true. The onus is on you to conduct further research on it. (Male; above 51 years; General Medicine specialty; Mobolaji Maternity and Ultrasound Hospital, Oke Bola)

Discussion of Results

These findings generally show that doctors in the Ibadan metropolis share knowledge. This result could be that they know the importance of KS and have the right attitude toward it. This outcome is consistent with the findings of previous studies Alade

(2019), Bhatti, Latif, & Rao (2014), Dessie (2017); Gider et al. (2015), and Jabr (2007). For instance, Gider et al. (2015) reported that physicians in Turkish hospitals share knowledge with their colleagues for professional tasks. Ryu et al. (2003) validate our findings that KS is ubiquitous among physicians in Korea's tertiary hospitals. Also, in consonance with this finding, Jabr (2007) reveals that medical doctors in health organizations in the Sultanate of Oman shared their knowledge based on the belief that KS is vital and required for professionalism. Alade (2019) also found that pharmacists share knowledge and are confident of their ability to share knowledge with other pharmacists.

Bhatti, Latif, & Rao (2014) study also reveals that doctors of private and government hospitals in Pakistan towards knowledge-sharing were very positive as they felt that KS is essential because it may help others. The inference is visible that medical doctors in the Ibadan metropolis share knowledge because of their deep insight into KS's importance. One of the doctors corroborated this:

Knowledge is power. One of the things that makes a particular doctor stand out is the knowledge he has. Generally, doctors

have been trained to have basic knowledge as they graduate from medical schools. Most times, doctors find themselves in a situation where they have to work together, especially in the same hospital. In this case, knowledge has to be shared. It won't do any doctor any good to keep all knowledge to himself. Knowledge should be shared for the benefit of the patient. Even in research, let me use HIV as an instance. The cure has not been found yet. Let us assume I find the lasting cure to it; it won't do me any good to keep it to myself. I have to share it for the benefit of humanity at large. In a nutshell, I share knowledge with my colleagues. (Male; 36-40 years; Family medicine specialty; Alaaafia Hospital)

Another doctor stated:

Definitely, I share knowledge with my colleagues because nobody knows it all. I share knowledge with both senior and junior colleagues. Anybody who doesn't share knowledge is an epitome of doom. ((Male; 36-40; Obstetricians and Gynaecologist; Mobolaji Maternity and Ultrasound Hospital, Oke Bola)

These responses show that the doctors are aware of the importance of KS in their profession, which made them share knowledge as corroborated by this response:

I share knowledge and also receive knowledge from colleagues. Though, it is expected that you know the basic

requirement in treating a patient, but there are cases where you are treating a patient, but you are not well vast in the types of ailment. In this case, one can seek knowledge from a fellow doctor. I have done it several times, and it works, even from doctors outside my organization. (Female; 31-35 years; General medicine specialty; St George Hospital, Oke Bola, Ibadan)

The results also show that the medical doctors majorly use social media platforms to share knowledge. WhatsApp is identified as the commonest medium of sharing knowledge among medical doctors in the Ibadan metropolis, perhaps because of the growing trend and its increasing popularity. Telephone calls are also common among medical doctors in Ibadan metropolis because of its ease and spontaneity, especially at urgent times. Continuous Medical Education (CME), which is a forum used by doctors to discuss salient medical topics. The forum is also used to assess the renewal of their medical licences. Text messages are also popularly used probably because of its ease of use and offline advantages. One of the doctors responded:

I use both physical and virtual media to share knowledge. I always have a verbal discussion with my colleagues and also

share knowledge through phone calls. We also use social media; WhatsApp, Telegram, and Facebook groups. In this hospital, professionals sometimes give us updates about new trends, certain drugs, and new practices. We do a regular meeting; we call it CME meetings, that is, Continuous Medical Education. We learn about new trends in this meeting. Medicine is a dynamic field; methods that were used in those days change with time; hence, doctors need to update their knowledge regularly (Female; 41-45 years; Dentist; University College Hospital, Ibadan)

Another doctor explained:

We share knowledge virtually every day. It depends on the group. WhatsApp group is open to all. You can decide to put anything at any time. For example, in the NMA WhatsApp group, we share knowledge daily. You can receive knowledge and updates daily. WHO also releases a quarterly publication, which gives new developments to health workers, not only the medical doctors. Basically, knowledge sharing is done every time. (Male; 36-40 years; General Practice; Alaafia Hospital).

Advances in information and communication technologies have supported the proliferation of various modes of human interaction, which includes knowledge sharing (Lin, Lai, & Yang, 2016; Sára et al., 2013; Okon et al., 2018). Knowledge sharing

allows knowledge contributors to share knowledge with others via online platforms. In the medical field, various e-health applications such as health information websites and online social support networks are now used for health care services. Web medical forums are one type of health information website that provides an online platform for discussions among medical personnel, patients and physicians, and medical consultations. Web medical forums are relatively unique as knowledge sharing platforms because physicians participate exclusively as knowledge contributors and not really knowledge recipients. WMF such as eHealth Forum (<http://ehealthforum.com>) and WebMD (<http://my.webmd.com>) provide forums for health-related discussions and generate a significant amount of publicly available health information and knowledge.

Our results are consonant with several previous studies on the importance and ease of using the ICTs for KS. For instance, Weaver et al. (2012), as far back as 2012, realized that electronic patient education and communications, such as e-mail, text messaging, and social media, are rising for healthcare delivery and management. Sáenz, Aramburu, and Blanco (2012) explain that ICTs such as blogs, intranets, knowledge

repositories, and discussion play major facilitating roles in KS. Kanaan, Masa'deh, and Gharibeh (2013) also explain that ICTs used as media of KS enables KS capability. Ventola (2014) also explains that, when used wisely and prudently, social media, virtual reality, and gaming platforms offer the potential to promote individual and public health, as well as professional development and advancement.

Lin, Lai, & Yang (2016) found that physicians used various web medical forums to contribute knowledge. The Canadian International Development Agency (2003) also explained that physicians shared knowledge through communities of practice (networks), fora and meetings, workshops, training and seminar, and knowledge fairs.

The results show that “better patient management,” “better professional advice,” “confidence,” “knowledge update” are the significant knowledge-sharing benefits identified by the doctors. Every medical doctor has a crucial goal of effectively managing a patient. Hence, actions and exercises that could enhance the effective management of patients would be embraced by them.

KS makes the best problem-solving experiences reusable, enable better and faster decision making,

stimulate innovation and growth, and reduce the loss of know-how in professional institutions. Elium (2019) asserts that quick-thinking, innovation and development, collaboration, explicit constraints, direct feedback, a hierarchy-free digital workplace, performance, and operations, getting it right, speedy communication, pro-active pioneers, practices and procedures, internal improvements, and creating experts are benefits - all derive from KS. Also, Nazim and Mukherjee (2016) explain that KS brings about retaining intellectual assets and improving productivity, in consonant with Yang (2007), who also explains that KS facilitates the transformation of collective individual knowledge to organizational knowledge without the existence of orphaned knowledge and knowledge depreciation. The finding of Xia, Kolotylo, and Tan (2016) also corroborate our findings.

Our study identifies some of the challenges the doctors face while sharing knowledge, such as credibility of knowledge shared, the ego of knowledge sharer, pride, superiority, lack of facilities, lack of motivation, among others. Riege (2005) identifies three-dozen factors that hinder people from sharing knowledge, among which are some of the medical doctors' challenges in the Ibadan

metropolis. Also consistent with this study's finding, Razmerita, Kirchner, and Nielsen (2016) identify a lack of trust and time constraints as barriers to successful KS. Alade (2019) shows that poor interpersonal relationships, personal ego, lack of motivation, lack of time, too much workload, unconducive work environment, and other pharmacists' unfriendly attitude are all barriers. Others pride, lack of self-esteem, and inferiority complex are all barriers to KS among pharmacists in Oyo state of Nigeria. Advanced technologies, particularly ICTs, enlightenment on KS's importance, provision of facilities, and conducive environment could help overcome some of these identified barriers.

Conclusion and Recommendations

This study visibly that medical doctors in the Ibadan metropolis frequently share knowledge through various

media, majorly social media, and phone calls. The doctors are also aware of KS's many benefits, which made them share knowledge with their colleagues. However, in sharing knowledge, they face some challenges that majorly have to do with individual, organizational and technological factors. The following are the recommendations:

1. Hospitals should implement more collaborative practices that will foster interaction among medical doctors, which will engender trust and openness among them. Despite a thriving knowledge-sharing culture among the respondents so far, more activities in this regard should be encouraged.
2. Members of related departments should be encouraged to work in a team to induce a sense of oneness, which is a notable index to promote KS, thereby achieving more successes and increased productivity.

References

Alade, F. (2019). Determinants of knowledge sharing behaviour of pharmacists. Master's project, Africa Regional Centre for Information

Science, University of Ibadan, Nigeria.

Amodu., L., Omojola, O., Okorie, N., Adeyeye, B. & Adesina, E. (2019). Potentials of Internet of Things for effective public

- relations activities: Are professionals ready? *Cogent Business & Management* 6 (1), 1683951.
- Adesina, E., Oyero, O., Okorie, N., Amodu, L., Omojola, O. & Adeyeye, B. (2019). Information Use and Knowledge of HIV/Hepatitis B Co-Infection in Lagos, Nigeria. *Health* 11 (6), 671-682.
- Anastasia, R. (2013). Knowledge sharing and trust in the private health care sector. M.Sc. dissertation, School of Economics and Business Administration, International Hellenic University, Thessaloniki, Greece.
- Asemahagn, M. A. (2014). Knowledge and experience sharing practice among health professionals in hospitals under the Addis Ababa health bureau, Ethiopia. *BMC Health Services Research*, 14, 1-10. DOI: 10.1186/1472-6963-14-431.
- Asumptha, J. A., Punniyamoorthy, M., & Rayen, R. (2018). Knowledge sharing behavior of physicians (dentists) in hospitals. *Global Journal of Medical Research: K Interdisciplinary*, 18(1), 9-21.
- Balamurugan, R., & Abdul Zubar, H. (2019). An integrated approach to performance measurement, analysis, improvements and knowledge management in healthcare sector. *International Journal of Knowledge Management Studies*, 10(1), 84-99.
- Balogun, A. G. (2014). Personality characteristics and willingness to share tacit knowledge: is there a connection? *Nigerian Journal of Applied Behavioural Sciences*, 2, 115-125.
- Bhatti, K. L., Latif, S., & Rao, N. I. (2014). Knowledge sharing intentions in doctors of private and government hospitals. *Issues in Business Management and Economics*, 2(8), 128-133.
- Bolarinwa, O. A., Salaudeen, A. G., & Akande, T. M. (2012). Overview of knowledge management applications in health care delivery of developing countries. *Academic Research International*, 3(3), 38.
- Bordoloi, P., & Islam, N. (2012). Knowledge management practices and healthcare delivery: A contingency

- framework. *The Electronic Journal of Knowledge Management*, 10 (20), 110-120.
- Canadian International Development Agency (2003). Knowledge sharing: Methods, meetings and tools. Retrieved from <https://www.fsnnetwork.org/sites/default/files/outils.en.pdf>.
- Cheng, M. Y., Ho, J. S. Y., & Lau, P. M. (2009). Knowledge sharing in academic institutions: a study of multimedia university Malaysia. *Electronic Journal of Knowledge Management*, 7(3), 313-324.
- Chmielewska, M., Stokwizewski, J., Filip, J., & Hermanowski, T. (2020). Motivation factors affecting the job attitude of medical doctors and the organizational performance of public hospitals in Warsaw, Poland. *BMC Health Services Research*, 20(701), 1-12. DOI: 10.1186/s12913-020-05573-z.
- Dessie, G. (2017). Knowledge Sharing Practice and Associated Factors Among Health Care Workers at Public Hospitals in North Shoa, Amhara. *American Journal of Health Research*, 5(5), 149-153. DOI: 10.11648/j.ajhr.20170505.16.
- Desouza, K. C. (2009). Knowledge Management in Hospitals. In J. Tan (Ed.), *Medical Informatics: Concepts, Methodologies, Tools, and Applications* (pp. 208-221). Hershey, PA: IGI Global. DOI : 10.4018/978-1-60566-050-9.ch018
- El Morr, C., & Subercaze, J. (2010). Knowledge Management in Healthcare. In M. Cruz-Cunha, A. Tavares, & R. Simoes (Eds.), *Handbook of Research on Developments in E-Health and Telemedicine: Technological and Social Perspectives* (pp. 490-510). Hershey, PA: IGI Global. DOI: 10.4018/978-1-61520-670-4.ch023.
- Elium (2019, May 27). 15 benefits of knowledge sharing [Blog]. Retrieved from <https://elium.com/blog/benefits-of-knowledge-sharing/>.
- Firdaus, O. M., Suryadi, K., Govindaraju, R., & Samadhi, T. M. A. A. (2011). Medical knowledge sharing guideline: A conceptual model. 2011 Ninth International Conference on ICT and

- Knowledge Engineering (pp. 22-26). DOI: 10.1109/ICTKE.2012.6152408.
- Folayan, B.J., Omojola, O., Egharevba, M., Oyesomi, K., Yartey, D. and Adeyeye (2018). The use of ICT-rooted communication codes and slangs among Nigerian students. *Journal of Social Sciences Research*, 4(12), 633-641. DOI: <https://doi.org/10.32861/jssr.412.633.641>.
- Gider, O., Ocak, S., & Top, M. (2015). Perceptions of physicians about knowledge sharing barriers in Turkish health care system. *Journal of Medical System*, 39-42. DOI: 10.1007/s10916-015-0230-6.
- Guptill, J. (2005). Knowledge management in health care. *Journal of Health Care Finance*, 31(3), 10-14.
- Head, B. (2010). From knowledge transfer to knowledge sharing?: Towards better links between research, policy and practice. In Bammer, G., Michaux, A., & Sanson, A. (Eds.), *Bridging the 'Know-Do' Gap: Knowledge brokering to improve child wellbeing* (pp. 109-124). ANU Press.
- Igbinoba, A.O., Soola, E.O., Omojola, O., Odukoya, J., Adekeye, O. & Salau, O.P. (2020). Women's mass media exposure and maternal health awareness in Ota, Nigeria. *Cogent Social Sciences* 6.1, 1766260. doi/full/10.1080/23311886.2020.1766260.
- Jabr, N. (2007). Physicians' attitudes towards knowledge transfer and sharing. *Competitiveness Review*, 17(4), 248-260. DOI: 10.1108/10595420710844334.
- Kanaan, R., Masa'deh, R., & Gharibeh, A. H. (2013). The impact of knowledge sharing enablers on knowledge sharing capability: An empirical study on Jordanian telecommunication firms. *European Scientific Journal*, 9(22), 237-258.
- Kim, S. (2013). Qualitative Study on Knowledge Sharing Sharing Knowledge Sharing by University Hospital Medical Doctors - Focusing on Grounded Theory. *International Journal of Bio-science and Bio-Technology*, 5(5), 93-100. DOI: 10.14257/ijbsbt.2013.5.5.10.

- Lee, H. S., & Hong, S. A. (2014). Factors affecting hospitals' employees' knowledge sharing intention and behavior, and innovation behavior. *Osong Public Health and Research Perspectives*, 5(3), 148-155. DOI: 10.1016/j.phrp.2014.04.006.
- Lin, H. T. (2007). Effects of extrinsic and intrinsic motivation in employee knowledge sharing intentions. *Journal of Information Science*, 33(2), 135-149.
- Lin, T. C., Lai, M. C., & Yang, S. W. (2016). Factors influencing physicians' knowledge sharing on web medical forums. *Health Informatics Journal*, 22(3) 594-607. DOI: 10.1177/1460458215576229.
- Nazim, M., & Mukherjee, B. (2016). Factors Critical to the Success of Knowledge Management. In: *Knowledge Management in Libraries: Concepts, Tools and Approaches* (1st Ed.). Sawston: Chandos Publishing.
- Okoroji, O. C., Velu, C., & Sekaran, C. (2013). Exploring knowledge sharing among medical and non-medical staff: A case study of an ophthalmology hospital in Malaysia. *Africa Journal of Business Management*, 7(35), 3545-3558.
- Okon, P.E. Ajiboye, E. Ekanem, T. & Omojola, (2018). Gendered News Reportage: A Study of The Guardian and The Sun Newspapers, Nigeria. *International Journal of Media, Journalism and Mass Communications* 4(3), 21-35.
- Parekh, R. A. (2009). Knowledge sharing: Collaboration between Universities and industrial Organizations. In Miltra, J. (Ed.), *Globalizing Academic Libraries: Vision 2020: Pre-conference Volume* (pp. 146-151). Delhi: The Int'l Conference on Academic Libraries, University of Delhi.
- Razmerita, L., Kirchner, K., & Nielsen, P. (2016). What factors influence knowledge sharing in organizations? A social dilemma perspective of social media communication, *Journal of Knowledge Management*, 20(6), 1225-1246. DOI: 10.1108/JKM-03-2016-0112.
- Riege, A. (2005). Three-dozen Knowledge Sharing Barriers Managers Must Consider.

- Journal of Knowledge Management, 9(3), 18-35. DOI: 10.1108/13673270510602746.
- Sabeeh, Z., Syed Mustapha, S. M. F. D., & Mohamad, R. (2018). Healthcare knowledge sharing among a community of specialized physicians. *Cognition, Technology and Work*, 20, 105-124. DOI: 10.1007/s10111-017-0453-z.
- Sáenz, J., Aramburu, N., & Blanco, C. E. (2012). Knowledge sharing and innovation in Spanish and Colombian high-tech firms. *Journal of Knowledge Management*, 16(6), 919-933. DOI: 10.1108/13673271211276191.
- Sára, Z., Csedó, Z., Tóth, T., Fejes, J., & Pörzse, G. (2013). Doctor-patient knowledge transfer: Innovative technologies and policy implications. *Journal of Information Engineering and Applications*, 3(3), 30-37.
- Radaelli, G., Lettieri, E., & Masella, C. (2015). Physicians' willingness to share: a TPB-based analysis. *Knowledge Management Research & Practice*, 13(1), 91-104. DOI: 10.1057/kmrp.2013.33.
- Rehman, W., Ilyas, M., & Asghar, N. (2015). Knowledge sharing, knowledge management strategy and performance: A Knowledge Based View. *Pakistan Economic and Social Review*, 53(2), 177-202. Retrieved from <http://www.jstor.org/stable/26153256>.
- Ryu, S., Ho, S. H., & Han, I. (2003). Knowledge sharing behaviour of physicians in hospitals. *Expert Systems with Applications*, 25(1), 113-122.
- Sheffield, J. (2008). Inquiry in health knowledge management. *Journal of Knowledge Management*, 12(4), 160-172. DOI: 10.1108/13673270810884327.
- Taplin, S. H., Foster, M. K., & Shortell, S. M. (2013). Organizational leadership for building effective health care teams. *The Annals of Family Medicine*, 11(3), 279-281.
- Ventola, C. L. (2014). Social media and health care professionals: Benefits, risks, and best practices. *PMCID*, 39(7), 491-499, 520.
- Weaver, B., Lindsay, B., & Gitelman,

- B. (2012). Communication technology and social media: Opportunities and implications for healthcare systems. *The Online Journal of Issues in Nursing*, 17(3), 3. DOI: 10.3912/OJIN.Vol17No03Man03.
- Wei, C. C., Choy, C. S., Chew, G. G., & Yen, Y. Y. (2012). Knowledge sharing patterns of undergraduate students. *Library Review*, 61(5), 327-344.
- Xia, W., Kolotylo, M., & Tan, X. (2016). Factors affecting general practitioner's transfer of specialized self-care knowledge to patients. *International Journal of Economics and Management Engineering*, 10(10), 3375-3384. DOI: 10.5281/zenodo.1126842.
- Yang, J. T. (2007). The impact of knowledge sharing on organizational learning and effectiveness. *Journal of Knowledge Management*, 11(2), 83-90. doi:10.1108/13673270710738933.
- Yang, C., & Chen, L. C. (2007). Can organizational knowledge capabilities affect knowledge sharing behavior? *Journal of Information Science*, 33(1), 95-109.
- Yu, T-K., Lu, L-C, & Liu, T-F. (2010). Exploring factors that influence knowledge sharing behavior via weblogs. *Computers in Human Behavior*, 26(1), 32-41. DOI: 10.1016/j.chb.2009.08.002.
- Zhou, L., Baptista Nunes, M., Huang, R. H., & Liu, F. (2015). Knowledge sharing in Chinese healthcare referral services: Identifying barriers from a literature review. In *iConference 2015 Proceedings*, pp. 1-14. Retrieved from <https://core.ac.uk/download/pdf/158298927.pdf>.



The Use of Corporate Websites as Dialogic Public Relations Tools by Ghana's Public and Private Institutions

¹Charles N. A. Ayiku & ²Isaac Tandoh

¹University of Professional Studies, Accra-Ghana;

²Ghana Institute of Journalism

Correspondence: ayiku13@hotmail.com

Received: August 27, 2020 Accepted: December 18, 2020

Abstract: Motivated by the non-visibility of literature about African countries, this work examines corporate websites as dialogic online public relations tools in Ghana. The explorative study used six case studies, three apiece from private and public organizations. Thirty respondents from these organizations debated the subject in focus group discussions and interviews. The transcripts show that, while public institutions use their websites to inform, educate, train, and develop positive relationships with their publics, profit-oriented organizations extend the usage to running advertisements to gain more profits. The findings also show that an organization's ethical systems can determine a website's content in dialogic communication. Besides ensuring regular updates and efficient feedback systems, we recommend that organizations have proactive public relations work ethics that make website content address visitors' issues without delay. Organizations can also incorporate video-on-demand and conferencing solutions to improve their dialogue and grow their relationship with the audience.

Keywords: Corporate websites, public relations, dialogic communication, corporate management, Ghana.

Introduction

Media technologies usage by private and public institutions for dialogic purposes, sustainability management, and corporate social responsibilities is visible globally (Van den Bulck & Moe, 2018). One area of note is relationship improvement between the citizens and these institutions (Karakiza, 2015; Wong & Dobson, 2019; Bevilacqua et al., 2020). On the flip side is the growing concern over privacy infringement, hate speech, data management issues, and other vices associated with these technologies (Khan, Swar & Lee 2014; Kamarulzaman, Lee & Siow, 2020).

In Africa, new media technologies are more common in private sector organizations than in public. Websites' use as public relations (PR) tools is attracting both sides' attention (Capriotti & Moreno, 2007; Gomez & Chalmeta, 2011). However, public institutions with fewer environmental attributes and weaker work ethics are noticeably less efficient in managing these tools. Such a situation can affect professional communication practices (Liu, Horsley & Abbey, 2010, p. 191), including public relations.

Literature (Osei-Kojo, 2016; Adu, Buabeng, Asamoah & Damoah, 2020; Quaye & Sneider, 2020) indicates that Ghana's government is committed to improving public

service delivery through public relations practice via the use of digital technologies. Tagoe (2012) reveals that weak information communication technology (ICT) and other issues adversely affect the adoption of new technologies. On the other hand, Quaye & Sneider (2020) indicate that some management staff's low appreciation of new technologies contributes to the private and public sector's low adoption rate. This work examines the part that Ghana's PR practitioners play in this regard.

Ghana is a West African state with 28 million people, 10 million of whom have access to the internet (Kemp, 2018). The continuous growth in internet usage in the country presents fresh opportunities in new media technologies in organizations. One such opportunity is using corporate websites as a public relations tool. They serve as interactive platforms for disseminating information and building relationships between the organization and its publics (Capriotti & Moreno, 2007; Ikpefan et al., 2019). How the tool usage plays out in Ghana's private and public sector organizations is the concern of this work. Social media constitutes the main focus of new media technologies in Ghana, with educational and financial institutions as the chief players (Andoh-Quainoo & Annor-Antwi, 2015, p. 38). This study conducted a comparative investigation into how selected

private and public institutions in Ghana used their corporate websites as dialogic communication tools and the ethical ramification of this usage.

Research Questions

To address the research objectives set for the study, the researchers sought to address the following questions at the end of the study.

1. What is the dialogic communication potential of corporate websites in Ghana?
2. How are corporate websites being used by public relations practitioners in the selected private and public organizations in Ghana?
3. What is the influence of organization ethics on corporate websites as public relations tools for online dialogic communications?

This study is significant because it deals with websites. This corporate communication tool is not significantly visible in literature in Africa compared to social media platforms, electronic mails, and short messaging, amongst others. This study zeroes in on the corporate website's use in managing corporate reputation and creating a mutually beneficial relationship with the external public through dialogic communication. The findings create a trajectory that could enable

interested researchers to investigate Ghana and the entire African continent.

Literature Review

Corporate Website and Dialogic Communication

Websites can promote dialogic communication between an organization and its publics (Vorvoreanu, 2008, p. 223). The use of the world wide web has increased exponentially in the past decades. Esrock and Leichty (2000, p. 327) also note that the internet has become one of the main attractions for media users and communication professionals in public relations and marketing. In this respect, the PR strategists are concerned about using websites in engaging with stakeholders (Jiang & Wei, 2013; Akwari, 2017; Amodu et al., 2019; Adesina et al., 2019). Practitioners have realized the power that websites hold in building and maintaining relationships. Esrock and Liechty (2000, p. 328) support this assertion, adding that corporate websites can "revolutionize and reform the interaction between organizations and their publics."

According to Hill and White (2000, p. 46), websites help transmit information to the media and the right publics. They also present an organization with the opportunity to demonstrate organizational innovativeness to carve out a competitive edge. Scholars also

argue that corporate websites play a significant role in building and maintaining relationships with the essential publics (Kent & Taylor, 1998; Jo, 2005; Yartey et al., 2021; Okorie, Omojola & Loto, 2018; Folayan et al., 2018). Websites promote positive perceptions of organizations who invest in them (White & Raman, 2000; Nielson & Norman, 2000). Vorvoreanu (2008, p. 225) buttresses this point, stating that websites are promoters of loyalty in public relations practice that translate to the business's survival and success (Goldie, 2003).

Vorvoreanu (2008) and Akwari (2017) link websites with an organizational reputation when updated regularly with the relevant items. They add that with regular updates, websites could influence the perception a public has of an organization that bothers corporate credibility and goodwill.

Public relations has several definitions. Khodarahmi (2009) looks at it from the strategic management standpoint, while the Public Relations Society of America (PRSA, 2012) defines it as a strategic communication process that builds mutually beneficial relationships between a corporation and its publics. Seitel (2011) and Katheery et al. (2016) see it as an all-inclusive activity that gravitates public support toward an organization. However, the tendency exists to define public relations generally as a planned and coordinated activity to manage the

communication between an organization and its publics. The management's purpose is to ensure a positive reputation for the organization in a way acceptable to its audience.

The publics of an organization constitute a crucial factor in public relations strategy. An organization's publics could make or unmake an organization's reputation (Okafor & Nwatu, 2018). "Publics" and "stakeholders" of an organization have been used interchangeably. Grunig (2013) and Itanyi and Ukpere (2014) argue that the two concepts can be used to segment the general population in which an organization operates into various forms of categories; as this would enable communication practitioners to identify publics strategically and consequently plan and evaluate the relevant public relations programs.

Ofori (2019) asserts that the public is a group of people bound together by a common purpose. A public can be passive or active in communicating with the organization (Itanyi & Ukpere, 2014). Heath, 2005 categorizes a public into three – target, intervening and influential while both Smith (2005) and Motion, Heath and Leitch (2015) provide a broad segmentation involving four public groups. Figure 1 integrates the various description of the public within the context of public relations.

Smith's (2005) groupings include Customers, Producers, Enablers, and

Limiters while other authors have grouped them into Supporters, Environmentalists, Conservatives, and Opponents. These segmentations are an extension of Heath (2005).

A closer study of the diagram revealed a succinct description of the

four types of publics. Using a hypothetical private or public institution involved in the construction of a dual-carriage road in Cape Coast, four essential are visible. They are discussed and illustrated below.

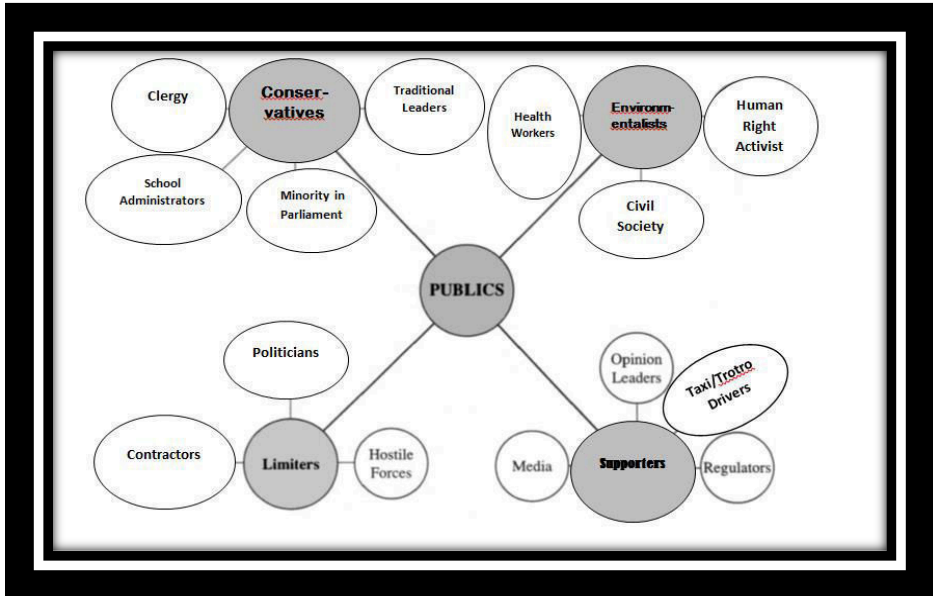


Figure 1: Categories of Publics

The first comprises the lovers of the initiative (the supporters). Second, are those who view the project from its impact on wildlife or the environment (the environmentalists). The third involves the individuals who argue that a road exists in the location already and there is no need for new construction. The fourth are the conservatives who do not favor the project and want it scrapped. For

mutually beneficial relationships and enhanced reputation, the public relations strategists must address the four public components' standpoints to achieve the project's desired success. The strategy would involve developing effective dialogue and result-oriented dialogic communication systems in interacting with these publics.

Concepts of Dialogue and Dialogic Communication

Dialogue is a communicative forum for recognizing and acting on the second person's perspectives for mutually beneficial relationships. Taylor and Kent (2014) posit that dialogue is a vital instrument to the public relations profession because it mitigates power relationships, values individual dignity and self-worth to get participants involved in decision-making. Discussed below are the views on dialogue and how they relate to public relations.

Dialogue as recognition of another person

This view involves an effort of one person to recognize the value of the other person. Johannesen's (1971) work on dialogue works on reciprocity, mutuality, involvement, and openness. Kent and Taylor (1998, p. 324) assert that "For a dialogic relationship to exist, parties must view communicating with each other as the goal of a relationship." Hence, communication should not emerge as a means to an end. The communication process is an end in itself.

Dialogue defined based on the original language

Akwari (2017) indicates that

dialogue has its roots in the Greek language, with "dia" indicating "through" and "logos," while Bohm (2013) adds that dialogue facilitates understanding of each other right from the time the communication starts. This understanding implies that dialogue helps people to understand each other's perspectives and be well appropriately informed.

Dialogue as a collaborative effort

Kent and Taylor (2011) indicate that dialogue is more of a "communicative orientation" than a process or a list of rules that one must obey. Similarly, Penman and Turnbull (2012) also assert that dialogue is an authentic interaction created through various processes such as openness to change, collaboration, and propinquity. This view means both the organization and its publics welcome different perspectives. They are willing to collaborate to understand each other's perspectives. In effect, public relations professionals should not undermine courtesy, respect, honesty, and recognition of their target audiences to the background irrespective of how offensive or appalling their attitude may appear. All interactions with these audiences must be conducted with respect

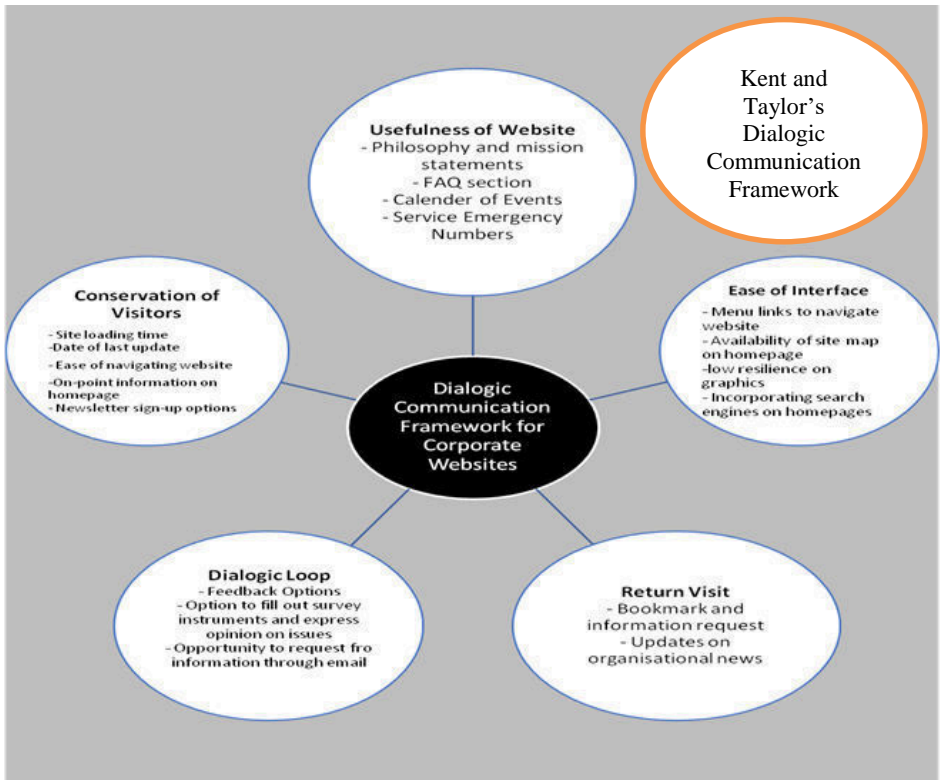


Figure 2 Adopted from Kent & Taylor's framework for Dialogic Communication

Scholars and experts playing in the public relations field have formulated a theoretical framework upon which viable dialogic communication via a corporate website can be achieved. This study adopted Kent and Taylor's (1998, 2002, 2014) classical conceptual framework for online dialogic communication. The framework was adopted because, unlike most of the frameworks on dialogic communication, it has been tested empirically and gained wide acceptance (Adogla, 2018).

The theory states that using the

corporate website as a dialogic online public relations tool must conform to five principles to ensure effective communication for facilitating mutually beneficial relationships and reputation enhancement. These principles are the website's usefulness, dialogic loop, conservation of visitors, ease of interface, and return visits. Depicted in Figure 2 are the five principles and their relevance to public relations practice. A closer examination of the dialogic communication framework reveals that public relations

professionals in various organizations must integrate the five principles into a corporate website.

Computer-Mediated Communication (CMC)

Computer-mediated communication is the theoretical underpinning of communication via technologies and therefore deserves a discussion (Pang, Shin, Lew & Walther, 2018; Lee, 2020). Basing their study on two theoretical frameworks for CMC – the Social Information Processing Theory and Hyper Personal Model, Pang et al. (2018) provide insight into dialogic strategies institutions adopt to enhance their online communication with the public, including stakeholders.

The authors propose two-way (dialogic) strategies to facilitate the successful CMC application to the public relations role. The three principles developed by them are relevant to public relations roles and corporate websites, notwithstanding their social media focus. The principles are: initiating or experimenting, intensifying, and bonding or integrating. Applying this proposal requires the initiation of a program on the website to test the publics' reaction. If a favorable response is received, the strategists intensify it as a relationship builder. If some sustenance emerges, then the feature is permanently integrated into the website.

In another study, Lee (2020) defines CMC as "one-to-one, one-to-

many, or many-to-many exchanges of messages of varying modalities through networked computers, either synchronous or asynchronous." This definition exemplifies CMC as a form of exchange that involves one-to-many or one-to-one via networked computer or internet. Public relations often involves building relationships requiring exchanges of information that may be one-to-one at times or one-to-many. Lee's study fills the lacuna in the theoretical framework for mass-oriented CMC.

Lee's submission supports Kent and Taylors' (2002) principle of fairness or honesty and respect in dialogic communication. His assertion falls within an interpersonal context involving public relations professionals providing information for thousands of individual members of his organization's publics. Lee's empirical investigations demonstrate that source authenticity or truthfulness, message, and interaction are highly influential in relationship building.

The findings of Pang et al. (2018) and Lee (2020) underpin the focus of the current study. They demonstrate that interpersonal communication can be enhanced via computer-mediated communication, via experimenting, intensifying, and integrating the content of a corporate website or creating a transparent interaction that will influence the authenticity of the message, source, and interaction.

Method of Study

A qualitative research paradigm with multiple case study designs appears to be the most suitable for collecting rich and well-validated data, for a sufficient resolution of research problems, and coherence of research endeavor (Smith, 2014). The case study design, according to Thomas (2011, p. 64), entails the exploration of a "bounded system" or a "program, an event, an activity, or individuals." Gustafsson (2017, p. 4) indicates that a case study is an intensive study of a group or a unit with the primary objective of generalizing the findings over several units. A case study design explores real-life, contemporary multiple bounded systems (cases) over time through detailed, in-depth data collection involving multiple sources of information. The qualitative approach is underpinned by the social constructivist paradigm, which seeks to understand the subjective and multiple meanings attached to complex human experiences (Creswell 2014). The choice of multiple case study design is

justified as the study explores and made a comparison between how selected private and public organizations employ corporate websites as dialogic online public relations tools (Yin, 2003, p. 15, 2016, p. 25; Creswell, 2013, p. 28; Gustafsson, 2017, p. 4).

The purposive sampling method helped to select three public sector institutions and three private organizations. Twelve management staff members (two from an organization) and 18 public relations professionals (three from an organization) with at least ten years of experience were selected to discuss the subject and elicit relevant data. Discussion transcripts with the reports from the study of the websites elicited the conceptual framework on using corporate websites as dialogic online public relations tool, a process also noted by some authors (Creswell, 2009, 2014; Creswell and Poth, 2018). Cases were selected based on Gerring and Cojocar's (2016, p. 395) recommendation, as depicted in Figure 3.

Goals/Strategies	n	Factors	Criteria for Cases
I. Descriptive (to describe)			
• Typical	1+	D	Mean, mode, or median of D
• Diverse	2+	D	Typical subtypes
II. Causal (to explain Y)			
1. Exploratory (to identify H_x)			
• Outcome	1+	Y	Maximize variation in Y
• Index	1+	Y	First instance of ΔY
• Deviant	1+	Z Y	Poorly explained by Z
• Most-similar	2+	Z Y	Similar on Z, different on Y
• Most-different	2+	Z Y	Different on Z, similar on Y
• Diverse	2+	Z Y	All possible configurations of Z (assumption: $X \in Z$)
2. Estimating (to estimate H_x)			
• Longitudinal	1+	X Z	X changes, Z constant or biased against H_x
• Most-similar	2+	X Z	Similar on Z, different on X
3. Diagnostic (to assess H_x)			
• Influential	1+	X Z Y	Greatest impact on $P(H_x)$
• Pathway	1+	X Z Y	$X \rightarrow Y$ strong, Z constant or biased against H_x
• Most-similar	2+	X Z Y	Similar on Z, different on X and Y

Note: D = descriptive features (other than those to be described in a case study); H_x = causal hypothesis of interest; $P(H_x)$ = the probability of H_x ; X = causal factor(s) of theoretical interest; $X \rightarrow Y$ = apparent or estimated causal effect, which may be strong (high in magnitude) or weak; Y = outcome of interest; Z = vector of background factors that may affect X and/or Y.

Figure 3: Guidelines for case selection for intensive analysis
 Source: Gerring and Cojocaru (2016)

The study is explorative; hence, "the diverse (2+ ZY) for all possible configurations of Z (assumption: $X \in Z$)" is the most suitable criteria for case selection. The cases selected are diverse and represent all potential factors and any variation between organizational approaches to using the corporate website as an online dialogic public relations tool. Studying diverse cases helps to understand corporate websites' functions as an online dialogic public relations tool (Gerring & Cojocaru, 2016). The

organizational ethics of private and public institutions are vastly different from each other, hence approaches to the use of the corporate website are expected to be different as dictated by the prevailing circumstances within which the public relations department operates. Kent & Taylor assert that the organizational culture and working conditions could influence public relations expertise.

The adoption of focus group discussions and interviews in such studies is supported in the literature (Akwar, 2017). The thematic

analysis deployed involves identifying textual data for trends and patterns that can form into the analysis themes (Nowell, Norris, White & Moules 2017, p. 1). Interviews and focus group discussions were recorded and transcribed. A moderator's guide, semi-structured interview schedule, and codebook were used to gather data during the focus group discussions, interviews, and content analysis (Golafshani, 2003). The transcribed data were fed into NVivo 12 Plus, which has features for automatic coding of the retrieved data. The manual coding outcomes were compared significantly with NVivo coding to arrive at the most reliable and encompassing results.

NVivo coding is often very detailed and may contain certain information irrelevant to the study. Compared with the manual coding, it helped streamline coding in NVivo to the most relevant data tallying with the study's focus (Zamawe, 2015).

As earlier indicated, the five classical principles of dialogic communication by Kent and Taylor (1998; 2002; Morah & Omojola, 2014) served as the basis for operationalization. The principles entail 1) ease of interface (ease of navigating the website and capability of the website to load in a few seconds), 2) conservation of visitors (regularity of updating information on website and section for frequently asked question), 3) usefulness of information (adequately cater for the

information needs of organization's varied publics), 4) generation of return visits (Relevant and up-to-date information to encourage regular visits of publics), and dialogic loop (avenue or provision for users' response or feedback).

RQ 1: What is the dialogic communication potential of corporate websites in Ghana?

The crux of this research question is to elicit relevant information from participants on the extent to which their corporate website can effectively function as a medium for two-way communication.

Private institutions selected are Fan Milk Limited – Ghana, Ever Pack Limited, Ghana, and Accra Brewery Limited. Public institutions comprise the Ministry of Foreign Affairs and Regional Integration, Ministry of Education, and Ministry of Health. These organizations have several features on their websites relevant to this study. Comments from respondents and a study of each of the selected organizations provide some clues below.

Responding to the question of why each of the organizations set up a website, the following excerpts are archetypes of responses:

"We needed to communicate to a wide range of people like *stakeholders...to* connect to people nationwide and globally."

EVPRespond (PVT 01; 10 years of working experience)

"The website is very key as far as news media is concerned... stakeholders and partners want to know what is happening in the sector...you just visit the site and get yourself acquainted with what the sector is doing."

FMLRespond (PVT 02; eight years of working experience.)

"Our website, for instance, is generally used for dissemination of information and educating the public...For us, our publics...is the whole world because we help promote Ghana's Foreign Policy."

FoNRespond (PUB 01, 12 years of working experience)

"Our website is mainly designed to meet the needs of the adult population. Vital information regarding moderate use of alcohol and several of our products form the essence of the website".

ACBRRespond (PVT 01; 12 years of working experience)

Websites of the sampled organizations reveal that both private and public organizations do communicate dialogically with their publics. However, the question remains as to what extent do these websites' publics respond or provide feedback to the public. Each of the websites' homepage was physically examined and accessed to decipher, whether it could foster two-way communication.

An in-depth analysis of each

homepage reveals that most organizations have features on their websites, showing its potentiality for dialogic communication within their operation frameworks. For example, the six websites visited have "contact us," promoting regular and return visits. However, only five have a social media widget that encourages more significant interaction with their publics. An examination of the six corporate websites shows that except for one public and two private, the remaining three organizations have a well-structured feedback mechanism that allows their publics to interact with them.

One of the public organizations interested in foreign affairs has a helpline on which individuals can call and put their concerns forward. It also has Facebook and Twitter accounts to connect with its stakeholders. One of the public relations practitioner of one of the private organizations, with 11 years of working experience, stated concerning feedback on their website:

Anyone with queries or other relevant issues needing feedback is directed to their Contact Us feature. At the Contact Us button, ample information regarding the individual, their e-mail address, and the specific information or inquiry made are requested. We will get in touch with the individual via the information provided. Such information will be subsequently deleted, except the

individual made a legal request to retain the data.

Another private organization with interest in packaging has contact us to which queries and comments are sent for clarifications on issues. Two public organizations and one private have well-structured feedback mechanisms, the most visible of the Frequently Asked Questions (FAQ) hyperlink. A public relations officer in one of these two public organizations, with eight years, working experience, said that his department designates staff to attend those feedback and arranging for responses to it without delay

Kent and Taylor (1998; 2002) assert that the Comment Box in some websites exemplifies the potential for dialogic communication as the publics have the opportunity to relate with the organization. Only one of the public organizations has the Comment Box hyperlink, but all the remaining organizations have other links that enable their publics to express themselves.

The listed findings of the current are consistent with the results of some studies (Gustavsen & Tilley, 2003; Agozzino, 2015, p. 6; Akwari, 2017, p. 15), underscoring the potency of the corporate website to be used as a medium for two-way communication. Some 90 percent of the investigated websites have the potential for two-way communication. The 10 percent deficiency has to do with the absence,

on a few websites, of well-structured mechanisms designed purposely for feedback. Few do not have a search engine, while others do not possess social media widgets.

RQ 2: How can dialogic communication be used for the corporate website as an online Public Relations tool?

This question elicits useful information on how the selected private and public organizations' corporate websites come across as public relations role player and medium for two-way communication. Responses from discussants and interviewees attest to this. In their response to whether corporate websites can be used as an online public relations tool, 95 percent of the interviewees indicated a "Yes." However, the websites should have certain features that facilitate dialogic communication between an organization and its publics. The following excerpts are representative of the interviewees' comments:

We recommend that the ministry update its website with current information of interest to its shareholders.

EDURespond (PUB; 9 years of working experience)

Public Relations personnel scan newspapers and online portals daily, news stories related to the ministry are cut out and filed for future references. Important ones are

posted...

EDURespond (02; 11 years of working experience)

...the website must be attractive...website architecture is vital, and the content you put there should be very credible and reliable. In effect, the website's information should not be misleading, controversial, or misinform your public.

HEHRespond (PUB, 03 with 13 years of working experience)

But in our set-up, whatever information we put out there is *measured, so we are cautious...I can't even engage a media person who walks in or throw light on certain things; I have to seek approval.*

FoNRespond (03, nine years of working experience.)

"You know and get them to understand, but you cannot force *them to understand...do not attach emotions or also act in that way by being harsh on the person.*"

FMLRespond (04, with eight years of working experience.)

The feedback mechanism *used...is a link on the website labeled info@moe.com.gh. With this, stakeholders can ask questions for clarity on issues or information seen on the website...they are addressed and replied instantly.*

EDURespond (03, with 11 years of working experience.)

People give us feedback then we take it up from there. We respond to them quickly with the help of other units.

EVRRespond (01, with 10 years working experience.)

The excerpts above show that most corporate websites function as an online public relations tool. The majority, 78 percent, indicated that their corporate website features had features that made it easy for visitors to navigate. The remaining 22 percent indicated that strict rules make websites less user friendly. However, the analysis shows that all organizations' websites contain relevant information to adequately educate and inform their public. The majority – 75 percent – of the websites contain About Us, Resources, News Release, Photo News and Policy Documents, and other hyperlinks. Findings in Kent and Taylor (1998) on the second principle of dialogic communication support this outcome.

The third principle of dialogic communication is the generation of return visits to websites. One public organization interested in health matters has a forum for web training and responding to feedback promptly, as indicated by its public relations officer with 14 years of working experience. He said:

The institutions' website is being monitored and updated on hourly bases because there is personnel charged with responding

to the public within one hour maximum.

The public organization related to education has a Comment Box for suggestions, recommendations, or expression of grievances, thus prompting its publics for visits and revisits to the sites. Likewise, the remaining organizations also have a forum for addressing feedbacks and generating comments from their publics. The education-related public organization and two private organizations have similar hyperlinks.

According to Kent and Taylor, the fourth principle of dialogic communication is the consolidation of return visits. Public relations professionals in the selected public organizations run this principle - as many of them, or 60 percent, indicated that they have well-structured frameworks for updating their websites and providing timely feedback to their publics. The last item in dialogic communication is the dialogic loop. For Kent and Taylor, using corporate websites as a dialogic loop within and outside organizations is not unusual.

All the interviewees also indicated that they employed their websites to manage communication, reputation, and address issues strategically in harmony with the five principles of dialogic communication. Since public relations tools should enhance public relations officers' work and accentuate the cordial relationship

between the institution and their publics through dialogic communication, the websites are relevant as a versatile online public relations tool.

RQ 3: What is the influence of organization ethics on successfully deploying a corporate website as a Public Relations tool for online dialogic communications?

The question is concerned with the influence of organizations' ethics on public relations professionals' ability to manipulate, device, and incorporate relevant features into a corporate website to achieve dialogic communication. The quotes and paraphrases extracted from the focus group transcripts to address the question are presented below.

Not less than 85 percent of discussants agreed that public relations professionals' alignment with the ethics guiding their organizations places restrictions on how they incorporate information on their websites to promote dialogic communication. The PR officer from the foreign affairs-related public organization, with ten years of experience, had this to say:

"You cannot just insert anything on the website. You must follow a chain of authority that may take months or years before approval."

The professional from the private sector, with eight years of experience, asserted:

"Due to the nature of our product (being alcoholic content), all adolescents are not allowed on our website, and we are curtailed on the level of things we could place on the website in harmony with our work ethics."

The participants' responses above show that public relations professionals work within their organization's ethics or operation mode. The website of one private organization – a brewer- asks for birth details to ascertain whether the visitor is an adult or not. This request implies that the only adult with a mature mind and rational thinking is advised or permitted to consume alcohol.

Furthermore, a PR officer from the public organization in charge of foreign affairs said that Ghana's public institutions must align with the bureaucratic civil service regulations. Obedience to rules limits the number of features that a corporate website can contain. The civil service ethical system is not universal as it varies from one organization to the other. This variation influences the type or magnitude of content post-able. For instance, the organization in charge of foreign affairs does not have feedback features, while the two in charge of health and education do.

One focus group discussant – a PR practitioner with 12 years of working experience in the education ministry – said his organization and the organization in charge of health

matters are concerned with saving lives and educating people. These ethically-driven responsibilities imply that they should have viable, well-structured feedback systems that promote dialogic communication for better service delivery. In effect, the organization's ethics plays a significant role in determining the extent to which Public Relations professionals can incorporate certain features to facilitate dialogic communication with the organization's publics.

Conclusion and Recommendations

This study has shown that, while public institutions use their websites to inform, educate, train, protect reputation, and develop a cordial relationship with their publics in dialogic communications, profit-oriented ones do extend website usage to profit. The study has also demonstrated that irrespective of profit motives or the need for mutually beneficial relationships, ethical considerations also influence the extent to which public relations professionals can post materials on websites for dialogic communication. However, the findings do elicit the following recommendations:

1. The PR professionals of both the public and private organizations should cultivate a proactive work habit. A mapping of the organizations' issues should be

implemented to enable the website masters to create programmed answers to those that are common. Visitors to the websites would not need to wait for hours or days to have their issues resolved.

2. The private organizations' websites used advertisements as part of their dialogic communication strategy to boost profit. Public organizations can emulate this and generate income like their private counterparts.
3. Video-on-demand and conferencing solutions should be

added to the dialogic communication portfolios of the organizations. Besides boosting the communication process, they serve as additional friendship and revenue sources.

4. Public Relations professionals in private and public organizations should make necessary recommendations to the appropriate authorities to incorporate research opportunities for the public just as it is done in the Ministry of Health Corporate Website.

References

- Adesina, E., Oyero, O., Okorie, N., Amodu, L., Omajola, O. & Adeyeye, B. (2019). Information Use and Knowledge of HIV/Hepatitis B Co-Infection in Lagos, Nigeria. *Health* 11 (6), 671-682.
- Adogla, D. R. (2018). Web-based political interaction. *Globe: A Journal of Language, Culture and Communication*, 7, 1-21.
- Adu, E. P., Buabeng, T., Asamoah, K., & Damoah, C. M. (2020). Digitization of local revenue collection in Ghana: An evaluation of Accra Metropolitan Assembly (AMA). *The Electronic Journal of Information Systems in Developing Countries*, 86(1), e12112.
- Agozzino, A. (2015). Dialogic Communication Through "Pinning": An Analysis of Top 10 Most Followed Organizations Pinterest Profiles. *Public relations journal*, 9(3), 1-13.
- Akwari, C. C. (2017). Dialogic communication and public relations websites: a content analysis of the global top 250 Public Relations agencies". *Electronic Thesis and Dissertations. Paper 3209*. Retrieved from <https://dc.etsu.edu/etd/3209>

- Amodu, L., Omojola, O., Okorie, N., Adeyeye, B. & Adesina, E. (2019). Potentials of Internet of Things for effective public relations activities: Are professionals ready? *Cogent Business & Management* 6 (1), 1683951.
- Andoh-Quainoo, L., & Annor-Antwi, P. (2015). The use of social media in Public Relations: A case of Facebook in the Ghanaian financial services industry. *New Media and Mass Communication*, 41(1), 37-47.
- Bevilacqua, C., Ou, Y., Pizzimenti, P. & Minervino, G. (2020). New public institutional forms and social innovation in urban governance: Insights from the Mayor's Office of New Urban Mechanics (MONUM) in Boston. *MDPI Journal*. <https://doi.org/10.3390/su12010023>
- Bohm, D. (2013). *On dialogue*. New York: Routledge.
- Capriotti, P., & Moreno, A. (2007). Corporate citizenship and Public Relations: The importance and interactivity of social responsibility issues on corporate websites. *Public Relations Review*, 33(1), 84-91.
- Creswell, J. W. & Poth, C. N. (2018). *Qualitative inquiry and research design choosing among five approaches*. 4th edition. Thousand Oaks: SAGE Publications, Inc.
- Creswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed methods approaches*. Thousand Oaks: Sage Publications.
- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches*. Thousand Oaks: Sage Publications.
- Esrock, S., & Leichty, G. (2000). Organization of corporate web pages: Publics and functions. *Public Relations Review*, 26(3), 327-344.
- Folayan, B.J., Omojola, O., Egharevba, M., Oyesomi, K., Yartey, D. & Adeyeye (2018). The use of ICT-rooted communication codes and slangs among Nigerian students. *Journal of Social Sciences Research*, 4(12), 633-641. <https://doi.org/10.32861/jssr.412.633.641>.
- Gerring, J., & Cojocar, L. (2016). Selecting cases for intensive analysis: A diversity of goals and methods. *Sociological Methods & Research*, 45(3), 392-423.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4), 597-607.
- Goldie, P. (2003). Experience matters—more now than ever. *The Edge Newsletter*. Retrieved from <http://macromedia.com/newsletters/edge/march2003/section0.htm>

- ml
- Gomez, L.M. & Chalmeta R. 2011. Corporate responsibility in US corporate websites: A pilot study. *Public Relations Review* 37: 93–95.
- Grunig, J. E. (ed.). (2013). *Excellence in Public Relations and communication management*. New York: Routledge.
- Gustafsson, J. (2017). Single case studies vs. multiple case studies: A comparative study. Retrieved from <http://urn.kb.se/resolve?urn=urn:nbn:se:hh:diva-33017>.
- Gustavsen, P. A. & Tilley, E. N. (2003). Public relations communication through corporate websites: Towards an understanding of the role of interactivity. *Prism*, 1(1), 1-14.
- Heath R. L. (2005). *Encyclopedia of Public relations*. Thousand Oaks, CA: Sage Publications,
- Hill, L. N., & White, C. (2000). Public relations practitioners' perception of the worldwide web as a communications tool. *Public Relations Review*, 26(1), 31-51.
- Ikpefan, O.A., Ibinabo, H., Osuma, G.O. & Omojola, O. (2019). Relationship marketing and deposit mobilization in five deposit money banks in Nigeria. *Academy of Strategic Management Journal*, 18 (6), JEL Code., M31, G21.
- Itanyi, O., & Ukpere, W. I. (2014). Stakeholder relations management as a Public Relations tool for socio-economic development in Nigeria. *Mediterranean Journal of Social Sciences*, 5(10), 20-21.
- Jiang, J., & Wei, R. (2013). Power distance and online organization–public relationship building: a comparative analysis of US and Chinese corporate websites. *Chinese Journal of Communication*, 6(1), 81-102.
- Jo, S. (2006). Measurement of organization–public relationships: Validation of measurement using a manufacturer–retailer relationship. *Journal of Public Relations Research* 18(3): 225–248.
- Johannesen, R. L. (1971). The emerging concept of communication as dialogue. *Quarterly Journal of Speech*, 57 (4), 373-382, DOI: [10.1080/00335637109383082](https://doi.org/10.1080/00335637109383082).
- Kamarulzaman, N. A., Lee, K. E., & Siow, K. S. (2020). Understanding public benefit and risk perceptions through psychological and sociological aspects for sustainable nanotechnology development in Malaysia. In *Concepts and Approaches for Sustainability Management*. Retrieved from https://link.springer.com/chapter/10.1007/978-3-030-34568-6_1
- Karakiza, M. (2015). The impact of

- social media in the public sector. *Procedia-Social and Behavioral Sciences*, 175, 384-392.
- Katheery, A., Mushfiq, H., Al Suwaider, H., & Al Ahabbi, M. (2016). Public Relations and the Social Media. *Cross-Cultural Communication*, 12(1), 1-7.
- Kemp, S. (2018). Digital in 2018: World's internet users pass the 4 billion mark. Retrieved from <https://wearesocial.com/blog/2018/01/global-digital-report-2018#:~:text=The%20new%202018%20Global%20Digital,the%20world%20using%20the%20internet>.
- Kent, M. L. & Taylor, M. (1998). Building dialogic relationships through the world wide web. *Public Relations Review*, 24(3): 321-334.
- Kent, M. L. & Taylor, M. (2002). Toward a dialogic theory of Public Relations. *Public Relations Review*, 28 (1), 21–37.
- Kent, M. L., Taylor, M., & White, W. J. (2014). The relationship between Website design and organizational responsiveness to stakeholders. *Public Relations Review*, 29 (1), 63- 77.
- Kent, M., & Taylor, M. (2011). How intercultural communication theory informs Public Relations practice in global settings. In N. Bardhan, C. K. Weaver (eds), *Public Relations in Global cultural contexts: Multi-paradigmatic perspectives* (p. 50-76). New York: Routledge.
- Khan, G. F., Swar, B., & Lee, S. K. (2014). Social media risks and benefits: A public sector perspective. *Social Science Computer Review*, 32(5), 606-627.
- Khodarahmi, E. (2009). Strategic Public Relations. *Disaster Prevention and Management: An International Journal* 18(5). Retrieved from <https://www.emerald.com/insight/content/doi/10.1108/09653560911003723/full/html>
- Lee, S., & Koubek, R. J. (2010). The effects of usability and web design attributes on user preference for e-commerce web sites. *Computers in Industry*, 61(4), 329-341.
- Liu, B. F., Horsley, S. J. & Abbey, B. L. (2010) Government and Corporate Communication Practices: Do the Differences Matter? *Journal of Applied Communication Research*, 38:2, 189-213, DOI: 10.1080/00909881003639528.
- Ministry of Education, Ghana (2020). Feedback Mechanism. Retrieved April 23, 2020, from www.moe.gov.gh.
- Ministry of Health, Ghana (2020). Feedback Mechanism. Retrieved April 24, 2020. www.moh.gov.gh.
- Morah, N. & Omojola, O. (2014). Digital Large Screens as a

- Community Medium: Interactivity and Community Relevance in Focus. In A. Ojebode (Ed.) *Community Media in Nigeria* (pp. 385-402). Ibadan: John Archer Publishers.
- Motion, J., Heath, R. L., & Leitch, S. (2015). *Social media and public relations: Fake friends and powerful publics*. New York: Routledge.
- Nielsen, J. (2012, Jan. 4) Introduction to Usability. Nielsen Norman Group. Retrieved from <https://www.nngroup.com/articles/usability-101-introduction-to-usability/>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods*, 16, 1-13. Retrieved from <https://journals.sagepub.com/doi/pdf/10.1177/1609406917733847>
- Ofori, D. M. (2019). Grounding Twenty-first-Century Public Relations Praxis in Aristotelian Ethos. *Journal of Public Relations Research*, 31(1-2), 50-69.
- Okafor, O. C., & Nwatu, C. B. (2018). Public Relations as a tool for attaining educational institution objectives in Enugu State. *International Journal of Marketing and Management Research*, 9(3), 1-22.
- Okorie, N., Loto, G. & Omojola, O. (2018). [Blogging, civic engagement, and coverage of political conflict in Nigeria: A study of nairaland.com](#). [Kasetsart Journal of Social Sciences](#), 39(2), 291-298 (open access: <https://www.sciencedirect.com/science/article/pii/S2452315118301607>).
- Osei-Kojo, A. (2016). E-government and public service quality in Ghana. *Journal of Public Affairs*. 2016; 17: e. 1620. DOI: <https://doi.org/10.1002/pa.1620>
- Pang, A., Shin, W., Lew, Z., & Walther, J. B. (2018). Building relationships through dialogic communication: organizations, stakeholders, and computer-mediated communication. *Journal of Marketing Communications*, 24(1), 68-82.
- Penman, R., & Turnbull, S. (2012). From listening... to the dialogic realities of participatory democracy. *Continuum*, 26(1), 61-72. DOI: 10.1080/10304312.2012.630145
- Public Relations Society of America (PRSA). (2011/2012). *Public relations defined*. PRSA. Retrieved from www.prsa.org.
- Quaye J. D. and Sneider E. (2020). E-government adoption: The role of perception of digital technology in the public service of Ghana. 2020 Seventh International Conference on

- eDemocracy & eGovernment (ICEDEG), Buenos Aires, Argentina, 2020, pp. 225-230, DOI: 10.1109/ICEDEG48599.2020.9096759.
- Seitel, F. (2011). *The practice of Public Relations (international edition)*, 11th edition. New York: Pearson.
- Seitel, F. (2011). *The practice of Public Relations (11th edition)*. Boston: Prentice-Hall.
- Smith, D. R. (2005). *Strategic Planning FOR Public Relations (Second edition)*. New Jersey: Lawrence Erlbaum Associates.
- Smith, R. J. (2014). Missed miracles and mystical connections: Qualitative research, digital social science and big data. *Studies in Qualitative Methodology* 13, doi.org/10.1108/S1042-319220140000013011.
- Tagoe, M. (2012). Students' perceptions on incorporating e-learning into teaching and learning at the University of Ghana. *International Journal of Education and Development using ICT*, 8(1), 91-103.
- Thomas, G. (2011). A typology for the case study in social science following a review of definition, discourse, and structure. *Qualitative Inquiry*, 17(6), 511-521.
- Van den Bulck, H., & Moe, H. (2018). Public service media, universality and personalization through algorithms: mapping strategies and exploring dilemmas. *Media, Culture & Society*, 40(6), 875-892.
- Vorvoreanu, M. (2008). Website experience analysis: A new research protocol for studying relationship building on corporate websites. *Journal of Website Promotion*, 3(3-4), 222-249.
- White, C., Raman, N. (2000). The World Wide Web as a Public Relations medium: The use of research, planning, and evaluation in web site development. *Public Relations Review*, 25 (4), 405 – 419.
- Wong, K. L. X., & Dobson, A. S. (2019). We're just data: Exploring China's social credit system in relation to digital platform ratings cultures in Westernized democracies. *Global Media and China*, 4(2), 220-232.
- Yartey, D., Omojola, O., Amodu, L., Ndubueze, N., Adeyeye, B. & Adesina, E. (2021). Personal Data Collection and Usage for Mobile Marketing: Customer Awareness and Perception. *WSEAS Transactions on Business and Economics* 18, DOI: [10.37394/23207.2021.18.5](https://doi.org/10.37394/23207.2021.18.5).
- Yin, K. R. (2003). *Case study research: Design and methods (3rd ed.)*. Thousand Oaks, CA: Sage Publications.
- Yin, K. R. (2016). *Case study*

research: Design and methods.
London: Sage Publications.

Zamawe, F. C. (2015). The
implication of using NVivo

software in qualitative data
analysis: Evidence-based
reflections. *Malawi Medical
Journal*, 27(1), 13-15.



Social Media and Health Mobilization During Emergencies: The Case of Lassa Fever Outbreak in Ebonyi, Nigeria

Anthony C. Ekwueme & Fidelis N. Asogwa

University of Nigeria
Nsukka, Nigeria

Correspondence: gykhusints@gmail.com

Received: September 6, 2020 Accepted: November 5, 2020

Abstract: Lassa fever is an existential threat to Ebonyi, one of Nigeria's 36 states, located in the southeastern region. Communication is a critical component of the integrated approach the government has adopted to combat the disease. This study examines the influence of social media in the management of the 2018 outbreak. Results from 426 respondents show that 74.47 percent received their first story on the outbreak via social media, while 72.30 percent visited social media platforms daily. Facebook was the dominant social media subscription - 87.56 percent. A significant 97.88 percent visited at least once a day. Findings also show that, after the visits, 74.08 percent took preventive actions from food infection. This figure accounts for a little more than half of the total preventive actions taken. Some 84.04 percent gave social media a pass mark for its impact, while 98.70 engaged in one form of health awareness creation or another through their social media contacts. Overall, 89.67 percent claimed that the information consumed on social media had some impact on them. One of the recommendations is that this impressive performance should be sustained.

Keywords: Lassa fever, social media, epidemic, health, mobilization, infectious, Ebonyi State, Nigeria.

Introduction

Lassa fever is a viral disease that is closely related to the Ebola Virus and monkeypox. The initial discovery occurred in Lassa town in Borno State, Nigeria, in 1969, hence the name. It is a disease transmitted through rats' excrement, especially urine. It is one of the most potent zoonotic diseases that have ravaged the West African sub-region for years. It is now considered an existential threat to Nigeria, Liberia, Sierra Leone, Ghana, Guinea, Central African Republic, and Mali (Smith, Smith, & Adedeji, 2014).

According to the World Health Organization (WHO), from January to April 2018, 1,849 suspected cases were reported from 21 states in Nigeria. Of this figure, physicians confirmed 413, nine classified as probable, 1422 tested negative, and 114 deaths recorded. One of the epicenters of the disease was Ebonyi State. Unlike in the previous incidents in the state, the January 2018 outbreak was unique. First, it was the shortest outbreak ever. Secondly, it was the least severe. Third, the disease's advent was marked by massive publicity and awareness mobilization by the health authorities. Fourth, that was the first time that the youth population was targeted as part of the state government's strategies to contain the disease through its focus on the school system. Fifth, there was a

deliberate social media strategy against the epidemic.

For these reasons, the epidemic subsided. This study examines the social media component of the strategy adopted to tackle the problem. It zeroes in on social media utilization in mobilizing the citizens against the disease. This study aims to provide an empirical link between the massive health information dissemination through the various social media platforms and the early containment and control of the Lassa fever outbreak in Ebonyi state in 2018. The attention from WHO, the Nigerian Center for Disease Control (NCDC), and the government to the communication aspect is a significant motivation for the investigation. Besides that, the non-visibility of literature provided the basis to conduct the study.

Statement of the Problem

As of March 2018, about 110 deaths were recorded from the disease in Nigeria sequel to the January outbreak. According to NCDC, Lassa fever is a significant public health issue in the country. There were outbreaks with different severity and fatalities in 2015, 2016, 2017, and 2018. The January 2018 outbreak caused a significant dislocation of social and economic activities in affected states in Nigeria. In Ebonyi State, schools closed for two weeks to minimize the

spread of the disease among students. Despite this severity, the problem was not visible under the scholarship radar as no significant research efforts were directed toward it.

The state government's focus was on intensive enlightenment of the populace to prevent a resurgence of the disease and ensure that they are kept abreast with preventive measures to stop the menace. This work put the “intensive enlightenment” campaign in perspective. It focuses on how digital/social media impacted the early containment of the Lassa fever outbreak in 2018. The social media the citizens of the state relied on for health information, health updates, and preventive measures to halt the disease's spread.

1. What were the dominant social media platforms for disseminating health information and creating public awareness during the Lassa fever outbreak in Ebonyi State in January 2018?
2. Did health information disseminated through social media platforms during the outbreak influence the public's health-behavior change?
3. What impact did social media have in the management, containment, and control of the Lassa fever outbreak in Ebonyi State in January 2018?

Significance of the Study

This study is a timely contribution to public health authorities' efforts to integrate the use of social media platforms as part of the core components of the health protocols designed to fight public health challenges in a cost-effective and timely manner. This paradigm shift to soft-measures to combat public health issues can reduce public health management costs, especially during emergencies. There is a consensus that social media's impact on public health management has not been adequately studied and understood. This work aims to minimize unanimity. This study's significance is also visible by its potential to draw public health authorities' interest and attention to the awareness that early health information provided through social media platforms can mitigate, control, and contain public health challenges.

While vaccines, medicines, and other vital health interventions are necessary, research has shown that behavioral change is an even more effective antidote to the spread of infectious diseases, especially zoonotic infections. In Africa, where many people reside in rural areas, it may be impossible for public health authorities to provide adequate medical coverage. This challenge makes it necessary to incorporate social media platforms' potentials into the fight against such health concerns as Lassa Fever. Thus, the

need for empirical studies to evaluate the role and effectiveness of using social media as part of public health authorities' response measures cannot be over-emphasized.

The empirical gaps in the literature in this critical area of public health management are reducible by studies like this. They give insight into response measures needed to combat public health challenges, especially in Africa. This study's empirical foundation can be useful to public health domain actors, namely, doctors, patients, policymakers, government, journalists, advocacy groups, and Non-Governmental Organizations (NGOs) who appreciate such.

Literature Review and Theoretical Framework

Social media have platforms redefined the public sphere. They have revolutionized the social landscape, democratized the means of sharing information, and afforded the citizens, especially the youth, the wherewithal to exchange opinions, build consensus, contribute to social causes, learn new things, interrogate leaders, and create and connect with their audiences (Griffiths et al., 2015; Sagar, 2013; Gruzd & Roy, 2014; Biondo, 2013; Folayan et al., 2018; Okorie, Loto & Omojola, 2018). Social media platforms' immediacy and spontaneity have made them indispensable in mobilizing the public towards achieving a given

cause. In the area of public health, social media are used for "networking and community building purposes, as well as for informing healthcare decision-making between patients and providers" (Stellenfson, Paige, Chaney, & Chaney, 2020, p.1).

According to Griffiths et al. (2015, p.474), "interaction through digital social networks can lead to the identification of problems related to health that the professionals have not yet thought about, and to the contestation of prevailing ideas about health and health care." These media are highly cost-effective in reaching diverse stakeholders such as patients, health authorities, advocacy groups, and health-challenged communities (Scott & Maryman, 2016). They are also available 24 hours a day, elicit an immediate response, require little or no expertise, and have the ability to combine the best qualities of television, radio, telephone, and newspaper all at the same time.

The exponential growth in the number of internet users and the number that utilizes social networking sites has continued to make social media the preferred mobilization channels for governments, corporates, civil society groups, and individuals. The idea of managing public health without digital media is almost unthinkable in the 21st century. Thus, health authorities are gradually integrating them into the planning,

policy, implementation, and management of public health programs and issues (Guo & Saxton, 2013). The W.H.O's Regional Office for Africa (2012) has identified social and digital media as having the ability to provide innovative approaches to community health.

A significant part of the Nigerian government's prevention strategy was to embark on public awareness programs to learn how best to protect their food, keep their environment clean, and kill the rats. Other measures are the following:

1. There was an enhanced surveillance system in all affected states where Lassa fever cases were reported. This measure included contact tracing to track those infected.
2. The line listing of cases reported across all the states and data is stored in the VHF database.
3. Lassa fever treatment centers were established in the affected states to support case management. These centers were equipped with case management, as well as infection prevention and control supplies. The Nigerian newspaper, Daily Trust on January 27, 2016, reported that the partners in this prevention and control

measures included WHO, the United States Centre for Disease Control and Prevention (U.S CDCP), the University of Texas Medical Branch (UTMB), and the African Field Epidemiology Network (AFEN).

Aggressive communication strategy through digital media has been one of the significant containment measures against Lassa fever. It is cheaper than other measures, elicits attitudinal change from the public, motivates the public to action, and has a broad reach. Current research on health communication clearly illustrates the powerful influences of communication on health care (Okpoko, 2013, p.47). Communication is especially vital during health emergencies when people need to be abreast of the latest happenings in the theatres of action. Getting the needed information in times of crisis can make the difference between life and death.

During disease outbreaks like the one of Ebonyi state in January 2018, the media took on a vital role between the citizens and the health authorities and act as an essential resource for the needed information, direction, articulation, motivation, and action to counter the health danger among the citizens (Fischhoff, 1995; Salmon & Atkin, 2003; Nicodemus, 2004).

As health communication

continues to evolve, the delivery channels have been altered by the emergence of new and powerful technologies. Moorehead et al. (2013) identify how the new media are being used in public health systems. These include providing information on a range of issues, collecting data on patient experiences, reducing illness stigma, and online consultation. Other authors supported their views (Giustini et al., 2018), adding pharmacy practice and professional development.

The use of ICT for health campaigns has been studied extensively in recent years. The majority of these studies have confirmed the new media effectiveness in achieving intended goals (Oyero et al., 2020; Sulem-Young et al., 2016; Heinderyckx, 2010; Delany, 2009) and getting people involved. Social media subscribers became relevant in intervention systems by reporting new cases or suspected cases directly through the available social media platforms (WhatsApp, Facebook, and Twitter). The other platforms were the toll-free numbers to the state's ministry of health.

According to Fayoyin (2016, p.3), "Africa's health burden is still currently high requiring (among other strategies) the application of innovative communication approaches in delivering the continent's public health agenda."

Thus, the various social media platforms are being utilized to provide Africa the e-health services essential to its citizens' improved health. He says that "communication is central to public health delivery, and advances in digital media and communication technology hold significant prospects for addressing public health and development issues confronting the continent." Social media have become indispensable to health authorities and development partners' overall strategies and agencies in providing services that improve public health (Salmon & Arkins, 2003). In 2014, the Ebola virus outbreak hit Nigeria from the neighboring Sierra Leone and Liberia. The outbreak had claimed 8000 lives in Sierra Leone and 7700 in Liberia, but Nigeria only lost 20 people to the disease.

A significant part of the Nigerian health authorities' success was attributed to the extensive and intensive use of social media to mobilize the public and raise awareness about the disease. At the time of the outbreak in 2014, Nigeria had over 130 million mobile phone users, 67 million internet subscribers, and an active social network, which played a significant role. These numbers have almost doubled since 2014. Nigeria now has more than 200 million mobile phone users and 101.2 million internet users, 75 percent of whom subscribe to social media networks. Thus, digital

media's impact in enhancing public health cannot be ignored, especially in a country with one of the highest internet penetrations in the world.

West (2014) reported that the International Federation of the Red Cross (IFRC) was sending out two million messages a day during the Ebola outbreak, which significantly contributed to the public's awareness of the disease, diagnosis, and treatment. Social media deployment for accelerated and extensive information dissemination was singled out as the most instrumental to the outbreak's containment. Mahaer et al. (2014) and Laranjo et al. (2015) found that patients' digital media use resulted in measurable health behavior changes. Recent studies such as Willis, Szabo-Reed, Ptomey, Steger, Honas, Washburn and Donnelly (2016), Balatsoukas, Kennedy, Buchan, Powell, and Ainsworth (2015), and Househ, Borycki, and Kushniruk (2014) showed that positive changes occurred in managing health problems as a result of the impact of social media.

The Lassa fever outbreak in Ebonyi State in January 2018, the events that followed it, and the behavioral patterns of the populace could be theoretically located in both core communication and applied health communication theories.

The Agenda Setting Theory easily comes to mind when the media, both mainstream and social,

set the public agenda towards a particular issue (Lassa fever outbreak) and seek to point towards a particular civic action to contain the threat to public health. Although there have been questions about the level of media influence on the public, most agree that the media has some influence. This influence is captured best by the Agenda setting theory. Thus, the media can set the public agenda for behavioral change to counter the effects of the state's Lassa fever outbreak. This time, the actors are not professional news writers but citizen journalists.

The Mobilizing Information Theory (MI), popularized by Lemert et al. (1977), though applied initially in the study of political communication and advertising, has also been found to be applicable in health communication. The theory can explain the media impact in mobilizing information to motivate the public to action and significantly increase self-efficacy towards taking recommended action against the disease's threat.

Information mobilization in the media has been assessed and critiqued by scholars. Lemert et al. (1977) define MI as information that allows people to act on attitudes they already have. This definition agrees with De Silva, Muskavitch, and Roche (2004) and Clarke (2010). They define it as messages that, in theory, allow readers to act on existing attitudes and adopt health-

protective or enhancing behaviors. Thus, community health can be improved when the media provide MI, which acts as motivation for behavior change, adoption of health innovations, and measures to avoid adverse health consequences. Clarke adds that media can directly mobilize action by highlighting a group's cohesiveness in response to a perceived threat. Thus, from a health perspective, such information can encourage and empower people to adopt risk-reducing and health-promoting behavior (Bandura, 2004; Igbino et al., 2020; Odiboh, Omojola & Oyesomi, 2020; Adesina et al., 2019).

Lemert (as cited by Clark, 2010, p.13) suggests three levels where MI manifests: locational MI, Identification MI, and Tactical MI. Locational MI provides readers information about the threat's location, while identification MI identifies the health threat. Tactical MI provides the know-how to handle the health threat. These cues help the person under a threatened public health situation like the one under investigation to take actions that would likely ameliorate the situation.

The Health Belief Model (HBM) explains the behavioral changes that occur under a threatened environment, taking into account the health threat, the people's belief system, and the environmental factors under which the threat occurs.

This model considers the health concerns that are prevention-related and asymptomatic, where beliefs are as important as or more important than overt symptoms (Okpoko, 2013). The model also considers a person's health behavior or action when that person feels that an adverse health condition can be avoided and that taking a recommended action will eliminate an adverse health outcome. The person may also believe that the recommended action can be adopted. This model thus explains the high awareness of the epidemic's dangers through official health authorities and their social media channels. Although the HBM has been attacked for being too abstract, it has nonetheless found wide acceptability by scholars.

Roger's (1983) Protection Motivation Theory (PMT) has found wide use in health-related communication. It comprises the appraisal of a health threat and the coping mechanism devised for the threat (Westcott, Ronan, Bambrick, & Taylor, 2017). It aligns with the HBM model in significant respects but does not highlight the belief system's aspect so central to the HBM model. Other relevant theories include Bandura's Social Cognitive Theory (SCT) and the Extended Parallel Processing Model (EPPM). These theories are similar in some respects. These include the presence of a perceived threat, the appraisal or

evaluation of this threat, the recommended action to be followed by the public to limit the consequences of the threat, and the perception of the threat as something that individuals can mitigate on their own following the recommended action.

Methodology

This study employed survey methodology and relied on the face-to-face administration of questionnaires to gather the needed data. The study population was based on the 2016 estimated population of Ebonyi State by the Nigerian Bureau of Statistics (NBS) of 2,880,383. More than 500 copies of the questionnaire were distributed purposively to respondents adjudged

competent to attend to the listed items. Of this number, 426 (85.2%) returned theirs completed. The copies were shared proportionally across the three senatorial zones of the state. The questionnaire categorized respondents into five age brackets, with 100 copies being shared per age group. The groups are 18 – 24, 25 – 34, 35 – 44, 45 – 54, and 55 and over. Besides the competence factors of literacy and knowledge of the disease outbreak, each respondent also owned a smartphone and subscribed to the social media platforms. The validity profile of the questionnaire was boosted with pre-test exercises on a polytechnic campus. The biodata distribution is in Table 1.

Table 1: Demographic distribution										
Age distribution	18 - 24		25 –34		35 – 44		45 -54		55 & above	
Returned questionnaire copies	100		100		96		81		49	
Sex	M	F	M	F	M	F	M	F	M	F
f	61	39	52	48	51	45	53	28	31	18

Analysis and Results

RQ1: What were the dominant social media platforms for disseminating health information during the Lassa

Fever outbreak in Ebonyi State in January 2018?

This study's results indicate and confirm the high level of awareness of the Lassa fever epidemic in Ebonyi state during the January 2018 outbreak. Virtually everyone in the state knew of the outbreak, which helped in no small measure to curb the disease's spread and limit its consequences considerably compared to the past outbreaks. The data show that most of the respondents got their information about the outbreak from social media. This result confirms findings by Love, Arnesen & Philip (2015), a trend in tandem with the rise of social media in disseminating information, especially in emergencies. We are now in the Net Generation, as surmised by Bernatowicz and Iwaski (2012). Specifically, 73.47 percent of the respondents got their first information about the outbreak from social media. The traditional television, radio, and newspapers combined provided only 23.94 percent of the respondents with their first information about the outbreak. Despite its concerted communication efforts, the State Ministry of Health only provided 0.70 percent of the respondents with their first information about the disease outside its social media platforms. However, some intricacies exist in the figures. Findings show that some respondents

did regard the traditional media's online editions (e.g., newspaper) as online even though they were also the same as the printed version.

Furthermore, respondents' information from the state's ministry of health on the outbreak was also from social media platforms, including Twitter. Respondents could also have regarded this as part of the totality of what they received on social media.

Facebook was the most significant source of information on the outbreak to 87.56 percent of the respondents. This outcome aligns with findings by Ali (2017); Aldahmashi, (2017); and Smith (2017) in studies on a similar subject. WhatsApp came a distant second, with 4.23 percent. The majority of the respondents (72.30%) visit social media sites daily, thereby confirming Farhan's (2018) findings that youths spend 30-60 minutes per day on social media, while 19.48 percent visit 2-4 times in a day. The data show that, on average, 97.88 percent of the respondents visit social media sites at least once a day. These figures compare well with Statista's (2018) report that 41 percent of internet users in Nigeria are regular visitors to Facebook and WhatsApp platforms. The rest of the data are in Table 2.

Table 2: Mobile phone/internet access and usage

QS	OPT	18 – 24		25 – 34		35 – 44		45 – 54		55 & above	
		M	F	M	F	M	F	M	F	M	F
Q2		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q3	WW	0	0	1	2	0	2	0	1	0	0
	RD	0	0	5	3	5	4	10	3	7	3
	TV	0	0	3	9	7	8	9	7	3	7
	SM	61	39	43	31	37	29	31	17	17	8
	NP	0	0	0	0	2	0	3	0	4	0
	MH	0	0	0	1	0	2	0	0	0	0
Q4		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q5		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q6		61	39	52	48	46	41	42	21	19	13
		61	39	52	48	46	41	42	21	19	13
Q7	FB	56	33	47	46	44	42	45	21	27	12
	WP	1	2	1	0	3	1	2	4	1	3
	TT	1	2	2	1	0	2	1	0	0	0
	IG	3	2	2	1	1	1	3	1	1	0
	FM	0	0	0	0	3	0	1	1	2	0
	YB	0	0	0	0	0	0	1	1	1	3
	O	0	0	0	0	0	0	0	0	0	0
Q8	MD	50	28	47	44	47	40	26	11	8	7
	AD	4	0	0	0	1	1	5	6	4	5
	TD	7	11	5	4	3	4	22	8	16	3
	OD	0	0	0	0	0	0	0	3	3	3

QS =Questions, NP = Newspapers, TV= Television, FM = Facebook messenger, OPT = Options, MH = Ministry of health SM=Social media, YB = YouTube, WW= Word of mouth, FB = Facebook, TT=Twitter, MD=Many times daily RD = Radio, O=Other media (specify) AD= At least once a day OD=Once in several days, TD= 2-3 times daily WP = WhatsApp IG= Instagram

Q2: Were you aware of the Lassa fever outbreak? / Q3: If yes, how did you

become aware of it? Q4: Do you have a mobile phone? / Q5: Do you have internet access? Q6: Do you visit social media sites? Q7: If yes, which is your preferred site?

Q2: Did health information disseminated through social media platforms during the outbreak influence the public's health-behavior change?

The data show that the respondents were influenced by social media during the outbreak, especially in their health-behavior during the disease's active days. This result contradicts the summation of Eysenbach, Powell, Englesakis, Rizo, and Stern (2004), whose review of 45 papers focusing on social media from 1995 – 2003 found no effect. However, the current data show both influence and influence due to the respondents' actions. This result is significant since taking personal responsibility is essential during health emergencies (Westcott, Ronan, Bambrick, & Taylor, 2017).

Some 89.67 percent of the respondents said their health habits were affected by the information and subsequent awareness created by social media during the outbreak. It was an expected outcome as the state's health authorities emphasized communication and behavioral change as the most effective ways of bringing the situation under control and preventing future occurrences. Fayoyin (2016); Liang and Scamon (2015); and Shim (2013) agree with this strategy, which emanated from W.H.O.

The state's ministry of health

came out with four significant control measures on health-behavior change to counter the outbreak's effects. These were: covering meals and foodstuff always, avoid bush burning to prevent rats straying into homes, killing rats when sighted, and avoiding travels to the affected areas. More than 52 percent believe that social media made them cultivate the habit of covering their meals as a preventive measure. In comparison, 20.68 percent believed in waging war against the carrier agents. Only 1.31 percent tried to avoid bush burning.

However, the question remains: having been influenced, did they, in turn, influence others through social media? One strategy of the state's ministry of health was to create surveillance teams and make them work as change-agents against the disease. The ministry perfected the strategy by providing toll-free numbers to the communities and making its social media accounts accessible to the people. Thus, 52.62 percent of the respondents discussed on social media with their contacts on how to avoid the disease, while 24.61 percent got involved in other awareness creation discussions. Impressively, most respondents were active in one way or another towards limiting the devastating effects of the disease on the general population. More details are in Table 3.

Table 3: Influence of Social Media

QS	OPT	18 - 24		25 – 34		35 – 44		45 – 54		55 & above	
		M	F	M	F	M	F	M	F	M	F
Q9		61	39	52	48	46	41	42	21	19	13
		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q10	CF	29	27	20	27	23	27	19	11	7	9
	AB	0	1	0	1	0	2	0	0	1	0
	KR	17	9	11	9	5	9	12	3	3	1
	AT	14	2	21	11	18	3	11	7	8	3
Q11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Q12	HA	39	32	19	20	25	19	17	12	11	7
	SF	2	0	6	3	6	8	11	4	0	2
	CI	7	2	8	4	3	3	8	2	1	2
	CA	13	5	19	21	7	11	6	3	7	2

Key: CF = Cover my foodstuffs always, HA = How to avoid the disease, AB = Avoid bush burning, SF = Sensitize friends and relatives, KR = Kill all rats in the house, CI = Circulate information about the disease, AT = Avoid travels to affected areas, CA = Create more awareness about the epidemic.

QS 8: How often do you visit this site? Qs 9: Were you influenced in any way about Lassa fever by social media? Qs10: If yes, how? Qs 11: Did you discuss the epidemic with others through social media? Qs12: If yes, what did you discuss?

Q3: What impact did social media have in the management, containment, and control of the Lassa fever outbreak in Ebonyi State in January 2018?

Respondents agreed that social media played a crucial role in managing and controlling the outbreak. Respondents scored social media high in terms of their impact during the outbreak. Table 4 captures the data.

Table 4: Role and Influence of Social Media

QS	OPT	18 – 24		25 – 34		35 – 44		45 – 54		55 & above	
QS 13		M	F	M	F	M	F	M	F	M	F
		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
QS 14	20%	0	0	0	0	0	0	0	0	0	0
	40%	0	0	0	1	0	0	0	0	2	1
	60%	17	9	5	2	8	4	2	1	7	1
	80%	41	26	44	43	37	37	34	19	10	11
	100%	3	4	3	2	1	0	6	1	0	0
QS 15	FB	39	22	37	38	32	26	19	17	11	8
	WP	19	13	9	7	12	11	17	3	6	5
	TT	1	2	5	1	0	2	2	1	0	0
	IG	1	2	1	2	2	1	4	0	1	1
	FM	0	0	0	0	0	0	0	0	0	0
	YB	1	0	0	0	0	1	0	0	1	0
	O	0	0	0	0	0	0	0	0	0	0

Key: FB = Facebook, FM = Facebook messenger, WP = WhatsApp, YB = YouTube, TT = Twitter, O = others (specify), IG = Instagram

QS13: From your experience, do you think social media played a role in controlling the disease's spread? QS14 If yes, how do you score them on a scale of 20 – 100%?

QS15: In your opinion, which particular site played the most significant role?

Table 4 shows that 70.89 percent of the respondents score the social media impact 80 percent, while 13.15

percent rated them at 60 percent. Overall, 84.04 percent believe the impact of social media was at least 60

percent. The social media impact was such a significant factor that none of the respondents rated them below 40 percent of influence. Facebook came tops with 58.45 percent while 23.94 and 3.29 percent went to WhatsApp and Twitter, respectively.

This high rating can be appreciated because social media users are generally more likely to participate in civic duties geared towards controlling the disease (Zhang, Johnson, Setzer, & Bichard, 2010). Again, the youths are known to spend the most time with social media (Steyer, 2009; Farhan, 2018; Olasinde, 2014). They make up more than half of the country's population.

Discussions of Results

The successful early containment and eventual control of the Lassa fever outbreak in January 2018 in Ebonyi state cannot be attributed entirely to the impact of social media. Nevertheless, it is safe to suggest that they played a pivotal role. This suggestion aligns with the findings that the media have paid particular attention to the threat of zoonotic diseases in recent years (Jones et al., 2008; Wobeser, 2006; Westcott et al., 2017). The intensity of media coverage stems from the havoc that the diseases wreak on people's socio-economic lives. Lassa fever, ebola, monkeypox, and bird flu, amongst others, have caused people untold hardship, and currently, they are a global nightmare.

The findings of the current study are also in tandem with Salmon & Arkins (2003), Campbell & Craig (2014), and Shim (2014) that social media have become indispensable for health literacy and health improvement in our communities. Our findings also agree with those of Sawesi, Rashrash, Phalakornkule, Carpenter and Jones (2016), who found that 88.8 percent of respondents rated high the positive impact of social media on health behavior. The findings can also be situated in the World Health Organization's emphasis that communication for behavioral change and innovation adoption by our communities is the most effective public health improvement strategy, especially in developing countries like Nigeria. The implication of this is that if the momentum could be sustained, Lassa fever's threat would ebb or be a thing of the past.

The state's health authorities utilized social media extensively during the outbreak to sensitize the populace about the disease, the carrier agent, and the control measures. This strategy increased self-efficacy, and by implication, what Evensen and Clark (2012) referred to as 'societal efficacy,' making it possible for the public to adopt recommended preventive measures to counter the outbreak.

The closure of the entire school system for two weeks by the government significantly reduced its

ability to spread rapidly within the communities during the disease's peak. This measure was beneficial as the school system consists of the active and highly mobile component of the general population – the youth - who also make up about 60 percent of the entire state population. They are also the most visible users of the internet and social networking sites. This demographic fact helped in spreading the awareness of the disease and the control measures to avoid infections.

When the school system was closed, the Parent Teachers Associations (PTA) became the unofficial reporters of the disease via the WhatsApp groups for schools. Every private school has a PTA WhatsApp platform that discusses the respective school. This medium provided extensive publicity and awareness about the outbreak. It also made it possible to reach the largest population segment most prone to the Lassa fever infection – school children noted or notorious for rat-hunting. These children are also the most likely to drink garri - a staple Nigerian food and a noted Lassa fever infection source. They are also the most mobile segment roaming every street and playground and thus easily spread the infection rapidly among the general population.

Social media, especially Facebook, Twitter, and WhatsApp, effectively turned most respondents (with a mobile phone) into a surveillance agent for the disease.

The upshot of this is the following information that helped respondents avoid the infection (Gold et al., 2011; Swanton, Allom, & Mullan, 2015; Odone et al., 2015). They were willing to report the spread and go for screening upon manifesting the symptoms. The toll-free numbers provided by the health ministry also helped to make surveillance easy and ensure regular updates from different parts of the state. Because of this full disclosure, fear of discrimination and ostracism, which characterized people's attitude about the disease in the past, was absent in the 2018 outbreak. This development made its early containment possible. In the end, only four persons died during the outbreak, a negligible figure compared to past outbreaks in the state.

In all, these measures combined to make the outbreak the best managed ever in the state with minimal deaths, hospitalizations, and treatment. The results of this study point to the unmistakable impact of social media on health mobilization. Further research is needed to deepen the evaluation and application of the different ways and strategies that social media can contribute to e-Health programs.

Conclusion and Recommendations

Nigeria has 101.2 million internet users as of April 2018. According to the then Minister of Communication,

Adebayo Shittu, 75 percent of these internet users are on social network platforms. Worldwide, Nigeria is the 8th in internet use. The Guardian newspaper of January 11, 2017, quoted the Nigerian Bureau of Statistics (NBS) report that Nigeria has a teledensity of 109 percent. These figures are still growing and should be harnessed in deepening health education, health advocacy, innovation adoption, and change management. Therefore, the government, aid agencies, Non-Governmental Organizations (NGOs), and development partners can integrate digital media in their health communication, health intervention, and health implementation strategies in Nigeria. This case study has shown that a lot can be achieved using social media platforms to improve people's health. The following are recommended:

1. We recommend the integration of social media into the government's health response policy at all levels as a means of bridging the physical and geographical gaps between the public health authorities and the general population, especially in times of disease outbreaks. We recognize that the government faces financial challenges in providing the citizens' health needs at all levels. This study has shown that this challenge can be minimized using social media to provide up-to-date and timely health information, significantly commuting the solution from curative to preventive, thereby saving money and promoting behavioral change.
2. We recommend further research efforts on social media's role and application in public health issues, especially in disease outbreaks. This update is needed to equip critical stakeholders with alternative response mechanisms towards improving the people's wellbeing.
3. E-Health is a global, alternative response approach to public health issues. Its adoption by major global health entities such as the World Health Organization and different Centers for Disease Control (CDC) worldwide indicates its importance in public health management. Nigeria, and indeed, Africa, cannot afford to continue to lag. E-Health should, therefore, be accorded high priority by our public health authorities as this study has shown that it can be an efficient and effective response alternative to the management of disease outbreaks and indeed to other public health emergencies.

References

- Adesina, E., Oyero, O., Okorie, N., Amodu, L., Omojola, O. & Adeyeye, B. (2019). Information Use and Knowledge of HIV/Hepatitis B Co-Infection in Lagos, Nigeria. *Health* 11 (6), 671-682.
- Aldahmashi, A. (2017). Reliance of the Saudi youth on social media as a source of information about Al-Hazem storm. *Journal of Mass Communication & Journalism* 7 (5). doi.10.4172/2165-7912.1000346.
- Ali, I., & Yousaf, Z. (2017). Information acquisition and social media: An analysis of Pakistani university students. *Journal of Mass Communication & Journalism* 7 (5). doi.4172/2165-7912.1000350.
- Balatsoukas, P., Kennedy, C. M., Buchan, I., Powell, J. & Ainsworth, J. (2015). The role of social network technologies in online health promotion: A narrative review of theoretical and empirical factors influencing intervention effectiveness. *Journal of Medical Internet Research* 17(6). Retrieved from PubMed <https://doi.org/10.2196/jmir.3662>.
- Bandura, A. (2004). Health promotion by social cognitive means. *Health Education & Behavior* 31(2). Retrieved from PubMed <https://doi.org/10.1177/1090198104263660>
- Bernatowicz, A., & Iwaski, R. (2012). Informational marginalization in digital media among people over 45 years of age in Poland. *Journal of International Scientific Publications: Media and Mass Communication* 1. Retrieved from <http://www.scientific-publications.net>
- Biondo, T. (2013). Brazil: Citizen journalism for small town change. Retrieved from <http://rising.globalvoicesonline.org/blog/2013/11/22/brazil-amigos-de-januarial/>
- Campbell, B.C., & Craig, C. M. (2014). Health professions students' academic and personal motivations for using social media. Retrieved from www.semanticscholar.org
- Clarke, C. E. (2010). A case of conflicting norms?

URL: <http://journals.covenantuniversity.edu.ng/index.php/cjoc>

- Mobilizing and accountability information in newspaper coverage of the autism–vaccine controversy. *Public Understanding of Science*. Retrieved from <https://doi.org/10.1177/0963662509359490>
- Delany, C. (2009). Learning from Obama: Lessons for online communicators in 2009 and beyond. Retrieved from [www.E Politics.com](http://www.EPolitics.com)
- De Silva, M., Muskavitch, M. A., & Roche, J. P. (2004). Print media coverage of antibiotic resistance. *Science Communication* 26 (1), 31-43. doi: 10.1177/1075547004267026
- Evensen, D. T., & Clark, C. E. (2012). Efficacy information in media coverage of infectious disease risks: An ill predicament? *Science Communication*. June. doi: 10.1177/1075547011421020
- Eysenbach, G., Powell, J., Englesakis, M., Rizo, C. & Stern, A. (2004). Health related virtual communities and electronic support groups: Systematic review of the effects of online peer to peer interactions. *BMJ. British Medical Journal* 328 (7449), 1166. Retrieved from Pubmed <https://doi.org/10.1136/bmj.328.7449.1166>
- Farhan, N., & Varghese, A. (2018). Social media utilization among youth. *Journal of Mass Communication & Journalism* 8 (3). doi: 10.4172/2165-7912.1000372
- Fayoyin, A. (2016). Engaging social media for health communication in Africa: Approaches, results and lessons. *Journal of Mass Communication and Journalism* 6(6). doi: 10.4172/2165-7912.1000315.
- Fischhoff, B. (1995). Risk perception and communication unplugged: Twenty years of process. *Risk Analysis*, 15. Retrieved from <https://doi.org/10.1111/j.1539-6924.1995.tb00308.x>
- Folayan, B.J., Omojola, O., Egharevba, M., Oyesomi, K., Yartey, D. & Adeyeye (2018). The use of ICT-rooted communication codes and slangs among Nigerian students. *Journal of Social Sciences Research*, 4(12), 633-641. DOI: <https://doi.org/10.32861/jssr.412.633.641>.
- Giustini, D., Ali, M.S., Fraser, M. & Boulos, M. K. (2018). Effective uses of social media

- in public health and medicine: A systematic review of systematic reviews. *Online Journal of Public Health Informatics*. Retrieved from <http://ojphi.org>
- Gold, J., Pedrana, A. E., Sacks-Davies, R., Hellard, M. E., Chang, S., Stooze, M. A. & Hocking, J. S. (2011). A systematic examination of the use of online social networking sites for sexual health promotion. *BMC Public Health* 11, 583. Retrieved from PubMed <https://doi.org/10.1186/1471-2458-11583>
- Griffits, F., Dobermann, T., Cave, J. A. K., Thorogood, M., Johnson, S., Salamatian, K. & Goudge, J. (2015). The impact of online social networks on health and health systems: A scoping review and case studies. *Policy & Internet* 7(4) 473-496. doi:10.1002/poi3.97
- Gruzd, A. & Roy, J. (2014). Investigating political polarization on twitter: A Canadian perspective. *Policy & Internet* 6 (1), 28-45. doi:10.1002/1944-2866.poiI354.
- Guo, C. & Saxton, G.D. (2013). *Twitting social change: How social media are changing nonprofit advocacy*. Nonp 43(1). doi.10.1177/0899764012471585
- Heinderyckx, F. (2010). Digital attraction: How new media can invigorate election campaigns or not. In N. Carpenter, and I. T. Trivundza (Eds.) *Media and Communication Studies: Interventions and Intersections. The Intellectual Work of the 2010 ECREA. European Media and Communication Doctoral Summer School*.
- Househ, M., Borycki, E., & Kushniruk, A. (2014). Empowering patients through social media: The benefits and challenges. *Health Informatics Journal* 20(1). Retrieved from PubMed <https://doi.org/10.1177/1460458213476969>
- Igbinoba, A.O., Soola, E.O., Omojola, O., Odukoya, J., Adekeye, O. & Salau, O.P. (2020). Women's mass media exposure and maternal health awareness in Ota, Nigeria. *Cogent Social Sciences* 6 (1), 1766260. doi/full/10.1080/23311886.2020.1766260
- Laranjo, L., Arguel, A., Neves, A.

- L., Gallagher, A. M., Kaplan, R., Mortimer, N. & Lau, A. Y. S. (2015). The influence of social networking sites on health behavior change: A systematic review and meta-analysis. *Journal of the American Medical Informatics* 22(1). Retrieved from Pubmed <https://doi.org/10.1136/amiajnl-2014-002841>
- Jones, K. E., Patel, N. G., Levy, M. A., Storeygard, A., Balk, D., Gittleman, J. L., & Daszak, P. (2008). Global trends in emerging infectious diseases. *Nature*, 451. 990-993. Retrieved from <https://doi.org/10.1038/nature06536>
- Lemert, J. B., Mitzman, B. N., Seither, M. A., Cook, R. H., & Hackett, R. (1977). Journalists and mobilizing information. *Journalism Quarterly* 54(4). Retrieved from <https://doi.org/10.1177/107769907705400408>
- Lemert, J. B. (1984). News contexts and the elimination of mobilizing information: An experiment. *Journalism Quarterly* 61 (2). Retrieved from <https://doi.org/10.1177/107769908406100201>
- Liang, B., & Scamon, D. (2015). The role of online talking in achieving health behavior change. *International Journal of Communication and Health*. Retrieved from www.researchgate.net.
- Love, C. B., Arnesen, S. J., & Philips, S. J. (2015). Ebola outbreak response. The role of information resources and the national library of medicine. *Disaster Medicine and Public Health Preparedness*, 9(1) 1-4. doi. 10.1017/dmp.2014.108
- Mahar, C. A., Lewis, L. K., Ferrar, K., Marshall, S., De Bourdeaudhuij, I., & Vandelanotte, C. (2014). Are health behavior change interventions that use online social networks effective? A systematic review. *Journal of Medical Internet Research* 16(2)e40. Retrieved from <https://doi.org/10.2196/jmir.2952>.
- Moorehead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. *Journal of Medical Internet*

- Research 15(4) e85. Retrieved from PubMed <https://doi.org/10.2196/jmir.1933>
- Nicodemus, D. M. (2004). Mobilizing information: Local news and the formation of a viable political community. *Political Communication*, 21(2). Retrieved from <https://doi.org/10.1080/10584600490443868>.
- Odone, A., Ferrari, A., Spagnoli, F., Visciarelli, S., Shefer, A., Pasquarella, C., & Signorelli, C. (2015). Effectiveness of interventions that apply new media to improve vaccine and vaccine coverage. *Hum Vaccin Immunother* 11(1), 72-82 Retrieved from PubMed <https://doi.org/10.4161/hv.34313>.
- Odiboh, O., Omojola, O. & Oyesomi, K. (2020). Awareness and sources of knowledge on men's penile health in Lagos, Nigeria. *Cogent Social Sciences*, 6 (1): 1713710. <https://doi.org/10.1080/23311886.2020.1713710>.
- Okon, P.E. Ajiboye, E. Ekanem, T. & Omojola, (2018). Gendered News Reportage: A Study of The Guardian and The Sun Newspapers, Nigeria. *International Journal of Media, Journalism and Mass Communications*, 4(3), 21-35.
- Okorie, N., Loto, G. & Omojola, O. (2018). [Blogging, civic engagement, and coverage of political conflict in Nigeria: A study of nairaland.com. Kasetsart Journal of Social Sciences](https://www.sciencedirect.com/science/article/pii/S2452315118301607), 39(2), 291-298 (open access: <https://www.sciencedirect.com/science/article/pii/S2452315118301607>).
- Okpoko, C. (2013). Issues in health communication in third world countries. In N. Okoro (Ed.) *Contemporary Readings In media and Communication Studies*. Surulere, Lagos. St. Benedette Pub. Ltd.
- Olasinde, E. A. (2014). An analysis of the influence of social media sites on Nigerian undergraduates. *International Policy Brief Series – Education and Science Journal* 4(1). Retrieved from www.internationalpolicybrief.org.
- Oyero, O., Afolabi, O.O., Amodu, L., Omojola, O. (2020). Media and Cultural Contents for Early Childhood Education in

- Nigeria. In O. Oyero (ed.) *Media and Cultural Contents for Early Childhood Education in Nigeria* (pp. 39-56). Hershey: IGI Global.
- Rogers, R. W. (1975). A protection motivation theory of fear appeal and attitude change. *Journal of Psychology*, 91(1). Retrieved from <https://doi.org/10.1080/00223980.1975.9915803>
- Sagar, R. (2013). *Secrets and leaks: The dilemma of state secrecy*. Princeton: Princeton University Press.
- Salmon, C. T., & Arkins, C. (2003). Using media campaigns for health promotion. In T. L. Thompson, A. M. Dorsey, K. I. Mitter & R. L. Parrots., (Eds.). *Handbook of health communication*. New York and London. Routledge.
- Sawesi, S., Rashrash, M., Phalakornkule, K., Carpenter, J. S., & Jones, J. F. (2016). The impact of information technology on patient engagement and health behavior change: A systematic review of the literature. *JMIR Medical Informatics* 4(1). Retrieved from PubMed <https://doi.org/10.2196/medinform.4514>.
- Scott, J. T., & Maryman, J. (2016). Using social media as a tool to complement advocacy efforts. *Global Journal of Community Psychology Practice* 7(1s). doi: 10.7728/0701201603
- Shim, K. (2014). Impact of social media on power relations of Korean health activism. *Media and Communication* 2(2). doi:10.17645/mac.v2i2.7
- Smith, S., Smith, S., & Adedeji, A. (2017). The influence of Nigerian newspapers on lassa fever reportage. *International Journal of Communication and Health* 11: 76 - 86.
- Stellefson, M., Paige, S. R., Chaney, B. H., & Chaney, J. D. (2020). Evolving role of social media in health promotion: Updated responsibilities for health education specialists. *International journal of Environmental Research and Public Health* 17, 1153. doi: 10.3390/ijerh17041153
- Steyer, J. (2009). Is technology networking changing childhood? Retrieved from www.common sense media.org/teen-social-media.
- Sulem-Young, F., Tapang, I.T., Tembeng, H. T., & Tietse, S. (2016). Media advocacy for control of HIV/AIDS versus

- malaria in Cameroon: Content analysis and perspectives. *International Journal of Communication and Health* 10, 31 – 42.
- Swanton, R., Allom, V., & Mullan, B. (2015). A Meta-analysis of the effect of new-media interventions on sexual-health behaviors. *Sexually Transmitted Infections* 91(1), 14-20. Retrieved from PubMed <https://doi.org/10.1136/sextra-ns-2014-051743>
- West, D. M. (2014). Using mobile technology to improve maternal health and fight ebola: A case study of mobile innovation in Nigeria. United States: The Brookings Institution.
- Westcott, R., Ronan, K., Bambrick, H., & Taylor, M. (2017). Expanding protection motivation theory: Investigating an application to animal owners and emergency responders in bushfire emergencies. *BMC Psychology* 5 (13). doi.10.1186/s40359-017-0182-3.
- WHO (2012). Health systems in Africa. *Community perceptions and perspectives: The report of a multi-country study*. Brazzaville: World Health Organization Regional Office for Africa.
- WHO (2018). Lassa fever in Nigeria. Retrieved from <https://reliefweb.int/report/Nigeria/Lassa-fever-Nigeria-1>
- Willis, E. A., Szabo-Reed, A. N., Ptomey, L. T., Steger, F. L., Honas, J. J., Washburn, R. A., & Donnelly, J. E. (2017). Do weight management interventions delivered by online social networks effectively improve body weight, body composition, and chronic disease risk factors? A systematic review. *J. Telemed Telecare*. Feb., 23(2), 263-272. doi:10.1177/1357633x16630846.
- Wobeser, G. A. (2006). *Essentials of disease in wild animals*. Oxford: England. Blackwell.
- Zhang, W., Johnson, T. J., Setzer, T., & Bichard, S.L. (2010). The revolution will be networked. *Social Science Computer Review*, 28(1), 75-92. doi:10.1177/0894439309335162.



Outdoor Advertising: House Numbering Visuals as Marketing Communication and Community Potentials

Oladokun Omojola

Covenant University
Ota, Nigeria

Correspondence: ola.omojola@covenantuniversity.edu.ng

Received: June 16, 2020 Accepted: November 14, 2020

Abstract: An image stimulus sometimes approximates visual communication, appearing as information that carries some identified meaning with it. The sequence involves mental visualization – a familiar phrase in cognition research. Despite this viewpoint's popularity, the scholarship radar is yet to fully capture the socio-economic ends of such meanings and the attendant communitarian upshots. This paper is making three propositions, using house numbering visuals as the basis for investigation. First, these visuals offer a viable platform to examine how visual communication elicits meaning in marketing communication (Folayan et al., 2018; Morah & Omojola, 2018). Second, the perceiver's semiotic literacy and the socio-economic purpose that the visual stimuli serve could determine mental representation's strength in a cognitive process. Third, a communitarian level of cooperation is possible from that meaning. The ramifications of these propositions provide some insight into the marketing and community potentials of house numbering images.

Keywords: House numbering, outdoor advertising, marketing, community information processing, creativity.

Introduction

This article presents house numbering images as a visual marketing communication system with global potential. It has, as its target, every building known to the law even as it elicits some scholarship interest. The system features three essential design elements: house number, street name, and a message (social or advertisement), and posted on the frontage of a building. The system's visual stimuli and audience cognition are contextualized around two core attributes: house numbering and marketing communication, precisely outdoor advertising. The medium's target audience categories are passersby, visitors to the building, and the building residents. The house numbering system is a potential paradigm capable of changing the advertiser-advertisement-audience linearity that characterizes the typical commercial message into an inclusive system with a communitarian orientation.

A Description of the House Numbering Visuals

The typical house numbering image bears a street name, house number, and a message posted on a building, usually in the front, at a distance visible to the passerby. The message can be an advertisement or social missive displayed on residential, commercial, or public property with the house owner's consent (Omojola, 2015; 2017; Ikpefan et al., 2020). Should the street be trendy, or there be a need for more space for the message component, the street name may be de-emphasized or dropped, leaving the house number and that message. The legibility of house numbering graphics is characterized by readable typefaces in bold colors, art with evident contrast, and unity of content as illustrated below in Figure 1 and Figure 2.



Figure 1: The Basic house numbering visual, featuring the street name, house number, and a message (Omojola & Asaniyan 2017).

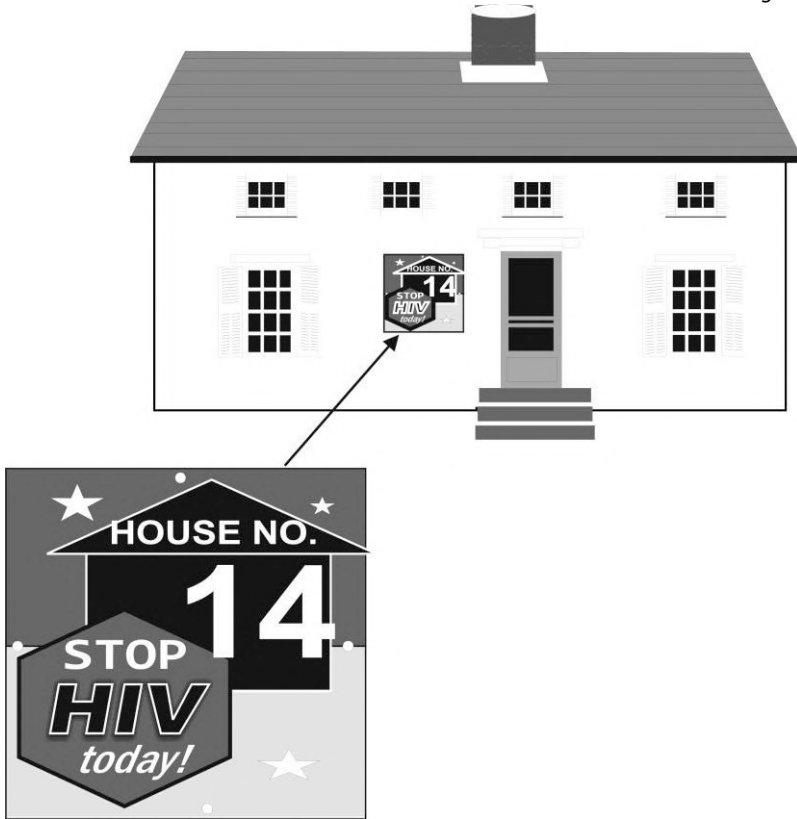


Figure 2: A house numbering visual is posted usually on the frontal part of a building visible to the passerby (See Omojola & Asaniyan 2017).

The house numbering image can be displayed on any carrier suitable for that purpose, but the following are possible:

- A panel, plate, or pane posted on a wall with screws.
- Lighted signage enclosure or casing also hung on the

frontal wall or any other point visible, and

- An electronic display.

The first and second carriers can display only one message and have to be replaced each time there is a need for a new message. The computerized display can be

configured for message rotation. The number of messages alternated may depend on the magnitude of mileage the advertiser signs up for in the deal. The image can be built into different sizes, preferably of a rectangle or square shape, but the site's dimension typically determines preferences.

The breadth (Gilbert & Shapiro 1990, Klemperer, 1990), regarding the type of message that can be displayed, will be in tandem with the property owner's preferences. Existing regulatory frameworks are also crucial in determining what to display as several intervening factors, which are socio-political and religious, have to be considered. For instance, a religious person may not want a beer brand displayed on their property, likewise a children's home. Advertising construction around audience preferences is vital to a product's success, especially if brand building is an advertiser's objective (Nelson 2005). The cost of advertisement placement can be calculated on such variables as the street's popularity and the street's demographic values, among others. The system is intended to be a cost-effective advertising and house numbering solution.

Several homes have been numbered inappropriately in many developed countries and haphazardly in developing countries. House

owners have complained about the damage done to their walls. Colors washed owing to inferior quality materials used and the biting of the harsh weather. Statutory bodies find it unwise to expend scarce financial resources on such less important activity as house numbering. This challenge exacerbates by the absence of the subject in popular literature and narratives.

At the other end, advertisers are apt to experiment with new exposure systems (Kavassalis et al., 2003) and examine their potentials (Goslar, 1986) to determine how effective they are in meeting their objectives. The actions have become necessary, given the audience's fragmentation and segmentation, making it challenging to write the same copy for all consumer groups (Cui, 1997). In the outdoor advertising subsector, billboards have been the subject of immoderate government control, which puts advertising practitioners on edge. The financial pressure usually imposed by the big-budget above-the-line media calls for affordable outreach systems focusing on micro targets. With potential sites (homes) in their millions worldwide, the house numbering image offers a viable opportunity to resolve these issues.

The Novelty of the House Numbering Visuals

Novelty epitomizes creativity and is characterized by perspectives. From the government's standpoint, it is a new and unconventional thing to do something statutorily registered. The Leahy-Smith America Invents Acts of 2011, a significant improvement on the Patent Act of 1952, stresses the novelty of an invention in the United States in terms of the first inventor to file. For instance, some developing countries, like Nigeria and Kenya, take their patent and design systems to a different level, stressing the first to file context whether the filer is the actual inventor. The government's recognition of an invention is essential (Encaoua & Lefouili, 2005). The utility of an invention is also essential to the government. However, it is savored more by an investor whose primary goal is how the new invention can generate profit, a view supported by Taylor (1988) and Csikszentmihalyi (1996). However, the creativity that does not make the world a better place or encourage Community may be destructive. The house numbering concept has a communitarian dimension of creativity and depicts a socially and economically relevant novelty.

The dominant activity in outdoor advertising has been billboards in most countries. Billboards – traditional or electronic - offer frequent exposures to those on the move, are not a medium for long-drawn speech, and are cheaper than other channels (Taylor, Franke & Bang, 2006). Nevertheless, billboards' indiscriminate installation has earned sanctions from regulatory authorities, ranging from the levying of heavy taxes to outright demolition of the boards. For instance, some states in the United States considered the imposition of taxes a viable form of control. In less developed countries, billboards also constitute a concern. In 1992, the Lagos State government of Nigeria demolished several of them on the allegation that they were defacers of the environment and constituted dangerous obstructions to pedestrians' and motorists' right of way. By resolving some of the issues, the house numbering visuals constitute a step-function (Helfat & Raubitschek, 2000) epistemology as it elicits fundamental changes (not merely incremental learning) to outdoor advertising. For instance, it takes displays from the streets to homes and still retains the outdoor characteristic while obstructions of the right of way claim are eliminated. Suppose the house numbering visuals portray a

substantial addition to the outdoor advertising culture. In that case, it only corroborates Perry-Smith and Shalley (2003), who say that novelty exists in a gamut - radical, far-reaching, or incremental.

Visual Characteristics and Audience of House Numbering Visuals

Unlike billboards and several other outdoor displays whose audience commutes typically, the numbering visuals' target viewership is in three categories as earlier outlined – passersby, visitors to the building, and residents of the building. Passerby's viewing is brief. Perusal is not a high possibility as he or she only needs the house numbers to locate their destination. However, the advertiser can bank on the numbering visuals' aesthetic advantage to hopefully extend the passerby's quick look by a few moments more. The house number and advertisement are conspicuous. Therefore, an opportunity exists for the passerby to be exposed to the message. For the visitor, the mobile and residential attributes are made manifest. Facing the target building provides the opportunity for them to see the numbering visuals since it must have been appropriately posted or sited to

align with their walk path, which is typically towards the entrance. The visitor (whether for a brief or extended stay) shares some semblance with the host residents to the visuals who have a very high recall rate due to constant exposure to the numbering and message stimuli.

The house numbering image creates an atmosphere in which images displayed are not intended to task the target audience's visual faculty (Omojola & Asaniyan, 2017; Omojola, 2016; 2018). While the advertisement's textual and image contents are not supposed to be a revolt against copywriting norms, they are not intended for any textual or graphic disquisition. They should not task the audience's literary prowess, thereby causing disinterestedness. This point is crucial, especially if the site bearing the visuals is small and the audience's literacy level is low, which implies that the medium significantly influences the message.

Cognitive elaboration (MacInnis & Price 1987, Buijzen, Reijmersdal & Owen 2010, McGill & Anand 1989) relates to the magnitude of processing an audience, through the deployment of its cognitive resources, can make out of the vivid, persuasive information contained in an advertisement, leading to the formation of judgment

and taking of a decision. The characterization of cognitive elaboration into three levels - systematic, heuristic, and automatic - is relevant to the house numbering image audience's conceptualization. Systematic persuasion processing is epistemological and elicited from a robust, self-driven motivation to process the information, having perceived the advertisement contents. Systematic persuasion strategy involves the audience's invention of cognitive responses in support or against the claims of the message and a critical analysis of the message source, thereby implying that judgments are mediated by the extent to which the audience can identify and elaborate on those claims (Meyers-Levy & Prashant, 1999).

The heuristic approach supports a modest level of cognitive elaboration. The processing here is not epistemologically taxing due to the unelaborated nature of the contents. This means that the advertisement proposition comprehensively answers the ethical, pathetic, and logical curiosities (Boley, 1979) within the context of the audience's learned and imbibed knowledge structures. Some scholars (Petty & Cacioppo, 1986; Chen, Duckworth & Chaiken 1999) have also discussed the systematic and heuristic strategies as

a dual process strategy, stressing that judgments can be formed based on more or less cognitive elaboration. The automatic persuasion processing strategy is a minimalist approach involving a negligible cognitive elaboration profile in which judgment is effortlessly or almost automatically concluded without explicit attention to the advertisement's persuasive proposition.

The three approaches have implications for the audiences of the house numbering visuals. For the passersby who rely mainly on them as a directional guide initially, his perception of the visuals means that only a few viewing seconds will be carried out. Those few seconds may not allow for elaborate processing. The advertisement message proposition is expected to make the processing automatized (Grunert, 1996). By so doing, the passerby can figure out the advert, perceive the house numbering, and continue in his or her movement direction. The visitor has more time, which may promote a heuristic level of processing. While the numbering visuals are not the target of the visit, it is a facilitator. However, in the residents' case, a systematic approach made possible by the luxury of repeated perception is possible. Therefore, the proposition's creative handling becomes crucial

since he has three different levels of cognitive elaboration to attend. Finding a proposition that cuts across the three categories is a possibility.

Methodological and Theoretical Considerations

This study dichotomizes the cognitive processes of the house numbering visuals as front end and back end. The front end proceeds from the perception of stimuli, which is house numbering graphics. It extends to the point where the perceiver makes meaning from the information that could translate into a decision. This decision could be in the form of purchasing the product displayed or to the perceived message). The back end covers the designer's conceptualization and design of the house numbering visuals based on clear objectives to sell a product and create goodwill. The back end is proposed to be a child of the problem-solving model, which requires the advertising designer to demonstrate creative competence in producing the graphics to be displayed in the numbering visuals. The design must emerge from the body of knowledge acquired from the research carried out about the product, service, message, or idea displayed with the other two elements - house number

and street name. Using the house numbering outlet, the designer is effecting a creative execution of a strategic decision that has been taken as a response to an identified marketing issue.

The designer's job is not that easy. It involves some abstractions that affect the spatial relationships of the core elements of graphics (house number, street name, and message in this case) and influence how the target audience responds to the generated stimuli. The core considerations in this spatial context are balance, contrast, unity, and proportion. Balance involves the artistic placement of the elements from right to left, left to right, top to bottom, or diagonally in a manner that creates equipoise, to the extent that the three elements (house number, street name, and message), even though contrasting, are also interacting. Contrast, in this case, is given since the three elements are substantially distinct. In comparison, the designer is careful to avoid tomb-stoning by not using graphics of the three elements' same properties.

Proportion emerges when the three elements are not just interacting but interacting harmoniously, especially when the entire house numbering visuals are viewed as a whole. Simultaneously, the concept of unity manifests when

the total design concept fits into the environment or background where the house numbering visuals are posted or affixed. Therefore, effective advertising knowledge representation involves a proper grasp of the relevant abstractions to create visual stimuli of significance. According to Chan (1997, p. 53), “One feature of representational knowledge is the incorporation of visual images with other abstractions.” With such incorporation, the problem-solving paradigm is put to the test as a platform is provided for the possible creation of image ‘energy’ that is graphically engaging, intimate, and emotionally appealing (Quin, 2001 pp. 177-118.)

The information-processing analysis model offers a theoretical backup to the back-end cognition process. The three foreground graphic elements and the background produce sensory stimuli with the eye as the first contact. Visual perception produces information. An encoding process, which involves the activation of the stimulus's characteristics by the mind, occurs when the information is turned into mental representation and then domiciled in the ‘clipboard’ or short-term memory of the perceiver. As the cognitive process evolves, the information is moved

into long-term memory. The perceiver elicits the capacity to recall the information over a long time due to the ‘hard disk’ or permanent storage characteristic. Visual codes embed features of the numbering stimulus. Such features include – colors, vector/pixelated graphics, and the like, which are arranged to give meaning from which decision can be taken.

Suppose the numbering visuals are transmitted from a digital display (e.g., LED) with a multimedia capacity. In that case, verbal codes are elicited from speech and music, mainly from the displayed commercial, in the Dual Coding Theory context (Paivio, 1990; Pyke, 2003, p. 408). This theory posits a two-fold pathway way through which logogens (verbal) and imagens (non-verbal, e.g., visual) stimuli (Paivio, 1978; 2010, p. 209) that transform into representations in the human mind can be processed by the corresponding mental codes. The transformation is in a manner that makes the resultant information amenable to storage and retrieval (King, 1986, p.47) or another usage. The physical and verbal attributes of a symbol that are processed distinctly in mind create an excellent potential to recall and remember. Many studies indicate that visual codes' hard disc characteristic is more agile than verbal codes (Rowe

and Rogers, 1975), enabling the perceiver to recall or remember visually than verbally.

However, this paper proposes that the house numbering system is theoretically limited to visuals. This proposition argues that multimedia systems are characteristically indoor or operated in an enclosure (e.g., stadium). However, the house numbering image has outdoor features. When multimedia systems for audiovisual performance are deployed outdoor, it is usually for a limited time, as in during political rallies, festivals, and the like, which have a shorter duration and never continuous. Television sets, the internet, and other multimedia appliances are more indoor than outdoor. Even when these systems are deployed outdoors, their use is private (Omojola, Ige & Amoka, 2015; Adeyemi, Omojola & Ogbueni, 2016).

This paper is conjecturally proposing for discussion and investigation that the degree to which information from stimuli is mentally represented could depend on the perceiver's level of semiotic literacy (including knowing how the abstractions reflect in the graphics) and the purpose that the stimuli are out to serve. It is a fact that the front end of the cognitive process has objectives that are theoretically terminal. These are the advertiser's

strategic plan to sell the product, create some goodwill around it, and then evolve a brand from it. However, the front end is theoretically open-ended. The advertiser faces an unpredictable outcome from the target despite acting logically on the product's research findings.

The house numbering visuals serve a few purposes – to enhance the environment aesthetically, sell a product, and identify a building by a number. The conjecture for discussion and proposal for research is that the acceptance of this novel outdoor advertising system could depend on the target audience's semiotic ability to read the graphics and whether the meaning created in terms of the house numbering and outdoor (advertising) exposure are socially and economically relevant to its needs.

The Community of the House Numbering Visuals

Art makes an advertisement impressive. A billboard with lovely photographs, designs, or illustrations attracts considerable attention. Memory for advertising art stimuli has been more influential than motivation from verbal messages (Childers & Houston, 1984; Odiboh et al., 2017). The eye's cognitive capacity is enormous as details of

what it can see at a time are more than what other sense organs can comprehend. The ear and eye, no doubt, rely on and shape each other and feed sound-images to one another (Gehrke, 2009). However, the instrumentality of sight to consumer behavior is highly significant. Advertising firms take advantage of the audience's cognitive abilities to showcase products as visual elements are widely believed to be a causality factor. Scholars are motivated by the image and other content to investigate how advertising creates brand and brand community models (Keller, 1993; Elliot 1998; Munitz 2001; Holt 2002), constitutes a social force (Dahl, Sengupta & Vohs, 2009; Igbino et al., 2020), affects prices (Chintagunta, Kadiyali and Vilcassim, 2006; Benham, 1972), shapes purchase and consumption (Peles, 1971; Depken II & Wilson, 2004; Vakratsas & Ambler, 1999), influences cost of living (Hess, 1913) and more.

A concern, however, exists here. A typical advertisement content, whether web, broadcast, print, or outdoor, prioritizes a linear process built on the age-long impression that the advertiser, message, and the target audience are all that exist. This prioritization reduces the interest of the consumer

to purchase and that of the advertiser to sales. Concerning the house numbering system, linearity transmutes into inclusion. This new and novel outdoor advertising system displays the content of necessity, a built-in contribution from a community whose members function in a sequence that makes one non-existent without the other.

Many businesses have been built on a linear impression that recognizes the producer and consumer as the main actors. This linearity is demonstrated in the advertisement linking both parties, as already observed. This consciousness is such that the former looks for profit and goodwill from the business through an advertisement. In contrast, through the same advertisement, the consumer hopes to get the best quality and quantity at the most affordable prices. Government is often the regulator. The house numbering image models a community that is clearly defined. Here, all members contribute intrinsically. It fosters a collectivist approach that recognizes protonorms across the Community.

The scenario is that of a subaltern standpoint of the center of life (Israel, 1992) in which the interest of each member is appropriated as that of the public in

a case of I am because we are (Moemeka, 1997). Each member of the house numbering visuals community is opportune to be seen and heard due to their variegated contributions to the system. The diversity that characterizes the inclusion is valuable concerning its performance (van Der Vegt & Bunderson, 2005). The following are the members of the Community:

- House numbering visuals creator.
- House number and street name provider – In most urban areas, no house exists without an identification number, and no street exists without a registered name. Government is the statutory provider of house numbers and street names. The demographic and tenement data set needed for proper planning are also stored in its domain. The numbering visuals elevate the government's status from a mere regulator to a contributor.
- House Owner – He or she has to make available the site necessary to post the numbering visuals. Proper and highly aesthetic house numbering is one benefit that a property enjoys from the system. Property owners are both audience of and contributors to the system.

- Advertiser and his agents – Advertisers display their brands as house numbering visuals and sponsor the numbering.

Advertising agencies are charged with looking for how house sign numbering and branding can deliver the best mileage.

- Professionals – These include display system providers, artists, and others who provide support equipment and accessories. At this point, the idea of multidisciplinary work teams (Peeters et al., 2007) becomes essential. The display engineer is needed to configure the display for the design, while graphic designers can be called in to conceptualize and produce the art.

This community is strengthened further with the corporate social responsibility (CSR) standard that the house numbering image represents. The house numbering aspect is a social outreach action, while advertising represents a commercial interest, thereby serving an economic purpose. The simultaneity of house number and advertisement exemplifies a balance between altruism and profit-seeking, thereby de-emphasizing the corporate habit that makes some companies wait for profit outcomes before decisions can be taken on the

next social responsibility actions. Therefore, the house numbering image can offer some leverage, especially when CSR's pressure on profit (Makni, Francoeur & Bellavance, 2009; Amodu et al., 2019) and competitiveness (Bragdon & Marlin, 1985; Ullmann 1985) become an issue to a company. The altruistic dimension of the house numbering image becomes deeper if the message advertised is the type that addresses a social cost. Example: Stop HIV/AIDS Today.

Conclusion

The house numbering visuals constitute a house numbering and advertising solution with a strategic micro-targeting orientation. It features a high-resolution surface or screen that displays high-fidelity and aesthetic visual content directed at a clearly defined audience who is either home-bound or home-based. The process of perception, which involves how an audience organizes and interprets stimulus, is an area of great interest to advertising practitioners and their clients and communication scholars. Nevertheless, the intimacy of stimuli is often overlooked as a critical factor that can influence that process. The home epitomizes intimacy in many respects. It serves as the base for the family, friends,

and acquaintances. Items of value are kept in homes because owners think they are safe there, while consumers gravitate towards shopping centers closer to home. Physical, emotional, and spiritual attachment to one's home cannot be questioned. The house numbering images provide an entry point for marketing firms, who crave multi-faceted (Bell & Carpenter, 1992) advertising ways, to consider home-based outdoor display systems as a valuable reference on the copy platform.

The parlance home sweet home demonstrates that people cherish their home, primarily if a home is defined as where one resides with their family. The International Council of Shopping Centers' data (Nelson & Niles, 2000) and Huff's gravity model (1964) also restate this, stressing consumers' preference to shop near their homes. The house numbering visuals present the thematic integration platform (Moorman, Neijens & Smit, 2002). An ample correspondence or affinity exists between a persuasive message and its context. For instance, an advertiser could display advertisements for products and services whose user-base is home. Toilet soap and detergent are classic examples.

References

- Adeyemi, O. M., Omojola, 86
Ogbueni, C.S (2016). Effective communication as the solution to the proliferation of cultist groups in Ogun State. *Dahomey International Journal* 1 (1), 170-195.
- Alison, K. (1986). the role of realism in memory for computer graphics by children and adults. *The Journal of Experimental Education*, 55(1), 43-48.
- Amodu. L., Omojola, O., Okorie, N., Adeyeye, B. & Adesina, E. (2019). Potentials of Internet of Things for effective public relations activities: Are professionals ready? *Cogent Business & Management* 6 (1), 1683951.
- Bell, S.S. & Carpenter, G.S. (1992). Optimal multiple-objective marketing strategies. *Marketing Letters*, 3 (4), 383-393.
- Benham, L. (1972). The effect of advertising on the price of eyeglasses. *The Journal of Law and Economics* 15 (2), 337–52.
- Boley, J.T. (1979). A Heuristic for persuasion. *College Composition and Communication* 30 (2), 187-191.
- Bragdon, J.H. & Marlin, J.A.T. (1972). Is pollution profitable? *Environmental virtue and reward: Must stiffer pollution control hurt profits? Risk Management Magazine* 19. Retrieved from <http://www.lampindex.com/wp-content/uploads/jbragdon.pdf>.
- Buijzen, M., Reijmersdal, E.A.V. & Owen, H.L. (2010). Introducing the PCMC model: An investigative framework for young people’s processing of commercialized media content. *Communication Theory* 20, 427-450. Doi: 10.1111/j. 1468-2885.2010.01370.x.
- Chan, C. (1997). Mental image and internal representation. *Journal of Architectural and Planning Research*, 14(1), 52-77.
- Chen. S., Duckworth, K., & Chaiken, S. (1999). Motivated heuristic and systematic processing. *Psychological Inquiry* 10 (1), 44-49.
- Childers, T.L., & Houston, M.J. (1984). Conditions for a picture-superiority effect on consumer memory. *Journal of Consumer Research* 11 (2), 643–654.
- Chintagunta, P.K., Kadiyali, V. & Vilcassim, N.J. (2006). Endogeneity and simultaneity in competitive pricing and advertising: A logit demand analysis. *Journal of Business* 79 (6), 2761-2787.
- Csikszentmihalyi, M. (1996). *Creativity: Flow and the*

- psychology of discovery and invention. New York: Harper Collins.
- Cui, G. (1997). Marketing strategies in a multi-ethnic environment. *Journal of Marketing Theory and Practice* 5 (1), 122-134.
- Pyke, C.L. (2003). The use of symbols, words, and diagrams as indicators of mathematical cognition: A causal model. *Journal for Research in Mathematics Education*, 34(5), 406-432.
- Dahl, D.W., Sengupta, J. & Vohs, K.D. (2009). Sex in advertising: gender differences and the role of relationship commitment. *Journal of Consumer Research* 36 (2), 215-231.
- Depken, C.A. (II) & Wilson, D. P. (2004). Is advertising a good or a bad? Evidence from U.S. magazine subscriptions. *Journal of Business* 77 (S2), S61-S80.
- Elliott, R. (1998). Brands as symbolic resources for construction of identity. *International Journal of Advertising* 17(2), 131-143.
- Encaoua, D. & Lefouili, Y. (2005). Choosing intellectual protection: imitation, patent strength and licensing. *Annals of Economics and Statistics* 79/80, 241-271.
- Folayan, B.J., Omojola, O., Egharevba, M., Oyesomi, K., Yartey, D. and Adeyeye (2018). The use of ICT-rooted communication codes and slangs among Nigerian students. *Journal of Social Sciences Research*, 4(12), 633-641. DOI: <https://doi.org/10.32861/jssr.412.633.641>.
- Gehrke, P. J. (2009). Introduction to listening, ethics, and dialogue: between the ear and the eye: A synaesthetic introduction to listening ethics. *International Journal of Listening* 23 (1), 1-6. DOI:10.1080/10904010802631023.
- Gilbert, R, & Shapiro, C. (1990). Optimal patent length and breadth. *The RAND Journal of Economics* 21 (1), 06-112
- Goslar, M. D. (1986). Capability criteria for marketing decision support systems. *Journal of Management Information System* 3 (1), 81-95.
- Grunert, G. K. (1996). Automatic and strategic processes in advertising effects. *Journal of Marketing* 60 (4), 88-101.
- Helfat, C.E. & Peteraf, M.A (2003). The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal*, 24 (10), 97-101.
- Hess, H.W. (1913). Advertising and the high cost of living. *The Annals of American Academy of Political and Social Science* 48, 238-243.

- Holt, D.B. (2002). Why do brands cause trouble? A dialectical theory of consumer culture and branding. *Journal of Consumer Research* 29 (1), 70-90.
- Huff, D. (1964). Defining and estimating a trading area. *Journal of Marketing* 28 (3), 34-38.
- Igbinoba, A.O., Soola, E.O., Omojola, O., Odukoya, J., Adekeye, O. & Salau, O.P. (2020). Women's mass media exposure and maternal health awareness in Ota, Nigeria. *Cogent Social Sciences* Vol. 6 No.1, 1766260. doi/full/10.1080/23311886.2020.1766260.
- Ikpefan, O.A., Ibinabo, H., Osuma, G.O & Omojola, O. (2019). Relationship marketing and deposit mobilization in five deposit money banks in Nigeria. *Academy of Strategic Management Journal*, 18 (6), JEL Code., M31, G21.
- Israel, A. M. (1992). The Afrocentric perspective in African journalism: A case study of Ashanti Pioneer, 1939-1957. *Journal of Black Studies* 22 (3), 411-428.
- Kavassalis, P., Spyropoulou, N., Drossos, D., Mitrokostas, E., Gikas, G, & Hatzistamatiou, A. (2003). Mobile permission marketing: Framing the market inquiry. *International Journal of Electronic Communication* 8 (1), 55-79.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing* 57 (1), 1-22.
- Klemperer, P (1990). How broad should the scope of patent protection be? *The RAND Journal of Economics* 21 (1), 113-130.
- Makni R, Francoeur, C. & Bellavance, F. (2009). Causality between corporate social performance and financial performance: Evidence from Canadian firms. *Journal of Business Ethics* 89 (3), 409-422. DOI 10. 1007/s 10551-008-0007-7.
- McGill, L.A. & Anand, P. (1989). The effect of vivid attributes on the evaluation of alternatives: The role of differential attention and cognitive elaboration. *Journal of Consumer Research* 16 (2), 188-196.
- MacInnis, D.J. & Price, L.L. (1987). The role of imagery in information processing: Review and extensions. *Journal of Consumer Research* 13 (4), 473-491.
- Meyers-Levy, J. & Prashant, M. (1999). Consumers' processing of persuasive advertisements:

- An integrative framework of persuasion theories. *Journal of Marketing* 63, 45-60.
- Moemeka, A. A. (1998.) Communalistic societies: Community and self-respect as African values. In C. Christians & M. Traber (eds.) *Communication ethics and universal value* (pp: 170-183). Thousand Oaks, CA: Sage.
- Moorman, M., Neijens, P.C. & Smit, E.G. (2002). The effect of magazine-induced psychological responses and thematic congruence on memory and attitude toward the ad in real life setting. *Journal of Advertising* 31 (4), 27-40.
- Morah, D. N. & Omojola, O. (2018). Social media use and entrepreneurship development in Nigeria: Lagos and Onitsha in focus. *International Journal of Advanced Studies and Research Work*. 1 (1), 15-26.
- Muniz, A.M. & O'Guinn, T.C. (2001). Brand community. *Journal of Consumer Research* 27(4), 412-432.
- Nelson, J.P. (2005). Beer advertising and marketing update: structure, conduct, and social costs. *Review of Industrial Organization* 26(3), 269-306.
- Odiboh, O., Omojola, O. Ekanem, T. & Oresanya, T. (2017). Non-governmental organizations in the eyes of Newspapers in Nigeria: 2014-2016 in Focus. *Covenant Journal of communication*, 4(1), 66-92.
- Omojola, O., Odiboh, O. & Amodu, L. (2018). Opinions as colors: A visual analysis technique for modest focus group transcripts. *The Qualitative Report*, 23(8), 2019-2035. Retrieved from <https://nsuworks.nova.edu/tqr/vol23/iss8/16>.
- Omojola O. & Asaniyan O. (2017). The visualism and potentials of house numbering. *Advanced Science Letters*, 23(1), 501-505.
- Omojola, O. (2016). Using Symbols and Shapes for Analysis in Small Focus Group Research. *The Qualitative Report*, 27 (2), 834-847.
- Omojola, O. (2015). *House Sign Advertising Design and Graphic Application Imperatives*. *Encyclopedia of Information Science and Technology*. Hershey: IGI Global.
- Omojola, O., Ige, O. & Amoka E. (2015). Africa's internet stakeholding and place in the global governance forum. *Journal of Communication and Media Technology*, 1 (1), 104-125.
- Paivio, A. (1978). The relationship between verbal and perceptual codes. In E. C. Carterette & M. P. Friedman (eds.), *Handbook of perception*. Vol. IX: Perceptual

- processing (pp.113–131). New York: Academic Press.
- Paivio, A. (2010). Dual coding theory and the mental lexicon. *Mental Lexicon*, 5(2), 205–230.
- Peeters, M., van Trujill, H. & Reymen, I. (2007). The development of a design behavior questionnaire for multidisciplinary teams. *Design Studies* 28 (6), 623–643
- Perry-Smith, J.E. & Shalley, C.E. (2003). The social side of creativity: A static and dynamic social network perspective. *The Academy of Management Review* 28 (1), 89 -106.
- Petty, R.E & Cacioppo, J.T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: Springer – Verlag.
- Quin, S.(2001). *Digital sub-editing and design*. Burlington (MA): Focal Press.
- Rowe, E.J. & Rogers, T. B. (1975). Effects of concurrent auditory shadowing on free recall and recognition of pictures and words. *Journal of Experimental Psychology (Human Learning and Memory)* 1(4), 415-422.
- Rozanova, J. (2006). Portrayals of corporate social responsibility: A comparative analysis of a Russian and a Canadian newspaper. *Journal of East European Management Studies* 11 (1), 48-71.
- Taylor, R.C., Franke. R.G. & Bang, H. (2006). Use and effectiveness of billboards. *Journal of Advertising* 35 (4),21-34. DOI: 10.2753/JOA0091-3367350402.
- Taylor, C. (1988) Various approaches to and definitions of creativity. In R. Sternberg (ed), *The nature of creativity: contemporary psychological perspectives* (pp 99–121). New York: Cambridge University Press.
- Ullmann, A. (1985) Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance. *The Academy of Management Review* 10 (3), 540-577.
- Vakratsas, D. & Ambler, T. (1999). How advertising works: what do we really know? *Journal of Marketing*, 63 (1), 26-43.
- van Beurden, P, & Gössling, T. (2008). The worth of values: A literature review on the relation between corporate social and financial performance. *Journal of Business Ethics* 82 (2), 407-424.
- Van Der Vegt, S.G. & Bunderson, J.S. (2005). Learning and performance in multidisciplinary teams: The importance of collective team identification. *The Academy of Management Journal* 48 (3), 532-547.
- Yoram, P. (1971). Rates of amortization of advertising expenditures. *Journal of Political Economy* 79 (5), 1032-1058.



Exploring Youth's Perception of Social Media as Credible News Source in Lagos, Nigeria

Mofoluke I. Akoja & Eunice C. Nweneazizi
Babcock University
Ilishan-Remo, Nigeria

Correspondence: akojam@babcock.edu.ng

Received: April 18, 2020 Accepted: October 26, 2020

Abstract: The media play a prominent role as an information provider to enable citizens to make informed decisions and participate in governance. The influence of the traditional media as providers, despite their credibility, is diminishing, especially among the youth who rely more on the internet for news content. This study examined youths' perceptions of social media credibility as a news source using the data generated from 308 respondents who emerged via multi-stage sampling. The study found that youths frequently source for news on social media, especially Instagram (84.9%) and Twitter (79%), and view their credibility as moderate (Instagram: \bar{X} =3.90; 4.18) and Twitter (\bar{X} =3.74; 3.18). The increasing dependence on social media as new sources and the youth's growing trust can serve as impetus for online news providers to step up the ethical principles of truthfulness, fairness, and accountability.

Keywords: News source, social media, source credibility, youths, perception, Lagos, Nigeria.

Introduction

A news medium may be as important as the news. McLuhan (1964; Igbino et al., 2020; Okon et al., 2018, Odiboh, 2017) had asserted that medium is the message, thereby underscoring the importance of both. This assertion has put in the limelight social media platforms and the news consumers' source's credibility. Statistics show a growing number of social media users from a mere 200 million people five years ago to 3.2 billion, which is about 42 percent of the world's population (Mohsin, 2019; Lindsay, 2019). A significant component of this demography, especially the youth, uses social media as their preferred news source.

Social media platforms like Facebook, YouTube, Twitter, and Instagram have become news sources, thereby breaking the traditional media's monopoly and making people producers and consumers of content. Aja (2011:4) notes that "traditional media organizations such as radio, television, newspapers, and magazines seem to have lost prominence and their audience." In the late 20th century, social media sites were used mainly to upload profiles and make friends (Sylvia, Moonhee & Sangwon, 2012; Amodu et al., 2019, Folayan et al.,

2018). Six Degrees, created in 1997, could go as the first significant platform, followed by MySpace and LinkedIn in the early 2000s (Drew, 2013).

Amateurs and non-professionals now generate and distribute content for public consumption, thereby altering the traditional newsgathering, packaging, and delivery process. This alteration has elicited a lack of credibility, misrepresentation, disinformation, intrusion of privacy, and other vices. Although traditional news media now have online news websites, people still subscribe more to social media platforms for news. Social media stifle the traditional systems, forcing them to find new shapes and positions. Most people no longer subscribe to the idea of waiting 24 hours for breaking stories.

The increased subscription to social media is global, with Nigeria blazing Africa's trail (Idakwo (2011). In 1996, internet services were introduced to Nigeria, paving the way to create blogs and other platforms. As of 2016, Nigeria had 13 million Facebook subscribers. Today, the number has tripled. The astounding amount of fake news in social media makes news credibility an issue. This study examined the profile of social media news credibility, especially among the

youth who constitute the largest democratic patrons.

The Problem Statement

Over half of the Nigerian population is under 30 years of age and is the most frequent internet users in Nigeria (NIRA, 2019). There has been considerable concern over the authenticity of news sourced from online sources, especially social networks. The preponderance of citizen journalism in social media means that narrative producers can disseminate content without due process, usually demanded of professionals. The upshot of this calls to question the credibility and authenticity of news on social media. In a 2018 study, Watson (2019) revealed that social media is the least trusted news source globally. Unfortunately, many youths tend to believe what they read online and forward it to other users, leading to the spread of news, much of which is fake. Notwithstanding the spread, the youths continue to subscribe to social media platforms. This development calls for investigation, and specifically, the current study tried to figure out the perception of youth on the credibility of the news sourced from social media.

This study is significant. The current Nigerian government, headed by Mr. Mohamadu Buhari, has noised considerably regulating social media use. The purported

regulation may be complicated because the government does not have the requisite facts and figures about how social media operates, especially concerning the profile of news credibility. Most narratives about fake news peddling on social media have always been conjectures and will need a study like this to unravel. The study's findings would be useful to government and multilateral agencies; it also adds to the existing literature on the subject.

Research Questions

The following research questions guided the study:

1. What social media platforms do youths use in getting news?
2. How often do youths get news on social media?
3. How do youths react to news sourced from social media?
4. Why do youths source for news on social media?
5. To what extent do youths consider social media to be a credible source of news?

Literature Review and Theoretical Framework

Social Media: Types and Benefits

Blackshaw and Nazzaro (2004), Manning (2014) and Carton (2009) define social media as bearers of a variety of sources of online

information with which content producers inform, educate, and entertain. They are social networks, which have evolved over the years to platforms that are powered digitally.

Social media foster open communication among individuals and serve as an efficient platform for public discussions. It is a platform for sending messages across long distances and promoting more than just texts, such as videos and pictures. Social media enables users to share ideas for deliberation, develop social skills, and function as a useful public forum (Edosomwan, 2011).

Social Media and Youths

Youth may be regarded as the period between childhood and adulthood. In Nigeria, anyone between the ages of 15 and 49 can claim to be a youth. Youths globally spend 27 hours per week on social media, which is higher than the average time spent generally (Hitesh, 2019). According to Adebayo Shittu, a former minister of communication in Nigeria, 75 percent of Nigerians who use the internet are on social media, and the number keeps growing. The youths are the most active because it creates the platforms for expressing themselves (The Punch, 2017).

According to Hitesh (2019), youths use social media more than any other demographic. One of the

youth's main reasons for using social media is to make new friends. The author adds that more than 50 percent of people worldwide get breaking news from social media. Akintayo and Adebola (2015, p.66) aver that "youths devote their time to watching or being on one media platform or the other," which exposes them to different content online - good or bad. A significant chunk of this content is news. Youth's perception of news credibility, therefore, becomes a research attraction owing to their preponderant social media access.

Public Perception of Social Media as Source of News

According to Sutton, Palen and Shklovski (2008), social media is growing in importance. Determining its credibility is, therefore, essential for policymaking and continued usage. Many social media users perceive social media as useful and easy to access. Lin (2007) notes that the ease-of-use of social media implies that the user finds it easy to achieve the desired objectives.

Users are more likely to accept social networking sites that they perceive to be easier in terms of use than any other web-based application (Davis, 1989). Perceptions about social media are different, based on the platforms involved and users' high or low usage levels. According to Li and Bernoff (2008), various studies

highlight that frequent social media users trust blog posts written by friends, whereas only a few individuals trust independent blogs/bloggers. Heinrichs, Lim and Lim (2011) observe that frequent social media users showed more positive perception than people who recorded low usage. Further, they discovered that individuals perceive blog posts and Facebook updates as credible when they are sent from people known to be credible.

According to Umar (2015), news is the unpublished account of human activity that seeks to interest, inform or educate the readers. Although the internet existed initially for scientific use, non-scientists within universities and executives from companies outside universities now see it as a new and speedy way to communicate with others worldwide (Turow, 2010). According to Martin (2018), social media has become the leading news source with more than 2.4 billion internet users, 64.5 percent of whom receive news from Facebook, Twitter, and Instagram instead of the traditional media.

A recent survey shows that 50 percent of users hook up to social media for breaking news before the version from the traditional media (Martin, 2018). "People extensively use social media to get first-hand news and information" (Abbasi & Liu 2013, p. 441). The advent of social media has made it possible for individuals to seek information

from several news sources beyond traditional media (Manning, 2014). Nigerian Internet Registration Association (2019) records that youths are the dominant users of social media. Nigerians spend an average of 197 minutes on social media daily, which is higher than the global average of 194 (Inemesit, 2019).

Idakwo (2011) affirms that social media has evolved from a strictly interactive platform to a form of mass media and has been recognized as a channel for public communication. However, social media news's credibility remains a big concern because of the unverified source of information shared. As social media usage increases in Nigeria, it is needful to determine its credibility as a news source among the youth.

Source Credibility in News Reporting

Credibility is the power to inspire belief, while credible sources disseminate information that one can believe to be true. Described as the life-blood of the press by Hassan (2013), a news source's reliability and authenticity is a significant characteristic that influences an individual's perception of a message. If a medium is not credible, the content will be affected and will have little or no effect on the audience it is meant for (Nwabueze, 2006). In

communication, the credibility of information source or medium for disseminating media content is very salient and cannot be overlooked or overemphasized. This fact is further reinforced by Kang (2010), who notes that the channel/medium of communication's credibility influences the audience's selective involvement with the medium.

Further, Abbasi and Liu (2013) assert that source credibility significantly affects changing audience attitudes and beliefs. Edogor, Jonah and Ojo (2015) affirm this view, stating that a medium's trustworthiness could influence users' preference for a substitute medium. Amjad, Nik and Rosli (2016) stress that today's online information is scrutinized based on its credibility, among other factors. Meanwhile, Flanagin and Metzger (2000) had argued that it is crucial to differentiate between online sources type because the results of credibility evaluation by information receivers may be different depending on which source attributes are salient when they are evaluating the given information.

Wajid and Taimur (2016) examined 164 individuals' perceptions of social media's credibility in Pakistan in five dimensions - local, national politics, international politics, disaster and relief activities, and entertainment news in the social media. Findings showed that people now accept social media as an essential and

viable news source, unlike in the past. This study concluded that social media's acceptance is rising speedily in Pakistan, and the credibility of the medium is becoming attractive in terms of online marketing and advertising businesses.

The use and believability of social network news among 330 Nigerian youths is the title of another study carried out by Oyero (2013). The study examined the use of social network news and their level of believability among youths in Nigeria. This study also found out that most respondents crosscheck news from social media with news obtained from traditional media. Although social media is more accepted, traditional media is more trusted. This study recommended that proper codes of ethics be put in place to ensure credibility and accuracy on social networks.

Vinod, Khushboo and Anita (2018) explored the Indian perspective to determine the extent to which social media information is reliable and authentic among 150 students. The finding showed that the teenage population believes that the information they get on social media is mostly authentic. Results also showed that students, parents, and teachers rely on social media for help and research. This study concluded that social media is essential, authentic, and helpful to its users and could develop and grow societies.

Edogor, Jonah and Ojo (2015) examined the level of credibility ascribed by Nigerians to social media sites. The respondents comprised 300 graduate students of the University of Nigeria resident on campus. The findings showed that most social media sites that were considered not credible had political orientation. The study recommended that social media users verify the information they get from these sites to avoid sharing false news.

Theoretical Framework

This study anchors on the medium is the message and source credibility theories. The former, propounded by Marshall McLuhan in 1964, argues that the medium influences the mind of audiences' perception or comprehension of a message. Agba (2002, Okorie, Loto & Omojola, 2018) posits that the attention an audience pays to mass-mediated messages relates to the medium's nature through which the message disseminates. Adding further, Edogor, Jonah and Ojo (2015) believe that on the one hand, if the medium is not trustworthy, the message from it will not be trusted. This theory emphasizes the significance of the medium used in disseminating messages and its influence on the message's credibility. Consequently, the theory puts some pressure on news publishers to consider their outlet's integrity when publishing. This

theory justifies this study's aim to determine the perception of the youth social media's credibility as a news source.

Hovland, Janis, and Kelly put forward the source credibility theory in 1951. They argued that people were more likely to be persuaded when the source presents itself as credible. The audiences' perceived credibility of a source could determine how the audience would react to the message. A source with high credibility leads to more usage of the medium. Once a medium is perceived to be credible, there is a high possibility for its retention as a trusted source of information. Murphy and Auter (2012) assert that source credibility involves determining how communicators' characteristics influence receivers' message processing. This theory also justifies this study's objective to determine the extent to which youths view social media as a credible source of news.

Method

This study adopted the descriptive survey method to gain insight into youths' opinions on social media news credibility. The study population was 416,465 male and female youths, aged 10-39 years, in the Kosofe local government area of Lagos State, Nigeria. The sample size, calculated using the Saunders, Lewis, and Thornhill

formula, yielded 308 respondents. The local government area was chosen as the archetype because the youths possess all the requisite attributes for the investigation, including a substantial and notable subscription to social media, adequate literacy, and being well-informed about the investigation subject. Some of the characteristics had been determined via preliminary investigation and pre-test.

The multi-stage sampling at both the wards and streets was implemented to select the respondents. The wards and the streets emerged through random sampling, while convenience sampling was adopted to locate the 308 respondents. The convenience system became expedient and useful to help determine those youths who had the knowledge required of the subject matter. The research instrument was the questionnaire used to generate data.

The questionnaire had a 97.5 percent return rate. Of the 302 copies returned, 291 were valid, while 11 did not have sufficient items to qualify for coding. The reasons for the lethargy or non-response in the case of the 11 copies are not obvious. However, respondents' disinterestedness, absence of financial incentives, poor survey timing, and the like

are factors that elicit a low response rate.

Analysis and Results

Demographic Presentation

This section shows the demographic details of the respondents.

Table 4.1.1: Respondents' Demographic Variables

Variable	Category	% (n=291)
Age	18-20	63.2
	21-23	22.7
	24-26	10
	27-29	.7
	30-32	2.7
	33-35	.7
Total		100
Gender	Male	60.8
	Female	39.2
	Total	100
Religion	Christianity	78
	Islam	20.3
	Traditional	1.7
	Total	100
Employment Status	Employed	15.5
	Unemployed	6.2
	Student	68.7
	Self-employed	9.6
	Total	100

Table 4.11 shows a preponderance of students with 68.7 percent of the population. The age categories corroborate this fact as those aged between 18 and 23 constitute most of the respondents. Undergraduate students and senior secondary pupils are in this range universally. While this study is not about students, the data recorded was considered suitable for the study.

RQ 1: What Social Media Platforms Do Youths Use as News Sources?

Table 4.1.2: Social media platforms youths use as news sources

Item	Yes (%)	No (%)
I source for news on Instagram	84.9	15.1
I source for news on Facebook	32.6	67.4
I source for news on Twitter	79.0	21.0
I source for news on Lindalkeji Blog	33.7	66.3

Table 4.1.2 shows a preference of the foreign over the local. Lindalkeji Blog is the only locally owned of the four listed sources. Instagram,

Facebook, and Twitter all hailed from the United States of America.

Table 4.1.3: Other specified news sources

Items	% (n=232)
Whatsapp	27.5
Pulsing	3.8
Google	8.2
Tv	10.7
Kingschat	1.4
Opera	.3
Pintrest	.3
CNN	2.7
Nairaland	4.8
SITES	1.7
Radity	1.4
News	2.1
Instablog	4.1
YouTube	10.7
Total	79.7

Table 4.1.3 indicates other sources of news as specified by youths. Some of which include; WhatsApp having the highest percentage (27.5%), followed by YouTube and TV (10.7% each), Google (8.2%), pulseNG, Radity, other sites such as Kingschat, Nairaland, CNN, Instablog, opera, and Pinterest being the lowest percentages. It is important to note that Nairaland is also locally owned and had been in existence for nearly 20 years.

Table 4.1.4: Most preferred news source

Item	5 n(%)	4 n(%)	3 n(%)	2 n(%)	1 n(%)	Mean \bar{X}	SD
Instagram	183 (62.9)	27(9.3)	51(17.5)	9(3.1)	21(7.2)	4.18	1.246
Facebook	51 (17.5)	17(5.8)	3(1.0)	30(10.3)	190(65.3)	2.09	1.629
Twitter	125(43.0)	23(7.9)	14(4.8)	95(32.6)	34(11.7)	3.87	1.355
LindaIkeji blog	31(10.7)	11(3.8)	20(6.8)	44(15.1)	185(63.6)	2.05	1.508
Average weighted mean						3.048	1.434

Key: 5=Highest, 4=High, 3=Moderate, 2=Low, 2=Lowest. Decision rule if mean is: 1-1.49= Lowest; 1.5-2.49= Low; 2.5-3.49= moderate; 3.5-4.49, High; 4.5-5= Highest

Table 4.1.4 shows that Instagram is the most preferred source of news (\bar{X} =4.18, SD=1.246), followed by Twitter (\bar{X} =3.87, SD=355). This table indicates that respondents moderately prefer Instagram and Twitter as news sources compared to

LindaIkeji blog and Facebook, which had a low value of about 2.05 and 2.09, respectively. Most participants have a low level of preference for Facebook and LindaIkeji blog as news sources

R/Q 2: How often do youths source news from Social Media?

Table 4.1.5: Frequency at which news is received from social media platforms

Item	VO n (%)	O n (%)	S n (%)	R n (%)	Mean	SD
I source for news on Instagram	205 (70.4)	27 (9.3)	29 (10.0)	30 (10.3)	3.40	1.030
I source for news on Facebook	57 (19.6)	16 (5.5)	19 (6.5)	199 (68.4)	1.76	1.213
I source for news on Twitter	84 (28.9)	66 (22.7)	95 (32.6)	46 (15.8)	2.65	1.061
I source for news on LindaIkeji blog	37 (12.7)	40 (13.7)	22 (7.6)	192 (66.0)	1.73	1.113
Average weighted mean					2.385	1.104

Key: VO=Very Often, O= Often, S= Sometimes, R= Rarely. Decision rule if mean is: 1-1.49= Lowest; 1.5-2.49= Low; 2.5-3.49= moderate; 3.5-4.49, High; 4.5-5= Highest

Table 4.1.5 generally shows that youths moderately source for news on social media (\bar{X} = 2.38). They very often (\bar{X} = 3.40) source for news on Instagram, followed by Twitter (\bar{X} = 2.65) They rarely source for

news on Facebook (\bar{X} = 1.76). The result also shows that youths source for news on Twitter more often than on Facebook and LindaIkeji blog (\bar{X} = 1.73). Most youths rarely source for news on LindaIkeji's blog.

RQ3: How do Youths React to News received from Social Media?

Table 4.1.6: Reaction of Youths to News received from Social Media

Item	SA n (%)	A n (%)	D n (%)	SD n (%)	U n (%)	Mean	SD
I share the news I get with friends on social media	147 (50.5)	116 (39.9)	14 (4.8)	10 (3.4)	4 (1.4)	4.35	0.834
I repost the news I get from social media.	153 (52.3)	99 (34.0)	7 (2.4)	13 (4.5)	19 (6.5)	4.22	1.129
I like the news I receive from social media.	78 (26.8)	145 (49.8)	35 (12.0)	9 (3.1)	24 (8.2)	3.84	1.110
I comment on the news I receive on social media.	70 (24.1)	107 (36.8)	49 (16.8)	28 (9.6)	37 (12.7)	3.50	1.301
I participate in online discussions on the news I receive from social media.	43 (14.8)	65 (22.3)	85 (29.2)	81 (27.8)	17 (5.8)	3.12	1.147
Average weighted mean						3.80	1.104

Key: SA=Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree, U=Undecided Decision rule if mean is: 1-1.49=Lowest; 1.5-2.49=Low; 2.5-3.49=Moderate; 3.5-4.49=High; 4.5-5=Highest.

Table 4.1.6 generally shows a mean value of (\bar{X} = 3.80, SD=1.104), which implies that youths react to news received from social media to a significant extent. Respondents strongly agreed to share news received from social media with friends (\bar{X} = 4.35). Also, many strongly agreed that they repost news from social media (\bar{X} = 4.22). The respondents like the news they

get from social media (\bar{X} = 3.84), while some would add comments to news received from social media (\bar{X} = 3.50). Respondents, however, moderately participate in online discussions on the news received from social media (\bar{X} = 3.12). The result shows that most youths share the news they get from social media rather than online discussions.

RQ4: Why do Youths Source for News on Social Media?**Table 4.1.7: Reasons for using social media as a news source**

Item	SA n (%)	A n (%)	D n (%)	SD n (%)	U n (%)	Mean	SD
I source for news items on social media because they are based on facts	106 (36.4)	71 (24.4)	39 (13.4)	4 (1.4)	71 (24.4)	3.47	1.574
I source for news on social media because of the ease of access	202 (69.4)	70 (24.1)	14 (4.8)	3 (1.0)	2 (1.0)	4.60	0.694
I source for news on social media because of past referral	143 (49.1)	77 (26.5)	44 (15.1)	6 (2.1)	21 (7.2)	4.08	1.172
I source for news on social media for entertainment purposes	173 (59.5)	99 (34.0)	14 (4.8)	3 (1.0)	2 (0.7)	4.51	0.702
I source for news on social media because they are unbiased	81 (27.8)	49 (16.8)	117 (40.2)	11 (3.8)	33 (11.3)	3.46	1.252
Average weighted mean						4.02	1.079

Key: SA=Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree, U=Undecided Decision rule if mean is: 1-1.49=Lowest; 1.5-2.49=Low; 2.5-3.49=Moderate; 3.5-4.49=High; 4.5-5=Highest

Table 4.1.7 shows that most youths source news on social media based on different reasons. Most participants (\bar{X} =4.60) agreed that they source for news on social media because of the ease of access, whereas few participants disagreed, with some not deciding. The table also shows that most participants

strongly agreed they source for news on social media from referrals (\bar{X} =4.08). Youths (\bar{X} =3.47) also agreed they source for news on social media because they are factual. Others: (\bar{X} =4.51) strongly agreed that they do source for entertainment purposes, while some (\bar{X} =3.46) agreed because the sources were unbiased.

Research Question 5: To what extent do youths consider social media to be a credible source of news?

Table 4.1.8: Credibility of the Social Media

Item	5 n (%)	4 n (%)	3 n (%)	2 n (%)	1 n (%)	Mean	SD
Social media is credible because of its accuracy in information gathering	96 (33.0)	71 (24.4)	74 (25.4)	13 (4.5)	37 (12.7)	3.60	1.326
Social media is a trustworthy news source	98 (33.7)	47 (16.2)	66 (22.7)	45 (22.7)	35 (12.0)	3.44	1.399
Social media disseminates reliable news	100 (34.4)	39 (13.4)	79 (27.1)	37 (12.7)	36 (12.4)	3.45	1.392
Social media disseminates factual news	99 (34.0)	31 (10.7)	78 (26.8)	39 (13.4)	44 (15.1)	3.35	1.446
Social media news is well investigated	93 (32.0)	45 (15.5)	57 (19.6)	59 (20.3)	37 (12.7)	3.34	1.428
Social media news is balanced	98 (33.7)	57 (19.6)	52 (17.9)	46 (15.8)	38 (13.1)	3.45	1.424
Average weighted mean						3.44	1.683

Key: 5=Highest, 4= High, 3= Moderate, 2= Low, 1= Lowest Decision rule if mean is: 1-1.49= Lowest; 1.5-2.49= Low; 2.5-3.49= moderate; 3.5-4.49=High; 4.5-5= Highest.

Table 4.1.8 indicates that youths moderately ($\bar{X} = 3.44$) consider social media to be a trustworthy news source. Youths ($\bar{X} = 3.60$) highly agreed that social media is credible because of its accuracy in information gathering. Social media news was considered to be moderately ($\bar{X} = 3.45$) reliable.

Most respondents see social media news as moderately ($\bar{X} = 3.35$) factual, a few disagree with this. Some believe social media news is well investigated ($\bar{X} = 3.34$) and balanced ($\bar{X} = 3.45$). These results indicate the credibility and reliability of social media news sources.

TABLE 4.1.9: Rank These Social Media Platforms According to Level of Credibility

Item	5 n (%)	4 n (%)	3 n (%)	2 n (%)	1 n (%)	Mean	SD
Instagram is a credible news source	139 (47.8)	56 (19.2)	56 (19.2)	7 (2.4)	33 (11.3)	3.90	1.335
Facebook is a credible news source	46 (15.8)	42 (14.4)	36 (12.4)	53 (18.2)	114 (39.2)	2.49	1.509
Twitter is a credible news source	98 (33.7)	95 (32.6)	48 (16.5)	24 (8.2)	26 (8.9)	3.74	1.254
LindaIkeji blog is a credible news source	39 (13.4)	42 (14.4)	61 (21.0)	25 (8.6)	124 (42.6)	2.47	1.484
Average weighted mean						3.15	1.396

Key: 5=Highest, 4= High, 3= Moderate, LOW= Low, LWST= Lowest
Decision rule if mean is: 1-1.49= Lowest; 1.5-2.49= Low; 2.5-3.49= moderate;
3.5-4.49, High; 4.5-5= Highest

Table 4.1.9 generally indicates that social platforms' credibility is moderately high, with a mean value of 3.15, SD= 1.396. Youths revealed to a high extent that Instagram is a credible news source (\bar{X} =3.90). Twitter is, to a

great extent, perceived to be credible. Respondents consider Facebook (\bar{X} =2.49) and LindaIkeji blog (\bar{X} =2.47) to be credible news sources to a low extent.

TABLE 4.1.10: Rank These Social Media Platforms According to Timeliness of News

Item	5 n (%)	4 n (%)	3 n (%)	2 n (%)	1 n (%)	Mean	SD
Instagram disseminates timely news	109 (37.5)	103 (35.4)	49 (16.8)	2 (0.7)	28 (9.6)	3.90	1.197
Facebook disseminates timely news	66 (22.7)	42 (14.4)	39 (13.4)	43 (14.8)	101 (34.7)	2.76	1.593
Twitter disseminates timely news	118 (40.5)	54 (18.6)	11 (3.8)	75 (25.8)	33 (11.3)	3.15	1.505
LindaIkejiBlog disseminates timely news	71 (24.4)	38 (13.1)	39 (13.4)	17 (5.8)	126 (43.3)	2.69	1.677
Average weighted mean						3.12	1.493

Key: 5=Highest, 4= High, 3= Moderate, 2= Low, 1= Lowest

Decision rule if mean is: 1-1.49= Lowest; 1.5-2.49= Low; 2.5-3.49= moderate; 3.5-4.49, High; 4.5-5= Highest

Table 4.1.10 generally shows that social media moderately disseminates timely news ($\bar{X}=3.12$, $SD=1.493$). Participants, to a great extent, find Instagram to be more timely in news dissemination ($\bar{X}=3.90$), followed by Twitter ($\bar{X}=3.15$) at a moderate level, followed by Facebook and LindaIkeji blog equally considered timely at a moderate extent. The findings also connote that most youths adjudge social media to be timely in news delivery.

Discussion of Findings

The ubiquitous youths' subscription to social media for news is supported by Samir's (2013) findings, which show a similar pattern with those exhibited in the current study. Besides the four major social media platforms that serve as news sources (Instagram, Facebook, Twitter, and LindaIkeji blog), respondents also looked up news on other social media platforms such as WhatsApp, YouTube, Instablog, PulseNG, and Pinterest. Respondents also indicated that Instagram was their

most preferred news source. Both studies also align with that of Martin (2018) and Mesole (2014), whose findings prove that social media has become the primary source of news online for the youth, with Facebook, Twitter, and Instagram as more visible than the traditional media.

The youths ($\bar{X}=3.60$) highly agreed that social media is credible because of its accuracy in information gathering. This finding is surprising and may have been influenced by the respondents' lack of exposure to what accuracy in newsgathering entails. The youths moderately consider social media to be a trustworthy news source, well-investigated ($\bar{X}=3.34$), balanced ($\bar{X}=3.45$). The credibility of social platforms as news sources is moderately high, with a mean value of 3.15, $SD= 1.396$. Specifically, the respondents had a high regard for Instagram as a credible news source ($=3.90$). Twitter, to them, is more credible than Facebook and LindaIkeji blog. Respondents consider Facebook ($\bar{X}=2.49$) and LindaIkeji blog ($\bar{X} =2.47$) low to be credible as news sources.

The findings of Vinod, Khushboo and Anita (2018) on Indian students show that the teenage population regard news on social media as most authentic. The findings are in sync with the findings of the current study. Many youths consider social media the

best platform for news and the latest happenings and trends. Meanwhile, Watson (2019) had concluded that social media users around the world do not trust social platforms either as media sources or as a way to get news. The current study has shown that Nigeria's situation regarding social media news credibility is significantly an extension of a universal.

Conclusion and Recommendations

The study examined the importance of the source to the recipients of media messages. While the previous studies have emphasized this importance in other parts of the world and the growing relevance of social media to media audiences generally, this study focused on youths who constitute half of the Nigerian populace. It established that youths source news from different social media platforms because of the ease of access, among other reasons. Most youths share and repost news, while only a few participate in online discussions of the news. Social media is perceived to be unbiased, factual, entertaining, and reliable, and for these reasons, youth depend on them. Although youths are positively disposed towards using social media as news sources, inherent in those sources are

shortcomings that cannot be ignored.

Recommendations

Based on the study's findings, the following are recommended regarding government, social media users, and the media:

1. Since youths perceive social media platforms to be credible news sources generally, stakeholders, including online news providers, should imbibe ethical journalism principles of truthfulness, fairness, and accountability to reduce the cases of

misrepresentation of facts and misinformation.

2. To encourage youths' involvement in online news discussion, social media news providers must be more intentional about providing engaging news content.
3. The need exists for intensified efforts by the government and its agents to sensitize youths on the dangers of fake news and how to manage it. Fake news thrives because most social media users do not verify the information before reposting.

References

- Abbasi M.A. & Liu, H. (2013) Measuring user credibility in social media. In A.M. Greenberg W.G. Kennedy & N.D. Bos (Eds.), *Social computing, behavioral-cultural modeling and prediction*. Lecture Notes in Computer ScienceSpringer, Berlin, Heidelberg
- Agba, P.C. (2002) *International communication: Principles, concepts and issues*. In C.S. Okunna (eds), *Teaching mass communication: a multi-dimensional approach*. Enugu: New Generation Books.
- Aja, U.S. (2011). *Influence of ownership on Media Credibility: A Study of Ebonyi Broadcast Corporation (EBBC)*, Abakaliki. Unpublished Master of Arts Project in Mass Communication, University of Nigeria, Nsukka.
- Akintayo, J.B., & Adebola, A. (2015) *Western entertainment television programme: A catalyst for*

- behavioural tendencies among students of Babcock and Covenant universities. *Journal of New Media and Mass Communication*, 42 (1), 56-68.
- Amjad, O.S., Nik, A.A. & Rosli, M. (2016). Perspectives and attitudes on the credibility of news on social networking (SNSS) sites: urgent need of research work. *Journal of New Media and Mass Communication*, 3 (1), 25-33.
- Amodu., L., Omojola, O., Okorie, N., Adeyeye, B. & Adesina, E. (2019). Potentials of Internet of Things for effective public relations activities: Are professionals ready? *Cogent Business & Management* 6 (1), 1683951.
- Bondoc, B.N. (2019). Quality journalism key to fighting fake news. PTV News. Retrieved from <https://ptvnews.ph/quality-journalism-key-to-fighting-fake-news/>
- Blackshaw, P. & Nazzaro, M. (2004) Consumer-generated media (CGM)101: Word of mouth in the age of the web-fortified consumer. Cincinnati, OH: Inteliseek.
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly* 13 (3), 319-339.
- Drew, H. (2013). Complete history of social media: then and now. Retrieved from https://www.google.com/amp/s/smallbiztrends.com/2013/05/Complete-history-of-the-social-media-infographic.html%3fzeoic_amp=1
- Edogor, I.O., Jonah, A.J. & Ojo, L.I. (2015). *Nigerian users' evaluation of credibility of social media sites*. Retrieved from <https://pdfs.semanticscholar.org/a179/81100ae03b816541723311de166c713f0890.pdf>
- Edosomwan, S. (2011). The history of social media and its impact on business. *The Journal of Applied Management and Entrepreneurship*, 16(3), 2-13.
- Flanagin, A.J. & Metzger, M.J. (2000). Perception of internet information credibility. *Journalism and Mass Communication Quarterly*, 77(3), 514-540. doi.org/10.1177/107769900007700304.
- Folayan, B.J., Omojola, O., Egharevba, M., Oyesomi, K., Yartey, D. & Adeyeye (2018). The use of ICT-rooted communication codes and slangs among Nigerian students. *Journal of Social Sciences Research*, 4(12),

- 633-641. DOI: <https://doi.org/10.32861/jssr.412.633.641>.
- Hassan, S. (2013). Mass communication: principles and concepts. New Delhi: CBS Publishers and Distributors Pvt Ltd.
- Heinrichs, J.H., Lim, J., & Lim, K. (2011) Influence of social networking sites and user access method on social media evaluation. *Journal of Consumer Behaviour*, 10(6), 347-355. Doi:10.1002/cb.377
- Hitesh, B. (2019): Impacts of social media on youths: negative and positive impacts. Retrieved from <https://www.marketing91.com/impact-of-social-media-on-youth/>
- Hovland, C.I., Janis, I.L. & Kelly, H.H. (1953). *Communication and persuasion: psychological studies of opinion change*. New Haven: Yale University Press.
- Idakwo, L. (2011). The use of social media among Nigerian youths. Retrieved from <http://www.slideshare.net/goldlami/the-use-of-social-media-among-Nigerian-youths2>.
- Igbinoba, A.O., Soola, E.O., Omojola, O., Odukoya, J., Adekeye, O. & Salau, O.P. (2020). Women's mass media exposure and maternal health awareness in Ota, Nigeria. *Cogent Social Sciences* 6 (1), 1766260. doi/full/10.1080/23311886.2020.1766260.
- Inemesit (2019). How Nigerians are using the internet in 2019. Retrieved from <https://www.pulse.ng/bi/tech/how-nigerians-are-using-the-internet-in-2019/kz097rg.amp>
- Kang, M. (2010). Measuring social media credibility-a study on a measure of blog Credibility. Retrieved from www.instituteforpr.org
- Li, C., & Bernoff, J. (2008). *Groundwell: Winning in a World Transformed by Social technologies*. Boston, MA: Harvard Business Press.
- Lin, H.F. (2007). The role of online and offline features in sustaining virtual communities: An Empirical study. *Internet Research* 17 (2), 119-138.
- Lindsay, T. (2019). Top 5 media predictions for 2019-Blog. Retrieved from <https://www.emarsys.com/resources/blog/top-5-social-media-predictions-2019>.

- Logan, R.K. (2011). McLuhan misunderstood: setting the record straight. Retrieved from <https://www.researchgate.net>
- Manning, J. (2014). Definition and classes of social media. *Encyclopedia of social media and politics*, 8, 1158-1162.
- Martin, N. (2018). How social media has changed how we consume news. *Forbes*. Retrieved from <https://www.forbes.com/sites/nicolemartin1/2018/11/30/how-social-media-has-changed-how-we-consume-news/#4a5ce4943c3c>.
- McLuhan, M. (1964). *Understanding media: The extensions of man*. London: Gingko Press.
- Mesole, F. F. (2014). Use of social media as an alternative news source among university students. *Sociology*. Retrieved from <https://pdfs.semanticscholar.org/>
- Mohsin, M. (2019). 10 Social media statistics you need to know in 2019 (Infographic). Retrieved from https://www.oberlo.com/blog/social-mediemarketing-statistics_
- Murphy, C.J., & Auter, P.J. (2012). The politics of the source: how the credibility of a news changes based on the political perception of blogs. *American Communication Journal*, 14(1), 1-17.
- Nigerian Internet Registration Association (NIRA) (2019). The effects of social media on youths. Retrieved from <https://www.nira.org.ng/nira-media/news-update/288-the-effects-of-social-media-on-the-youthson%20October&2018>.
- Nwabueze, C. (2006). *Marketing communication principles and practice*. Enugu-Nigeria: Daisy Press.
- Odiboh, O., Omojola, O. Ekanem, T. & Oresanya, T. (2017). Non-governmental organizations in the eyes of Newspapers in Nigeria: 2014-2016 in Focus. *Covenant Journal of communication*, 4(1), 66-92.
- Okon, P.E. Ajiboye, E. Ekanem, T. & Omojola, (2018). Gendered News Reportage: A Study of The Guardian and The Sun Newspapers, Nigeria. *International Journal of Media, Journalism and*

- Mass Communications, 4(3), 21-35.
- Okorie, N., Loto, G. & Omojola, O. (2018). Blogging, civic engagement, and coverage of political conflict in Nigeria: A study of nairaland.com. *Kasetsart Journal of Social Sciences*, 39(2), 291-298 (open access: <https://www.sciencedirect.com/science/article/pii/S2452315118301607>). Oyero, O.O. (2013). The use and believability of social networks news among Nigerian youths. *Covenant Journal of Communication* 1(1), 43-50. doi: 10.2478/zired-2019-0016.
- Samir, N.H. (2013). Perception and Use of Social Networking Sites among University Students. Retrieved from <https://scholar.google.com/scholar?>
- Sutton, J., Palen, L. & Shkovski, I. (2008). "Backchannels on the Front Lines: Emergent Uses of Social Media in the 2007 Southern California Wildfires." Proceedings of the 5th International ISCRAM Conference, May 4-7: Washington, D.C., USA.
- Sylvia, M.C., Moonhee, C., & Sangwon, L. (2012). User perception of social media: A comparative study of perceived characteristics and user profiles by social media. *Journal of Communication and Media Technologies*, 3 (4), 149-179.
- The Punch (2017). *75% of Nigeria's online population use social media –Minister*. Retrieved from <https://punchng.com/75-of-nigerias-online-population-use-social-media-minister/>
- Turow, J. (2010). *Media today: an introduction to mass communication* (3rded.). New York: Routledge.
- Umar (2015). What is news, meaning definition and sources of news. Retrieved from <http://www.studylecturenotes.com/journalism-masscommunication/what-is-news-meaning-definition-and-sources-of-news>.
- Vinod, B., Khushboo, G., & Anita, Y. (2018). The authenticity of social media information among youths: Indian perspective. *Journal of Content, Community & Communication*, 8, 42-45.
- Wajid, Z. & Taimur, H. (2016). Individual perception about the credibility of social media in Pakistan. Retrieved from <https://www.researchgate.net>

/publication/312570356_individual's_perception_about_the_credibility_of_social_media_in_Pakistan.

Watson, A. (2019). Social media as a news source worldwide 2019. Retrieved from https://www.powerthesaurus.org/social_media/synonyms