# Conception of Electricity as Determinant of Podcast Adoption in Nigeria Educational Systems

Adu Emmanuel Ifedayo[#1], Associate Professor Azidah Abu Ziden[*2], Associate Professor Aziah Binti Ismail[#3]
[#]*School of Educational Studies Universiti SainsMalaysia*

**Abstract** —*This research conceptualises ideas on electricity as a determinant of podcast adoption in Nigeria educational system. Although, the Federal Government of Nigeria (FGN) is making efforts towards the improvement of electricity in Nigeria educational system. Notwithstanding, presently electricity outage is still frequent within Nigeria educational system. This implies that more effort is required towards the improvement of electricity. This research conceptualises some of the issues militating against electricity. The conceptual approach was necessary to theoretically demonstrate how electricity is a determinant of podcast adoption in Nigeria educational system. Hence, the researchers' adopted and adapted a theory of electricity transmission from a developed country to adequately conceptualise electricity as a determinant of podcast adoption. Thus,relevant conclusion and recommendation were made based on this study findings.*

**Keywords** — *Electricity, Determinant, Podcast, Nigeria, Educational.*

## I. INTRODUCTION

The problems relating to electricity supply within Nigeria educational system had always posed serious concern for educational managers. For instance, the main company responsible for electricity management in Nigeria is known as power holding company of Nigeria (PHCN). The PHCN headquarter is based in Abuja with other PHCN electricity distribution branches, which are in several parts of the states in Nigeria. Sometimes, there is electricity supply from the power holding company of Nigerian (PHCN). However, presently the PHCN have not been able to provide constant electricity for educational services in Nigeria. Hence, most Nigerian based educational systems operate podcast technologies with the support of electric generators, which uses fuel. The use of electrical generators for educational activities is not economical. Thus, some educational system in Nigeria prefer to adopt methods of teaching, which do not depend on electricity. Adetimirin, (2012) noted that by resolving to alternative methods of teaching that do not require the use of electricity leads to the production of graduates with inadequate skills that meets the demands of employers nowadays. Consequently, Orike and Ahiakwo (2009) recommended for further studies that must address electricity problems in this 21st century in Nigeria.

Previous research addressed issues regarding electricity in Nigeria. Also, these previous studies noted the implication of erratic electricity supply in Nigeria educational system. However, the availability of research that adequately conceptualises electricity as a determinant of podcast adoption in Nigeria educational system is rare. Abiola and Ikegune (2016) recommended that there must be constant electricity supply within Nigeriaeducational system to enhance the use of technologies for instruction.

This research is significant to lecturers for adequate understanding of the nature of electricity and podcast adoption in Nigeria education setting. Also, this research is significant for future researchers' to conceptualise problems regarding erratic electricity supply in Nigeria educational environment. This study is useful for educational managers towards comprehending the manner that electricity determines the adoption of podcast technologies for educationalactivities in Nigeria. In addition, this research provides a critical perspective for Nigerian students' towards understanding that electricity is a determinant of podcast adoption for classroom learning activities.

## II. LITERATURE REVIEW

### ELECTRICITY

Electricity is a term, which represents electrical power supply. Electricity is relevant for several activities in Nigeria. For instance, electricity is useful for operating electronics such as televisionand fridge in numerous households in Nigeria. Also, electricity is useful for industrial activities such as agricultural and textile materials production in Nigeria. Likewise, electricity is useful for educational activities such as podcasting in Nigeria. 'Electricity is the flow of electric power or charge' (AER & NEED 2007 p.1).

The electricity supply in Nigeria is a strong determinant of the use of podcast technologies for education. The reason being that most podcast

technological equipment such as iPhones, iPads and iPods use electricity. The personal computers are useful for podcasting and surely these personal computers are electronic gadgets that depends on electricity. Hence, one of the factors which determines the use of podcasts for education in Nigeria is electricity. Thus, the electricity supply must be consistent to promote the adoption of podcast for education in Nigeria. In addition, Onyam and Akpom, (2016 p.2) study had suggested that there must be consistent electricity in Nigeria to promote quality education system.

There are numerous sources of electricity. For instance, the electricity that is derived from sun is known as solar power. Also, the electricity that is generated from water is known as hydroelectric power. The electricity that is produced from nuclear reactor is known as nuclear power. Nigeria depends mainly on hydroelectric power supply from Kainji dam in Niger state. However, the scenario is different from other developed countries that utilises multiple sources of electricity production. For instance, United States of America (USA) have other source of electricity that is derived from wind. The electricity from wind is known as wind energy (NEED, 2018).

However, the electricity supply in Nigeria is erratic and this situation negatively affects the adoption of podcasting digital technologies for education in Nigeria. For instance, Chigbu, John-Okeke and Omekwu (2016) research described erratic electricity as serious issue that militates against educational establishment in Nigeria. Hence, Orike and Ahiakwo (2009) recommended for the provision of constant electricity for use of technologies in Nigeria educational system.

PODCAST

Podcast is a digital online media, which is useful for numerous educational activities. An example of these educational activities is distance learning activity. For instance, podcast is useful for distance learning activities through the adoption of services from numerous online applications like Facebook and YouTube. In addition, there are podcasts which are produced and uploaded by educational establishment on either Facebook or YouTube for students' access from distant locations around the world. Podcast makes audio and audio-visual educational media services delivery faster and easier (Yaman, 2016; Stork, Karageorghis & Ginis, 2019).

### *A. Discussion*

Electricity is the determinant of using electronic media like podcast. Podcast is electronic in nature. The reason being that podcast utilises electricity. However, the unsteady nature of electricity makes podcast adoption for education in Nigeria very difficult. Although, the Federal Government of Nigeria (FGN) is making drastic efforts towards the restoration of steady electricity in Nigeria. For instance, more electricity infrastructure is being procured on yearly basis by FGN to secure improved standards of electricity supply in Nigeria. Notwithstanding, Akande (2011) noted that issues regarding electricity must not deter technology adoption in Nigeria. The conception of electricity transmission for podcasting in Nigeria educational systems is illustrated in the figure 1 that follows.

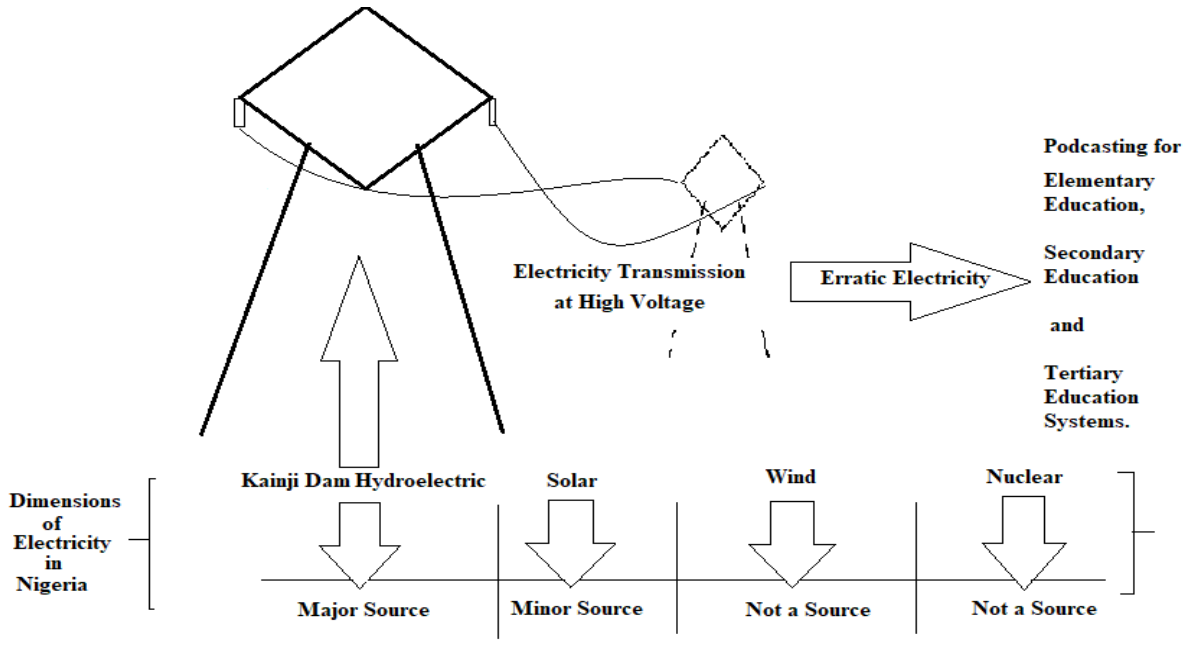


**Fig 1: Conception of Electricity as Determinant of Podcast Adoption in Nigeria Educational Systems.**

This conceptual framework was adopted and adapted from NEED (2018) theory of electricity transmission in United States of America.

This conceptual framework conceptualises different dimensions of electricity sources in Nigeria like hydroelectric and solar. The Nigeria educational systems consist of elementary, second and tertiary levels of education. This figure 1 shows that hydroelectric power is the major source of electricity in Nigeria. However, solar electricity is a minor source of electricity. The wind and nuclear source of electricity transmission is not a source of electricity in Nigeria.

## III. CONCLUSION

This study has shown that NEED (2018) theory of electricity transmission in United States of America is theoretically relevant towards adequate conception of how electricity determines podcast adoption for education in Nigeria. This is clear example of the synthesis of NEED (2018) theory to conceptualise ideas within a developing country context of a west African country like Nigeria. Although, constant electricity is not a problem in United States of America, some Asian country like Malaysia and otherEuropean countries like Spain, Greece, Hungary to mention few. Notwithstanding,Ojeniyi and Adetimirin (2016 p.1) research had revealed 'erratic' electricity as a serious problem in Nigeria.

Hence, this research recommends that further studies must use quantitative methods to empirically test the conception of the theory in this study. This study theory conceptualises electricity as a determinant of podcast adoption in Nigeria educational system. Adopting and adapting the theory in this study by future researchers' must further verify the quality of this theory.

## ACKNOWLEDGMENT

I acknowledge that this study is part of an ongoing PhD research in Universiti Sains Malaysia. I acknowledge that this study is original. I wish to also sincerely acknowledge the support of my PhD research main and co-supervisors.

## REFERENCES

[1] Abiola, A. O. & Ikegune D.O. (2016). Computer Self-efficacy and Perceived ease-of-use ofPersonal Digital Assistants for Academic activities by Undergraduates in University of Ibadan.

[2] Adetimirin, A. E. (2012). ICT literacy among undergraduates in Nigerian universities.Education and Information Technologies, 17(4), 381-397.

[3] AER & NEEDP (2007). Energy kids page. Electricity - A secondary energy source. Retrievedfrom http://www.ei.lehigh.edu/learners/energy/readings/electricity.pdf on 23/8/19.

[4] Akande, S. O. (2011). Computer and internet facilities use in distance education: a survey ofsandwich students of university of Ado-Ekiti, Nigeria.

[5] Chigbu, E. D., John-Okeke, R., & Omekwu, C. O. (2016). Corporate social responsibility: Challenges of implementing MTN digital libraries in Nigerian universities. Library Philosophy and Practice.

[6] NEED (2018). Electricity. The NEED project. Secondary Energy Info Book. Retrieved fromwww.need.org on 23/08/19.

[7] Ojeniyi, A. O., & Adetimirin, A. E. (2016). ICT literacy skills and electronic informationresources use by lecturers in two private universities in Oyo State, Nigeria.

[8] Onyam, I. D., & Akpom, C. C. (2016). Digital Nervous System: A Strategy for EnhancedManagement and Service Delivery in Federal University Libraries in South-East Nigeria. Library Philosophy and Practice, 1.

[9] Orike, S., & Ahiakwo, C. O. (2009). A sustainable model for information and communicationtechnology in Nigeria's tertiary educational transformation. In Adaptive Science & Technology, 2009. ICAST 2009. 2nd International Conference on (pp. 204-210). IEEE.

[10] Stork, M. J., Karageorghis, C. I., & Ginis, K. A. M. (2019). Let's Go! Psychological,psychophysical, and physiological effects of music during sprint interval exercise. Psychology of Sport and Exercise, 101547.

[11] Yaman, I. (2016). The potential benefits of podcasts for language learning. Journal ofEducation and Instructional Studies in the World, 6(2016), 60-66.