



Perceived Influence of Zoom Cloud and Whatsapp Technologies on Instructional Delivery in University Business Education Classroom in Rivers State

***Ogwunte, P.C. PhD & Amadi. E. A. Ph.D**

**Department of Business Education,
Faculty of Education
Rivers State University
Nkpolu-Oroworukwo, Port Harcourt, Rivers State, Nigeria
*E-mail: Clintonpeter084@gmail.com; 08033446792**

ABSTRACT

The study examined the perceived influence of zoom cloud and whatsapp technologies on instructional delivery in University business education classroom in Rivers State. Descriptive survey research design was adopted. Two research questions and two null hypotheses guided the study. The population of the study comprised all 75 business educators in Universities offering business education programme in Rivers State. These Universities are Rivers State (RSU), and Ignatius Ajuru University of Education (IAUE). The entire population was studied because the population was of a manageable size. The instrument for data collection was a self-structured questionnaire developed by the researchers based on the insight gained from the review of related literature. The instrument was designed on a 4-point likert rating scale and validated by three experts. A correlation co-efficient of 0.82 was obtained through the Cronbach Alpha method. Data collected were analyzed using mean and standard deviation to answer research questions, and z-test to test the null hypotheses formulated. The study revealed that zoom cloud and whatsapp technologies have positively influence instructional delivery in business education programme. It was therefore, recommended that administrators of business education programmes should regularly organized in- service training to train and retrain business educators on current trends in the utilization of zoom cloud and whatsapp technologies in the classroom. Also, business educators should fully abreast themselves and fully implement the technological based social media such as zoom cloud and whatsapp applications etc. in delivering their courses to students for enhanced teaching.

Keywords: business education, whatsapp technologies, zoom cloud, video conferencing

INTRODUCTION

The utilization of Information and Communication Technology facilities for teaching and learning process has become an alternative as the nation is currently facing the challenges of COVID-19 pandemic. This has become necessary in order to observe social distancing as a major precautionary measure to the spread of the deadly virus. However, Information and Communication Technology (ICT) has drastically transformed education delivery. This is because of the gains associated with the application of Information and Communication Technology in education. This view is supported by Okenwa (2008), who assert that the application of Information and Communication Technology (ICT) have advanced the development of communication and multimedia equipments that are capable of accepting and processing data into information and storing both the data and information for future use and reference purposes. ICT also provides opportunities for students and teachers to communicate with one another through zoom cloud application and whatsapp technologies thereby providing a quicker and easier access to more extensive and current information (Chipunza, 2013).

In line with the above, zoom cloud technology is a collaborative, cloud-based video conferencing service offering features including online meeting, group messaging service and secure recording of sessions. According to Achibald and Barnald (2018), zoom cloud offers the ability to communicate in

real time with geographically dispersed individuals via computer, tablets or mobile devices. Unlike many other technologies, zoom cloud possesses a number of additional advantages that enhances its potential instructional delivery utility. Braun, Clarke and Gray (2017), opined that a key advantage of zoom cloud is its ability to secure record and store sessions without recourse to third-party software. Other important security features includes: user-specific authentication, real time encryption of meetings, and the ability to back up recordings to online remote server network which can only be shared securely for the purpose of collaboration (Davitti, 2019).

Furthermore, whatsapp is a modern interactive communication channel through which people connect to one another, share ideas, experiences, pictures, messages and information of interest. According to Cohari (2013), Whatsapp offers web-based services that allow individuals to construct a public or semi-public profile within a bounded system. However, whatsapp network is not only used for social interaction, but also used for instructional delivery. The mode of social influences is internalization representing an individual's decision based on similarity of values. Church and Oliveira (2013), contained that users of whatsapp technology employ the social networking website mostly to keep in touch with peers and deliver lectures to geographically distance students. Amiaya (2014), found that social media is a vital means of communication among modern day tertiary education students. The authors stressed further that an unbelievable use of social media for various academic purposes was recorded. Cifuentes and Lents (2011), reported that about seventy percent of students are benefiting from the application of whatsapp to education compared to physical classroom lectures. This implies that whatsapp is convenient for teaching and learning in tertiary institutions particularly, in this era of COVID-19 pandemic.

To buttress this fact, Johnson and George (2014), reported that student could remain at various geographical locations and share unlimited ideas through lecture, text messages, making voice calls and uploading documents and images, at a relatively lower cost compared to the transportation costs required for students to connect on their university campuses for discussion. In an extensive study carried out by Barhoumi (2015), whatsapp was found effective in enhancing students learning through discussions and collaboration at home in a blended mobile lecture, which facilitates the creation of a class publication from course modules for students to edit collaboratively. Given the growing and diverse use of zoom cloud application and whatsapp, a social media with accessible, cheap and fast functions across ages, it has become important to explore how it can positively enhance the academic instructional delivery in university business education classroom. In consonance, Mbah (2016), indicated that technology-based multimedia (zoom and whatsapp inclusive) can improve learning and retention of material presented during a class session or individual study period, as compared to traditional lectures or study materials that do not use technology. Sullivan (2012), highlighted the following advantages of using zoom cloud application and whatsapp technology: increase in students interest and motivation, support a deeper processing of the information presented, the technological learning environments enable instruction that is adapted to the learners preferences and cognitive needs.

However, researchers like Crompton (2013) and Cohari (2013) observed that the misapplication of zoom cloud technology and whatsapp conference video calls in teaching and learning may induce disorientation and cognitive overload that could interfere with learning rather than enhance learning. In spite of the short falls that might arise from the misapplication of zoom cloud technology and whatsapp in teaching and learning in business education classroom, studies by Chipunza (2013), and Mbah (2016), have confirmed that the utilization of zoom cloud technology and whatsapp video conferencing in the classroom would provide the teachers with a more effective way to transfer knowledge and information to students, and also enable the students to learn in a more productive way. Nevertheless, these views are theoretical in nature and have not been proven empirically to be the case among business educators in Rivers State. It is against this background that this study sought to determine the perceive influence of zoom cloud and whatsapp technology on instructional delivery in university business education classroom in Rivers State.

Statement of the Problem

Despite that the challenges of using zoom cloud and whatsapp technology seems to be generally recognized the expectation of the society is that institutions offering business education programmes should provide their students with the opportunity to effectively acquire the needed skills, knowledge and attitude in business education so that they can function effectively in the world of work. However,

some authorities claimed that the use of zoom technology provides easy access for students to join lectures from anywhere on any device, enables ease of use with minimal training needed for staff (Davilli, 2019). On the other hand, the use of whatsapp technology share live location, enhance email chats and reduce data usage for calls (Reuben, 2014). Thus, the use of internet-based technologies cannot be overemphasized, if we must produce business education graduates especially in this era of covid-19 pandemic. Therefore, to ascertain the perceived influence of zoom cloud and whatsapp technologies on instructional delivery in business education classroom, there is need to empirically study these variables so as to make a value judgment.

Purpose of the Study

The purpose of the study is to determine the perceived influence of zoom cloud and whatsapp technologies on instructional delivery in university business education classroom in Rivers State. Specifically, the study sought to:

1. Determine the perceived influence of zoom cloud technology on instructional delivery in university business education classroom in Rivers State.
2. Determine the perceived influence of whatsapp technology on instructional delivery in university business education classroom in Rivers State.

Research Questions

1. What is the perceived influence of zoom cloud technology on instructional delivery in university business education classroom in Rivers State?
2. What is the perceived influence of whatsapp technology on instructional delivery in university business education classroom in Rivers State?

Hypotheses

The following null hypotheses formulated were tested at 0.05 level of significance.

1. There is no significant difference in the mean ratings of Rivers State University (RSU) and Ignatius Ajuru University of Education (IAUE) business educators on their perceived influence of zoom cloud technology on instructional delivery in university business education classroom in Rivers State.
2. There is no significant difference in the mean ratings of Rivers State (RSU) and Ignatius Ajuru University of Education (IAUE) business educators on their perceived influence of whatsapp technology on instructional delivery in university business education classroom in Rivers State.

METHOD

The study adopted descriptive survey research design. The population of the study comprised of seventy-six (76) Business Educators, twenty (20) from Rivers State University (RSU) and Fifty- six (56) from Ignatius Ajuru University of Education (IAUE) in Rivers State. The entire population was studied because the population was not too large to warrant sampling. Two research questions and two null hypotheses guided the study. The instrument for data collection was a structured questionnaire titled "Questionnaire on the perceived influence of zoom cloud and whatsapp technologies on instructional delivery (QPIZCWTID)". The instrument has two parts part "A" focused on the respondents personal data, while part "B" contain two clusters, B1 and B2 with 16 items covering the research questions. Part B was designed on a 4-point rating scale of Very High Extent (VHE – 4 Points), High Extent (HE – 3 Points), Moderate Extent (ME – 2 Points) and Low Extent (LE – 1 Point) respectively. The validity of the instrument was established by two experienced business educators from the department of business education, and one expert in measurement and evaluation from the department of educational foundation, all from faculty of education of the Rivers State University.

The internal consistency method was used to determine the reliability of the instrument by administering it on 10 business educators in Delta State University who were not part of the study sample. Data were analyzed with the use of Cronbach alpha method, and co-efficient of 0.82 was obtained from the two clusters which indicated that the instrument was reliable for the study. Out of the 76 copies of questionnaire distributed, 75 copies were retrieved and used for the study. The data collected to answer the research questions were analyzed using mean rating and standard deviation. The mean rating of 2.50 was used for decision regarding the research question. This was calculated based on the 4point rating interval used in the study. Items with mean values of 2.50 and above were

considered as high extent, while items with mean values below 2.50 were considered as low extent. The hypotheses were tested using z-test inferential statistics at 0.05 level of significance.

RESULTS

Research Question 1: *What is the perceived influence of zoom cloud technology on instructional delivery in University business education classroom in Rivers State?*

Table 1: Mean ratings of RSU and IAUE Business Educators on the Perceived Influence of Zoom Cloud Technology on Instructional Delivery in University Business Education Classroom. (N=75)

S/No	Zoom Cloud Technology Offers:	\bar{x}	SD	Remarks
1.	Ability to communicate in real time with dispersed students via, computer and mobile phones.	2.91	0.79	High Extent
2.	Ability to secure record and store sessions without recourse to third party software.	2.79	0.77	High Extent
3.	Ability to create users specific authentication	2.95	0.87	High Extent
4.	Ability to create real time encryption of meetings	2.70	0.86	High Extent
5.	Ability to back up recording to online remote server network.	2.41	0.93	Moderate Extent
6.	Ability to connect synchronously with students over video and audios	2.77	0.86	High Extent
7.	Access for students to join lecture from anywhere on any device.	3.20	0.91	High Extent
8.	Ease of use with minimal training needed for staff.	2.73	0.87	Moderate Extent
Grand Mean (\bar{x}) and SD		2.81	0.86	High Extent

Source: (Field Survey, 2020)

The information in table 1 revealed that the respondents were unanimous in their responses to all the constructs in the table, as they all affirmed to a high extent to all the constructs. This agreement was very evident as all the mean scores are well above the fixed decision value of 2.50. The standard deviation ranged from 0.77 to 0.93 which indicated low variability in the respondent responses. This was also signified by the aggregate mean and standard deviation of 2.81 and 0.86 respectively. The implication is that all the business educators perceived that zoom cloud technology influence instructional delivery in university business education classroom to a high extent.

Research Question 2: *What is the perceived influence of whatsapp technology on instructional delivery in university business education classroom in Rivers State?*

Table 2: Mean Ratings of RSU and IAUE Business Educators on the Perceived Influence of Whatsapp Technology on Instructional Delivery in University Business Education Classroom (N=75)

S/No	Whatsapp Technology offers: educators with:	\bar{x}	SD	Remarks
9.	Ability to connect with their students	2.95	0.89	High Extent
10.	Ability to share ideas	3.30	0.94	High Extent
11.	Ability to share live location	2.70	0.86	High Extent
12.	Ability to share messages and information of interest	2.73	0.87	High Extent
13.	Ability to construct a public profile within a bounded system	2.28	0.66	Moderate Extent
14.	Ability to provide message with images which are more effective for student learning	2.98	0.88	High Extent
15.	Ability to enhance email chats and reduce data usage for call.	2.77	0.86	High Extent
16.	Ability to provide audio and video calling.	2.51	0.83	High Extent
Grand Mean (\bar{x}) and SD		2.77	0.83	High Extent

Source: (Field Survey, 2020)

The data in table 2 revealed that the respondents were also unanimous in their responses to all the items in the table, as they all affirmed to a high extent to the items in the table. This agreement was evident as all the mean scores are above the criterion level of 2.50. The standard deviation ranged from 0.66 to 0.94 shows low variability in respondents responses. This was also signified by the aggregate mean and standard deviation of 2.60 and 0.76 respectively. The implication is that all the business educators perceived that whatsapp technology influence instructional delivery in university business education classroom to a high extent.

Hypothesis 1: There is no significant difference in the mean ratings of Rivers State University (RSU) and Ignatius Ajuru University of Education (IAUE) business educators on the perceived influence of zoom cloud technology on instructional delivery in university business education classroom in Rivers State

Table 3: Z-test Analysis of RSU and IAUE Business Educators on their Mean Ratings on the Perceived influence of Zoom Cloud Technology on Instructional Delivery in University Business Education Classroom

Respondent	N	\bar{x}	SD	Df	α	z-cal	z-crit	Remarks
RSU	20	2.63	0.78	73	0.05	-1.62	1.96	Accepted
IAUE	55	2.98	0.94					

In table 3, the z-calculated value of -1.62 at 73 degree of freedom, and 0.05 level of significance is less than the critical value of z at 1.96. This suggest that the respondents do not differ significantly in their mean ratings on the perceived influence of zoom cloud technology on instructional delivery in university business education classroom in Rivers State.

Hypothesis 2: There is no significant difference in the mean rating of Rivers State University (RSU) and Ignatius Ajuru University of Education (IAUE) Business Educators on the perceived influence of whatsapp technology on instructional delivery in business education classroom in Rivers State.

Table 4: Z-test Analysis of RSU and IAUE Business Educators on the Mean Ratings on Perceived Influence of Whatsapp Technology on Instructional Delivery in University Business Education Classroom

Respondent	N	\bar{x}	SD	Df	α	z-cal	z-crit	Remarks
RSU	20	2.58	0.74	73	0.05	-1.84	1.960	Accepted
IAUE	55	2.96	0.91					

As presented in table 4, the z-calculated value of -1.84 at 73 degree of freedom, and 0.05 level of significance is less than the critical value of z at 1.96. The null hypothesis is therefore accepted. This suggest that the respondents do not differ significantly in their mean ratings on the perceived influence of whatsapp technology on instructional delivery in university business education classroom in Rivers State.

DISCUSSION OF FINDINGS

Perceived Influence of Zoom Cloud Technology on Instructional Delivery in University Business Education Classroom

The result of research question 1 revealed that zoom cloud technology offers educators with the ability to communicate in real time with dispersed students via computers and mobile phones, ability to secure record and store sessions without recourse to third party software, ability to create users specific authentication, ability to create real time encryption of meetings, ability to back up recording to online remote server network, ability to connect synchronously with students over videos and audios, ability to share screen and ability for students to work in group. The above results supports the findings of the study carried by Burgess and Green (2009), who posited that the use of zoom cloud technology enables instructors to share screen during teaching and learning process.

Hypothesis 1 indicated that Z-calculated of is less than the critical Z of 1.960 at 0.05 level of significance. The null hypothesis is therefore accepted. This suggest that there is no significant difference in the mean ratings of RSU and IAUE Business Educators on the perceived influence of

zoom cloud technology on instructional delivery in university Business Education classroom in Rivers State.

Perceived Influence of Whatsapp Technology on Instructional Delivery in University Business Education Classroom

The result of research question 2 revealed that whatsapp technology offers educators with the ability to connect with their students, share ideas, share pictures, share messages and information of interests, ability to construct a public profile within a bounded system, ability to connect semi public profile within a bounded system, ability to provide message with images which are more effective for students learning, ability to instantly send messages to anywhere in the world and ability to provide audio and video callings. The above results supports the findings of the study conducted by Carson (2014), who posited that the use of whatsapp provide messages with images which are more effective for student learning.

Hypothesis 2 also indicated that the z- calculated of is less than the critical z – of 1.960 at 0.05 level of significance. The null hypothesis is therefore accepted, hence, there is no significant difference in the mean ratings of RSU and IAUE business educators on the perceived influence of whatsapp technology on instructional delivery in business education classroom in Rivers State.

CONCLUSION

Based on the findings of the study, the conclusion are that zoom cloud and whatsapp technologies have positively influenced instructional delivery in business education programme in Universities in Rivers State to a high extent. This was discovered in the course of examining the perceived influence of zoom cloud and whatsapp technologies on instructional delivery in university business education classroom in Rivers State.

RECOMMENDATIONS

1. Administrators of business education programmes should regularly organized in- service training to train and retrain business educators on current trends in the utilization of zoom cloud and whatsapp technologies in the classroom.
2. Universities offering undergraduate business education programme should provide the enabling environment and necessary facilities to enhance the use of zoom cloud and whatsapp technologies for instructional delivery in university business education classroom.
3. Business educators should fully abreast themselves and fully implement the technological bases social media such as zoom cloud and whatsapp applications etc. in delivering their courses to students for enhanced teaching.

REFERENCES

- Amiaya, A. O., (2014). Integrating new technologies into office technology and management curriculum and strategies. *Nigerian Journal of Business Education*. 1(3), 101-113.
- Archibald, M., Barnald, A., (2018). Futurism in nursing: Technology robotics and the fundamentals of care. *Journal of Clinical Nursing, Special Issue Fundamental Care-Original Article* 2(7), 11-12.
- Barhoumi, C., (2015). The effectiveness of whatsapp mobile learning activities guided by activity theory on students' knowledge management. *Contemporary Educational Technology*, 6(3), 221-238.
- Branu, V., Clarke, V., Gray D., (2017). Innovations in qualitative methods. In Gough, B. (Ed.), *The Palgrave handbook of critical social psychology* (pp.243-266).
- Burgess, J., & Green, J., (2009). Youtube: online video and participatory culture. Cambridge, UK: polity.
- Carson, O., (2014). Comparative analysis of social media usage amongst students in Nigeria. *Journal of Educational Management*. 8(2), 79-92.
- Chipunza, P. R. C., (2013). *Using mobile devices to leverage student access to collaboratively-generated resources: A case of whatsapp instant messaging at a south- African University*. International Conference on Advanced Information and Communication Technology for Education (ICAICTE).

- Church, K. & Oliveira, R., (2013). What's up with whatsapp? Comparing mobile instant messaging behaviours with traditional SMS. Proceedings of the 15th International Conference on Human-Computer Interaction with Mobile Devices and Services (PP.352-361).
- Cifuentes, O. E. & Lents, N. H., (2011). Increasing student-teacher interactions at an urban commuter campus through instant messaging and online office hours. *Electronic Journal of Science Education*, 14(1), 15-21.
- Cohari, A., (2013). How did whatsapp became the strongest social network? Calcalist. Retrieved from <http://www.calcalist.com.il/local/articles/0,7340,L-3593840,00.html>.
- Crompton, H., (2013). *A historical overview of mobile learning: Towards learner- centered education*. In Z.L. Berge & L. Y. Muhlenberg (Eds.), *Hand Book of Mobile Learning*.
- Davitti, E., (2019). Methodological exploration of interpreter mediated interaction novel insights from multimodal analysis. *Qualitative Research* 1(9), 7-29.
- Johnson, Y & George, D. E., (2014). The impact of whatsapp messenger usage on students performances in tertiary institution in Ghana. *Journal of Education and Practice*, 5(6), 157-164.
- Mbah, F. I., (2016). Utilization of multi-media and hypermedia technology in tertiary institutions in Anambra State. *Nigerian Journal of Business Education* 3(2), 14-17.
- Okenwa, G. N., (2008). *Meeting the challenges of information technology: Case for reform in distance education programme*. Proceedings of First International Conference of the Faculty of Education, University of Nigeria Nsukka, P.P. 197-202.
- Reuben, R., (2014). The use of social media in higher education for marketing and communication: A guide for professionals in higher education retrieved September 20th 2014, from <http://www.social.media.higher.education>.
- Sullivan, J. R., (2012). Skype: An appropriate method of data collection for qualitative interviews? *The Hilltop Review* 2(3), 54-60.