ZOOM MEETINGS AND WEBINARS: EXPLORING ACADEMIC STAFF USERS ATTITUDES FOR INFORMATION EXCHANGE DURING THE COVID-19 PANDEMIC

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Abstract

The realities of the Coronavirus pandemic may have stimulated some positive trends in information resources and information sharing networks given the surge of zoom meetings and webinars during the lockdown as safe platforms for information exchange. The current study evaluated lecturers' attitude towards the use of zoom and webinars as contact-less methods of information exchange and resource sharing among the academic staff of Federal Polytechnic, Oko. The design of the study was mixed method research design (descriptive survey and factorial). A total of 133 lecturers (85 males and 48 females) whose ages ranged from 25 to 60 years with mean age of 47yrs participated in the study. The method of selection for the sample is multi-stage sampling technique which integrated purposive and systematic sampling techniques. The instrument for data collection was a questionnaire developed by the researcher with a reliability correlation value of r = 0.86 obtained between the first test and re-test after a three-week interval period. The pilot test was conducted via WhatsApp social media platform. Descriptive and the z-test statistics were adopted for analysis and the result revealed that respondents' attitude towards the use of zoom and webinars as contact-less method of information exchange and resource sharing is negative with a mean midpoint of 3.12; while gender and lecturers experience had no significant difference on the attitude of lecturers on use of zoom and webinar platforms as contact-less media for information exchange and information resources sharing.. However, older lecturers significantly differed from the younger lecturers; with the younger having positive attitude towards the use of zoom and webinars as contact-less method of information exchange and resource sharing at $z(c) = 1.96$, $p < .05$. It is recommended that tech know-how and competence in use of ICTs should be included in the requisite skills for employment besides academic competence. Regular training and retraining of staff on core technology usage should be provided for reskilling.

Keywords: Coronavirus, covid-19, media, pandemic, resource sharing, webinar, zoom meeting

Introduction

Human communication and resource sharing reached its golden era in the 20th century with millions of people from diverse parts of the globe being able to communicate publicly and remotely in real time virtually through internet enabled interfaces and platforms made possible by network of computers and communication systems. Information and communication technology (ICT) is perhaps the greatest human invention with its greatest influence now available in various social media platforms (Lenhart, Purcell & Smith, 2010) with the capacity of reaching the remotest parts of the earth at the convenience of users palms. Despite this huge gain, mankind is yet to fully take advantage of this huge leap in technology especially in information exchange and education spaces (Adeola & Evans, 2020). In most developing countries of the world, the advantages of internet enabled communication technology has remained very minimal as a result of many factors not limited to; poor supply of electricity, poor internet connectivity, unaffordable computers, tablets and phones, and lack of know-how (Lanre-Babalola, 2018). However, with the threat of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic popularly referred to as Covid-19 pandemic, the need to utilize and deploy ICT social media platforms as a veritable tool for the dissemination of information and resource sharing has become a surviving lifeline albeit the infrastructural and know-how challenges that are associated with them. It can be recalled that the virus (Covid-19 pandemic) which causes mild illnesses like: high fever, headache, cough and pneumonia among others necessitated lockdown measures which required public isolation as measures to mitigate the spreading of the virus by limiting human physical activities.

Though the pandemic is far from being over, mankind is beginning to live with the virus observing safety measures (Núñez-Delgado, 2020) and using many alternatives to reduce human contacts. This happenstance has been compounded by the surge in other infectious diseases such as Ebola, cholera and Monkey pox among other contagious diseases. The limitations caused by the lockdown as a result of approaches adopted to reduce the case fatality rate (CFR) globally affected information exchange among the academic circles. Knowledge sharing which previously depended on physical activities such as conferences, workshops, seminars and symposia. Regarding information exchange and resource sharing, the situation created a need among academic staff of the Polytechnic to adopt contact-less

interaction which hither-to social media tools such as zoom and webinar were originally designed offer.

This study therefore focused on the attitude of zoom and webinar users among the academic staff of the Polytechnic Oko as alternative contact-less media platforms for information/communication exchange and resource sharing.

Research question

The following research question guided the study

1. What are the attitudes of academic staff towards zoom meetings and webinars as contact-less social media platforms for information exchange?

Hypotheses

The following hypotheses guided the study:

H_{01} There is no significant difference in the attitude of male and female lecturers' towards the use of zoom and webinars as contact-less social media platform for information exchange and resource sharing.

H There is a significant difference between male and female lecturers' attitude towards the use zoom and webinar as a contact-less social media platform for information exchange and resource sharing.

H_{02} There is no significance difference between older (41-60 years) and younger (25-40) lecturers' attitude towards the use of zoom and webinar as a contact-less media platform for information exchange and resource sharing?

H There is a significant difference between older (41- 60 years) and younger (25 - 40 years) lecturers' attitude towards the use of zoom and webinar as a contact-less social media platform for information exchange and resource sharing.

H_{03} There is no significant difference between more experienced and less experienced lecturers' attitude towards the use of zoom and webinar as a contact-less social media platform for information exchange and resource sharing?

H There is a significant difference between more experienced (teaching for more than ten years) and less experienced (teaching for less than ten years) lecturers' attitude towards the use zoom and webinar as a contact-less social media platform for information exchange and resource sharing.

Literature review

Zoom meetings and webinars as social media platforms

The various social media platforms have remained an impactful aspect of ICT invention due to its power to influence the members of the platform whether on/off line as well as connecting people from the remotest parts of the world. However, the deployment of Web 2.0 popularly called social media networks would have been difficult if not for the availability and affordability of mobile telephones in form of smart phone and other devices like computers which can be used as devices to access the internet. Lanre-Babalola (2018) contended that smart phone evolution courtesy of Andriod open market lunch in 2004 has forever propelled development and easy life styles even with respect to teaching and learning. This is because of their smart phone's ability to perform certain functions which greatly inpacts human behaviour such as texting, audio, and video, media sharing and conferencing tools through the platforms such as; Zoom meetings, Google meet Webinars, Facebook, Twitter, WhatsApp, Instagram, Baddoo, LinkedIn, Wechat etc. This has been made possible by the ease of connection and subscribers which many have capitalized on in the use of online media channels for sharing varying degrees of messages in form of texts, audio admonitions, video persuasions and other media files to the public.

Zoom is a short name for zoom video communications Inc. an online video conferencing platform which provides video telephony and online chat services through a cloud-based peer-to-peer software platform and is used for teleconferencing, telecommuting, distance education, and social relations (Taylor, Erin, & Mike, 2020). It has been used extensively in educational institutions since covid pandemic forced faculty to move to online modes o instruction(Serhan,2020) By default, the Zoom mobile app displays the active speaker view. If one or more participants join the meeting, you will see a video thumbnail in the bottom-right corner. Swipe left from the active speaker view to switch to gallery view.

You can view up to 4 participants' video at the same time. On the other hand, a webinar is an online event that is hosted by an organization/company and broadcast to a select group of individuals through their computers via the Internet (Byrd, 2020).

A webinar is sometimes also referred to as a "webcast", "online event" or "web seminar" and characteristically differ from video telephone services which offer both real video footage of presenters and the number of audiences simultaneously. Sometimes it may be used also in the narrower sense of the peer-level web meeting context, in an attempt to separate it from the other types known as collaborative sessions (Daniel, 2018). In general, web conferencing is made possible by Internet technologies, particularly on TCP/IP connections. Services may allow real-time point-to-point communications as well as multicast communications from one sender to many receivers (Byrd, 2020). It offers data streams of text-based messages, voice and video chat to be shared simultaneously, across geographically dispersed locations. Applications for web conferencing include meetings, training events, lectures, or presentations from a web-connected computer to other web-connected computers.

With many of us shifting our work and social lives online due to coronavirus disease 2019 (COVID-19) and shelter-at home orders, the use of videoconferencing programs has increased exponentially. For example, while only 10 million people attended meetings on Zoom at the end of 2019 before coronavirus was widespread, by April 2020 usage had exploded to 300 million (Morris, 2020). Technology such as Zoom has made it possible to continue some semblance of business as usual during quarantine, allowing people to move their lives online while maintaining physical distance in order to stop the spread of the virus. Among the academic staff of Federal Polytechnic Oko, zoom meetings represented a reprieve to the psychological challenges of the lockdown which had all activities shutdown (Adeola & Evans, 2020).Albeit the challenges associated with using the technology such as poor electric power supply to charge technology gadgets, lack of funds to subscribe to network data and poor operation know-how of the platform among others.

Adopting new technology rarely comes without a few bumps, and the current situation is no exception. Aside from mechanical malfunctions and networks struggling to handle increased traffic, people are now beginning to recognize a new phenomenon:

tiredness, anxiety, or worry resulting from overusing virtual videoconferencing platforms something researchers and journalists have begun calling ‘‘zoom fatigue.’’ Such problems also exist for those using webinars and other internet enable network and social media platforms.

Coronavirus pandemic

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which causes mild illnesses like: high fever, headache, cough and pneumonia etc (WHO, 2020) is no longer news as its global devastation left an unprecedented mark in global history with global lockdown. By its effects, the world has been impacted differently. World Health Organization (WHO) announced a novel pandemic in February, 2020 as being caused by a virus which attacks the respiratory system known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and causes mild illnesses like: high fever, headache, cough and pneumonia etc. Omer SB, Malani P and Del Rio C (2020) contended that in severe cases, difficulty in breathing and death may occur. As at September, more than 925,000 lives have been lost globally in more than 28 million+ cases. Despite moderate exposure to the pandemic, Nigeria’s covid-19 figures stand at over a thousand deaths in more than 56,000 index cases. The tension created by the pandemic is due to its rapid spread and high contagiousness through droplets although, it is not airborne. The global response to this panic and threat to human life saw drastic measures being taken to safeguard lives; thus, self and public isolation, quarantine, social distancing was initiated until a global lockdown became a necessary action. The negative impacts are real and adjusting to new way of life is inevitable for survival. Such negative impact affected academic activities and significantly reduced ace to face contacts for information exchange and resource sharing among the global education systems not just in Nigeria.. In order to attend academic conferences and workshops, academic staff of most institutions of higher learning is adopting the contactless approach using technological provisions such as zoom meetings an online webinars and coping strategies to the current global predicaments.

In Nigeria, this online method of teaching was not very popular. It became expedient for it to be adopted whether prepared or not .The staff were compelled to adopt it. The covid -19 has created many challenges for educators and students over the past years around the

globe. The pandemic forced many programs to make hasty decisions about course delivery with many transitioning from traditional face to face delivery to online approaches (Morin, 2020) However, the way lecturers respond and react to the using of zoom differed from the way the students felt .The students preferred teaching in an e-learning context. Kulikowski et al (2022) noted that teachers motivation and performance suffered because of job characteristics which consequently may have implications for the overall teaching performance .This forced e-learning adoption may have caused practically incorrigible impacts on the teachers opinions about the teaching contexts since many insufficient preparation cases could have jeopardized the adoption or continuity of the use of the e - learning tools. Moreover, feelings of connectedness during zoom classes also produced statistically significant differences while embracing online technology such as zoom can be stressful especially for educators not familiar with or uncomfortable with technology reported Ramlo (2021).This attitude is particularly true when the transition is abrupt and can determine the success of these platforms at an institutional level. Broussard and Wilson (2018) remarked that many academics believed that the use of online instruction methods are inferior to traditional classroom instruction. Moreover, the lockdown which has necessitated adoption of alternative and contact-less medium for information exchange and resource sharing required for safety during this pandemic has exposed that ICT knowledge and usage among the academic staff is abysmally poor given participants' opinion on how they struggle with its usage mentally and otherwise

Following gaps in literature which weren't expansive on the challenges faced by social media users in developing countries such as Nigeria, the present study aimed at determining attitude of zoom and webinar user for information exchange among the academic staff of Federal Polytechnic Oko Anambra State, Nigeria.

Methodology

The design of the study was a descriptive survey. The area of the study was Federal Polytechnic Oko in Orumba North Local Government Area of Anambra State, Nigeria. The population of the study constituted 821 academic staff. A total of 133 lecturers (85 males and 48 females) whose ages ranged from 25 to 60 years with an average age of 47yrs participated

in the study. The method of selection is multi-stage sampling technique which utilized purposive and systematic sampling techniques.

The instrument titled "Attitude of Lecturers towards the Use of Zoom and Webinars as Contact-less Method of Information Exchange and Resource Sharing" (ALUZWCMIERS) was developed by the researchers and was structured on a five-point Likert rating scale of Strongly Agree (SA-5points), Agree (A-4points), Neutral (N-3points), Disagree (D-2points) and Strongly Disagree (SD-1point). The instrument contained 17 items and was the internal consistency of the scale was established during a pilot test. Reliability of the instrument was established using Pearson Product Moment Correlation and coefficient between the first test and the re-test using 31 participants. A correlation value of r = 0.86 was obtained indicating the reliability of participants' responses between the first test and re-test after a three weeks' interval period.

There was a pilot test before the main study to validate and establish reliability measures of the instrument for data collection to ensure that it measures what it ought to measure and reliable over time. The pilot test was conducted via WhatsApp social media which contain groups for academic staff of Federal Polytechnic Oko. The questionnaire was distributed via this platform and instructions on how to participate in the survey was provided. The participants completed the questionnaire and returned it electronically through WhatsApp social media. The same method was adopted in the main study. For the descriptive study, mean cut-off score was 3.00 and above based on the rating scale (5+1 = 6/2 =) was accepted as positive while mean scores below 3.00 was rejected. The z-test statistics was used to test the hypotheses at 0.05 levels of significance between the factor groups. If the calculated z-value is greater than the critical value, the null hypothesis was rejected, but if the calculated z-value is less than the critical value, the null hypothesis was not rejected.

Result

Table 1: Research question: What are the perceptions and attitudes of academic staff towards zoom meetings and webinars as a contact-less social media platform for information exchange and resource sharing

	Item Description	Male X	SD	Female X	SD
1	I am not comfortable with computer and ICTs	3.68	0.73	3.94	0.29
2	I am not skilled in the use of ICT	3.24	0.76	3.38	0.57
3	I don't like online information	2.92	0.79	3.04	0.64
4	I am not conversant with social media applications	2.84	0.74	2.82	0.71
5	I don't know how to use zoom meeting app	2.88	0.71	2.99	0.68
6	I don't know how to use webinar for conferences	2.84	0.83	2.82	0.71
7	I have not participated in a zoom meeting before	2.76	0.70	2.74	0.58
8	I don't usually respond to webinar invitations	3.60	0.64	3.66	0.53
9	I don't have extra money for data to use zoom and webinars	3.04	0.72	3.02	0.52
10	I usually get confused participating in webinar	3.16	0.78	3.33	0.59
11	I get stressed during webinars	3.16	0.73	3.33	0.58
12	I am anxious about logging in to zoom meeting	3.32	0.83	3.49	0.62
13	I get tired trying to use online applications for conference	3.60	0.80	3.88	0.40
14	I don't want to learn about zoom usage even if there is a chance	2.08	0.74	2.18	0.56
15	I fear I can make mistake while using zoom or webinar	3.72	0.60	3.67	0.56
16	I have phobia (fear) towards using ICT enabled applications	2.04	0.77	2.17	0.56
17	I don't have the enabling atmosphere for using zoom and participating in webinars	3.44	0.63	3.58	0.53
	Cluster Total	52.32	12.50	54.01	9.63
	Cluster Mean	3.07	0.73	3.17	0.56

Data in Table 1 reveals that the respondents' attitude towards the use of zoom and webinars as contact-less method of information exchange and resource sharing is positive considering the cluster total mean of 3.07 and 3.17 as shown in the Table above.

Presentation of Hypothesis

Table 2: Z-test comparison between male and female respondents' attitudes towards the use of zoom and webinars as contact-less method of information exchange and resource sharing

Subjects	N	X	SD	Df	Z-cal	Z-critical	Decision
Male	85	3.07	0.73	131	0.661	1.964	HO_1: Not rejected
Female	48	3.17	0.56				

Data in Table 2 show that male lectures (85 in number) had a mean rating of 3.07 and standard deviation of 0.73, while the female (48 in number) had a mean rating of 3.17 and standard deviation of 0.56. These yielded a calculated Z-value of 0.661 which is less than the critical z-value of 1.964 at 131 degree of freedom, and this value is non-significant. The null hypothesis was therefore confirmed. Thus, gender has no significant difference on the attitude of lecturers towards the use of zoom and webinars as contact-less method of information exchange and resource sharing

Table 3: Z-test comparison between older and younger lecturers' attitude towards the use of zoom and webinars as contact-less method of information exchange and resource sharing

Subjects	N	X	SD	Df	Z-cal	Z-critical	Decision
Older (41-60 yrs)	90	3.50	0.64	131	2.17	1.964	HO_2: Rejected
Younger (20-40 yrs)	43	2.83	0.73				

Table 3 shows that the older teachers (90) had a mean rating of 3.50 and standard deviation of 0.64 while the younger teachers (43) had a mean rating of 2.83 and a standard deviation of 0.73. These yielded calculated z-value of 2.17 which is greater than critical z- value of 1.964 at 131 degree of freedom. This value is significant. The null hypothesis was therefore not rejected. Thus, older lecturers significantly differed from the younger lecturers with the younger having more positive attitude than the older ones towards the use of zoom and webinars as contact-less method of information exchange and resource sharing.

Table 4: Z-test comparison between more experienced and less experienced respondents' attitude towards the use of zoom and webinars as contact-less method of information exchange and resource sharing

Subjects	N	X	SD	df	Z-cal	Z-critical	Decision
More Experienced (11-25 yrs)	83	3.48	0.65	131	0.348	1.964	HO_3: Not rejected
Less Experienced (1-10 yrs)	50	3.45	0.65				

Data in Table 4 show that more experienced teachers (133 in number) had a mean rating of 3.48 and standard deviation of 0.65 while the less experienced teachers (100 in number) had a mean rating of 3.45 and standard deviation of 0.65. These yielded a calculated z-value of 0.348 which is less than the critical z-value of 1.964 at 131 degree of freedom. This value was considered non-significant. The null hypothesis was therefore not rejected. Thus, more experienced lecturers did not significantly differ from the less experienced lecturers on attitude towards the use of zoom and webinars as contact-less method of information exchange and resource sharing.

Discussion of results

Findings revealed that the respondents have a negative attitude towards the use of zoom and webinars as contact-less method of information exchange and resource sharing. This is in line with the assertion by Kulikowski et al (2022) who noted that teachers motivation and performance suffered because of job characteristics which consequently may have implications for the overall teaching performance .This forced e-learning adoption may have caused practically incorrigible impacts on the teachers opinions about the teaching contexts since many insufficient preparation cases could have jeopardized the adoption or continuity of the use of the e -learning tools. Ramlo (2021) in agreement with the finding remarked that embracing online technology such as zoom can be stressful especially for educators not familiar with or uncomfortable with technology. This attitude is particularly true when the transition is abrupt and can determine the success of these platforms at an institutional level. This is typically in line with the findings of Adeola and Evans (2020) which identified problems such as poor electric power supply to charge technology gadgets, lack of funds to subscribe to network data and poor operation know-how of the platform, lack of technology

knowledge, lack of resources to provide appropriate gadgets for accessing zoom meetings and webinars, anxiety and other personality factors among others as challenges affecting the utility of technology driven platforms as alternatives during the lockdown. These myriad of challenges will cause disaffection with the online platforms. Equally, Wolf (2020) identified that adopting new technology with its own hassles and stress which may affect the attitude of users and reduce their interest.

Although, Vázquez-Cano, Meneses and García-Garzón (2017) found that basic digital competences favour males more than females, the study also found that the observed poor attitude towards the use of zoom as contact-less method of information exchange and resource sharing cuts across males and female academic staff of the polytechnic. This may be as a result of poor implementation of technology usage policy or personal factors as Goswami and Dutta's (2015) study on gender differences in technology usage further revealed a male positive advantage in attitude towards technology. Also, the study did not find significant difference on the attitude between more experienced academic staff and less experienced academic staff on use of zoom as contact-less method of information exchange and resource sharing.

However, with regards to age, the finding revealed that older lecturers significantly differed from the younger lecturers on attitude towards the use of zoom as contact-less method of information exchange and resource sharing as supported by Van derKaay and Young (2012) who found that using same or similar technology age-related differences in technology usage favour younger users and thus explains why technology use among older faculty was slightly less than younger faculty; older faculty were no less likely than younger respondents to use technology. Equally, Charness, Boot, Evans, Best, Taha, Sharit, and Czaja (2017) confirmed age differences in technology as regards constraints on tele-health adoption and use by older adults. This supports the findings of the current study on lecturers' use of zoom as contact-less method of information exchange and resource sharing.

Recommendations

1. Increased adoption of zoom meetings and webinars. Given the positive attitudes and perceptions of academic staff towards using zoom meetings and webinars, institutions should encourage and support their adoption for information exchange and resource sharing at institutional levels.

2. Increased training and support. Provision should be made for training and technical support to ensure academic staff are comfortable and proficient in using zoom meetings and other online platforms.

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