

WhatsApp Usage in Administrative Processes of College of Distance Education, University of Cape Coast, Ghana

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Abstract

In Ghana, little is known about the educational values of WhatsApp usage as a multidimensional communication tool. WhatsApp usage is unguided and generally left in the hands of the juvenile for exploration. This article established how WhatsApp application could promote administrative processes and support for the College of Distance Education (CoDE), University of Cape Coast, Ghana. The theories informing this study were adopted from the synthetic model of motivation (Turner, 1987) and Activity Theory by Vygotsky (1978). The descriptive cross-sectional survey design was used for the study. Data collection was quantitatively done with a questionnaire as the research instrument. Census technique was employed to gather data from all the 72 Study Centre Co-ordinators of CoDE. The two objectives and four hypotheses that guided the study were analysed with frequencies and percentages, ANOVA, independent sample t-test, and multiple standard regression. The study found that most of the respondents were satisfied with WhatsApp's use to facilitate communication among stakeholders at CoDE. It further emerged that WhatsApp messaging enables rapid feedback among the key stakeholders (administrators, course tutors and students) of CoDE. However, few co-ordinators expressed disappointment regarding members sending irrelevant information and heavy videos sometimes in ungodly hours. It was recommended that enforceable user-guidelines and policies be made explicit for members to adhere to WhatsApp platforms' use. Also, WhatsApp groups should be organised based on homogeneous interests while usage should be supported, regulated and promoted by the management of CoDE.

Keywords: Administrative processes, distance education, WhatsApp platform.

Introduction

Education of citizens has become a top priority of most countries in the world. In the light of this, governments over the years have been exploring other alternatives to ensure that all manner of persons regardless of social, economic, cultural and geographical circumstances are not denied access to formal education. In Africa, owing to the constraints of providing formal education, many governments have resorted to the Distance Education (DE) model as an alternative to expanding access to formal education. Poley (2001) referred to DE as an educational model in which the student and instructor are separated by time and place. Brady (2004) also came up with different modes of interactions in DE delivery: 1. student-teacher, 2. student-student and 3. student-content. Karadeniz (2018) also opined that flexibility in time and space, efforts to support lifelong learning, and eliminating hurdles between learners and learning sources characterise distance education's administrative processes. In effect, the learner's interest and satisfaction should be paramount. Therefore, it stands to reason that the underpinning of any form of distance education relates to the geographical separation of learners from the instructors.

Ghana, like many other African countries, has over the years, been promoting access to formal education through the distance mode. In Ghana, all leading public universities have embarked on one form of DE or the other as a complementary mode of higher education delivery. Akanson (2015) indicated that the University of Cape Coast set up the College of Distance Education (CoDE) in 1997 to increase access, show quality, cost-effective tertiary education for highly trained calibre of people for national development. Akanson's (2015) study revealed that the College of Distance Education in the University of Cape Coast had over 15 years established 98 study centres and recruited more than 2000 course tutors to facilitate the University's academic programmes at the various study centres. Akanson further indicated that there are 17 different programmes with over 180 courses run on a distance basis. Each study centre has a Co-ordinator to assist the Regional Resident Tutors (RRTs) to solve centre-based problems. The total population of the students on the distance programmes, as of 2015, stood at 56,000 (Akanson, 2015). However, as of the 2019/2020 academic year, the number reduced to 36,642.

Social media has come to stay with us. According to Ralph and Ralph (2013, p. 451), social media relates to "a group of internet-based applications interactive platforms built on the ideological and technological foundations of Web 2.0, which allows for the creation and exchange of user-generated content." Social media involve using and exchanging podcasts audio, video, text, images and other multimedia communications. There is no doubt that the wind of technological revolution has caught up with the rest of the world, including Africa, whose population is relatively youthful and pre-disposed to use social media. Many of these youthful populations engaged in distance education programmes wish to get information and feedback from their institutions through their mobile devices (Saleh, 2014). King and Sen (2013) argued that social connections affect so many aspects of our lives and can be applied in education. The increasing popularity of handheld smartphones and social media use radically influence the delivery of distance education worldwide. Saleh (2014) observed that social networks are becoming less complex and more accessible, where young and older people can create and share content and interact easily through social networks. One of the applications that appear to have gained popularity among the users, especially in the tertiary institutions, is WhatsApp applications. WhatsApp offers instant asynchronous or synchronous communication within a cross-platform smartphone messenger. To facilitate communication, WhatsApp messenger relies on the Smartphone's active internet data with operating systems, such as Apple iOS, Google Android, Blackberry OS and Microsoft Windows, to send and receive various media, including text, images, videos and audio media messages. One of WhatsApp application's main features is using the application to create a mutually inclusive WhatsApp group and communicate within the group. The platform's creator becomes the group administrator, who can add and remove participants without approval from the group members. Aside from this, all group participants enjoy equal rights, including the right to leave the group without the group administrator's permission.

The WhatsApp application enables the participants to receive an alert for a message or mute the incoming alerts. According to Pande (2015), such apps allow closed group communication, and intended users can be selected to suit the purpose. Communication in such regulated domains is most often effective. In his study in the United States of America, Clement (2019), regarding age and social media usage, found that 18% of mobile messaging services users were between the age ranges of 26 to 35 years. On the 28th of February, 2014, the Provost of CoDE, as part of his strategies to fast-track the dissemination of information among management of CoDE and students, initiated the use of WhatsApp messenger to facilitate communication among the Units, Departments as well as the 124 Study Centre Co-ordinators across Ghana.

Effective communication provides a pivot that organisations revolve. Provision of a two-way communication is key in the delivery process of quality distance education. WhatsApp application is one of the effective tools for effective two-way communication in recent times. WhatsApp usage to deliver teaching and learning has well been documented in the literature. Widiasih and Permanasari (2018) made a case for WhatsApp usage and indicated that a two-way communication flow works well through WhatsApp, because it is to be accessed anywhere, anytime. Aicha, (2014) also found that cost efficiency, quick and easier mode of communication, confidentiality and

convenience are some of the major factors that influence the decision to adopt WhatsApp to ensure communication flow.

Additionally, Chinwe and Ngozi (2018) and Roblyer (2010) indicated that WhatsApp network is a platform that is used for social interaction and the sharing of instructional and educational materials. A study by Naifa, Nasser and Aysha (2018), on the reality of the use of WhatsApp as a tool for teaching and learning in the context of distance education at Sultan Qaboos University Oman, revealed that three out of nine faculty members were using WhatsApp in teaching and learning and communicate general educational information to students. The study also proved that students used WhatsApp as an open source of information.

The burgeoning literature at the global and a study by Yeboah, Horsu and Abdulai (2014) at national levels on WhatsApp usage in academia have focused on the use of WhatsApp application for teaching and learning. However, studies on how WhatsApp usage as an administrative tool to enhance official communication or sharing of information in delivering distance education is hard to find, especially in Ghana. Meanwhile, all educational institutions perform administrative roles as support services to ensure effective teaching and learning. Thus, there is a lacuna in the literature on WhatsApp's role in enhancing the administrative responsibilities in delivering distance education in Ghana. Additionally, CoDE launched an official WhatsApp application platform in February 2014 to resolve the huge communication gap between CoDE, study centre co-ordinators, students and course tutors. However, six years after implementing the CoDE WhatsApp platform, there has not been any study to evaluate the effectiveness of the WhatsApp platform to minimise the communication gap among stakeholders to discharge administrative responsibilities. Therefore, the crux of the study is to examine how the WhatsApp usage has enhanced the administrative communication processes at CoDE in the University of Cape Coast, Ghana. To achieve this research task, the study was guided by two objectives and four hypotheses.

Research Objectives and Hypotheses

This study specifically sought to ascertain the regularity of the usage of WhatsApp application as compared to other social media applications among co-ordinators of CoDE study centres and to examine the regularity of the usage of WhatsApp application for CoDE study centre co-ordinators for the various administrative activities. The research hypotheses were:

1. H_0 : There is no statistically significant difference in WhatsApp usage in terms of age of Coordinators at CoDE study Centres.
2. H_0 : There is no statistically significant difference between male and female coordinators at CoDE in terms of membership, the regularity of use, appreciation and WhatsApp usage inconveniences.
3. H_0 : WhatsApp usage does not statistically significantly facilitate effective communication among the various stakeholders of the College of Distance Education.
4. H_0 : Perceptions about WhatsApp Application do not significantly influence its usage among the College of Distance Education coordinators.

The rest of the study focuses on the theoretical perspective, empirical review of the study's variables, methodology, results, discussion, and policy implication.

Literature Review

Theoretical Perspective

The theory informing this study was adapted from the synthetic model of motivation (Turner, (1991) and Activity Theory by Vygotsky (1978). The synthetic model of motivation theory stipulated that the degree to which an individual will seek to maintain an interaction or renew and reproduce it at subsequent points in time is an additive function of the extent to which group inclusion needs and self-confirmation are being met. This implies that successful implementation of WhatsApp groupings is a function of an individual's need to belong to a common interest group. This theory affirmed what Rovai (2002) asserted, that individuals engaged in a working group believe that their needs can be satisfied by working co-operatively and collaboratively as a community. Therefore, in forming the WhatsApp groupings, homogeneity of interest groups should be of prime concern for the administrator. The Activity Theory refers to "who is doing what, why and how" (Vygotsky, as cited in Hasan & Kazlauskas, 2014, p. 2). The Activity Theory further asserted that human activity is collective and human behaviour originates within the social realm (Cole & Engestrom, 1993). In this context, Hasan, and Kazlauskas explained that the social realm includes the environment, history of the person, culture, role of the artefact, motivations and complexity of the real-

life activity. Briefly, this refers to a group of people, or a community, who share a common problem and who use common tools to solve the problem.

Activity theory is also used to describe and analyse the factors that influence user participation in online discussions mediated by computers or other devices. According to Barhouni (2015), many researchers frequently use activity theory to analyse human-computer interactions. They use it as a conceptual framework in computer and mobile technologies to describe and analyse the structure, development, and context of interactions mediated by computers and mobile technologies. Activity Theory gives insights into why people use WhatsApp. This is relevant to this study as it helps guide the design of a conceptual model (Figure 1) needed to assess the factors influencing WhatsApp’s use for administrative purposes. Activity theory helped the researchers to find factors that influence CoDE to participate in WhatsApp groups.

Empirical review on Age, Gender, Perception and WhatsApp usage

In Ghana, Yeboah, Horsu and Abdulai (2014) found that polytechnic students were more likely to rely on WhatsApp application for their day-to-day communications than mobile voice calls (phone calls). Additionally, Yeboah and Ewur (2014) studied the impact of WhatsApp messenger usage on students’ performance in tertiary institutions in Ghana. The study used a mixed method (qualitative and quantitative approach) to collect data from 550 students in various tertiary institutions in Ghana. The study found that WhatsApp usage negatively impacted tertiary students’ academic performance in Ghana instead of enhancing the effective flow of information and idea-sharing among students. In the view of Yeboah and Ewur, most students focused on social media at the expense of their academic activities.

Furthermore, Appiah (2016) examined WhatsApp’s influence on university students’ study habit in Ghana. The study employed descriptive design to sample 200 students from two public and private universities in the Kumasi Metropolis, Ghana. The study’s findings were that students WhatsApp deliberately for group discussion, sharing course contents, studying, networking, politics and boredom/loneliness. Over 60 per cent of the respondents (students) also revealed that WhatsApp usage negatively affected their academic studies, because they spent more time using the application for social purposes than educational purposes. Based on the theoretical and conceptual review, the study’s conceptual framework can be seen in Figure 1. As depicted in Figure 1, the main factors considered for this study are age, gender and perception of the WhatsApp users as these independent variables could determine the extent to which one uses the WhatsApp messenger for administrative purposes.

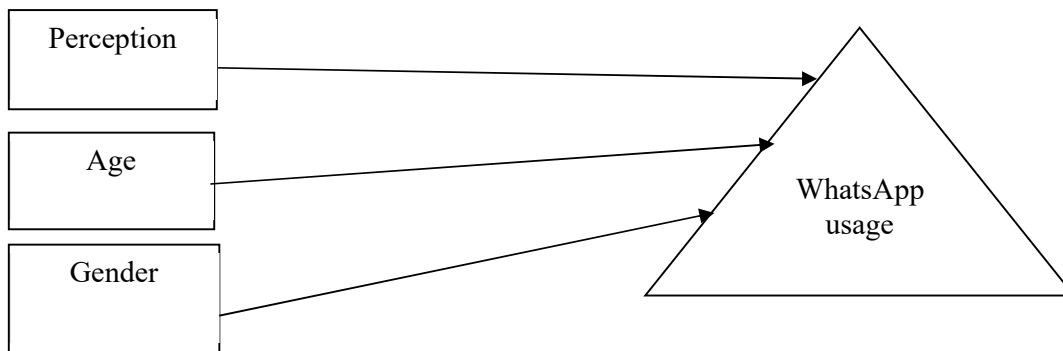


Figure 1. Conceptual framework showing the connection between the dependent and independent variables of the study.

Methodology

This study adopted the positivist paradigm because of its ability to examine social reality based on the idea that only objective, observable facts can be the basis for science. The study used a descriptive cross-sectional survey design which, according to Creswell and Clark (2007), is a systematic measurement and or description of a situation, phenomenon, attitude, behaviour, opinions, beliefs and characteristics. Thus, descriptive cross-sectional survey design describes the background or context of a situation and create typology; it concerned itself with questions such as who, what, why, how, when and where. However, this type of design is based on a timeline or snap short data collection. This sort of data is collected at one particular point in time from respondents and mostly used in the social sciences where longitudinal data collection from the same respondents at different times are usually not the researcher’s focus. Thus, data for this study were collected from respondents at one point in time, hence the cross-sectional.

The study participants were drawn from the College of Distance Education, University of Cape Coast, Ghana. However, the study focused on the Centre Co-ordinators who receive and share information with Senior Staff at CoDE and other stakeholders. The rationale behind the choice of study centre co-ordinators for this study was based on the pivotal role in receiving and disseminating information among the college's stakeholders. Coordinators are interconnected among themselves and other stakeholders, such as students, tutors, Regional Resident Tutors (RRTs), department heads, and management heads. Thus, co-ordinators receive communication directly from management for onward distribution to all other stakeholders.

A census technique was employed to sample all the 98 respondents who also constituted the study population. To achieve the study objectives, a self-administered questionnaire was adapted to determine the platform's administrative usage level by the College of Distance Education staff and Co-ordinators. The questionnaire was made up of close-ended items. The questionnaire was divided into two parts. Part one of the questionnaire focused on respondents' demographic characteristics used to answer the first two hypotheses. Part two of the questionnaire also addressed issues on the regularity of WhatsApp usage, perception of WhatsApp usage used to capture issues on the two research objectives and the last two hypotheses of the study.

The study used an adapted questionnaire with modified items from previous studies by Chinwe and Ngozi (2018), Naifa, Nasser and Aysha (2018), and Widiasih and Permanasari (2018). Items used to measure the regularity of WhatsApp usage among the co-ordinators included the regularity of using WhatsApp for: sending feedback to CoDE students; receiving enquiry from CoDE students, sharing files with course tutors; receiving instruction from HoDs and Unit Heads; sending information to and RRTs, and disseminating timely information to the other staff and Centre Co-ordinators. Additionally, perception of WhatsApp usage was also measured with items such as "I am interested in using WhatsApp for social purposes rather than administrative purposes"; "I use WhatsApp just because friends are using it but not for administrative reasons"; "I send more messages with WhatsApp than SMS"; "WhatsApp allows sharing unnecessary messages"; "WhatsApp groups waist time" "There is less privacy with WhatsApp usage in terms of one's last time access" and "poor network connectivity decreases my usage of WhatsApp."

The questionnaire was measured on a four-point Likert scale with 1 representing the least agreement and 4 representing a high agreement. Reliability and validity of the instrument was checked. A Cronbach alpha of .821 was recorded for regularity of WhatsApp usage variable with seven items; and .840 for the perception of WhatsApp usage with eight items. The Cronbach values suggest that the instrument was good to be used for the data collection. In all, 72 out of 98 respondents, representing 73.5%, were valid responses and used for the analysis. Preparation of data for analysis focused on checking for normality of data. This was done with regard to the closeness of the mode, mean and median values, and whether the skewness value was between +.05 and -.05 threshold. All values obtained for the study's variables were within the acceptable threshold as indicated and used for both descriptive and inferential analysis.

Preliminary analysis conducted includes descriptive analysis, comparing the mode, mean and median, and skewness of the variables. Besides, checking for collinearity among the variables, using Tolerance and VIF, was done. Tolerance is calculated by $1-R^2$ for each variable. The threshold is that collinearity exists if the Tolerance value is less than .10 and if the VIF (Variance Inflation Factor) is above 10. The preliminary analysis results of a Tolerance value of 1.00 was above the .10 threshold and a VIF value of 1.000 was also below the 10. Threshold, implying that there was no collinearity and the data could be used for regression analysis among others. Correlation results of .622 also confirm that there was no collinearity among the variables.

Primary data were collected and analysed quantitatively to validate the findings and conclusions drawn from the research to achieve the research objectives. The College of Distance Education (CoDE), University of Cape Coast was selected as the context of this study because it is the leading provider of distance education in Ghana in terms of students' enrolment, course tutors and study centres, and study centre co-ordinators (Segbenya, Oduro, Peniana & Ghansah, 2019). The study results for the two objectives were analysed, using descriptive statistics, such as frequencies and percentages. In contrast, that of the four hypotheses were analysed with standard multiple regression, independent sample t-test and One-Way Analysis of Variance (ANOVA). In each case, the assumptions underpinning these inferential statistical tools' usage were checked and met before they were employed for the analysis.

Results and Discussion

The results are presented in two parts. These are respondents' background characteristics, such as age, gender, and WhatsApp usage status (active and passive usage). The main results are based on the two objectives and the four hypotheses that guided the study. Table 1 shows the results for respondents' age and gender, and it is clear that most of the respondents were male (84%) and were 50- 60 years old (41.7%).

Table 1: Demographic Characteristics of the Respondents

Characteristics	Frequency	Percentage (%)
Male	60	84.0
Female	12	16.0
Total	72	100.0
<i>Age (years)</i>		
30-39	3	4.2
40-49	24	33.3
50-59	30	41.7
60 and Above	15	20.8
Total	72	100.0

Source: Field data (2020)

Table 2 shows the results for the last demographic variable on the coordinators' status, and it is clear from the table that most of the co-ordinators were active members (77.8 %). The remaining were not active (22.2%) on CoDE WhatsApp platform. The results also show that most of the respondents (45 out of 72 respondents, representing 62.5%) agreed that the WhatsApp platform served the purpose for which it was formed.

Table 2: Status and Whether the WhatsApp Platform is Achieving its Purpose

Status	Yes		No		Count	Percent (%)
	Freq.	Percent (%)	Freq.	Freq.		
Active Member	36	80	20	74.1	56	77.8
Passive Member	9	20	7	25.9	16	22.2
Total	45	100	27	100	72	100

Source: Field data (2020)

The regularity of the Usage of WhatsApp as Compared to Other Social Media Applications

Table 3 presents results for objective one of the study, which sought to examine WhatsApp usage's regularity compared to other social media applications by CoDE study centre Co-ordinators. The results show that most coordinators (70.8%) used WhatsApp application very often (more than five times a day) to send and receive information from the college more than email, SMS and Voice mails. The results also mean that all study centre coordinators used WhatsApp application.

Table 3: Regularity of Using Voice Mail, Email, SMS and WhatsApp to Communicate

The regularity of using:	Never used (%)	Not often (Once a day) (%)	Often (2 to 5 times a day) (%)	Very often (more than 5 times a day) (%)	Total (%)
<i>Voice mail</i> to send or receive information	3(4.5)	15(22.7)	15(22.7)	33(50.0)	66(100.0)
<i>SMS</i> to send or receive information	3(4.3)	15(21.7)	30(43.5)	21(30.4)	69(100.0)
<i>Email</i> to send or receive information	9(12.5)	36(50.0)	15(20.8)	12(16.7)	72(100)
<i>WhatsApp</i> messaging apps to send or receive information	0(0.0)	15(20.8)	6(8.3)	51(70.8)	72(100)

Source: Field data (2020)

The regularity of the Usage of WhatsApp for the Various Administrative Activities

Table 4 reveals the six main administrative activities by which study centre coordinators use WhatsApp application to facilitate their work. The results showed that study centre coordinators have various WhatsApp platform with students, tutors, RRTs and management of CoDE, including Head of Department (HOD).

Table 4: Regularity of usage of WhatsApp group platform for administrative activities

Administrative activity	Often (%)	Not often (%)	Never used (%)	Total (%)
Sending information to CoDE’s students	75.0	10	15.0	100.0
Receiving information from CoDE’s students	73.7	10.5	15.8	100.0
Sharing information with other centre coordinators	53.0	17.6	11.8	100.0
Receiving instruction from management & HOD’s	52.6	21.1	26.3	100.0
Sharing information with RRT’s	62.5	12.5	25.0	100.0
Sharing timely information to tutors	58.8	17.6	23.5	100.0

Source: Field data (2020)

Co-ordinators used group WhatsApp most often for six main activities: receiving and sending information from and to students dominating the usage. The least item, scoring 52.6% for “often usage,” was receiving instruction from HoDs and management. This means that Study Centre Co-ordinators do not interact with the HoDs than students (75.0%) and other co-ordinators (53.0%). This can best be explained by the fact that centre co-ordinators worked directly under RRT’s and with students; hence, there was more usage of the WhatsApp group platform with these constituents than heads of department heads.

Testing of Hypotheses

Hypothesis One

The study hypothesised that: *H₀: There is no statistically significant difference in WhatsApp usage in terms of age of coordinators.* One-way Analysis of Variance was conducted to determine the statistically significant differences in WhatsApp usage depending on respondents' age. The results are presented in Table 5.

Table 5: Effects of Age on WhatsApp Usage among the CoDE Coordinators

Age	N	Mean	Std. Deviation	F	Sig	(η ²)
30-39 years	3	1.83	.000	7.031	.000	.24
40 -49	24	1.65	.227			
50-60	30	1.67	.247			
61 and above	15	2.02	.379			
Total	72	1.74	.303			

Source: Field data (2020)

From Table 5, the data clearly showed that there was a statistically significant difference at the $p < .05$ level in LOT scores for age and usage of group WhatsApp platform at CoDE [F (3, 72) = 1.74, $p = .000$]. However, it can also be seen from the eta squared (η^2) column showing the effect size that 0.24 represent a small effect size is consistent with Cohen’s (1988) criterion for interpreting effects size. The multiple comparisons results in Table 6 show significant differences within the various age groupings. From Table 6, it can be seen that the actual statistically

significant differences exist between aged bracket of 61 years and above (M= .350* & Sig= .001); 40 – 49 (.370* & .001) and coordinators within the age bracket of 50-60 (.350* & Sig = .001).

Table 6: Multiple Comparisons of age and WhatsApp usage

(I) age	(J) age	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
30-39 years	40 -49	.183	.166	.686	-.25	.62
	50-60	.163	.164	.751	-.27	.59
	61 and above	-.187	.171	.696	-.64	.26
40 -49	30-39 years	-.183	.166	.686	-.62	.25
	50-60	-.020	.074	.993	-.22	.18
	61 and above	-.370*	.089	.001	-.60	-.14
50-60	30-39 years	-.163	.164	.751	-.59	.27
	40 -49	.020	.074	.993	-.18	.22
	61 and above	-.350*	.086	.001	-.58	-.12
61 and above	30-39 years	.187	.171	.696	-.26	.64
	40 -49	.370*	.089	.001	.14	.60
	50-60	.350*	.086	.001	.12	.58

*. The mean difference is significant at the 0.05 level.

Source: Field data (2020)

Based on the results in Tables 5 and 6, the study rejected the null hypothesis that there is no statistically significant difference between age and group WhatsApp platform usage. This finding implies that when composing a WhatsApp group, age as a variable should be considered. This will ensure the group’s sustainability and cohesion. This finding corroborates that of Hasan and Kazlauskas (2014), who asserted that group dynamics should hinge on the individual social realm; the social realm includes the environment, history of the person, culture, role of the artefact, motivations and complexity of real-life activity concerning a group of people, or a community, who share a common problem and who use common tools to solve the problem. The finding supports that of Clement (2019) that as social media users advanced in age, their interest in using WhatsApp diminishes. On the contrary, in CoDE, the users were put together to solve a common problem, thus facilitating information dissemination. This study shows that even though age could be a factor to consider when setting group WhatsApp application, its effect on group cohesion is minimal as indicated by the effect size (0.24) shown in Table 6.

Hypothesis Two

The study hypothesised that: *H₀: There is no statistically significant difference between male and female coordinators in terms of membership, the regularity of use, appreciation and inconveniences associated with WhatsApp usage.* Hypothesis two was analysed with an independent sample t-test conducted to compare scores for male and female respondents, and the results are presented in Table 7.

Table 7: Independent Sample T-Test Result on Gender and WhatsApp Usage among Coordinators

	Gender	No.	Mean	Std. Deviation	Std. Error	t	Sig.	η ²
Group Membership	Male	63	1.73	0.309	0.039	1.154	0.252	0.019
	Female	9	1.85	0.242	0.081			
Regularity of Usage	Male	51	2.69	0.916	0.128	1.657	0.103	0.045
	Female	9	3.21	0.417	0.139			
Appreciation for messaging	Male	60	2.36	0.734	0.095	2.668	0.010	0.097
	Female	9	3.04	0.484	0.161			
Tolerance for group inconveniences	Male	57	2.61	0.568	0.075	2.883	0.005	0.115
	Female	9	2.01	0.670	0.223			

Source: Field data (2020)

The results presented in Table 7 indicated that female respondents perceived three out of four dimensions of WhatsApp group platform usage higher and more positive than their male counterparts did due to the higher mean score, as indicated in Table 7. It can also be seen that there was a statistically significant difference between scores for males in terms of appreciation of WhatsApp group platform [M= 2.36, SD=0.734; t (67) = 2.668, p=0.010] and WhatsApp group inconveniences (such as large files, unnecessary materials and videos sent at odd hours) [M=2.61, SD= 0.568; t (64) =2.883, p =0.005] as against their females’ counterparts. Meanwhile, there was no statistically significant difference between male and female in terms of regularity of WhatsApp usage. Based on this result, the study refuted the null hypothesis and accepted the alternate hypothesis that there is a statistically significant difference between male and female at CoDE in terms of WhatsApp membership, the regularity of usage, and appreciation of inconveniences associated with WhatsApp usage.

The findings in Table 7 revealed that females prefer to belong to WhatsApp platforms as compared to their male counterparts. This suggests that males on WhatsApp platforms are less likely to use the application for sending messages. The findings further show that females contribute to WhatsApp group discussions than male members on WhatsApp platforms. It has been reported that while females tend to use the internet for communication with family and friends and for research and academic purposes, male, on the other hand, tend to use the internet for leisure and entertainment (Jackson, et al., 2008). Thus, female aptness in using the internet for educational and other purposes with their male counterparts using it for entertainment affirms their effectiveness and appreciation in using the WhatsApp platform for communication. Furthermore, the result supports Jebreil, Azizifar and Gowhary’s (2015) findings that males in WhatsApp groups tend to apprehend platform tolerance than their female counterparts.

Hypothesis Three

The study hypothesised that: *H₀: WhatsApp usage does not significantly facilitate effective communication among the College of Distance Education study centre coordinators.* Hypothesis three was analysed with an independent t-test employed. The result for the statistically significant effects of usage (a Categorical variable) on effective communication (continuous variable) can be seen in Table 8.

Table 8: Usage of WhatsApp messaging Facilitates Effective Communication

	Usage	No.	Mean	Std. Deviation	Std. Error Mean	t value	Sig.	η ²
Effective Communication	Yes	56	3.1719	0.54453	0.07860	5.738	0.004	0.36
	No	15	1.7500	1.35680	0.39167			

Source: Field data (2020)

The results in Table 8 indicate that there was statistically significant effect of WhatsApp usage on effective communication with usage (yes) (Mean = 3.17, SD = 0.0786) and (no) (Mean = 1.750, SD = .391); (t=5.738; p=0.004). The eta square of 0.36 indicates that the effect size was small, according to Cohen’s (1988) interpretation of small, moderate and large effects size. To determine the influence of group WhatsApp platform on effective formal communication, a simple multiple regression was run to test for that, and the results can be found in Table 9.

Table 9: The influence of group WhatsApp usage on communication

Model	Unstandardised Coefficients		Standardised Coefficients	T	F	R ²	Adjusted R ²	Sig.
	B	Std. Error	Beta					
(Constant)	-0.090	0.314		-0.285				0.777
Regularity of Usage	1.027	0.112	0.795	9.179	84.260	.632	0.625	0.000

a. Dependent Variable: communication to stakeholders, Effect size=0.109

Source: Field data (2020)

The regression results indicated in Table 9 show that Group WhatsApp Platform usage explains about 63 per cent of variance (R²= .632, F(2,70)= 84.260, p=0.000). It was found that regularity of the usage of WhatsApp significantly predicted effective communication (β =0.795; p<.005). The individual contribution of Group WhatsApp Platform usage towards effective formal communication was approximately 80%. The overall contribution of adjusted R-square of 0.625 shows that the WhatsApp usage in the model explains approximately 63% of the variance in explaining effective communication. It also means that about 37% variance in effective communication can be explained by other variables not considered in this study. The effect size of .109 determined suggests a moderate

effect size based on the Cohen (1988) threshold. This result further supports why the null hypothesis four stated that “WhatsApp usage does not significantly facilitate effective communication among the various study centre co-ordinators of the College of Distance Education” was therefore rejected.

The study findings revealed that the study centre co-ordinators are highly interested in using WhatsApp to communicate with the headquarters at CoDE and other key stakeholders. The enthusiasm with which study centres co-ordinators appreciate WhatsApp could be attributed to WhatsApp’s capability to transmit information to wider stakeholders with just a click of a button. This implies that information shared on WhatsApp platforms are delivered instantaneously. Therefore, the centre co-ordinators can immediately receive and act on them and give feedback to other relevant stakeholders at the headquarters (CoDE). Given the nature of their duties, all stakeholders are required to act with speed, especially in resolving students’ challenges. Therefore, the platform becomes attractive as they are made aware of the issues through the platform and can share feedback with others through the same platform. Although the study centre co-ordinators agreed that WhatsApp application mode of communication is informal, other staff, including study centre co-ordinators, gratify the use of WhatsApp platforms to be accepted as a legitimate means for transmitting official information. Even though WhatsApp mode of communication is informal, is it acknowledged because it is more efficient and effective means of communication. WhatsApp is also relevant to study centre co-ordinators for the dissemination of information concerning distance education at CoDE. Furthermore, those at the grassroots, especially the study centre co-ordinators, feel actively involved with what is happening at the headquarters. The study, therefore, concludes that WhatsApp usage as a communication tool among the various stakeholders of the College of Distance Education is very useful. Thus, the study centre co-ordinators of CoDE found WhatsApp as an efficient tool for reducing communication barriers between senior and junior colleagues (Jafari & Ansari, 2012).

Hypothesis Four

The study hypothesised that: H_0 : Perceptions about WhatsApp Application does not significantly influence usage among study centre coordinators at the College of Distance Education. Perception plays a key role in accepting or rejecting an innovation. When users perceived an application to be useful, they are interested in using it. It is based on this that the study formulated the fourth hypothesis. The hypothesis was tested with simple standard regression, and the results are shown in Table 10.

Table 10: Perception about WhatsApp messenger and influence on the rate of its usage

Model	Unstandardised Coefficients		Standardised Coefficients	t	F	R ²	Adjusted R ²	Sig.
	B	Std. Error	Beta					
(Constant)	0.136	0.561		0.307				.294
WhatsApp perception	1.504	0.305	0.554	4.931	24.317	.307	0.294	.000

a. Dependent Variable: regularity of usage; Effect size= 0.07

Source: Field data (2020)

The regression results in Table 10 show that WhatsApp perception explains about 31 per cent of variance ($R^2=.307$, $F(2,70)= 24.317$, $p =0.000$). It was found that WhatsApp perception significantly predicted WhatsApp usage ($\beta =0.554$; $p<.005$). Therefore, other variables not captured in this model constitute about approximately 70% in explaining the WhatsApp usage variance. Based on this result, the null hypothesis that perceptions about WhatsApp application do not significantly influence its usage at the College of Distance Education was rejected. The effect size of 0.07 suggests a small effect size, according to Cohen (1988) threshold.

The findings revealed that most of the study centre co-ordinators’ perception of WhatsApp as a legitimate means of communication at the CoDE significantly affects their use of WhatsApp application. This implies that if the motive for creating a WhatsApp group is to share work-related information, give feedback to and from the headquarters, and resolve students’ related issues, the platform is likely to be patronised by members. Also, various study centre co-ordinators of CoDE reported in Table 10 indicate that WhatsApp is very influential in that its high usage could be attributed to the convenience offered by this medium than other communication tools. In their view, WhatsApp messages are instantaneous, and users can give feedback in any geographic location covered by a mobile network or an internet. This supports Salem and Soliman’s (2014) findings, which postulates that perceived usefulness and ease of use of mobile instant messenger, sociability, perceived self-expressiveness, and the enjoyment established by using mobile instant messenger can be considered as predictors of the use of mobile instant messenger.

Conclusion

Several theoretical and practical applications came out from the research findings. Although WhatsApp usage has been developed to fasten the traditional mode of communication among the various study centre co-ordinators of the College of Distance Education, some still have mild concerns and negative perception about its usage and influence in transmitting official information. Besides, the major implications, the researchers succeeded in coming up with some motivations behind its usage in the CoDE's organisational setup. The research findings established that study centre co-ordinators regularly used the WhatsApp platform to communicate to their audiences more than any other social media platform or available communication tool. Study centre co-ordinators were also found to have used the WhatsApp platform for discharging some administrative responsibilities, such as communicating with students and course tutors, sharing information and receiving instructions from superiors. Age was found to have significantly influenced WhatsApp usage. Gender, however, had a significant effect on the inconvenience associated with WhatsApp usage and appreciation for WhatsApp usage. Additionally, WhatsApp was found to have a significant effect on effective communication and perception of the relevance of the WhatsApp usage had a significant influence on the regularity of the platform's usage among study centre co-ordinators for CoDE administrative activities.

Thus, the overarching reason justifying the use of the WhatsApp application among study centre co-ordinators was that WhatsApp platforms facilitate communication and bridge the structural lacuna between the headquarters and the sub-units at the regional study centres with respect to information dissemination. Regardless of the shareholder's preference for WhatsApp platforms as a useful communication tool at CoDE, it can also serve as a channel for leaking classified information relating to the activities of CoDE. Notwithstanding, the use of WhatsApp communication appears to be a(n) easier and quicker mode of communication with the various stakeholders of CoDE.

Based on the above conclusion, it is, therefore, recommended that enforceable user-guidelines and policies should be made clear and members compelled to adhere to the WhatsApp platforms' tenet. Also, WhatsApp groups should be organised based on homogeneous interests while usage should be supported, regulated and promoted by the management of the CoDE. Furthermore, the management of CoDE should encourage creating a separate group WhatsApp platform among study centre co-ordinators, students, and course tutors with the College to share timely and relevant academic and administrative communication between all stakeholders.

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