

## Research Article

# Examining Course Facilitators' Perspectives on Online Facilitation for Distance Education

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The importance of online learning for delivering academic content in distance education cannot be an understatement. Online learning is not only associated with benefits, but it also comes with some challenges among course facilitators in distance education. This study, therefore, examined course facilitators' perspectives on online facilitation in distance education within the context of a less developed economy. The study adopted the quantitative approach based on descriptive research design with a sample of 529 course facilitators out of a population of 2,768 using multiple sampling techniques such as stratified and simple random sampling. Data were gathered using a structured questionnaire, and partial least squares structural equation modeling (PLS-SEM) was utilized to analyze the results. Findings from the study revealed that course facilitators had online tools and content knowledge but lacked online lesson presentation skills. Availability of online gadgets significantly predicted functionality and online teaching presentation method. Challenges with online learning, availability and functionality of online gadgets, and online presentation methods significantly predicted online use intention and subsequently influenced online usage for teaching among course facilitators. It was recommended that managers of distance education train and provide technical support as well as online gadgets for course facilitators to effectively implement online education. This study provides new insights into how online gadgets, their functionality, and online presentation methods by course facilitators intricately relate among themselves and finally influence online usage intentions and actual usage of online instruction in the distance education milieu.

## 1. Introduction

The delivery of subject matter knowledge especially in distance education through online facilitation is one of the forces transforming education in the 21st century [1]. Though the move towards the use of technology in distance education has seen a lot of innovations in most developed countries, the pace has been slow for most developing countries and institutions due to challenges [1, 2]. Despite this slow pace, institutions of higher learning are making incredible efforts towards the use of technology in the delivery of teaching and learning in distance education [2]. This is

necessitated by the globalisation of higher education and the fact that global citizens must possess the needed qualities and skills to function effectively [3, 4]. The need to blend technology with other content delivery approaches has become quite mandatory for institutions globally [2]. This is seen in the current surge of adoption of technological approaches in the conduct of most of the businesses and roles of higher education institutions such as conferences, faculty meetings, and other important students' events such as assessment procedures, matriculation, and graduation ceremonies [5, 6]. The implication is that institutions need to put the necessary structures in place, both human and

materials, in order to get the maximum, as well as sustainable benefits from the use of technological applications to carry out their core mandate.

It has always been emphasised that, in the use of online delivery of content with particular reference to distance education, the availability of technology and human resources are undebatable [7, 8]. In an online facilitation environment, the roles played by course facilitators and their best practices are of concern to institutions [9, 10]. Thus, course facilitators' preparedness, perceptions, and competencies to the use of online approaches within the teaching and learning processes are as important as the acquisition and provision of technological equipment and support. Course facilitators must be conversant and competent with ICT systems if they are to assist and guide online students; thus, their perceptions and experiences in this direction cannot be underrated [11–13]. It is based on the above discussion that the current study looked at the views of stakeholders such as course facilitators who teach courses on distance education in terms of their perceptions on the availability and functionality of online resources, intentions and use of online education, and challenges as the institution planned to fully roll out a blended mode of facilitation of courses at the undergraduate level. This was deemed important because it served as the basis for decision-making for the management of the distance education institution towards the generation and implementation of policies on online learning. In light of the above, the study formulated and tested ten (10) hypotheses as follows.

*Hypothesis 1.* Availability of online gadgets has a statistically significant effect on the functionality of online gadgets among distance education course facilitators.

*Hypothesis 2.* Availability of online gadgets has a statistically significant effect on online intention among distance education course facilitators.

*Hypothesis 3.* Availability of online gadgets has a statistically significant effect on online presentation methods among distance education course facilitators.

*Hypothesis 4.* Challenges associated with online education have a statistically significant effect on online intention among distance education course facilitators.

*Hypothesis 5.* Challenges associated with online learning would have a statistically significant effect on the intention to adopt online learning among distance education course facilitators.

*Hypothesis 6.* Functionality of gadgets for online education has a statistically significant effect on online intention among distance education course facilitators.

*Hypothesis 7.* Functionality of gadgets for online learning has a statistically significant effect on presentation methods among distance course facilitators.

*Hypothesis 8.* Functionality of gadgets for online education has a statistically significant effect on the uses of online education among distance education course facilitators.

*Hypothesis 9.* Online intention has a statistically significant effect on the uses of online education among distance education course facilitators.

*Hypothesis 10.* Online presentation methods have a statistically significant effect on online intention among distance education course facilitators.

## 2. Literature Review

*2.1. Theoretical and Conceptual Perspectives.* The factors influencing postgraduate course facilitators' acceptance of online teaching and learning were explored and explained using the technology acceptance models (TAM) created by [14] in order to place the study into the proper theoretical context [15, 16]. A modification of TRA "specifically tailored for modeling user acceptance of information systems" is the theory of reasoned action model (TAM) [14]. The TAM makes an effort to explain the level of technology readiness and ongoing use among course facilitators in the teaching and learning environment. According to the literature, a number of factors may affect course facilitators' attitudes towards using educational technologies in their teaching activities. According to [17], an individual's (course facilitators) views on the deployment of educational technology have a direct impact on the teaching and learning process. Additionally, motivation and affective characteristics may have an impact on how course facilitators behave while using online teaching and learning. Affect is made up of the user's happiness and contentment with past platform use, their attitude towards using technology, and their emotional state [15, 16]. On the other side, motivation has to do with how important a task is perceived to be in terms of influencing behavioral intention or action. There is a strong association between motivation and self-regulation abilities and online learning, according to research. [18] contend that a lack of motivation may cause people to take longer than necessary to complete projects, submit work late in order to provide students feedback, or produce work that is generally of poor quality. Overall, it is believed that TAM is simple, easy, and powerful in measuring the impact of technology use in education [19]. Within the education context, TAM has been widely applied, and for instance, in his study, [20] indicated that participants' willingness to use digital devices for educational purposes were influenced by perceived ease of use, perceived usefulness, and attitudes of students towards online learning.

*2.2. Distance Education and Online Learning.* Distance education and online learning/education are sometimes used interchangeably creating the erroneous impression that they are the same. Study materials (modules) are utilized in conjunction with technology to fill the geographic gap between the student and the teacher in the phenomenon known as distance education [21]. It indicates that apart from the

printed reading materials that are made available to students, some level of technology is incorporated in order to assist students to reduce the stress students have to go through as a result of the geographical gap. At the college currently, technology is applied in some parts of the distance programme such as online registration of courses, sending of students' complaints, and counselling and guidance services. Presently, however, the core component of the programme which is the face-to-face sessions is carried out largely in-person, especially at the undergraduate level with minimal online learning for some courses with low enrollments. On the other hand, online learning according to [22] as quoted in [23] is conceptualised as the delivery of learning using the internet with digital facilities such as television, radio, and mobile phones. The difference between the two approaches is that while distance education traditionally relied heavily on printed materials with scheduled face-to-face sessions/interactions, online learning on the other hand is basically internet-based. It means that all the teaching and learning processes are carried out on the Internet. Online learning provides opportunities in terms of flexibility for distance learning. It must be indicated that online learning is a variant of distance education or learning [24].

*2.3. Availability of Online Gadgets.* Both [25, 26] identified some common gadgets for the facilitation of online tutoring as laptops, desktop computers, cell phones, smartphones, tablet apps, iPads, iPods, iPhones, and video cameras. In a case study by [27], the consequences of the digital technology utilized to support instruction and learning in Ghana during the COVID-19 pandemic have been examined. Their study revealed that students largely used mobile phones and laptops to access video conferencing platforms such as Zoom, WhatsApp, Google Meet, Teams, and Skype. In another instance, [28] found that online gadgets used by the participants included the laptops and smartphones considerably and least relied on desktop computers for their studies. The implication is that tutors are likely to use the most available online tools based on knowledge, skills, and context.

*2.4. Functionality of Online Gadgets.* Different ICT tools, approaches, and methodologies are evolving for synchronous and asynchronous pedagogical and andragogical practices in the teaching and learning processes in online and distance learning [29]. However as reiterated by [30], issues like the functionality of the ICT tools, techniques, and methodologies to ensure effective teaching and learning, using online education, need to be discussed. In support of this assertion, a study by [13] reported that the greatest hindrance to online tutoring was the lack of access and proper functioning of the learning management system during the tutor-student interaction. In a related study by [31], a sample of 192 teachers, who taught nonlaboratory courses online, reported that factors that affected the functionality of the tools used in online teaching included technical challenges, limited interaction, and ineffective evaluation of the students' learning. Additionally, in the view of [32], the functionality of the online tools for teaching depended very

much on how these tools can improve communication and interaction between teachers and students in the online environment. Thus, online educators try to use online tools to engage students who they had never met physically, track their progress through the LMS, and employ multiple communication methods to build the needed relationships with the students [32]. The scenario above implies that online tools need to be very functional to enable both the educators and students to derive the needed benefits and feedbacks from the engagements in an online environment.

*2.5. Online Intentions.* A quantitative study by [33] analyzed the perceptions of 250 online tutors teaching business, education, humanities, sciences, and health courses in a higher education institution. The study found that pedagogical skills and technological competencies were fundamental for effective online teaching. [34] also revealed that students had positive intentions about online learning during the pandemic and wanted to make online learning as part of their learning strategies. A related study by [35] reported that the participants had positive perceptions on usefulness, ease of use, and intentions of online education. [36, 37] also found that while some participants thought that they needed extra efforts to be able to use online resources for teaching and learning processes, others still considered online-based media teaching as expensive and quite difficult to use. All these factors affected the online pedagogy intention of tutors.

*2.6. Online Presentation Methods.* Distance teaching now needs a reorganisation of methods and contents instead of a mere transposition of traditional teaching methods and modalities onto virtual classroom platforms [34]. Thus, a good analysis of facilitators' lesson presentation activities is very important in relation to predicting their lesson presentation styles [38, 39]. A study by [40] in New Zealand among 32 secondary teachers found that teachers used multiple inquiry-based presentation methods such as flipped learning, knowledge-building pedagogies, and collaboration with both synchronous and asynchronous communication technologies. In a similar study, [41] reported that tutors in distance education used peer collaboration, guidance, and problem-based learning in an attempt to create a rich learning environment for online learners. A descriptive case study research of 34 attendees of an e-tutor programme to expand competencies in online lecturing by [42] reported that e-tutor was a well-planned programme for online lesson presentations. The nature of online presentation adopted by an institution has a propensity to influence the online teaching intention of tutors.

*2.7. Use of Online Education.* Tutors must exhibit different skills, knowledge, and other personal characteristics which need to be optimised especially in an e-learning environment [42]. A qualitative case study conducted by [43] explored the integration of computers in a distance education institution and found that limited interaction with students in a collaborative learning approach was a challenge to tutors' online facilitation. [44] also reported that tutors

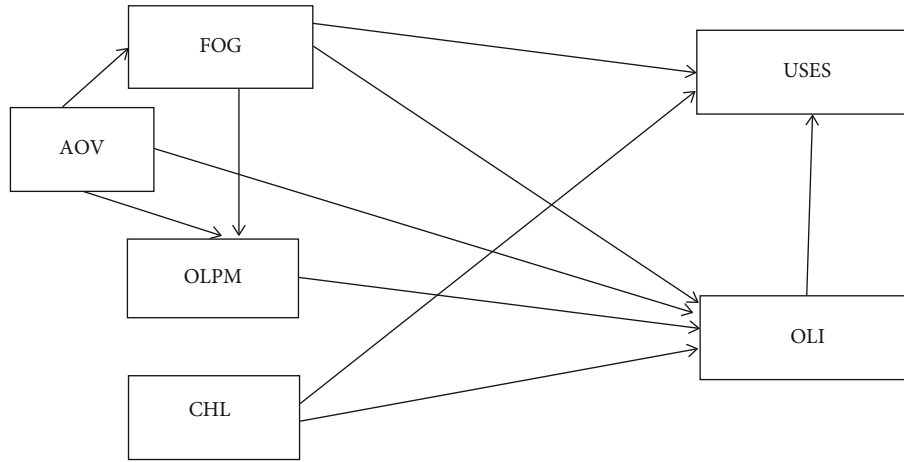


FIGURE 1: Conceptual framework of the study. Key: FOG stands for “functionality of online tools,” and AOV stands for “availability of online tools.” Online presentation methods = OLPM; CHL = problems with online education; uses of online learning = USES; online intention = OLI.

experienced challenges pertaining to students’ short attention spans, lesson preparation, and classroom management. Conducting a study on the professional identity of tutors in distance education, [45] found that discrepancies existed in the teaching facilities and resources and in actual and ideal roles of tutors as well as what the institution expected from them. The study recommended that training activities are to be put in place to enhance the professional identity of tutors. [46] also studied factors affecting the use of online assessment tools from the perspectives of 25 university students and three instructors on distance education. The result showed that clear instruction and multiple tools would contribute to the easy use of online assessment tools such as quizzes and exams. In support, [35] study mentioned challenges of use of online education as lack and unstable sources of internet connectivity and inadequate resources such as computer labs and accessories and technical support. Such challenges have an influence on the extent to which tutors utilise online learning practices for distance education delivery.

**2.8. Conceptual Model of the Study.** Based on the review, a conceptual model was, therefore, developed to guide this study. Figure 1, therefore, highlights the variables of the study and the relationship between the dependent and independent variables of this study. The position of the conceptual model of the study was that the availability of online gadgets (AOV) influenced the functionality of online gadgets (FOG) and online presentation method (OLPM). In addition to challenges, these variables (FOG, AOV, and OLPM) equally influenced online intention and subsequently lead to the usage of online facilitation. The model was based on the argument that functionality and challenges associated with online facilitation influenced the extent of use of online facilitation among facilitators as seen in Figure 1.

### 3. Research Methodology

**3.1. Data Collection.** The descriptive survey design from the quantitative approach was employed for this investigation. Out of a study population of 2,768 course facilitators from

TABLE 1: Cronbach’s alpha values of sections of the research instruments.

S/n	Variable	Cronbach’s alpha	N of items
1	The accessibility of online devices (AOV)	0.740	6
2	The capabilities of online devices (FOG)	0.756	6
3	Methods of online presentations (OLMP)	0.715	3
4	The value of online learning (USE)	0.779	10
5	Challenges with online education (CHL)	0.895	17
6	Online intention (OLI)	0.828	6
	Total/all variables	0.772	48

Source: Field Survey (2021).

study centers spread across the sixteen administrative areas of the nation, 529 were randomly selected. In comparison to the 338 proposed by [47, 48], the sample provided a greater representation of the study population at 19.11%. The respondents to the study instrument were sampled using multistage sampling approaches, such as stratified and simple random techniques.

**3.2. Measures.** A self-created questionnaire was utilized to gather the data, and the four possible responses were strongly agree, agree, disagree, and strongly disagree. There were two sections to the questionnaire. The demographic traits of the respondents were the subject of the first section, while the variables covered by the study hypotheses were the subject of the second section. A proven dependability Cronbach alpha score of 0.70 or higher indicated that the instrument was suitable for use. To evaluate the assumptions, partial least squares structural equation modeling (PLS-SEM) was used to examine the data [49–54]. Table 1 of the study provides specifics of Cronbach’s alpha values for the six distinct variables or parts of the instrument.

TABLE 2: Biodata.

Variables		Frequency	Percent
Designation	Tutor	487	92.1
	Coordinator	22	4.2
	Senior/lecturer teaching from UCC	20	3.7
	Total	529	100.0
Gender	Male	459	86.8
	Female	70	13.3
	Total	529	100.0
Tenure	Less than 1 year	33	6.2
	1-5 years	256	48.4
	6-10 years	163	30.8
	11 years and above	77	14.5
	Total	529	100.0
Type of programme taught	Education	271	51.2
	Business	131	24.8
	Maths and science	127	24.0
	Total	529	100.0

Source: Field Survey (2021).

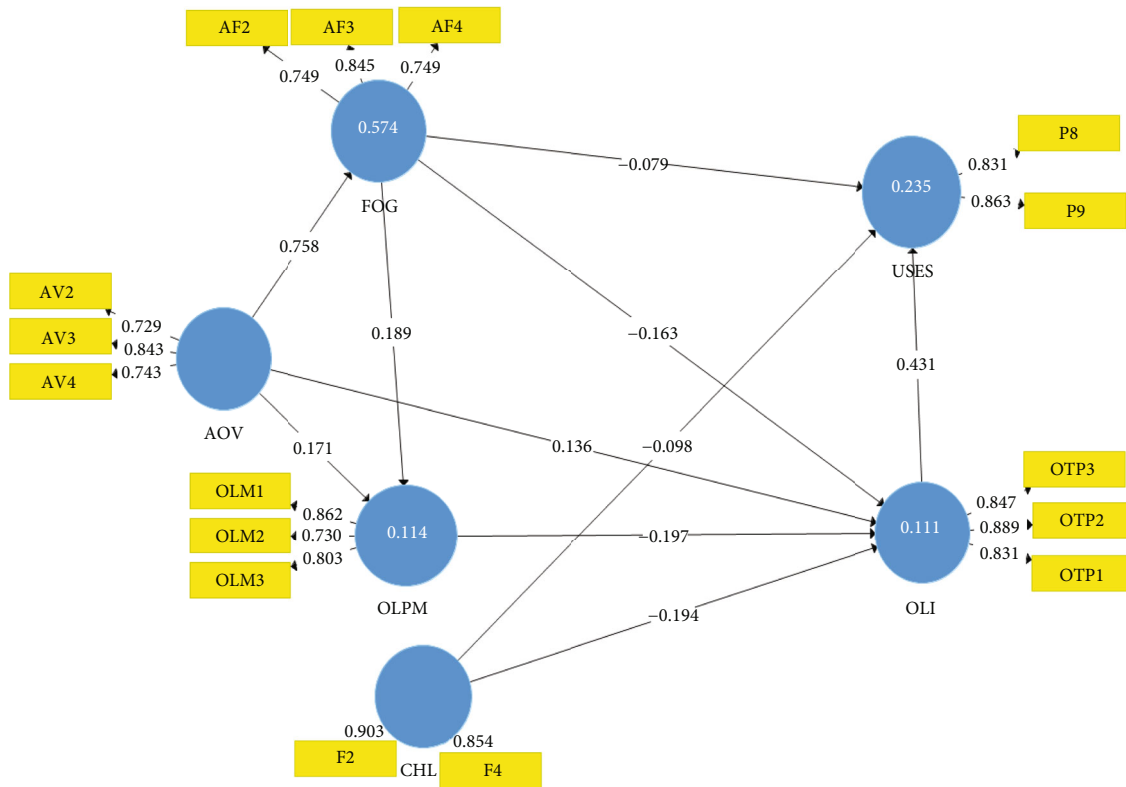


FIGURE 2: Confirmatory factor analysis. Source: Field Survey (2021).

## 4. Results

4.1. Biodata. The biodata of respondents in terms of tenure, gender, rank/designation, and program taught were the primary focus of the preliminary analyses of the findings. The

results for the biodata of the study’s respondents are shown in Table 2. According to the findings, the majority of respondents (86.8% of whom were men) held the status of tutor (92.1%). Most of the respondents also taught education courses (51.2%) followed by those who taught business

TABLE 3: Reliability and validity.

	Outer loading	Cronbach's alpha	rho_A	Composite reliability	Average variance extracted (AVE)
<i>FOG</i>					
AF2	0.749	0.700	0.683	0.825	0.612
AF3	0.845				
AF4	0.749				
<i>AOV</i>					
AV2	0.729	0.700	0.672	0.816	0.598
AV3	0.843				
AV4	0.743				
<i>CHL</i>					
F2	0.903	0.707	0.725	0.871	0.772
F4	0.854				
<i>OLPM</i>					
OLM1	0.862	0.724	0.759	0.842	0.640
OLM2	0.730				
OLM3	0.803				
<i>OLI</i>					
OTP1	0.831	0.818	0.823	0.891	0.732
OTP2	0.889				
OTP3	0.847				
<i>USES</i>					
P8	0.831	0.607	0.611	0.836	0.718
P9	0.863				

Source: Field Survey (2021).

courses (24.8%) and mathematics and science programmes (24.0%), respectively. Most respondents had taught on the distance education mode for 1-5 years (56.6%) with the rest teaching for six years and above (45.3%).

**4.2. Measurement Model.** The internal consistency measure of the model was initially estimated using the PLS technique for confirmatory factor analysis. The study's constructs, which can be seen in the reflective model shown in Figure 2, were measured individually. According to Figure 2, each item assessing the variables had a minimum loading of 0.70 or above, as recommended by [49].

**4.3. Internal Consistency Measure for the Analysis.** The PLS path model's internal consistency was measured in this study using four key indices: Cronbach's alpha, rho\_A, composite reliability, and average variance extracted (AVE) [49]. All of the variables' composite reliability values ranged from 0.816 to 0.891, their Cronbach's alpha values ranged from 0.662 to 0.818, and their rho\_A values ranged from 0.611 to 0.832, as shown by the results in Table 3. This indicated that every variable met the minimum cutoff of 0.70 that was suggested by [49, 50]. Additionally, the average variance extracted (AVE) values ranged from 0.598 to 0.772, exceeding the minimum value of 0.50 advised by [51], indicating that all model variables met the requirements for validity and reliability.

TABLE 4: Heterotrait-monotrait ratio (HTMT).

	AOV	CHL_	FOG	OLI	OLPM	USES
AOV	0					
CHL_	0.218	0				
FOG	1.128	0.256	0			
OLI	0.102	0.309	0.203	0		
OLPM	0.440	0.288	0.436	0.309	0	
USES	0.237	0.329	0.257	0.658	0.304	0

Source: Field Survey (2021).

**4.4. Discriminant Validity.** As suggested by [52], the heterotrait-monotrait ratio (HTMT) was used to test the discriminant validity of each variable in the study to ensure its uniqueness, and the results are shown in Table 4. All diagonal loadings for the same variable were zero, and the intervariable correlations were below the threshold of 0.85 [52], indicating that the PLS path model's discriminant validity was met.

**4.5. Multicollinearity.** The presence of multicollinearity, which could impair the validity of the results provided by the path significance test, was investigated using the variance inflated factors (VIF) as advised by [49]. According to [49, 50], reflecting models with VIF values less than 3.3 were likely to be multicollinearity-free models. Given that both the inner and

outer values were below the 3.3 limits, the results in Table 5 revealed that there were no multicollinearity problems.

**4.6. Structural Model and Hypothesis Testing.** According to the PLS bootstrap approach proposed in Figure 3, outcomes for the boot process pattern of five thousand samples are presented [49]. This was done to test for the significance of the hypothesised paths.

**4.7. Results of Path Analysis.** Table 6 displays the specific outcomes of the PLS bootstrapping sequence used to establish path significance. The variance in the dependent variable predicted by the independent variables was explained by the  $R^2$  values as shown in Table 6, which were supported by the modified  $R^2$  values [49]. As a result, the structural model could account for around 0.574 differences in online gadget functioning (FOG), 0.111 variances in online intention (OLI), 0.114 variances in online presentation techniques, and 0.235 variances in uses of online education (USE).

The importance of the study's variables in terms of evaluating the first hypothesis is shown in Table 6. The outcomes of the route analysis revealed that all 10 of the guiding hypotheses for this investigation had reached statistical significance. Accordingly, there was a statistically significant correlation between the accessibility of online gadgets (AOG) and functionality of online gadgets (FOG) at  $\beta=0.758$ ,  $t = 34.724$ , and  $p \leq 0.01$  and between the accessibility of online gadgets (AOG) and online intention (OLI) at  $\beta=0.136$ ,  $t = 2.967$ , and  $p \leq 0.01$ . Online gadget accessibility (AOG) and the online presentation technique (OLPM) also had a strong favorable connection ( $\beta = 0.171$ ,  $t = 3.235$ ,  $p \leq 0.01$ ).

Additionally, challenges associated with online learning (CHL) significantly related with online intention at  $\beta = -0.194$ ,  $t = 5.553$ , and  $p \leq 0.000$ , as well as challenges associated with online learning (CHL) and uses of online facilitation ( $\beta = -0.098$ ,  $t = 2.889$ ,  $p \leq 0.01$ ). Furthermore, online gadgets (FOG) also significantly related with online intention (OLI) at  $\beta = 0.163$ ,  $t = 3.613$ , and  $p \leq 0.01$ ; functionality of online gadgets (FOG) and online presentation method (OLPM) at  $\beta = 0.189$ ,  $t = 3.554$ , and  $p \leq 0.01$ ; and functionality of online gadgets (FOG) and online uses (USES) at  $\beta = 0.079$ ,  $t = 2.526$ , and  $p \leq 0.01$ . More so, it is important to note that online intention (OLI) is significantly related to the use of online education (USES) at  $\beta = 0.431$ ,  $t = 13.127$ ,  $p \leq 0.01$ , as well as online presentation method (OLPM) and online intention (OLI) at  $\beta = 0.197$ ,  $t = 6.204$ , and  $p \leq 0.01$ .

Cohen [55] suggested that effect sizes between 0.02 and 0.662 were appropriate, and this notion was supported by the effect sizes observed for each of the significant routes. The confidence intervals for the variables for all significant pathways were unidimensional, which also demonstrated genuine and trustworthy significance. The 95% confidence level and a small error margin of only 5%, as evidenced by the statistics acquired from the upper and lower bounds, further bolstered the significant results.

**4.8. Importance Performance Map Analysis (IPMA).** To further highlight the PLS estimations of the connections between the structural model variables, PLS importance per-

TABLE 5: Multicollinearity.

(a)						
Inner VIF values						
	AOV	CHL_	FOG	OLI	OLPM	USES
AOV			1.000	2.383	2.350	
CHL_				1.065		1.088
FOG				2.405	2.350	1.049
OLI						1.079
OLPM				1.162		
USES						

(b)		
Outer VIF values		
Items	VIF values	
AF2	1.273	
AF3	1.570	
AF4	1.345	
AV2	1.221	
AV3	1.471	
AV4	1.323	
F2	1.427	
F4	1.427	
OLM1	1.507	
OLM2	1.398	
OLM3	1.392	
OTP1	1.524	
OTP2	2.436	
OTP3	2.165	
P8	1.235	
P9	1.235	

Source: Field Survey (2021).

formance map analysis (IPMA) was carried out. The IPMA provided more details about the performance and applicability of each latent variable in the model [39]. Consequently, the IPMA leaned on the unstandardized effects to enable a "ceteris paribus" interpretation of the influence of preceding constructs on the target construct. [43] proposed that the overall impacts were the sum of the direct and indirect effects.

This meant that the amount of the total unstandardized effect increased the performance of the target construct when the performance of a specific predecessor construct improved. Thus, for each of the two main dependent constructs of online intention (OLI) and uses of online education (USES), the PLS IPMA analysis was performed to evaluate the relevance and significance of the relationships revealed by the model. The results can both be referred to in Tables 7 and 8.

**4.9. Performance Performance Map Analysis for Online Intention (OLI).** Challenges (CHL) had the strongest and greatest value in terms of performance (45.26), according to an analysis of the four predicting variables' performance, as shown in Table 7. However, CHL was not the most important

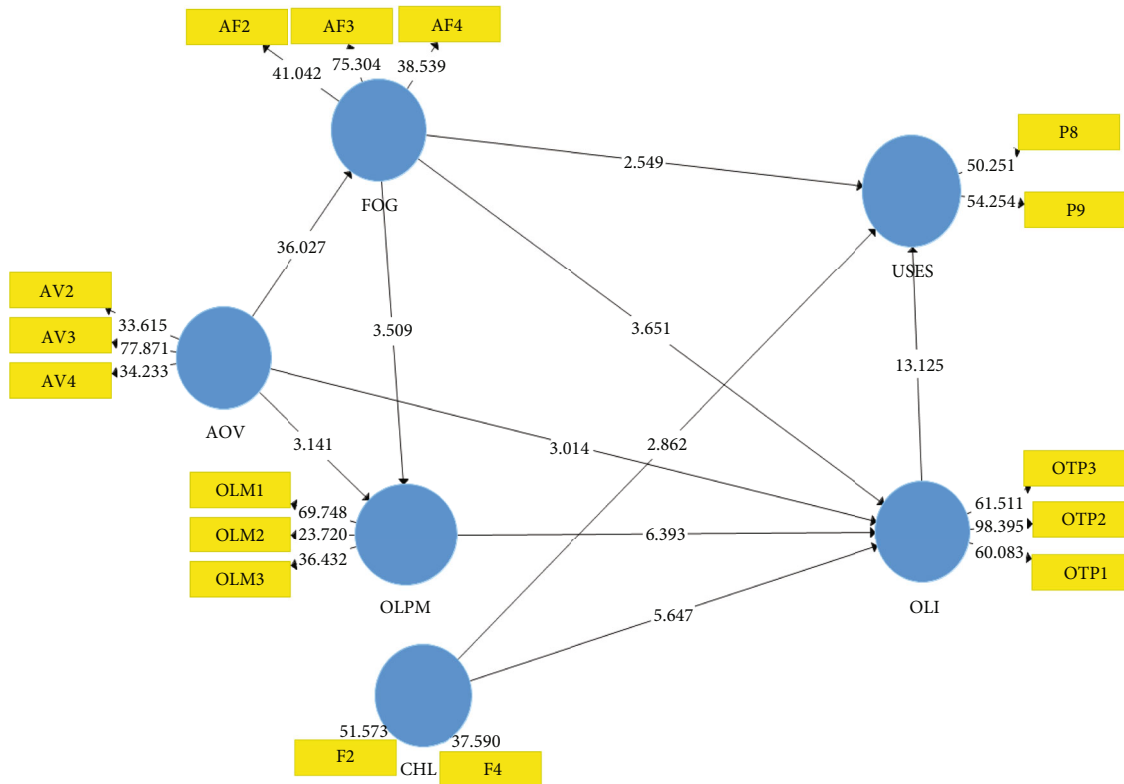


FIGURE 3: Bootstrapping results for path analysis. Source: Field Survey (2021).

factor in the model for predicting online intention (OLI), as its total effect (importance) had the second-lowest value at 0.190. The two most important predictors of online intention among distance learners in the model were rather a functionality of online gadgets (FOG) of 0.219 and online presentation methods (OLPM) of 0.250 as also depicted in Figure 4.

4.10. *Importance Performance Map Analysis for Uses of Online Education (USES).* The results for PLS IPMA for the uses of online education for distance education facilitators suggested that out of the three predictors of the uses of online education, challenges (CHL) had the strongest performance with an index value of 45.26.

However, CHL was the least important variable with a total effect (importance) of 0.186. Online intention (OLI) rather emerged as the most important variable in predicting online usage with a total effect (importance) of 0.452. The importance of online intention in predicting the uses of online education was equally supported in Figure 5.

4.11. *Graphical Representation of the PLS IPMA Path Results.* The PLS route model for IPMA was implemented, and the outcomes are shown in Figure 6 as a graphical representation [53, 54, 56, 57]. The efficacy scores for every latent variable extracted from the IPMA were displayed, together with the  $R^2$  coefficients of the external latent variables given in the PLS path model. The unstandardized and recalled outside weights of the measuring models (formative and reflective) were highlighted by the IPMA results

rather than the standardized outer loading or weights [58–60]. Thus, the findings of the beta values shown in the outer model of Figure 6 in this study demonstrated each item’s contribution to the construct rather than the loading. Additionally, the inner values rather than the overall variance explained determined the performance values of the constructs in each individual construct in relation to the endogenous variable [58–60].

### 5. Discussion and Implications

The study revealed that a significant relationship existed between the availability of online gadgets and the functionality of online gadgets in distance education. Availability and functionality of the online tools among facilitators serve as a launchpad or foundation for starting online facilitation for undergraduate distance students. The findings were in corroboration with the findings of [25] that availability of online facilities was a catalyst for the smooth take-off of an online facilitation intention. The findings also agreed with the findings of [28] that effective take-off of online teaching is contingent upon the preparedness and availability of online tools.

The availability of online gadgets was also very relevant for online intention among the respondents. That meant that facilitators should have the required online tools to be able to develop the needed online intentions. Thus, a percentage increase in the provision of online tools among facilitators would result in the same percentage increase in online intention among facilitators of online education.



TABLE 6: Path significance table.

(a)

Variables	R-squared	Adjusted R <sup>2</sup>
FOG	0.574	0.574
OLI	0.111	0.108
OLPM	0.114	0.113
USES	0.235	0.233

(b)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	p values	Confidence interval		f <sup>2</sup>
						2.5%	97.5%	
1. AOV- > FOG	0.758	0.759	0.022	34.724	p ≤ 0.01	0.715	0.802	1.350
2. AOV- > OLI	0.136	0.138	0.046	2.967	p ≤ 0.01	0.051	0.229	0.009
3. AOV- > OLPM	0.171	0.175	0.053	3.235	p ≤ 0.01	0.071	0.278	0.014
4. CHL_- > OLI	-0.194	-0.194	0.035	5.553	p ≤ 0.01	-0.263	-0.125	0.040
5. CHL_- > USES	-0.098	-0.098	0.034	2.889	p ≤ 0.01	-0.164	-0.031	0.011
6. FOG- > OLI	0.163	0.165	0.045	3.613	p ≤ 0.01	0.255	0.080	0.012
7. FOG- > OLPM	0.189	0.188	0.053	3.554	p ≤ 0.01	0.087	0.295	0.017
8. FOG- > USES	0.079	0.078	0.031	2.526	p ≤ 0.01	0.138	0.016	0.008
9. OLI- > USES	0.431	0.430	0.033	13.127	p ≤ 0.01	0.365	0.492	0.225
10. OLPM- > OLI	0.197	0.198	0.032	6.204	p ≤ 0.01	0.259	0.135	0.038

Source: Field Survey (2021); \*\*p < 0.000 and \*p < 0.05 are supported.

TABLE 7: Performance index values and total effects (OLI).

	Total effect (importance)	Index values (performance)
AOV	0.056	29.683
CHL_	0.190	45.263
FOG	0.219	31.921
OLPM	0.250	15.781

Source: Field Survey (2021).

TABLE 8: Importance performance index values and total effects (USES).

	Total effect (importance)	Index values (performance)
CHL_	0.186	45.263
FOG	0.190	31.921
OLI	0.452	39.013

Source: Field Survey (2021).

The results suggested that to positively influence an online intention among facilitators on the distance education programmes, it was dependent on the ability of management of distance education institutions to either provide these tutors with online tools or assist them in acquiring one. This finding concurred with that of [33, 34] who found that positive intentions of users of online educational facilities were important requirements of the sustainability of the programmes.

The study further established that the availability of online tools influenced the online presentation methods, which suggested that facilitators' ability to participate in either synchronous or asynchronous online teaching depended on the type of online gadgets that were available to them. This was because some online tools were best used for asynchronous facilitation, while others were appropriate for synchronous online education [25, 34]. Thus, the availability of online tools among facilitators would influence their ability to participate in the video of voiceover Power-Point (PPT) presentations and also participate effectively in

live online lectures through the university's learning management system, such as Zoom or Google Meet, and audio-recorded lectures [28].

Meanwhile, online education was not without challenges. This study has established challenges that negatively influenced online intentions and online uses among the respondents. These findings suggested that any percentage change or increase in challenges associated with online facilitation would attract a corresponding decrease in online intention and uses of online facilitation among respondents. Thus, challenges with online facilitation among facilitators can reduce online intention and perceived benefits or uses attached to online education. This meant that if perceived challenges were not dealt with, it would be very daunting to get the cooperation of facilitators in implementing an online education. The findings agreed with the findings of [35] who posited that online challenges reduced online intention and uses of online education among participants.

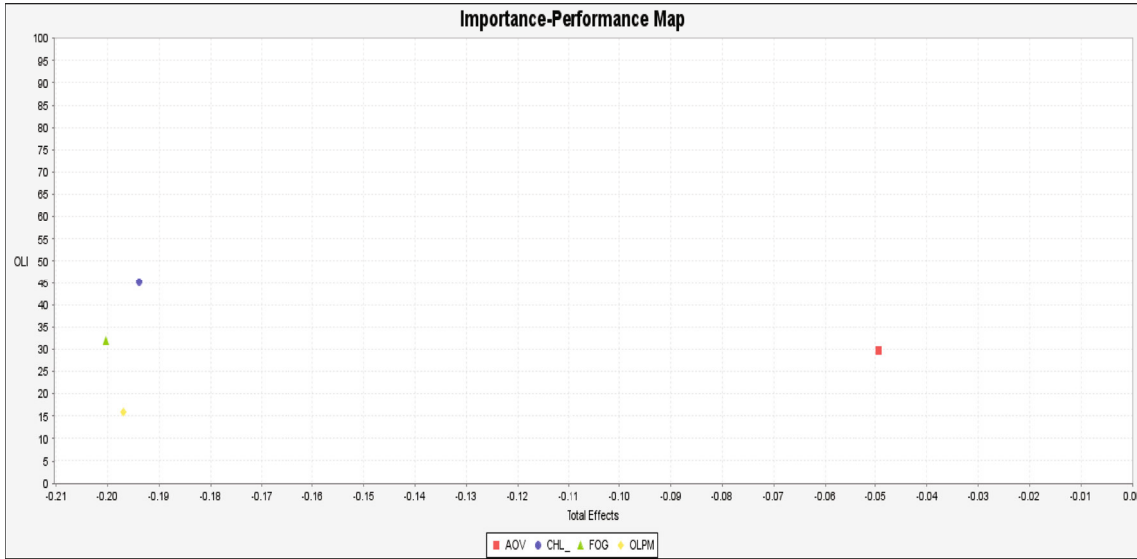


FIGURE 4: Importance and performance map of OLI. Source: Field Survey (2021).

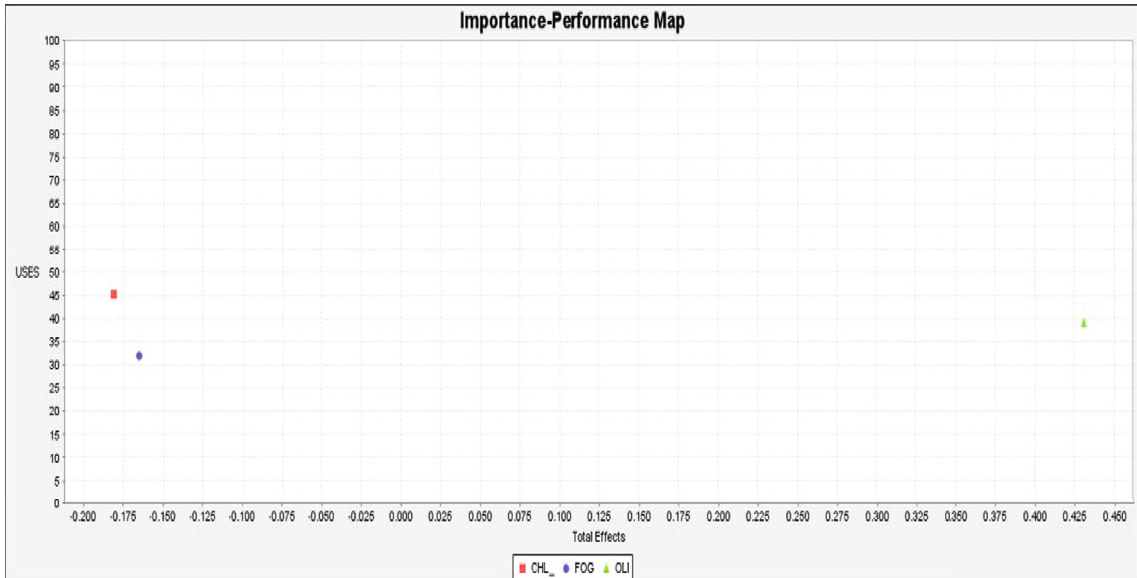


FIGURE 5: Importance and performance map of USES.

It was not enough for facilitators to be provided with online tools as found for the first three hypotheses of the study. Rather, the functionality of these gadgets was key for a successful online education, as confirmed by the sixth, seventh, and eighth hypotheses of this study. The functionality of online gadgets, thus, took the earlier results on availability to another level of relevance. Thus, though the availability of online tools influenced online intentions, the effect became more significant or potent when the available online tools were functioning properly as confirmed by studies of [31] as well as [23].

Additionally, the relationship between the available online gadget and online presentation method (Hypothesis 3) was heightened or became more significant and potent under functionality and online presentation method (Hypothesis 7). The results meant that the available online

tools need to be functional to adduce facilitators’ online intention and online presentation methods properly. Furthermore, the relevance of functionality of online gadgets goes beyond online intention and online presentation methods. Functionality has been established to have a proximate connection with online education among facilitators on the distance education programmes. The finding of this study, therefore, corroborates that of [46] that functionality influenced perceived online uses among facilitators.

The findings for hypothesis nine which posited that online intention significantly influenced online education suggested that until facilitators developed positive online intentions, online education would be difficult to achieve. Thus, any percentage increase in activities that would increase online intentions among facilitators would in turn adduce the same percentage increase in the possibility that

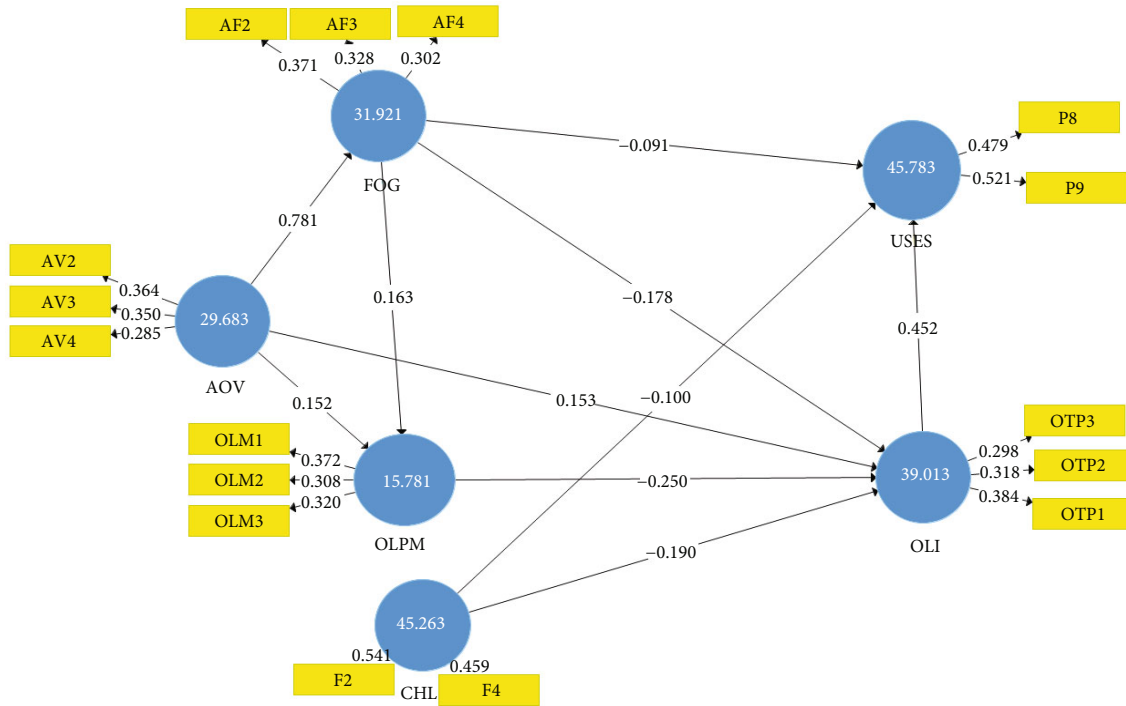


FIGURE 6: IMPA results for the path model. Source: Field Survey (2021).

facilitators would use or participate in online education. This result was in line with the findings of [36] that online intention is related positively to online uses.

Lastly, the study found that the online presentation methods also significantly influenced online intentions. This finding supported the preceding findings about the applicability of accessibility and functionality for online presentation techniques (see Hypotheses 3 and 7). The findings indicated that online goals were significantly correlated with the accessibility of online tools, their usefulness, and online presentation techniques. Thus, the more positively facilitators perceived the kind of online facilitation methods used, the more positively inclined would the facilitators be towards an online education. The results corroborate the findings of [31] that the online presentation method is significantly related to online intentions among course facilitators.

It stands to reason, therefore, that facilitators could develop a positive attitude towards synchronous or asynchronous online presentation methods if they had the necessary skills and competencies to navigate the online teaching platform and learning management systems of distance education institutions. These required skills or competence for a facilitator could be personally and deliberately acquired or trained for by the institutions providing distance education. The findings were in tandem with that [24, 42], who asserted that training was required to equip facilitators to appreciate or develop positive online intentions.

**5.1. Theoretical Implication.** The findings of this study had some theoretical implications as far as distance education is concerned. The theory of technology acceptance model pro-

vided a theoretical base for the study. The relevance of the TAM for the success of online learning as enshrined in the theory was upheld by the outcome of this study. The TAM determined that if ICT infrastructure, such as online tools and gadgets (computers and laptops), which indicated the availability of online gadgets, are simple to use, online learning would be successful. The teaching and learning process may be seen positively or negatively by facilitators when it comes to online learning. As a result, course facilitators' intentions to engage in online learning may be influenced by their assessments of how effective the technology will be for their instruction, the accessibility and usefulness of online tools, and their own abilities to engage in productive online learning.

**5.2. Practical Implications.** The findings of this study have implications for human resource managers and curriculum developers (managers) of distance education in general. The relevance of availability and functionality of online gadgets for delivering distance education suggested that managers of distance education should provide support (financial or hire purchase agreement) for facilitators to acquire online gadgets to participate in distance learning. Secondly, human resource managers in distance education institutions should devise training and development programmes to enhance the competencies of facilitators to participate in online distance learning. Thirdly, curriculum developers (managers) in distance education institutions should also design content in a way that would commiserate with the technical infrastructure (internet facilities) to enable course facilitators to participate in hassle-free online learning.

**5.3. Policy Implications.** The outcomes of the performance analysis of the study's factors have political repercussions. The study revealed that the usefulness/use of online education among stakeholders like facilitators was key for online education, especially from developing economies' perspectives. Thus, managers needed to pay attention to important factors such as (in order of importance) online intention among stakeholders and the functionality of online gadgets (not just their existence) and address all challenges and fears among users of online devices as part of policy development.

## 6. Limitations and Future Research Directions

Because this study only included facilitators for one institution's remote learning programs, it is prudent to use caution when generalizing the results. The study could have used a follow-up qualitative design to interview course facilitators for an in-depth finding to support the quantitative results that emerged from this study. Future research should, it was advised, concentrate on other important stakeholders such as administrators and module writers for the distance learning programs. In addition, since this study was entirely quantitative, future research may take a qualitative or mixed-methods approach. The sample could also be broadened to include other colleges and universities that offer distance learning.

## 7. Conclusions

This study examined course facilitators' perspectives on online learning education within the context of distance education. It may be said that the accessibility of online tools had a big impact on how well they worked, what they were intended for, and how they were presented. Furthermore, the functionality of online gadgets is significantly related positively to online presentation methods, online intentions, and uses associated with online education. Online intentions had a significant and positive relationship with online education, and online presentation methods were also significantly related to online intentions. That notwithstanding, challenges were found to have a negative but significant relationship with online intentions and uses associated with online education.

The aforementioned findings called for the management of institutions offering distant tertiary education in underdeveloped economies to take immediate, specific action. The management of distance education institutions was advised to either supply or aid course facilitators in purchasing online devices in order for them to be able to participate in online education effectively.

Course facilitators on distance education programmes should be trained to acquire the basic skills in online facilitation and how to use the various online presentation methods to teach on the distance mode. This can be done through workshops and seminars or by ensuring that facilitators possess these requisite skills for using the online presentation methods. Additionally, it was recommended that the management of distance education institutions partner with the government to ensure continuous provision of internet facilities for facilitators on distance programmes.

## Data Availability

The datasets analyzed during the current study are available from the corresponding author on reasonable request.

## Ethical Approval

The Office of the Provost of the College of Distance Education granted permission for this study to be carried out on behalf of the Institutional Review Board of the University of Cape Coast. The permission was granted on 15/10/2020 in a letter with reference number CoDE/ASSP/R.1/VL.I/3.

## Consent

This study was carried out during the locked-down period of the COVID-19 pandemic when most of the respondents in this study were at home and written consent could not be obtained. For this reason, the study made use of a Google form questionnaire (the approved questionnaire was converted into a Google form questionnaire) forwarded to respondents individually, and these respondents had the freedom to either participate in the study by responding to the Google questionnaire or not since the handset/mobile phone was their own property.

## Conflicts of Interest

The authors of this paper have no competing interests.

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