

A Predicting Analysis of Academic Staff's Motivation to Teach Online in a Nigerian University

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Abstract: This study examined the predictors of academic staff motivation for online teaching in a Nigerian University. Theory of Planned Behaviour served as the conceptual foundation for the study. A survey design was adopted and a total of one hundred and nine-five (195) academic staff participated in the study from a university that was purposefully chosen for the study. A questionnaire tagged 'Academic Staff's Motivation for Online Teaching Survey (SMOTS)' adapted from Chi (2015) was used for data collection. The questionnaire consisted of six domains - demographics, online teaching consideration, perception of online teaching, motivation for online teaching concerning resources, motivation for online teaching with respect to external factors and general motivation to teach online. Data were analyzed using percentages and frequency distribution, mean, standard deviation, multiple regression analysis, Pearson Correlation, T-test, One-Way Analysis of Variance (ANOVA) and Multivariate Analysis of Variance (MANOVA). Results of the study revealed that the perception of online teaching and academic staff's motivation for online teaching regarding external factors had a positive significant contribution to the general motivation of academic staff to teach online. Also, age was found to have a significant influence on academic staff's motivation to teach online indicators (perception of teaching online, motivation to teach online regarding resources, and motivation to teach online regarding external factors). Hence, it was concluded that adequate consideration must be given to these identified contributing factors to motivation for online teaching among academic staff by those who design and implement online teaching initiatives in the university to sustain academic staff's interest in online teaching over time. Equally, policy decisions on online teaching in the university should be based on clear objectives for the generality of the academic staff irrespective of age, gender, marital status, and faculty rank.

Keywords: Motivation; Online Teaching; Academic Staff; Nigerian Universities; Predicting Analysis

1. Introduction

The advent of the internet in the second half of the 20th century has facilitated the world becoming a global village and has significantly affected how people communicate as well as how information is accessed and shared. The Internet has revolutionized the concept of traditional education as being physically present in the four walls of the classroom is no longer the only learning option anymore. Access to quality education has now been made possible anywhere and whenever one has access to the internet and this has led to the concept of online education. Online education refers to a form of education that is delivered and administered synchronously or asynchronously using the internet (Schinkten, 2016). Online teaching and learning provide a viable and exciting method for instructional delivery to learners as a result of the flexibility of time and location inherent in the approach. This flexibility provides an alternative and innovative learning environment that gives learning a new relevance to contemporary society compared with traditional education.

Due to documented evidence in support of online teaching to increase access to education especially higher education and the fact that it brings greater flexibility into the instructional space, Nigerian universities like their counterpart in other countries of the world have embarked on a rigorous initiative to utilize the internet for effective online education and for cognate skills development required to make socio-economic contributions in the world of knowledge (Eze, Chinedu-Eze and Bello, 2018). However, these efforts are hampered by the poor state of infrastructure in the universities, lack of basic ICT skills among academic staff and students, limited expertise in instructional design, inadequate technical support staff, irregular power supply in the country, internet connectivity cost, abysmal university management commitment to interactive knowledge environment and resistance to online teaching due to the required role change necessitated by the move from the traditional

teaching approach to technology-based teaching as well as lack of commensurate reward system that can motivate academic staff to adopt online teaching (Oye, Salleh and Iahad, 2011; Afolabi, Adeyeye and Ayo, 2014; Fakinlede et al., 2014).

Considering the emergence of coronavirus (COVID-19) in China and its spread to the entire world leaving no continent untouched, there are rising concerns among nations of the world about measures to curb the rapid spread of the virus. Several countries of the world ordered the closure of academic activities concerning traditional face-to-face classes as a part of policy actions to curb the spread of the virus. While developed countries of the world quickly shifted instruction to online learning space during the lockdown period of the coronavirus as transition to online teaching is somewhat smoother and less demanding to them, developing nations educational system collapsed based on no existing structure that can facilitate online teaching (Saeed, 2020). This, therefore, exposed the emerging vulnerabilities in education systems in developing nations (Ali, 2020). With the need to continue educational activities in Nigerian universities as a result of the ease in COVID-19 lockdown, different policy initiatives are being launched in universities across the country to engage in online teaching for the safe return of students to learning activities and to limit the risk of the virus transmission. However, there is ambiguity on the readiness and preparedness of academic staff to adopt the online teaching approach as well as factors that can predict and influence their motivation for teaching online (Nwagwu, 2019). Therefore, understanding factors that predict academic staff motivation for online teaching will help facilitate the implementation of the new and expansion of current online teaching initiatives in Nigerian universities.

The university chosen for this study is the Nigeria's oldest and one of the prestigious universities in the country. The university is located about five miles from the centre of the major city of Ibadan, Southwest, Nigeria. Undergraduate and postgraduate academic programmes are offered across various faculties and institutes in the university. Due to the need to take a precautionary measure to control the ravaging COVID-19 infection, the university ordered a halt in academic activities till further notice and directed students to vacate the campus with effect from Friday, 20 March 2020 (UI Bulletin, 2020). Though the university still engages in skeletal activities, major activities were moved to online space to avoid mass gathering. Also, to intellectually engage students during the period of the pandemic lockdown, learning resources and information on general physical wellness was uploaded for students to interact with, thus, preparing them for the online mode of instruction (UI, 2020a). Before the emergence of the pandemic, the university had been planning and increasingly moving towards online learning. This was demonstrated by the training of over 400 academic staff under the Pedagogical Leadership for Africa (PEDAL) project. This project was led by the Partnership for African Social Governance Research (PASGR), Kenya, with financial support from the Department for International Development (DFID), UK. The core objective of the PEDAL project was to revolutionise teaching and at the heart of it is technology-enhanced teaching and learning. Equally, the university had implemented the complete Result Management System (RMS) and hoping to have Learning Management System. As a result of the industrial action embarked upon by the Academic Staff Union of Universities (ASUU) in March 2020, the preparations for migration to online instructional delivery was affected and became complicated with the COVID-19 pandemic (UI, 2020b). In the pandemic and post-pandemic era, online teaching is imminent for continuity of learning and fortification of the university against future emergencies. However, all indication points to the fact that the university's effort has mainly been directed at preparing students for online instruction and increasing academic staff's capacity to effectively utilize online platforms for instruction delivery. Little attention is given to academic staff's motivation to teach online without recognising that they hitherto have always taught on the face-to-face mode and shifting instruction to online mode will require understanding what could sustain their interest in it to be effective over time.

Worldwide, many studies have shown slightly different results on predictors of motivation to teach online among academic staff and this is mostly influenced by study population and environment (Hiltz, Kim and Shea, 2007; Fish and Gill, 2009; Osika, Johnson and Buteau, 2009; Gautreau, 2011; Casdorff, 2014; Mohamad, Salleh and Salam, 2015; Chi, 2015; Mohmedsali, Kadyamatim and Madzvamuse, 2017; Alsuwailam, 2018; Schifter, 2019; Ibrahim and Nat, 2019; Shea, 2019; Martin, Budhrani and Wang, 2019). Hiltz, Kim and Shea (2007) identified flexibility based on the ability to teach anytime and anywhere, personal interaction, and community building supported by online teaching and the technical and creative challenges inherent in the approach as leading motivating factors among faculty members to teach online. Also, Casdorff (2014) found performance expectancy, effort expectancy, social influence, motivation orientation to teach online, motivation to teach face-to-face, sex, and level of innovation to significantly predict academic staff behavioural intent to teach online. Equally, Chi (2015) found a statistically significant relationship between faculty perceptions of technology and

online teaching and faculty motivation to teach online. Other studies recorded somewhat different results on the influence of demographic characteristics of academic staff on their motivation to teach online (Knabe, 2012; Alsuwailam, 2018; Shea, 2019; Martin, Budhrani and Wang, 2019). For instance, while Shea (2019) and Martin, Budhrani and Wang (2019) found differences based on demographic factors among faculty members to teach online, Knabe, (2012) and Alsuwailam, (2018) found no relationship between demographic variables and intention to teach online.

Most of the previous studies identified above have looked at only a fraction of possible predicting factors for online teaching among academic staff mostly from the perspective of motivators and demotivators for online teaching within a particular institution. Also, none of these studies has reflected the peculiarities of academic staff in Nigerian universities. Response to predicting factors of motivation to teach online from academic staff may likely vary based on institutional culture and reality, and past innovation experience (Schifter, 2019). Studies are therefore required to understand the predictors of academic staff's motivation for online teaching in Nigerian universities and how socio-demographic variables affect certain motivation for online teaching indicators among academic staff in Nigerian universities. This study, therefore, takes a bold step at understanding factors that may potentially predict academic staff's motivation to teach online using a university's academic staff in the country. This is done to gain insight and provide evidence on the level of association between some factors and academic staff's motivation to teach online. This might help influence positively, university's policy response and strategies to make online learning adoption and use among academic staff more exciting and sustainable. The study is expected to add to the discourse on academic staff motivation and other associated factors as well as serve as a reference point for future studies.

Generally, the study aims to examine the individual and collective effect of online teaching consideration, perception of teaching online, motivation to teach online regarding resources and motivation to teach online regarding external factors (Independent Variables) on academic staff's general motivation to teach online (Dependent Variable). Specifically, the study attempts to identify if differences exist in the motivation for online teaching indicators (perception of teaching online, motivation to teach online regarding resources and motivation to teach online regarding external factors) relying on four socio-demographic characteristics (age, gender, marital status, and academic rank). Equally, the study answers the question: do age, gender, marital status, and academic rank interactively influence academic staff's motivation for online teaching indicators?

2. Theoretical framework – Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) is an offshoot of the Theory of Reasoned Action (TRA) propounded by Fishbein and Ajzen (1975) and Ajzen and Fishbein (2002) to predict and understand people's overt behaviours that are under their volitional control. The general assumption of TRA is based on the notion that people make systematic use of available information based on their rational sense. In other words, people's behaviour is not thoughtless, it's a product of critical understanding of the implications of their actions before engaging or refraining from such behaviour. Human actions are better understood within the framework of the causal chain (Kan and Fabrigar, 2017). Based on likely unrealistic assumption that behaviours are under one's volitional control in some contexts as a result of behavioural variations across different situations, Ajzen (2011) proposed the addition of the construct of 'perceived behavioural control' to the TRA which seeks to understand people's degree of control over a behaviour. This led to the formation of TPB and thus becomes a better construct to predict specific behaviours and/or to plan interventions to influence behaviour in various domains.

In the TPB, behaviours can be immediately determined through behavioural intentions and this consist of three basic elements

1. Attitude: This refers to the extent to which the target behaviour is considered desirable or otherwise and this can be measured either directly or indirectly. The direct measurement could take the form of cognitive (is it good or bad?) or affective (is it pleasant or not?) while the indirect measurement upshots from the juxtaposition of the beliefs about consequences and estimation of the value of those consequences of the behaviour.
2. Subjective norms: This relates to the social judgement associated with the target behaviour. It is the perceived social pressure to either engage or not in behaviour. Measuring subjective behaviour directly will require considering descriptive norm (assumed behaviour of people's close associate's likelihood of adopting the behaviour. Close associate includes friends, relatives colleagues etc.), and injunctive norm (estimating the expectation of the close associate regarding the adoption of the behaviour or not).

Indirect measurement of the subjective norm can be obtained through the connection between the belief in relevant persons' opinions and the inherent motivation for considering such opinions.

3. Perceived behavioural control: this refers to personal perception of one's control over the target behaviour concerning adopting such behaviour. Perceived self-efficacy and self-attributed behavioural control are the main information needed to measure perceived behavioural control directly while the indirect measurement takes the form of juxtaposing factors likely to either enhance or inhibit the behaviour adoption and the estimation of the intensity of the effect of those factors (Verpooten, et al., 2020).

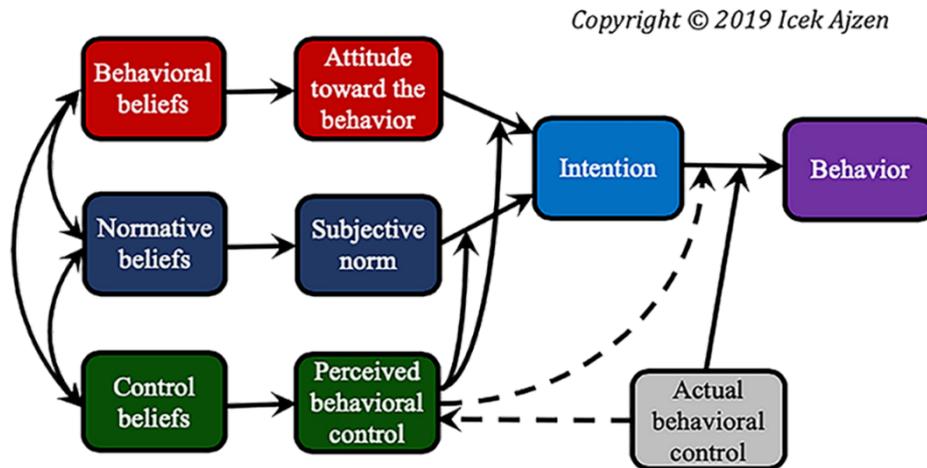


Figure 1: Synoptic representation of the Theory of Planned Behaviour with background factors (Reproduced with permission from Ajzen, 2019)

These three elements are critical predictors of intention and can be strongly influenced by context and experience. The context in this sense refers to circumstances that form the settings for the behaviour to be adopted while experience relates to prior knowledge or understanding of the behaviour. It was thus suggested that careful consideration of these factors especially understanding beliefs for behaviour from a target population and context and the possibility of adoption of behaviour in the past could affect future adoption of same, may help understand the target behaviour (Verpooten, et al., 2020). This study considers these factors as it is particularly relevant based on the belief that there are continuums in technology adoption and there is a cumulative impact of experience on the motivation to teach online. Also, demographic factors have been included in this study as a possible influential predictor of academic staff's motivation to teach online.

Several studies have used TPB as a theoretical framework in explaining behaviour related to technology adoption and motivation for e-learning as well as the interactive effect of demographic factors on technology adoption decisions (Morris and Venkatesh, 2000; Lee, Cerreto and Lee, 2010; Knabe, 2012; Keong, Albadry and Raad, 2014; Chi, 2015; Hadadgar, et al., 2016; Chu and Chen, 2016; Tao, et al., 2019; Verpoorten, et al., 2020; Ngafeeson and Gautam, 2021). For instance, Lee, Cerreto and Lee (2010) investigated teachers' intention to utilize a specific technology in a specific way using TPB. The primary objective of their study was to determine the direct and indirect factors that influence teachers' intentions to utilize technology. The result of the study showed that attitude, subjective norm, and perceived behavioural intention all served as significant antecedents to teachers' intentions to use technology but attitude had more than twice the influence of subjective norm and more than three times the influence of perceived behavioural intentions on the teachers' intentions to use technology. Similarly, a study conducted by Verpoorten, et al. (2020) to understand faculty perspective on blended learning in higher education through the lens of TPB. The result of the study indicates that attitude towards blended learning, subjective norm and perceived control explained 73% of faculty members' intention to use blended designs for teaching purposes.

Drawing lessons from the previous studies, this study found the relevance of TPB as an important predictor of motivation to teach online among academic staff based on the interplay of online teaching consideration, perception of teaching online, motivation to teach online regarding resources and motivation to teach online regarding external factors as well as academic staff's demographic characteristics. Specifically, this study adopts

TPB to determine likely predicting factors of motivation to teach online among academic staff of a university and which influencing factors are likely to work as an incentive for academic staff to adopt online teaching.

3. Methods and materials

3.1 Participants

A survey design was adopted where a total of one hundred and nine-five (195) academic staff randomly selected from various academic faculties and units in a university in Nigeria completed the survey. The university was purposively selected and the choice was based on being Nigeria's premier university and it has similar characteristics known with other universities in the country. A review of the socio-demographic distribution of the respondents across academic faculties and units indicate that majority of the respondent (74.4%) are within the 41-60 years age group while males accounted for more than half of the respondent. Almost all (94.4%) were married. The rank revealed that we have a more senior cadre of academic staff than junior cadre. Table 1 presents the socio-demographic distribution of respondents recruited for the study

Table 1: Socio-demographic distribution of respondents

Variable	Freq.	Percentage
Age		
20-40	35	17.9
41-60	145	74.4
61 & above	15	7.7
Gender		
Male	128	65.6
Female	67	34.4
Marital Status		
Single	6	3.1
Married	184	94.4
Divorced/Widowed	5	2.6
Faculty Rank		
Assistant Lecturer	16	8.2
Lecturer II	24	12.3
Lecturer I	53	27.2
Senior Lecturer	45	23.1
Reader/ Ass. Professor	23	11.8
Professor	34	17.4

3.2 Instrument

A structured questionnaire tagged 'Academic Staff's Motivation for Online Teaching Survey (SMOTS)' was the main instrument used for this study. The questionnaire consisted of six domains - demographics, online teaching consideration, perception of online teaching, motivation for online teaching concerning resources, motivation for online teaching with respect to external factors and general motivation to teach online. The demographic section includes age, gender, marital status, and faculty rank in the university. The online teaching consideration consists of one item in the Likert scale (Never, rarely, sometimes, most of the time and always) seeking to understand academic staff' frequency of considering teaching online. The perception of online teaching domain is a ten (10) items scale seeking academic staff's level of agreement (strongly disagree, disagree, neutral, agree and strongly disagree) with questions relating to their perceptions of teaching online (take less time than face-to-face classes, reach new audiences, flexibility for me, diversify programme offerings, improve my teaching, development of new ideas, professional development, motivation to learn new technology and intellectual challenge). Motivation for online teaching concerning resources is a five Likert scale (strongly disagree, disagree, neutral, agree and strongly disagree) that consists of 16 item questions on resources (onsite design help, group training, individual training, coaching, support group, own decision, own format, administrative support, technical support, time off, course release, stipends, grants, recognition, endorsement and promotion) that could motivate academic staff for online teaching. On the other hand, motivation for online teaching with respect to external factors consist of six (6) items (colleague adaptation, enrolment, programme priority, enhance student skills, institutional expectation and open to new technology for teaching) in a five (5) Likert scale (strongly disagree, disagree, neutral, agree and strongly disagree). While the general motivation to teach online consist of an item in a five Likert scale (strongly disagree, disagree, neutral, agree and strongly disagree) designed to measure the general feeling of motivation to teach online among the academic staff. Majorly,

SMOTS items were adapted from the "Readiness to Teach Online Scale" developed by Chi (2015). The justification for its adaptation was based on its close relevance to the objective of this study as it captured the academic staff's motivation the researchers were looking through. Unlike other survey items such as "Online Teaching readiness survey" developed by Indiana University (n.d.), and "Faculty Readiness to teach online" developed by Martin, Budhani and Wang (2019). These surveys primarily focused on online technical and organisational competencies to teach in virtual environments among faculty staff. SMOTS was validated through 3 expert reviews and the researchers got Cronbach's alpha of .94 from a pilot test of the questionnaire.

3.3 Procedure and ethics

The study got the required approval and participants' informed consent was obtained before participation in the study. Participants were assured of the confidentiality of the information given. The survey was administered via two main strategies- paper-based and Google Forms. The Google Forms was designed and its link-invitation was sent to academic staffs through E-mails and faculty social media groups. Also, the paper-based questionnaire was taken around academic faculties and units to get academic staff who still come to the office despite the shutdown of academic activities due to COVID-19 and the Nigerian Academic Staff Union of Universities (ASUU) strike. The study researchers ensured that those who have not participated in the survey online were the target of the paper-based. Data collection was done within three months starting from November 2020 to January 2021. A total of 120 academic staffs participated via online Google forms and 75 participated through the paper-based questionnaire administration.

3.4 Statistical analysis

Data were analysed using SPSS 25 version software. Counting data were analysed using descriptive statistics of percentages and frequency distribution, mean, standard deviation. To achieve the research questions of the study, multiple regression analysis, Pearson Correlation, T-test for independent samples, One-Way Analysis of Variance (ANOVA) and Multivariate Analysis of Variance (MANOVA) was performed. Before MANOVA computation, there is no evidence of multicollinearity in the data as none of the correlation coefficient is greater or equal to 0.90. A *P*-value of <0.05 (5%) was considered statistically significant.

4. Results

The result obtained in the study are presented below:

Table 2 shows the individual and collective interaction effect of online teaching consideration, perception of teaching online, motivation to teach online regarding resources and motivation to teach online regarding external factors (Independent Variables) on general motivation to teach online (Dependent Variable) among academic staff. The β values indicate the strength or contribution of each explanatory variable to the dependent variable. The results showed that all the independent variables contribute to general motivation to teach online positively, but the perception of teaching online contribute to the model significantly with coefficient parameter ($\beta_2 = 0.475$), $p < 0.000$. Also, the academic staff's motivation for online teaching with respect to external factors positively contributes to the model significant with $p < 0.046$. The overall model is a good predictive one because the $R^2 = 0.448$, with the independent values being a good fit for the model with $F(4, 189) = 11.835$ and $p < 0.000$.

Table 2: Regression analysis showing individual and collective effect of online teaching consideration, perception of teaching online, motivation to teach online regarding resources and motivation to teach online regarding external factors on general motivation to teach online among academic staff.

Variables	Coefficient (β)	Standard Error	P-value
Constant	0.665	0.503	0.188
Considering Teaching online	0.050	0.079	0.531
Perception of Teaching Online	0.475	0.128	0.000
Motivation for Online Teaching with Respect to Resources	0.092	0.117	0.431
Motivation for Online Teaching with Respect to External Factors	0.257	0.128	0.046
$R^2 = 0.448$, $F(4, 189) = 11.835$, $P - value = 0.000$			

Bivariate correlation results in table 3, show that academic staff consideration for online teaching positively correlates with perception of online teaching and academic staff's general motivation to teach online with $r = 0.304$; $p < 0.05$ and $r = 0.162$; $p < 0.05$ respectively. Likewise, there is a positive correlation relationship between the perception of teaching online and general academic staff's motivation to teach online with $r = 0.395$; $p < 0.01$. The results further show that perception of teaching online positively correlates with academic

staff's motivation for online teaching with respect to external factors and motivation for teaching online regarding resources with $r = 0.444; p < 0.01$ and $r = 0.308; p < 0.308$ respectively. The motivation for online teaching regarding resources positively correlate with motivation for online teaching with respect to external factors $r = 0.643; p < 0.01$.

Table 3: Bivariate correlation between independent variables (perception of teaching online, motivation for online teaching with respect to external factors, motivation to teach online regarding resources, academic staff consideration for online teaching and dependent variable (general motivation to teach online)

	Variable	1	2	3	4
1	Perception of teaching online		-		
2	The motivation for online teaching with respect to external factors.	0.444**			
3	motivation to teach online regarding resources	0.308**	0.643**		
4	Academic staff consideration for online teaching	0.304**	0.180*	0.126	
5	General motivation to teach online	0.395*	0.354**	0.276**	0.162*

** P-value <0.01, * P-value <0.05

Table 4 presents the separate influence of the socio-demographic variables on academic staff's motivation to teach online indicators (perception of online teaching, motivation to teach online concerning resources and motivation to teach online with respect to external factors). Using t-test for independent groups, on the three dependent variables considered (Perception of Teaching Online, Motivation for Online Teaching with Respect to External Factors and Motivation for Online Teaching concerning Resources), there were no significant differences between male and female individuals and there were not significantly different between single and married individuals with their respective p-value greater than p-value of 0.05. This implies that the gender of academic staff and their marital status does not influence online teaching indicators. Using One-Way ANOVA, the age group of academic staff does not significantly influence their perception of teaching online $F(2, 194) = 1.374, p = 0.225 > 0.05$, motivation for online teaching with respect to external factors $F(2, 194) = 0.640, p = 0.529 > 0.05$ and motivation for online teaching concerning resources $F(2, 194) = 1.121, p = 0.328 > 0.05$. Also, the rank of academic staff does not significantly influence their perception of teaching online $F(5, 194) = 0.4770, p = 0.799 > 0.05$, motivation for online teaching with respect to external factors $F(5, 194) = 1.039, p = 0.396 > 0.05$ and motivation for online teaching concerning resources $F(2, 194) = 0.987, p = 0.427 > 0.05$.

The MANOVA Pillai's Trace test results are shown in Table 5. There are significant differences in the combined dependent variables by individuals' age group, as shown in the Pillai's Trace value = 0.074, $F(6, 340) = 2.184, p < 0.044$, multivariate $\eta^2 = 0.037$. This suggests that 3.7% of the multivariate variance of the overall motivation to teach online indicators of individuals are influenced by the age group of academic staff. However, there is no significant gender difference in the combined dependent variables; thus, Pillai's Trace = 0.017, $F(3, 169) = 0.993, p > 0.398$, also, there is no significant rank difference of individuals in the combined dependent variables; thus, Pillai's Trace = 0.127, $F(15, 513) = 1.508, p > 0.098$. Age and Gender of academic staff does not influence the combined dependent variables with Pillai's Trace = 0.044, $F(6, 340) = 1.278, p > 0.267$, also, Age and Rank of academic staff does not influence the combined dependent variables with Pillai's Trace = 0.083, $F(15, 513) = 0.969, p > 0.437$. We further computed a follow up univariate ANOVA and the results are presented in Table 6.

Table 6 showed that the perception of teaching online was significant to the age group of individuals $F(2, 194) = 3.928, p < 0.021, \eta^2 = 0.044$, while the motivation for online teaching with respect to external factors and motivation for online teaching concerning resources were not significantly different based on the age group of individuals $F(2, 194) = 0.629, p > 0.534, \eta^2 = 0.007$ and $F(2, 194) = 1.424, p > 0.244, \eta^2 = 0.016$ respectively. Specifically, the mean differences showed that age group 20-40 years were higher in all the three dependent variables considered than other age groups. Also, it can be deduced that motivation to teach online indicators were not significantly different based on Sex, Rank of individuals and their combination (Age and Sex, Sex and Rank, Rank and Age) as their respective p-value is > 0.05 .

Table 4: Academic staff’s motivation to teach online indicators based on their socio-demographic factors

Variable	Perception of Teaching Online			The motivation for Online Teaching with Respect to External Factors			The motivation for Online Teaching concerning Resources		
	Mean (SD)	t	P-value	Mean (SD)	t	P-value	Mean (SD)	t	P-value
Gender									
Male	3.92 (0.62)	-0.904	0.367	3.83 (0.72)	-0.901	0.369	3.61 (0.71)	-1.200	0.232
Female	4.00 (0.51)			3.93 (0.67)			3.73 (0.75)		
Marital Status									
Single	3.68 (0.37)	-1.13	0.262	3.92 (0.58)	0.191	0.849	3.59 (0.75)	-0.199	0.842
Married	3.96 (0.59)			3.86 (0.71)			3.65 (0.73)		
		F	P-value		F	P-value		F	P-value
Age (Years)									
20-40	4.00 (0.42)	1.374	0.255	3.78(0.56)	0.640	0.529	4.02 (0.50)	1.121	0.328
40-60	3.96 (0.62)			3.62 (0.77)			3.83 (0.76)		
61+	3.71 (0.58)			3.68 (0.74)			3.81 (0.59)		
Rank									
AL	3.99 (0.31)	0.470	0.799	3.87 (0.54)	1.039	0.396	3.95 (0.55)	0.987	0.427
LII	4.02 (0.58)			3.84 (0.59)			4.06 (0.62)		
LI	3.90 (0.69)			3.55 (0.75)			3.74 (0.85)		
SL	3.90 (0.55)			3.54 (0.72)			3.81 (0.75)		
Reader	3.90 (0.71)			3.69 (0.83)			4.01 (0.66)		
Prof	4.05 (0.47)			3.69 (0.80)			3.84 (0.53)		

Table 5: Multivariate Effect Of Age, Sex And Rank On Overall Motivation to Teach Online Indicators

Effect	Pillars Trace Value	F	Hypothesis df	Error df	Sig	η^2
Age	0.074	2.184	6.00	340.00	0.044	0.037
Sex	0.017	0.993	3.00	169.00	0.398	0.017
Rank	0.127	1.508	15.00	513.00	0.098	0.042
Age *Sex	0.044	1.278	6.00	340.00	0.267	0.022
Age*Rank	0.083	0.969	15.00	513.00	0.437	0.028
Sex*Rank	0.086	1.014	15.00	513.00	0.438	0.029
Age*Sex*Rank	0.037	0.721	9.00	513.00	0.690	0.012

Table 6: Univariate effect of gender, Age and Rank status on academic staff’s Motivation to Teach Online Indicators

Source	Dependent Variable	Sum of Square	df	Mean Square	F	Sig.	η^2
Age	Perception of Teaching Online	2.624	2	1.312	3.928	0.021*	0.044
	Motivation for Online Teaching with Respect to Resources	0.684	2	0.342	0.629	0.534	0.007
	Motivation for Online Teaching with Respect to External Factors	1.455	2	0.727	1.424	0.244	0.016
Sex	Perception of Teaching Online	0.030	1	0.030	0.091	0.763	0.001
	Motivation for Online Teaching with Respect to Resources	0.083	1	0.083	0.153	0.696	0.001
	Motivation for Online Teaching with Respect to External Factors	0.408	1	0.408	0.799	0.373	0.005

Source	Dependent Variable	Sum of Square	df	Mean Square	F	Sig.	η^2
Rank	Perception of Teaching Online	3.778	5	0.756	2.262	0.050	0.062
	Motivation for Online Teaching with Respect to Resources	2.679	5	0.536	0.986	0.428	0.028
	Motivation for Online Teaching with Respect to External Factors	3.057	5	0.611	1.197	0.313	0.034
Age *Sex	Perception of Teaching Online	0.678	2	0.339	1.015	0.365	0.012
	Motivation for Online Teaching with Respect to Resources	1.869	2	0.935	1.719	0.182	0.020
	Motivation for Online Teaching with Respect to External Factors	0.293	2	0.147	0.287	0.751	0.003
Age*Rank	Perception of Teaching Online	2.811	5	0.562	1.683	0.141	0.017
	Motivation for Online Teaching with Respect to Resources	1.509	5	0.302	0.555	0.734	0.016
	Motivation for Online Teaching with Respect to External Factors	1.345	5	0.269	0.527	0.756	0.015
Sex*Rank	Perception of Teaching Online	1.501	5	0.300	0.899	0.483	0.026
	Motivation for Online Teaching with Respect to Resources	3.927	5	0.785	1.445	0.211	0.041
	Motivation for Online Teaching with Respect to External Factors	1.124	5	0.225	0.440	0.820	0.013
Age*Sex*Rank	Perception of Teaching Online	0.898	3	0.299	0.896	0.444	0.015
	Motivation for Online Teaching with Respect to Resources	0.783	3	0.261	0.480	0.696	0.008
	Motivation for Online Teaching with Respect to External Factors	0.483	3	0.161	0.315	0.814	0.006
Error	Perception of Teaching Online	57.109	171	0.334			
	The motivation for Online Teaching concerning Resources	92.952	171	0.544			
	The motivation for Online Teaching with Respect to External Factors	87.355	171	0.511			
Total	Perception of Teaching Online	3107.708	195				
	The motivation for Online Teaching concerning Resources	2704.324	195				
	The motivation for Online Teaching with Respect to External Factors	3005.694	195				

5. Discussion

The study revealed that the perception of online teaching and academic staff’s motivation for online teaching regarding external factors had a positive significant contribution to the general motivation of academic staff to teach online. Though online teaching consideration and motivation for online teaching concerning resources contribute to the general motivation of academic staff to teach online, their contribution is not significant. These findings correspond with existing studies which identify perception and extrinsic motivation as predictors of intent and motivation to teach online (Fish and Gill, 2009; Casdorff, 2014; Chi, 2015; Ibrahim and Nat, 2019; Shea, 2019). However, this study’s findings can be ascribed to the perceived importance of online teaching in bridging the learning gap caused by the outbreak of coronavirus (COVID-19). COVID-19 disrupted the conventional instructional system in the university and the only notable option available is to shift into online teaching platforms as a result of foreseen uncertainties in pursuing the conventional teaching model. This factor provided the motivation and readiness among academic staff of the university to teach online. Also, online teaching presents an opportunity for academic staff to upgrade their ICT skills and other essential competencies needed to organise and manage online learning platforms. Furthermore, the institutional expectations about online teaching and students’ enrolment have all provided the impetus for academic staff to feel motivated to teach online. This result further lends credence to TPB which asserts that people’s evaluation of behaviour (perception of online teaching), perception of ability to perform the behaviour (online teaching consideration), and expectations from close associate (motivation for online teaching concerning resources and motivation for online teaching regarding external factors) are the direct determinant of intention to perform the behaviour (motivation to teach online).

We found that no difference in academic staff's motivation to teach online indicators (perception of online teaching, motivation to teach online concerning resources and motivation to teach online with respect to external factors) based on socio-demographic characteristics (age, sex, marital status, and faculty rank). In other words, academics staff, whether male or female, single or married, junior or senior in rank and fall in any of the age categories are not different in their perception of online teaching, motivation to teach online concerning resources and motivation to teach online with respect to external factors. These findings are consistent with the findings of Alsuwailam (2018), but inconsistent with Shea (2019) and Martin, Budhrani and Wang (2019) who in their various studies found differences in demographics as regards motivations to online teaching among faculty members.

It was further revealed that there exist significant differences in the combined motivation to teach online indicators (perception of online teaching, motivation to teach online concerning resources and motivation to teach online with respect to external factors) by individuals' age group. In other words, the age group has a significant influence on academic staff's perception of teaching online, motivation to teach online regarding resources and motivation to teach online regarding external factors. Specifically, results showed that the perception of teaching online was significant to the age group of individuals. Academic staff in age 20-40 years had a higher mean score in all the three dependent variables (perception of online teaching, motivation to teach online concerning resources and motivation to teach online with respect to external factors) than academic staff in other age groups. These findings could be attributed to the fact that academic staff in the age bracket of 20-40 are still relatively younger in the profession and are somewhat motivated by the opportunities to display competencies critical for tenure or promotion and other material incentives (Shea, 2019). Also, younger academic staff might believe that online teaching will help them fit into the 21st-century digital landscape that may enhance their prospect for higher opportunities.

6. Conclusion

The findings from this study indicate that motivation for online teaching among academic staff is significantly influenced by their perception of online teaching and motivation from external factors. This could imply that academic staff that have a positive perception about online teaching in terms of flexibility it offers in instruction delivery, reaching a new audience and the opportunity to learn new technology; and external factors such as colleague adaptation, enrolment, programme priority, and institutional expectation align with his desire, such academic staff would be more motivated to teach online compared to others who have negative perception and external factors are not favourable. This, therefore, points to the need for adequate consideration to be given to these factors by those who design and implement online teaching initiative in the university to sustain academic staff's interest in online teaching over time. Also, it was established that no socio-demographic difference in online teaching indicators among academic staff. Hence, policy decisions on online teaching in the university should be based on clear objectives for the generality of the academic staff irrespective of age, gender, marital status, or faculty rank.

7. Limitation of the study and suggestions for future studies

The study is not exhaustive of all factors that may predict academic staff's motivation for online teaching in the university. This study only examines these factors: demographic, online teaching consideration, perception of online teaching, motivation for online teaching regarding resources and motivation for online teaching with respect to external factors. This study, therefore, suggests that future studies should extend the scope beyond these factors. Also, the study is limited to only one university, future studies should endeavour to explore multiple-case design that could make generalisation much easier. Equally, random sampling was used to select academic staff and this resulted into not having adequate sample size in some groups. Hence, future studies should adopt cluster and proportionate sampling techniques to have a sufficient sample size.

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