



Factors Influencing E-Government Adoption in Nigeria: The Mediating Role of Service Quality

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ABSTRACT

E-government adoption is an acceptance or utilization of new technological communication devices such as internet, and computers for the purpose of providing services to the general public in a particular region or country. This study aim to examine whether service quality as mediator can influence the link between perceived usefulness and social influence and also establish the connection between the two variables within the context of Waziri Umaru Federal Polytechnic (WUFED Poly) Birnin-Kebbi, Nigeria. Studies that examine the effect of perceived usefulness, social influence on e-government adoption and the mechanism through which it influences e-government adoption appears to be scarce. This study employed a quantitative technique to collect data from 164 randomly selected respondents. The instruments include social influence assessment scale, perceived usefulness scale, service quality scale and e-government adoption scale, which were adapted from previous studies to suit the current study. SPSS Amos 24 was utilized to analyze the data. The result revealed that perceived usefulness has a significant effect on e-government adoption, social influence has significant effect on e-government adoption and that service quality mediates the link between perceived usefulness, social influence and e-government adoption. This study contributes theoretically by proposing a new model that examines the mediating effect of service quality on perceived usefulness, social influence and e-government adoption. The findings provides a better insight for the management of WUFED Poly on how to increase e-government adoption. Finally, the study offers useful suggestions for further studies.

Keywords: Perceived Usefulness, Social Influence, Service Quality, E-government Adoption, Nigeria

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INTRODUCTION

The emergence of e-government around the world has made public service to start realizing the benefit of making their numerous services to be effective, efficient as well as available. Likewise, individuals in the societies are now becoming more intelligent and even more experienced in terms of e-government in both private and public sector organizations. Again, they citizens also expect similar standards on the side of the government agencies for the public services (Mensah et al., 2020; Zeebaree et al., 2022). Thus, government around the globe have seized the opportunities of deploying internet for the purpose of providing information and offering services through government websites known as e-government (Kamel, 2011). The use of e-government has changed the interrelationship between the public and government through changing communication from hard copy-based means of transmission to a web-based means of collaborative communication (Carter & Bélanger, 2005). Consequently, e-government has gained significant attention in Africa. Indeed, several countries seek to emphasize much on information and communication technologies (ICT) towards transforming their various operations and interactions with their citizens, businesses as well as the government entities (Sang et al., 2009).

Thus, enhancing the adoption of e-government in most of the African countries has been the target of many policies at national and regional levels (Kaoutar, 2024). Similarly, the adoption of e-government varies across several African countries, depending on the level of awareness and budgetary allocation (Kaoutar, 2024). Many countries such as Mauritius, South Africa, Morocco and Tunisia have made momentous progress with quality technical application and clear political vision (Kaoutar, 2024). In fact, most of the African countries have made substantial improvement in their infrastructures, telecommunications, as well as building a solid foundation towards accelerated transition to digital government. While some of the countries are still facing challenges on e-government adoption (Kaoutar, 2024). Evidently, it has been revealed that, Europe has 0.8305 average based on the e-government development index (EGDI), Asia 0.6493, America 0.6438, Oceania 0.5081, and Africa has 0.4054 which constitute the lowest amongst other regions, and remain below world's average of 0.6102 (UN Survey, 2022).

In Nigeria, the National e-government strategies Ltd was established in 2004 to oversee the e-government project across the country towards effective implementation of e-government amongst governmental agencies in the country (Aneke et al., 2019). In spite this effort, majority of the Nigerian government websites are still in publishing stage, with very few at transact stage (Aneke et al., 2019). As mentioned earlier, emerging nations mainly African nations, and Nigeria in particular are lagging in terms of e-government adoption as compared to developed countries in the world (UN Survey, 2022). Similarly, it has been revealed that only 4 countries out of the 54 African countries scored higher than the world average EGDI of 0.6102, and 15 countries has very low EGDI scores below 0.31. Nigeria remains at the middle between 0.31 and 0.59 despite huge resources invested on e-government over several decades (Aneke et al., 2019; UN Survey, 2022). This problem requires urgent attention towards ensuring high level of e-government adoption in the country.

Previous studies have emphasized that perceived usefulness has a crucial role to play in influencing individual's intention on e-government adoption (Mensah, 2019). Likewise, social influence is seen as capable of influencing individuals' behavioral intention towards e-government adoption (El-Ebiary & Yousef, 2018). Again, system trust is perceived to be influential in determining behavioral intention towards adoption of e-government (AlAwadhi, 2019; W. Li, 2021). Yet, studies that tend to explore these factors together particularly in Nigeria and WUFED Poly in particular appear to be scanty in the bulk of literature (Kamel, 2011; Kanaan et al., 2019; Mohammad et al., 2009; Rabaa'i, 2015). In addition, these studies has neglected the mediating role of service quality in the link between perceived usefulness, and social influence (independent variables) and e-government adoption (dependent variable).

Studies only focused on the mediating role of service quality in relationship between several independent and dependent variables such as trust of citizens, customer satisfaction, employees' customer orientation (Li et al., 2019; Nawafleh, 2020; Sati et al., 2019). Hence, service quality is said to be capable of enhancing e-government performance (Sung et al., 2009). Therefore, high service quality helps in shaping citizens' overall confidence towards e-government services which in turn increases adoption of e-government in a particular country (Alkrajji & Ameen, 2022; Sung et al., 2009). Thus, inadequate adoption of e-government in Nigeria and WUFED Poly in particular is of great concern of this study. Thus, changing citizens or employees' behavioral intentions in WUFED Poly through the help of perceived usefulness, positive social influence provision of high service quality may have significant effect on the overall behavioral intention of individuals towards e-government adoption in Nigeria and WUFED Poly in particular. This paper is an attempt to address this problem since e-government is capable of increasing efficiency in modern organization (Zeebaree et al., 2022). Moreover, this paper emphasized that influencing individuals' behavioral intention on e-government adoption in Nigeria, and WUFED Poly specifically, through ensuring effective service quality, high level of perceived usefulness, and positive social influence may have a great influence on their behavioral intention on e-government adoption. Studies that examines these variables in one model is scarce. The current study will add to the existing literature by investigating service quality as mediator in the link between perceived usefulness, social influence and e-government adoption in Nigerian context and WUFED Poly in particular.

RESEARCH OBJECTIVES

The current study aim to examine the mediating effect of service quality in the relationship between perceived usefulness, social influence and e-government adoption within the context of Nigeria and WUFED Poly in particular. The specific objectives are:

- a. To examine the link between perceived usefulness and e-government adoption
- b. To examine the link between social influence and e-government adoption
- c. To examine the link between service quality and e-government adoption
- d. To examine the mediating role of service quality in the link between perceived usefulness, social influence and e-government adoption.

LITERATURE REVIEW

Perceived Usefulness

Perceived Usefulness is defined as the degree to which individuals believes that the use of a given technology is capable of enhancing their work performance (Aklikokou & Chen, 2020; Algharibi & Arvanitis, 2011; Davis, 1989). Based on that, this study defined perceived usefulness as the extent to which employees believes that the use of e-government in discharging their job responsibilities will be beneficial to them better than the traditional means of service delivery to the citizens.

Social Influence

Social influence is described as the extent to which peers such as family, friends, and other important personalities influence the use of a particular technology either negatively or positively. It is a vital factor in the lives of citizens which stands to be influential in determining their adoption of new system (Chiu & Wang, 2008; Venkatesh et al., 2003, 2011). As such, this study defines social influence as the degree to which employees' important personalities such as friends and family members influence them either positively or negatively towards the adoption new technology.

Service Quality

Service quality is regarded as the provision of services towards meeting the expected standard and needs of the user (Alanezi et al., 2010; Heidari et al., 2014). It refers to the entire services such as convenient services, interactive services, and rapid services amongst others by the government through a particular system (Pho & Tambo, 2004). In this study, service

quality is considered as those services provided by the government through an electronic means (e-government) for the purpose of enhancing efficiency and effectiveness towards service delivery.

E-Government Adoption

E-government adoption is considered as the acceptance or utilization of new technological communication devices such as internet, and computers for the purpose of providing efficient services to the general public in a particular region or country. It provides new opportunities for more convenient and direct individuals' access to the government as well as government direct provision of services to the individuals in a country (Manoharan et al., 2022). Accordingly, this study defines e-government adoption as the acceptance of information technology (IT) as a new form of delivering government services and information to the general public electronically.

THE UNDERPINNING THEORY

The E-government services that is said to be sustainable should be able to assist the government attain their goals and also be cost effective in terms of service quality, operational efficiency, and should have acceptance as well as adoption (Joshi & Islam, 2018). Thus, a sustainable e-government adoption is considered as; "the entire users can easily participate in e-government services which are mostly cost-efficient, effective and flexible, and that encourages satisfaction as well as participation". Hence, the technology adoption research revealed several factors capable of influencing individuals' behavioral intentions towards using several technologies. Consequently, the Unified theory of use and acceptance of technology (UTAUT) is designed basically on eight set of theoretical models namely; the Reasonable Action Theory (TRA), Motivation Model (MM), the Technology Acceptance Model (TAM), Diffusion Theory of Innovation (DTI), Social Cognitive Theory (SCT), Computer use (MPCU), the combination of both Theory of Planned Behavior, the UTAUT model, and technology acceptance Model. The UTAUT model is said to be a well-developed model capable of explaining user intentions towards using IT and usage behavior (Hafner & Kuppelwieser, 2021). Also, the UTAUT model aimed at explaining users' intentions to utilize particular information system as well as the usage behavior. The theory was developed by Venkatesh et al., (2003) with the aim of addressing the weaknesses of the TAM model, and also incorporated various social factors as well as human behaviors. It also tends to identify the critical factors for the acceptance of ICT as well as the behavioral intention to use the technology (Oye et al., 2014). It was discovered that TAM and its extensions can only predict 40% while UTAUT is said to predict up to 70% of technology adoption (Holden & Karsh, 2010).

Hence, this study is based on UTAUT model since it is designed based on several models. The UTAUT model has the capability of combining several factors. The model also help in developing technological process. Thus, the current study intend to use the UTAUT model in describing the relationship between perceived usefulness, social influence, and e-government adoption with service quality as mediator within the context of Nigeria and WUFED Poly in particular. The UTAUT model stands to be the theoretical base for explaining the relationship between the study variables. In addition, several studies have applied the UTAUT model in different context and achieve suitable result. For instance, the study conducted by Nasereddin & Almaiah, (2020), Samikon & Fahmi, (2021).

HYPOTHESIS DEVELOPMENT

Perceived Usefulness and e-Government Adoption

Scholars from different part of the world have made serious attempts in examining the factors capable of influencing e-government adoption. From example, a study was carried out by Zubir & Latip, (2023) in Malaysia confirms that perceived usefulness has significant effect on e-government adoption. Again, Mendez-Rivera et al., (2023) conducted another study to examine the influence of perceived usefulness and e-government adoption with 403 respondents amongst university students. The outcome insist that, perceived usefulness has significant influence on e-government adoption. Moreover, Mandari & Koloseni, (2023) investigated the effect of perceived usefulness and e-government adoption using 213 e-government users in Tanzania. The result also emphasized that perceived usefulness has significant effect on e-government adoption. Accordingly, this study hypothesized that;

H1: Perceived Usefulness has significant and positive effect on e-government adoption.

Social Influence and e-Government Adoption

Different studies have expressed their findings regarding the link between social influence and e-government adoption in different context. For example, a research was carried out in recent times in Saudi Arabia by Aleisa, (2024). The outcome of the investigation suggest that social influence has significant effect on e-government adoption. Another study was carried out in most recent time by Sultana et al., (2024) in Bangladesh using 297 respondents. The result insist that social influence has significant effect on e-government adoption. Similarly, Hussain, (2020) using online questionnaire to carry out the investigation amongst 349 citizens in Saudi Arabi. The result of the investigation revealed that social influence has an indirect effect towards e-government adoption. Thus, the current study hypothesized that;

H2: Social Influence has significant and positive effect on e-government adoption

Service Quality and e-Government Adoption

Studies have been carried out severally in an attempt to examine the relationship between service quality and e-government adoption in many context. For example, the research carried out by Li & Shang, (2020) using 1650 citizens as respondents from high-population cities and direct controlled municipality in China. The result of the study suggested that service quality is significantly related to E-government adoption. In addition, Nworah, (2020) conducted a study in Nigeria with

350 respondents amongst citizens to find out the link between service quality and e-government adoption. The outcome of the examination shows that service quality is positively related to e-government adoption. Another study was also conducted by Namahoot & Jantasri, (2021) in Thailand. The findings indicated that service quality is significantly related to e-government adoption. Thus, the study sees service quality as a factor capable of influencing individuals' intention and attitude towards adopting e-government. Hence, the current study hypothesized that;
 H3: Service quality has significant and positive effect on e-government adoption

The Mediating Effect of Service Quality in the Relationship between Perceived Usefulness and e-government adoption

Previous studies have supported service quality in a crucial role as mediator in a relationship between many study variables. Service quality is seen as the provision of services towards achieving expected standard and needs of the user (Alanezi et al., 2010; Heidari et al., 2014). For example, Adhy Kurniawan et al., (2018) uses service quality as mediator in their study which was carried out with 105 respondents within consumers of online transportation services in Indonesia. The findings indicates that service quality mediates the relationship between the study variables. Similarly, Li et al., (2019) carried out an investigation with 350 respondents using service quality as mediator. The outcome suggest that service quality mediates the relationship between customer's satisfaction and employee's customer's orientation. Additionally, Sati et al., (2019) applied service quality as mediator in their study to explore the link between customer satisfaction and sensory marketing using 362 respondents. The result shows that service quality mediates the relationship between the study variables. Thus, studies that tend to examine the mediating effect of service quality in the link between, perceived usefulness, social influence and e-government adoption in Nigeria and WUFED poly in particular appears to be scarce in the bulk of literature. Hence, this study hypothesized that;

H4: Service quality mediates the relationship between perceived usefulness and e-government adoption

The Mediating Effect of Service Quality in the Relationship between Social Influence and e-government Adoption

Numerous studies have employed service quality as a mediating construct between different independent and dependent variables and achieved suitable result. For instance, the study conducted by Sati et al., (2019) employed service quality as mediator in the link between customer satisfaction and sensory marketing with 362 respondents. The outcome of the investigation suggests that service quality mediates the relationship between the study variables. Likewise, Li et al., (2019) conducted a study with 350 respondents using service quality as mediator. The findings revealed that service quality mediates the link between customer's satisfaction and employee's customer's orientation. In addition, Adhy Kurniawan et al., (2018) utilized service quality as mediator in their study that was conducted using 105 respondents within consumers of online transportation services in Indonesia. The outcome of the investigation shows that service quality mediates the relationship between the study variables. Thus, studies that tend to examine the mediating effect of service quality in the link between perceived usefulness and e-government adoption in Jordan and Amman municipality in particular appears to be scarce in the bulk of literature. Hence, this study hypothesized that;

H5: Service quality mediates the relationship between social influence and e-government adoption

RESEARCH FRAMEWORK

The positive and significant connection between perceived usefulness and e-government adoption social influence and e-government has been established by prior research works. Also, the vital role of service quality as the appropriate mechanism for describing such connection between the study variables is been clarified in previous studies. Figure 1 shows the current research framework;

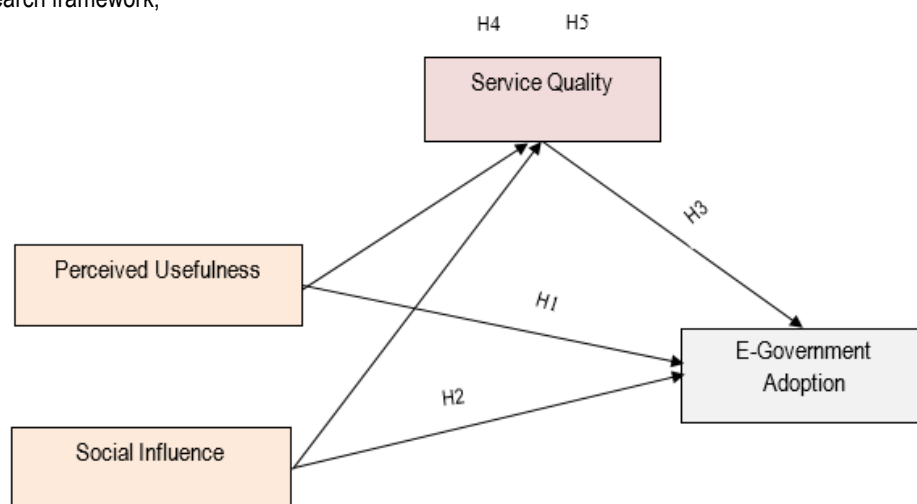


Figure 1. The Research Framework

METHODOLOGY

The current study is quantitative as well as cross-sectional in nature. Data in this study was gathered through the use of questionnaire which was carefully distributed in Nigeria amongst employees in WUFED poly specifically. Thus, a simple random sampling technique was used in selecting the respondents from the target population in this study. Accordingly, the respondents were actually required to provide their demographic information such as age, gender, marital status, work experience, educational qualification and monthly salary before providing answers to the questionnaire. A total number of 300 questionnaires were distributed to the respondents, and 207 questionnaires were actually returned, while 43 questionnaires were removed due to incompleteness. Hence, 164 questionnaires were fully considered useful for the conduct of data analysis in the current study. This actually represent 75% of the entire responses which conforms to Sekaran & Bougie, (2016) who insist that 35% is a suitable and sufficient response rate. Likewise, the instruments used in the current study were adapted from previous research works in order to suit the current study. In addition, a pretest was carried out so as to ensure an effective face-to-face and content validity of the study instruments. Moreover, an exploratory factor Analysis (EFA) was also carried out through the use of Statistical Package for Social Sciences (SPSS) on the entire items involved in the study constructs for the purpose of ensuring reliability of all the items before carrying out the final survey (Shkeer & Awang, 2019). Similarly, Structural Equation Modeling (SEM) in IBM SPSS Amos 24 was employed in determining the link between the study's constructs.

Exploratory Factor Analysis for The Individual Measurement Model

For the purpose of determining the actual changes that emerges on the study items from previous studies, as well as purifying the measurement scale, factors with an eigen value above 60% total variance explained are regarded suitable in conducting factor analysis (Awang, 2012). Likewise, factor rotation is determined by the varimax and Kaiser Normalization procedure. In this research work, the varimax maximization rotation was carried out on six items to measure the perceived usefulness construct. The Bartlett's test of sphericity is considered significant and suitable if the p-value appears to be less than 0.05, and the Kaiser-Meyer-Olkin (KMO) sampling measure is regarded as suitable and adequate with a value greater than 0.6 as emphasized by Awang, (2012). Hence, the, Bartlett's test is said to be the most important, and the KMO always have to be greater than 0.6 before it can be considered adequate for data reduction procedure (Awang, 2012). Moreover, the Cronbach's Alpha have to be above 0.7 for the internal reliability to be attained. In the current study, EFA was carried out by applying the extraction method of principal component analysis (PCA) on perceived usefulness construct for six items through varimax maximization. The rotation outcome clearly indicates that the eigen value for perceived usefulness construct is 1.684, (above 1.0) as required. While the total variance explained is 64.026% (above 60%) and is suitable as required. The outcome of the Bartlett's test of sphericity is significant with p-value (0.05) since it is less than 0.05. Also, the KMO outcome is 0.782, and it adequate since it has exceeded 0.6 (Awang, 2012). These two results clearly indicates that the data is adequate and suitable to proceed with data reduction procedure (Awang, 2010; Rahlin et al., 2019). Accordingly, the Cronbach's Alpha value is shown to be 0.862 for all the six items. In other words, the entire items are found to be suitable for measuring perceived usefulness construct in the current study.

Similarly, EFA was carried out by applying the extraction method of PCA on social influence construct for four items through varimax maximization. The rotation outcome clearly indicates that the eigen value for social influence construct is 1.846, (above 1.0) as required. While the total variance explained is 62.648%. (Above 60%) and is suitable as required. The outcome of the Bartlett's test of sphericity is significant with p-value less than (0.05). Also, the KMO outcome is 0.824, and it adequate since it has exceeded 0.6 (Awang, 2012). These two results clearly indicates that the data is adequate and suitable to proceed with data reduction procedure (Awang, 2010; Rahlin et al., 2019). Accordingly, the Cronbach's Alpha value is shown to be 0.914 for the four items. In other words, the entire items are found to be suitable for measuring social influence construct in the current study.

Also, EFA was carried out by using the extraction method of PCA on service quality construct for eight items through varimax maximization. The rotation outcome clearly indicates that the eigen value for social influence construct is 1.942, (above 1.0) as required. While the total variance explained is 64.528%. (Above 60%) and is suitable as required. The outcome of the Bartlett's test of sphericity is significant with p-value less than (0.05). Also, the KMO outcome is 0.764, and it adequate since it has exceeded 0.6 as emphasized by Awang, (2012) and Sani et al., (2023). These two results clearly indicates that the data is adequate and suitable to proceed with data reduction (Awang, 2010; Bahkia et al., 2019; Sani et al., 2023). Accordingly, the Cronbach's Alpha value is shown to be 0.904 for the eight items. In other words, the entire items are found to be suitable for measuring service quality construct in the current study.

In addition, EFA was carried out by using the extraction method of PCA on e-government adoption construct for five items through varimax maximization. The rotation outcome clearly indicates that the eigen value for the e-government construct is 1.862, (above 1.0) as required. While the total variance explained is 62.842%. (Above 60%) and is suitable as required. The outcome of the Bartlett's test of sphericity is significant with p-value less than (0.05). Also, the KMO outcome is 0.842, and it adequate since it has exceeded 0.6 as emphasized by Awang, (2012) and Rahlin et al., (2019). These two results clearly indicates that the data is adequate and suitable to proceed with data reduction procedure (Awang, 2010; Bahkia et al., 2019; Rahlin et al., 2019). Accordingly, the Cronbach's Alpha value is shown to be 0.842 for the five items. In other words, the entire items are found to be suitable for measuring e-government construct in the current study. Table 1 clearly shows the summary of pilot test outcome in this study;

Table 1. Summary of Pilot Test Outcome

Construct	Dimensions	Items	Total Explained	Variance	KMO	Cronbach's Alpha
Perceived Usefulness	1	6	64.026%	0.782	0.862	
Social Influence	1	4	62.648%	0.824	0.914	
Service Quality	1	8	64.528%	0.764	0.904	
e-Government Adoption	1	5	62.842%	0.842	0.842	

As seen in Table 1, the outcome of the pilot test has clearly indicated that the entire constructs in this study have attained a suitable internal reliability, due the fact that the Cronbach's Alpha value for the constructs is above the required threshold value of 0.7. In other words, all the items has factor loading above 0.60, and they were all loaded on their latent variable without a single overlapping on other variables. These items are confirmed to be suitable for the conduct of this study.

CONFIRMATORY FACTOR ANALYSIS (CFA)

At this stage, the structural equation modeling (SEM) was done in order to develop a structural model for the study by examining the measurement model of the entire constructs through CFA. The CFA analysis is utilized for the purpose of access the validity, reliability, normality distribution, and unidimensionality of the study constructs (Aziz et al., 2016; Yusof et al., 2017). These requirements are termed as construct validity of the study. Thus, construct validity is usually evaluated through the use of fitness index, while the discriminant validity is typically evaluated by the actual discriminant validity known as the average variance extracted (AVE). Also, the construct reliability is usually evaluated through computing the actual value of the composite reliability (CR) of the entire constructs in the study (Afthanorhan et al., 2018; Awang et al., 2018). Finally, the result of the CFA revealed the following: The construct validity is revealed to have a p-value = .000; while the root mean square error of approximation (RMSEA) is revealed to have = .052; and the comparative fix index (CFI) is = .943; Also, the Tucker-Lewis index (TLI) is = .976; the ChiSq/df is revealed to have = 1.824. Figure 2 clearly described the CFA outcome of the study model;

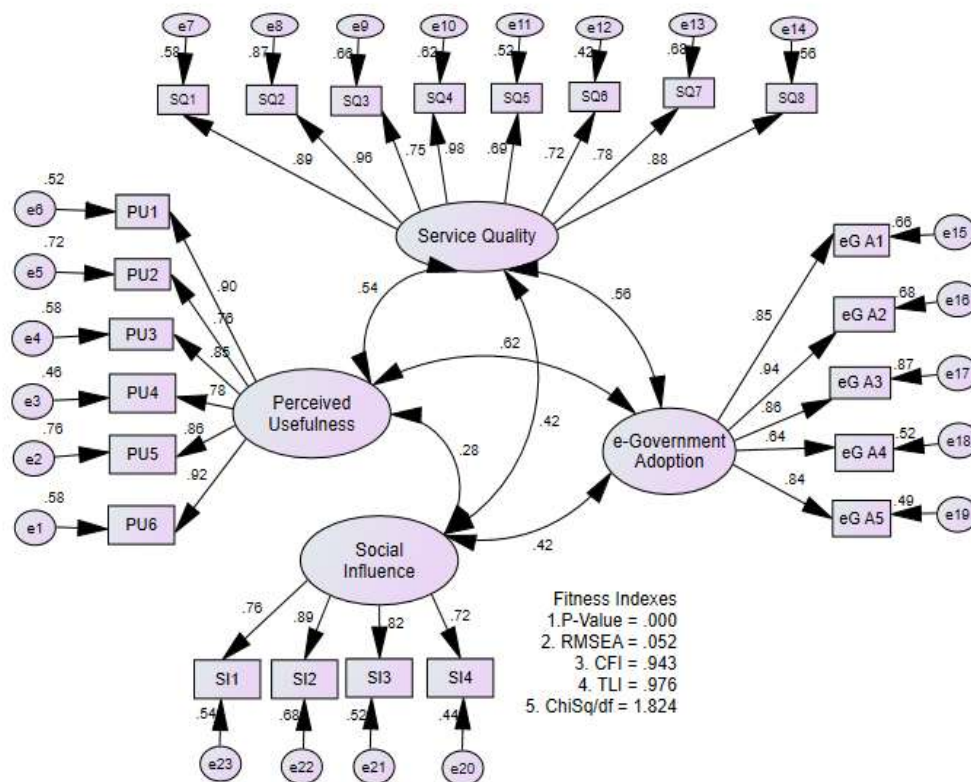


Fig 2. The CFA result of the study constructs

The actual value of the average variance extracted (AVE) for perceived usefulness construct is 0.628, and AVE for social influence construct is 0.672, AVE for service quality is 0.642, while AVE for e-Government adoption is 0.692. Hence, the overall value of the entire constructs have exceeded 0.5. Likewise, the revealed actual value of the composite reliability (CR) for perceived usefulness construct is 0.826, the CR for social influence construct is 0.908, and the CR for service quality is 0.874, while CR for e-government adoption is 0.884. These results have confirmed the convergent validity of the entire constructs involved in the current study. Accordingly, factor loading for the entire items in the study have exceeded the required

threshold value of 0.60. This clearly indicate the unidimensionality of the measure in the current research model (Asnawi et al., 2019; Rahlin et al., 2019; Sani et al., 2023). In other words, the measurement model of the entire construct involved in this study have achieved the required composite reliability (Awang et al., 2015; Mahfouz et al., 2020). However, the valuation of the discriminant validity index is the next step to be observed as summarized in Table 2.

Table 2. Summary of the Discriminant Validity Index for the Entire Constructs in the Study

Construct	Perceived Usefulness	Social Influence	Service Quality	e-Government Adoption
Perceived Usefulness	0.89			
Social Influence	0.53	0.79		
Service Quality	0.64	0.32	0.71	
e-Government Adoption	0.58	0.28	0.56	0.86

Moreover, the above table clearly revealed that the entire diagonal values are seen to be greater than all the values contained in its sequence. Therefore, the discriminant validity for the entire constructs in the current study have been achieved as required (Awang, 2015).

Structural Equation Modeling (SEM)

This step involved the carrying out of structural equation modeling since the entire constructs have achieved their required values for validity, normality, reliability and unidimensionality. Accordingly, the study performs SEM procedure for the purpose of testing the projected hypotheses. Hence, the SEM procedure result is shown in Figure 3.

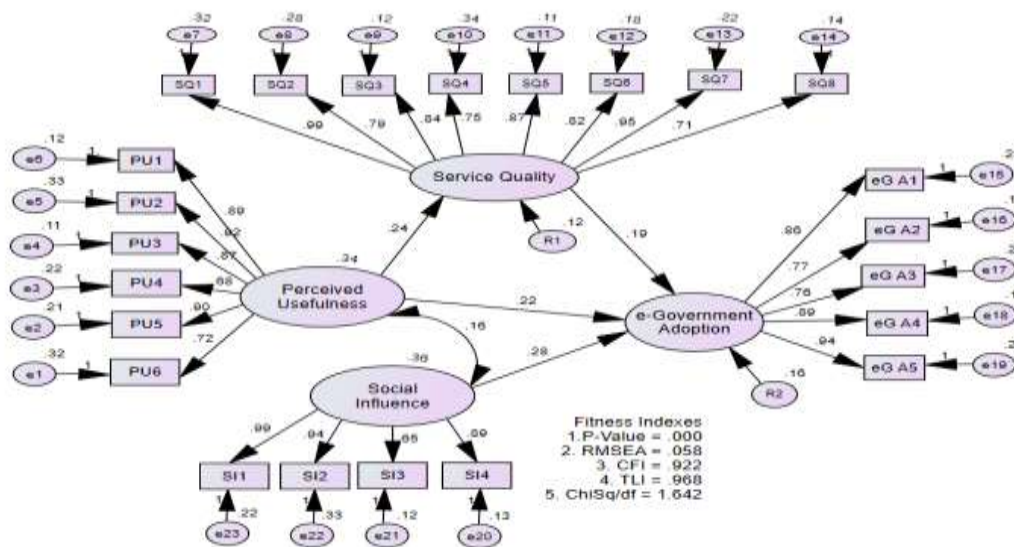


Figure 3. The regression path coefficient amongst the entire constructs in the study model

FINDINGS

The findings of the current study was suitably informed by the actual results derived from SEM procedure. Consequently, the direct effect of perceived usefulness on e-government is found to be positive/significant with estimated value 0.124 and the p-value is 0.023. Hence, hypothesis 1 is supported based on the findings. Likewise, the direct effect of social influence on e-government adoption is revealed as positive/significant with an estimated value 0.038 and a p-value 0.006. This signifies that, hypothesis 2 is supported. In addition, the direct effect of service quality on e-government adoption is found to be positive/significant with estimated value 0.148 and a p-value 0.005. This suggest that hypothesis 3 is supported according to the current findings. Accordingly, service quality was found capable of mediating the link between perceived usefulness and e-government adoption with both indirect and direct effect reportedly as significant (The indirect effect 'a'= 0.24, indirect effect 'b'= 0.20, and direct effect= 0.18), and service quality was found capable of mediating the link between social influence and e-government adoption with both indirect and direct effect reportedly as significant (The indirect effect 'a'= 0.18, indirect effect 'b'= 0.16, and direct effect= 0.28) respectively. Hence, hypothesis 4 and 5 are supported. Table 3 clearly indicate the regression path coefficients with their respective significant effects.

Table 3. The Regression Path Coefficients and Their Significant Value

Construct	Path	Construct	Estimate	S.E	CR	P-value	Result
e-Government Adoption	<---	Perceived Usefulness	0.124	.058	0.826	0.023	Significant
e-Government Adoption	<---	Social Influence	0.038	.082	0.908	0.006	Significant
e-Government Adoption	<---	Service Quality	0.148	.074	0.874	0.005	Significant

Note: S. E= Standardized Error CR= Critical Ratio; P= Significant Alpha ($p < 0.05$).

Moreover, service quality was found capable of mediating the relationship between perceived usefulness, social influence and e-government adoption. Table 4 and 5 clearly describe the mediating results of the current study.

Table 4. The Mediation Result between Perceived Usefulness and e-Government Adoption

The Indirect Effect (a)	0.24	Significant
The Indirect Effect (b)	0.20	Significant
The Direct Effect	0.18	Significant
Mediation has occurred as both direct and indirect effect are found significant		

Table 5. The Mediation Result between Social Influence and e-Government Adoption

The Indirect Effect (a)	0.18	Significant
The Indirect Effect (b)	0.16	Significant
The Direct Effect	0.28	Significant
Mediation has occurred as both direct and indirect effect are found significant		

Based on the mediation results, both indirect and direct effect are revealed to be significant. This type of mediation is known as “partial mediation” as reported in table 4 and 5. (Awang, 2015). In addition, the researcher employed the Maximum Likelihood Estimator (MLE) bootstrapping with 1000 bootstrap samples, ninety five percent (95%) bootstrap confidence interval as well as ninety five percent (95%) bias-corrected confidence interval for testing service quality as mediator in the link between perceived usefulness, social influence, and e-government adoption.

DISCUSSION

Interestingly, the first hypothesis emphasized that perceived usefulness has positive/significant and direct effect on e-government adoption, and the outcome of the analysis supported this hypothesis. Thus, perceived usefulness of e-government by the citizens in Nigeria and employees in WUFED poly in particular tend to increase the level of e-government adoption in the country. This finding is in conformity with previous studies (Iqbal & Fridayani, 2022; Mandari & Koloseni, 2022). The second hypothesis stated that, social influence has significant influence on e-government adoption and was confirmed. This outcome is agreement with prior studies (Khoirul Aswar et al., 2022; Miah & Sentosa, 2021). The study insist that social influence amongst citizens in Nigeria and employees in WUFED poly specifically is capable of enhancing the level of e-government adoption in Nigeria. The third hypothesis stated that, service quality is significantly related to e-government adoption, and it was confirmed. This result is in line with findings of previous studies (Li & Shang, 2020; Nworah, 2020). The current study insist that when service quality is enhanced will in turn lead to increase in e-government adoption amongst the citizens and employees in WUFED poly in particular. Likewise, the fourth and fifth hypotheses suggested a significant indirect relationship between perceived usefulness, social influence and e-government adoption. Accordingly, the findings of the current study emphasized that, service quality mediates the relationship between perceived usefulness, social influence and e-government adoption. The perceived usefulness and social influence amongst the citizens in Nigeria and employees in WUFED poly tend to influence the level of e-government adoption in Nigeria. More fascinatingly, the current findings insist that service quality is a “partial mediator” in the link between perceived usefulness, social influence and e-government adoption. Hence, this findings emphasized that high level of perceived usefulness and effective social influence stands to be influential towards enhancing the level of e-government adoption in Nigeria and WUFED poly in particular directly or indirectly through service quality.

CONCLUSION

This study investigate the link between perceived usefulness, social influence and e- government adoption in the context of Nigeria and WUFED poly in particular. Interestingly, the results have supported the proposed link between the study variables. In addition, the current study examines the mediating role of service quality in the link between perceived usefulness, social influence and e-government adoption. The findings of this investigation has some inspiring practical and theoretical

implications. Firstly, perceived usefulness is found capable of influencing e-government adoption, and social influence is also found capable of influencing e-government adoption. And service quality is seen as a mechanism through which the link between the study variables can be explained. Secondly, the findings of this study also contribute to the present literature on mediating role of service quality. Thirdly, perceived usefulness, and social influence could be used in enhancing e-government adoption and ensure service quality. Largely, the current study research model validates the link between perceived usefulness, social influence, service quality, and e-government adoption in the context of Nigeria and WUFED poly in particular.

LIMITATIONS AND RECOMMENDATIONS FOR FURTHER STUDIES

Despite the importance of this exploration, different limitations exist. Since the present study only focused on Nigeria and WUFED poly specifically, findings in different context may not be generalizable. Therefore, further studies may consider other states in Nigeria and other countries so as to have comparative viewpoint. Additional limitation of this study is the cross-sectional nature of its analysis. Again, the exploration using longitudinal process seeks to determine the link between perceived usefulness, social influence and e-government adoption through the use of different mediating variables. Thus, considering the mediating effect of service quality in the link between perceived usefulness, social influence and e-government adoption would enhance the knowledge of the Nigerian government and Management of WUFED poly in particular on the vital role of perceived usefulness and social influence towards increase service quality and e-government adoption. Mainly, findings of the current study provides a practical inclination to the Nigerian government and management of WUFED poly in particular.

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