

# Determinants of the Actual ICT Adoption among Small and Medium Enterprises in Kogi State

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## Abstract

*This study was aimed at investigating the determinants of the actual ICT adoption among Small and Medium Enterprises in Kogi State. Survey research design was used; employing a coherent research instrument for gathering information and generating data. The objects of interest are 2027 SMEs; from which sample size (323) was chosen. Analyses of data were done using descriptive statistics, multiple regression and T-test. Findings showed that perceived usefulness has significant positive influence on the adoption of ICT by SMEs in Kogi State. Findings further showed that technical strategy and perceived ease of use have significant negative influence on the adoption of ICT by SMEs in Kogi State. The study concluded that SME owners consider technical strategy, ICT usefulness and ease of ICT use for the adoption of ICT in Kogi State. The study recommended that government and economic expert should create more awareness on the usefulness of ICT to enhance increasing level of its adoption by SMEs, and that SME owners should seek the assistance of strategists and acquire ICT handling skills. The implication of these is effective adoption of ICT by SMEs in Kogi State.*

**Keywords:** *Technical Strategy; Perceived Ease of ICT use; ICT Adoption; Skilled ICT Personnel; Sufficient Resources*

**JEL Classification:** *E23; M19*

## Introduction

Today, ICT adoption is inevitable for SMEs. The level at which SME owners adopt ICT in Kogi State remain low. Olise, Anigbogu, Edoko and Okoli (2014) proved that utilizing ICT significantly stimulates improved SMEs performance. Researchers (such as Apulu and Lathman, 2011; Kuteyi, 2009) noted that the ICT adoption behavior of SMEs is still questionable. The gap in adoption of ICT by SME owners in Kogi State may be attached to insufficient resources, scope, managerial competence, vision and mission. These have created wide cleavage between SMEs and large enterprises. Ashrafi and Murtaza (2008) expressed that large enterprises have sufficient resources to adopt ICT compared to SMEs which are more constrained by financial and human resources.

Social media is a popular medium for online marketing/e-commerce for SMEs in Kogi State. SMEs have ample opportunity to compete via social media platforms and the use of e-payment. Using the platforms, Haseena (2014: 138) expressed that it is now easy “to reach a global

audience, obtain instant market information and conduct electronic business transactions”. Through the global outreach or accessibility, there is tendency of both threat and opportunities. The most important thing is the perceived opportunity to learn, improve effectiveness and efficiency in the global environment. SME managers or owners can also float knowledge in certain areas (like strategic management, comparative approach, capital building, cost-reduction technique, managerial bottleneck, inventories and so on) through a structured social network.

However, the adoption of ICT is influenced by some specific factors. Technological Frame of Reference Theory (TFR) suggests that factors such as ‘nature of technology, technical strategy and the technology in use’ determine the adoption of ICT (social media marketing and e-payment method). Perceived usefulness and perceived ease of use were also identified in Technology Acceptance Model (TAM) as cogent factors in adoption of ICT by SMEs. Limi (2008) added that ‘availability of skilled ICT personnel and reasonable budget’ are also paramount influencing factors in ICT adoption. In view of these determinants, effectiveness and efficiency of operations of SMEs in Kogi State is expected to improve. This understanding made Apulu and Latham (2011) to strongly argue that ICT improves efficiency and effectiveness of SMEs, particularly in Nigeria. Unfortunately, these factors have not been investigated in Kogi State. The efficiency and effectiveness of SMEs still remain questionable despite the progress in ICT today. Consoli (2012) argued that SME owners who embrace the adoption of ICT possess the opportunities of growing their enterprises. Probably, the resistance or lack of intensive utilization of ICT may have caused the failure of SMEs in the business environment of Kogi State. It is also noted that some SME owners do not have ICT handling skills. Meanwhile, Costello, Chibelushi and Sloane (2007) had earlier noted that ICT ‘adoption success determines the success of enterprises’. There is wide gap regarding the adoption of ICT (in terms of social media) by SMEs in Kogi State. Adequate research attention has not been given to certain determinants of ICT adoption by SME owners in Kogi State. This study filled these gaps.

The main objective of the study was to investigate the determinants of Information and Communications Technologies adoption by Small and Medium-sized Enterprises in Kogi State. The specific objectives were to:

- Ascertain the significant influence of determinants (such as nature of technology, technical strategy, perceived usefulness, perceived ease of use, technology in use, availability of skilled ICT personnel and reasonable budget) on the adoption of ICT by SMEs in Kogi State.
- Examine the significant differences in ICT adoption between Small and Medium Enterprises in Kogi State.

## **Literature Review**

ICT has stepped up the business operation outlook of enterprises in Kogi State. ICT has promoted the essence of digital technology to SME owners who have been pessimistic about the accruable high cost of its utilization and adoption in the business environment of Kogi State. Studies such as Akunyili, (2010) and Anigbogu, Edoko, Okoli and Olise (2014) attribute ICT with the processing and communicating of necessary information that can be manipulated for the achievement of enterprise’s vision and mission’. SMEs may find it almost impossible to be in constant touch with the market without electronic information in the digital form.

ICT has received different conceptualizations based on varying authors’ views. According to Jegede (2015: 422), “ICT can be described as any tool that facilitates communication process and transmit information and shared knowledge through electronic means”. Ashrafi and Murtaza (2008) also expressed that ICT involves a ‘broad range of computerized technologies’. Information and knowledge are shared through computerized technologies. The ease of doing

business is facilitated in Kogi State with the network of information and knowledge through computerized technologies.

More definitions were also provided to establish understanding regarding the concept. Apulu and Ige (2011) defined ICT as any technology which enhance and promote communication and the transfer or processing of information through electronic means. These technologies are in most cases, used to create brand awareness and share important knowledge. They are desktop computers, laptops, handheld devices, wired or wireless intranet, business productivity software such as text editor and spread sheet, enterprise software, data storage and security, network security and so on (Ashrafi and Murtaza, 2008). Electronic payment platforms and e-marketing through varying means are also important aspects of ICT utilized in Kogi State. Oluwatayo (n.d.) added that ICT includes mobile telephony, electronic application (such as e-banking, e-marketing and e-commerce), digital media and broadband technology. Haseena (2014: 139) noted that “opportunities created by e-commerce and its predecessor technologies is that ICTs can create digital market places to manage supply chains and automate transaction, increasing efficiency and opening previously closed markets to firms”.

The intention of SME owners to adopt ICT is believed to be dependent on the nature of technology, technical strategy, perceived usefulness, perceived ease of use, technology in use, availability of skilled ICT personnel and reasonable budget. In fact, Ajzen (1991) assumes that every behavioral intention originates from particular factors. When these factors combined well, intention behavior is likely to drive in actual adoption. These factors are strong indicators of the shapes of SME owners’ ICT adoption. The adoption of ICT implies the use of any form of digital technology for business purposes in the future.

The ‘Technology Acceptance Model’ of Venkatesh and Davis (1996) explains that perceived usefulness and perceived ease of use determine the intention of SME owners to adopt ICT. Davis (1989) as cited in Lai (2017: 27) viewed “perceived usefulness as the potential user’s subjective likelihood that the use of a certain ICT (single platform E-payment System) will improve his/her action and perceived ease of use as the degree to which the potential user expects the target ICT to be effortless”. In their study, Venkatesh and Davis’s (1996) finding provide empirical back that ‘perceived usefulness and perceived ease of use’ affect intention to adopt ICT.

The ‘nature of technology’ as being used as a determinant in this study, Orlikowski and Gash (1994) put it that it has to do with the purpose of the use of ICT in SMEs, its capabilities to achieve such purpose and its power of effectiveness. In their study, Barrett (1999) found that ‘nature of technology’ relates with ‘efficiency and effectiveness benefited and improved communications that expanded to a broader market’. Technical Strategy has the tendency to determine the intention and actual adoption of ICT of SMEs. Orlikowski and Gash (1994) explained that technical strategy addresses the rationale behind SME owners’ adoption of ICT, what the SME owners expect from the adoption, and its impact that supports the enterprises’ corporate goals. Some SMEs adopt ICT to influence customer and competitor relationships (Davidson, 2002), or to improve government functionality (Sanford and Bhattacharjee, 2008). The ‘technology in use’ is also believed to serve as a good determinant of ICT adoption. Technology in use has to do with how SMEs implements the ICT chosen considering employees interaction (Orlikowski and Gash 1994), routine actual conditions and the implication of such interaction (Shaw, Lee-Partridge and Ang, 1997), or the employees’ perception of how the ICT is used (Barrett, 1999). The term ‘technology in use’ appears equivocal, in that it has sprung different authors’ views. For instance, Davidson (2002) takes it to involve process improvements while Sanford and Bhattacharjee (2008) take it to mean ‘overcoming socio-cultural, legal, political, or implementation barriers’.

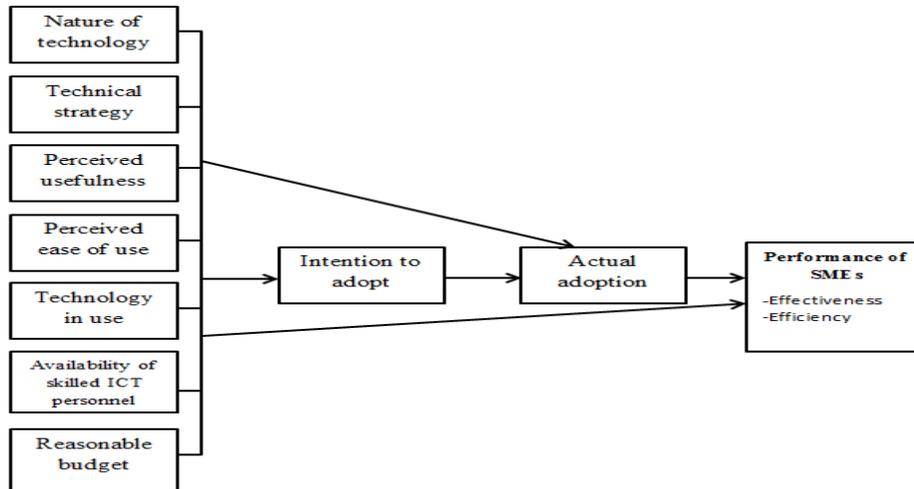


Fig. 1. Conceptual Framework of Determinants of ICT Adoption

Sources: Davis (1989); Orlikowski and Gash (1994); Venkatesh (2000)

There is often gap in the availability of skilled ICT personnel in the context of SMEs in Kogi State. Argument has been established by previous studies (Ongori, 2009; Hashim, 2007) that some SME owners do not have adequate skills and expertise needed to take advantage of the benefits of ICT. Other SME owners who have awareness regarding the benefits of ICT often solicit the aid of experts to overcome the ‘ICT capability gap’ (Hashim, 2007; Kannabiran and Dharmalingam, 2012; Carcary, Doherty and Conway, 2014). It is noteworthy according to Al Rahbi (2017) that ‘SMEs may receive non-professional support’ and this is likely to result into ‘poor ICT strategy’ (Chibelushi, 2008). If the factors are favorable, SME owners are likely to sharpen their behavior towards actual adoption of ICT (Adamkolo, Salleh and Sarina, 2018).

**Theoretical Framework**

This study premised on the propositions of Technological Frame of Reference Theory (TFRT) and Technology Acceptance Model (TAM). TFRT was propounded by Wanda J. Orlikowski and Debra C. Gash in 1994. The theory states that different groups have different perspectives of ICT usefulness (Weick and Bougon, 1986). The TFR assumes that nature of technology, technology strategy and technology-in-use interpret how much ICT is adopted by members in a social group (see figure 2). Although Orlikowski and Gash’s central interest was the use of technological frames in sense-making and interpretation related to ICT and organizational change, particularly the consequences of frame use where frame incongruence exists (Davidson and Pai, n.d).

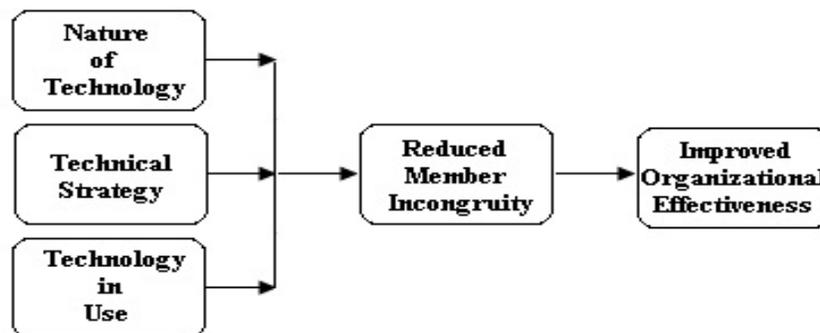


Fig. 2. ICT Adoption Frame of Reference

Source: Orlikowski and Gash (1994)

TAM is also used as Technology Acceptance Theory (TAT). TAM was introduced by Fred Davis in 1986 for his doctorate proposal (Lai, 2017). TAM is an adaptation of the Theory of Reasoned Action (TRA) to the field of Information System. The model has been refined so as to incorporate variables and relationships obtained from the Fishbein and Ajzen’s TRA of 1975 (Mugo, Njagi, Chemwei and Motanya, 2017). TAM is specifically tailored for modelling users’ acceptance of information systems or technologies (Lai, 2017). Chuttur (2009) argues that the wide acceptance of TAM is based on the fact that the model has a sound theoretical assumption and practical effectiveness. TAM assumes that perceived usefulness and perceived ease of use determine an individual's intention to use ICT (see figure 3). In addition, Mugo *et al.* (2017) stated that:

The theoretical basis is built on the premise that when users are presented with a new technology, three major factors influence their decision on how and when they will use it. The first determinant is its perceived usefulness (PU), the second is the perceived ease of use (PEoU), while the third determinant is user attitude towards usage (ATU).

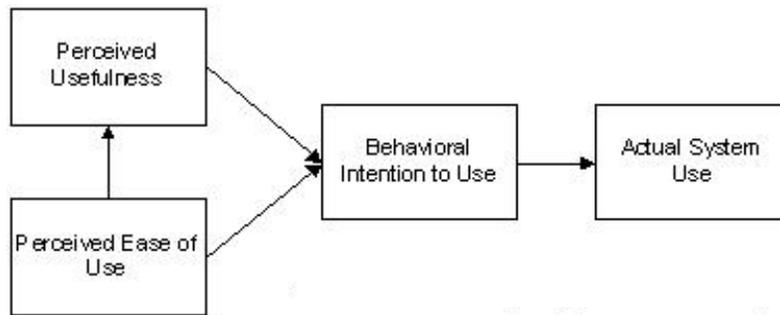


Fig. 3. Technology Acceptance Model

Source: Davis et al. (1989), Venkatesh et al. (2003)

The TAM has been applied in various ICT (Chen, Li and Li, 2011). Alharbi and Steve (2014) supported that TAM has been adopted and tested as a useful framework in the field of ‘information science and Learning Management Systems’. In this study, TAM provides two of the variables which are considered essential to explain the adoption of ICT by SMEs in Kogi State.

### Methodology

The study used survey research design. This research design was permissible for employing a coherent research instrument for gathering information and generating data. The objects of interest for the study are 2027 SMEs. Burns and Bush (2010) expressed that objects of interest represent the population from which a sample is generated. These cut across different sectors, ranging from service, textiles, manufacturing and agriculture. The study focused on SME owner/managers who make top managerial decision regarding ICT. Multi-stage sampling technique was adopted to choose the sample. The research sample makes up the cardinal element in the research design (Cresswell, 2013). The research sample was determined using Sallant and Dillman’s (1997) sampling method:

$$N_s = \frac{N_o (r)(1-r)}{(N_o - 1) \left(\frac{B}{C}\right)^2 + (r)(1-r)}$$

Where:  
Ns = Sample size;

No= Objects of interest;

r= Rate of anticipated Response (50% is most conservative);

B= Tolerable error (0.05 =  $\pm 5\%$ );

C= Z-statistic connected with the confidence interval (1.960=95% confidence level).

For this study, Data were obtained by administering 323 copies of questionnaire. 283 copies of questionnaires (87.62%) were retrieved; and 40 copies of questionnaires (12.38%) could not be retrieved. Scientific investigation premised on the data from the retrieved copies of questionnaires. The Cronbach Alphas for the reliability test (of the constructs in the instrument) are ease of use ( $\alpha = 0.846$ ), nature of technology ( $\alpha = 0.874$ ), technical strategy ( $\alpha = 0.816$ ), perceived usefulness ( $\alpha = 0.906$ ), technology in use ( $\alpha = 0.863$ ), availability of skilled ict personnel ( $\alpha = 0.897$ ) and reasonable budget ( $\alpha = 0.941$ ). To achieve the research goal, analyses of data were done using descriptive statistics, multiple regression and T-test.

## Data Presentation and Analysis

**Table 1.** Demographic variables of respondents

Variables	Response	Frequency	Percent
Age range	15-25 years	47	16.6
	26-36 years	104	36.7
	37-47 years	90	31.8
	48-58 years	30	10.6
	59 years & above	12	4.2
	<b>Total</b>	<b>283</b>	<b>100.0</b>
Gender	Male	169	59.7
	Female	114	40.3
	<b>Total</b>	<b>283</b>	<b>100.0</b>
Qualification	PSLC	14	4.9
	SSCE	56	19.8
	OND/NCE	103	36.4
	HND/B.Sc	75	26.5
	M.Sc and above	35	12.4
	<b>Total</b>	<b>283</b>	<b>100.0</b>
Business Experience	0-5 years	53	18.7
	5-10 years	76	26.9
	10-15 years	77	27.2
	15-20 years	33	11.7
	20 years & above	44	15.5
	<b>Total</b>	<b>283</b>	<b>100.0</b>

Source: Field survey, 2019.

The Table 1 above shows the age range of respondents. It is observed that 47 respondents (16.6%) were 15 to 25 years; 104 respondents (36.7%) were 26 to 36 years; 90 respondents (31.8%) were 37 to 47 years; 30 respondents (10.6%) were 48 to 58 years; and 12 respondents (4.2%) were 59 years and above. The implication of this is that majority of the respondents in the study area were 26 to 36 years.

Table 1 above shows the gender of respondents. It is posited that 169 respondents (59.7%) were male; and 114 respondents (40.3%) were female. This indicates that majority of respondents in the study area were male.

Table 1 above shows academic qualification of respondents. It is observed that 14 respondents (4.9%) were Primary School Certificate holder; 56 respondents (19.8%) were Secondary School Certificate holder; 103 respondents (36.4%) were holders of diploma certificate or its equivalence; 75 respondents (26.5%) were holders of Bachelor of Science or Higher National

Diploma certificate; and 35 respondents (12.4%) were holders of Master Degree Certificate and above. This shows that the majority of respondents in the study area were holders of diploma certificate or its equivalence.

Table 1 above shows business experience of respondents. It is observed that 53 respondents (18.7%) have the business experience of up to 5 years; 76 respondents (26.9%) have the business experience of 5 to 10 years; 77 respondents (27.2%) have the business experience of 10 to 15 years; 33 respondents (11.7%) have the business experience of 15 to 20 years; and 44 respondents (15.5%) have the business experience of 20 years and above. The implication of this is that majority of respondents in the study area have the business experience of 10 to 15 years.

**Table 2a.** Multiple regression of the determinants and adoption of ICT

Variables	Mean	Coefficients	T-Statistics	P-value
NOT	2.3322	-.102	1.112	.292
TLS	2.2580	-.646	3.069	.048
PDU	2.2367	.676	28.691	.000
PEU	2.2968	-.411	6.791	.001
PIU	2.5018	.074	.350	.705
ASP	3.7668	-.159	.861	.424
REB	3.7456	.251	2.165	.117
<b>Multiple R</b>		.923		
<b>R Square</b>		.852		
<b>Adjusted R Square</b>		.846		
<b>F-Stat</b>		129.858		
<b>Sig.</b>		.000		

*Note:* Nature of Technology-NOT; Technical Strategy- TLS; Perceived Usefulness- PDU; Perceived Ease of Use- PEU; Technology in Use- PIU; Availability of Skilled ICT Personnel- ASP; Reasonable Budget-REB

The Multiple Coefficient of Determination (R= 0.923) in table 2a indicates strong linear relationship between the variables. The Adjusted R<sup>2</sup> (0.846) shows that the predictors strength will be 84.6% if one of the variables is eliminated. The coefficient of determination (R<sup>2</sup>= 0.852) shows the spread of data on the regression line. The R-square indicates that 85.2% variation in the adoption of ICT is explained by such variables as nature of technology, technical strategy, perceived usefulness, perceived ease of use, technology in use, availability of skilled ICT personnel and reasonable budget. The remaining 14.8% shows that there are other variables that account for variations in the adoption of ICT by SMEs in Kogi State.

Based on the coefficient of individual variables, nature of technology ( $\beta$ = -0.102; p-value= 0.292), technical strategy ( $\beta$ = -0.646; p-value= 0.05), perceived usefulness ( $\beta$ = 0.676; p-value= 0.01), perceived ease of use ( $\beta$ = -0.411; p-value= 0.01), technology in use ( $\beta$ = 0.074; p-value= 0.705), availability of skilled ICT personnel ( $\beta$ = -0.159; p-value= 0.424) and reasonable budget ( $\beta$ = 0.251; p-value= 0.117) relate with the adoption of ICT by SMEs. It is observed that only technical strategy, perceived usefulness and perceived ease of use relate significantly with the adoption of ICT by SMEs in Kogi State. Only perceived usefulness has significant positive influence on the adoption of ICT by SMEs in Kogi State. This implies that 67.6% increase in the adoption of ICT by SMEs is influenced by 67.6% increase in the perceived usefulness of ICT. Technical strategy and perceived ease of use have significant negative influence on the adoption of ICT by SMEs in Kogi State. By implication, 64.6% increase in technical strategy has often brought about 64.6% decreases in the adoption of ICT by SME owners in Kogi State. Also, 41.1% increase in perceived ease of ICT use has often brought about 41.1% decreases in the adoption of ICT by SME owners in Kogi State. Other variables such as nature of

technology, technology in use, availability of skilled ICT personnel and reasonable budget do not have significant influence on the adoption of ICT by SME owners.

**Table 2b.** ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	241.207	12	20.101	129.858	.000
Residual	41.793	270	.155		
Total	283.000	282			

Dependent Variable: Adoption of ICT

Predictors: Nature of Technology; Technical Strategy; Perceived Usefulness; Perceived Ease of Use; Technology in Use; Availability of Skilled ICT Personnel; Reasonable Budget

Table 2b shows that the mean square residual value (0.155) is smaller, indicating less deviation between the observed and fitted values. The *P*-value for the *F* test statistic ( $F = 129.858$ ) is less than 0.01, providing strong evidence against the null hypothesis. The squared multiple correlation  $R^2 = SSM/SST = 241.207/283.000 = 0.852$ , indicating that 85.2% of the variability in " the adoption of ICT is explained by such variables as nature of technology, technical strategy, perceived usefulness, perceived ease of use, technology in use, availability of skilled ICT personnel and reasonable budget".

**Table 3.** T-test analysis on adopt of ICT between small enterprises and medium enterprises

Variables	Small Enterprise		Medium Enterprise		T-test	P-value
	Mean	Std Dev.	Mean	Std Dev.		
Technical Strategy	1.380	1.151	2.171	1.038	4.607	.557
Perceived Usefulness	1.453	.8430	1.854	.355	4.209	.000
Perceived Ease of Use	1.380	.916	2.172	.619	6.596	.002
Accessibility of Skilled ICT Personnel	1.000	.000	2.037	.649	7.647	.091
Reasonable Budget	1.500	.509	1.500	.509	5.053	.000
ICT knowledge	1.667	.949	1.888	.317	2.171	.000

Source: Field Survey, 2019

Table 3 shows the significant differences between Small and Medium Enterprises in Kogi State in terms of ICT adoption. Technical strategy, perceived usefulness, perceived ease of use, accessibility of skilled ICT personnel, reasonable budget and ICT knowledge were investigated scientifically between Small and Medium Enterprises in Kogi State. Technical strategy of Small Enterprises (given  $\pi = 1.380$ ;  $\sigma = 1.151$ ) is less than the technical strategy of Medium Enterprises for ICT adoption (given  $\pi = 2.171$ ;  $\sigma = 1.038$ ). The t-test result of 4.607 with the p-value of 0.557 shows that the difference in terms of technical strategy for ICT adoption is insignificant.

From the table, the result shows that Small Enterprise owners perceived less usefulness of ICT (given  $\pi = 1.453$ ;  $\sigma = .8430$ ) compared to Medium Enterprises (given  $\pi = 1.854$ ;  $\sigma = .355$ ). The t-test result of 4.209 with the p-value of 0.001 shows that the difference in terms of perceived usefulness of ICT is significant. This implies that the difference between Small Enterprise and Medium Enterprise owners in terms of ICT use is scientifically proven evident.

Also the result from the table shows that Small Enterprise owners perceived less ease of ICT use compared to the Medium Enterprises in Kogi State. The mean score of Small Enterprises in terms of ease of use is 1.380 and the standard deviation is 0.916 compared with the Medium Enterprises with the mean score of 2.172 and the standard deviation of 0.619. The mean of the Medium Enterprises is higher indicating that the owner finds ICT more easy to use. The T-test result of 6.596 with the p-value of 0.002 shows that this difference is very significant.

Table 3 shows the results of the difference between the Small and Medium Enterprises with respect to accessibility of skilled ICT personnel. The mean score of Small Enterprises is 1.000 with the standard deviation of 0.000 and the mean score of Medium Enterprises is 2.037 with the standard deviation of .649. It is viewed that Medium Enterprises have more access to skilled ICT personnel compared to the Small Enterprises. Though the difference is moderately wide, but the scientific verification proves that it is insignificant; given the T-test= 7.647 and the p-value = 0.091.

Equally, the result shows the difference between the Small and Medium Enterprises with respect to reasonable budget for ICT adoption. Small Enterprises have the mean score of 1.500 with the standard deviation of 0.509, and the mean score of Medium Enterprises is 2.374 with the standard deviation of 0.725. The results show moderate mean difference between Small and Medium Enterprises. This indicates that Medium Enterprises prepare more reasonable budget for ICT use or adoption compared to Small Enterprises. This is empirically proven given the T-test value of 5.053 with the p-value of 0.001. The difference is thus statistically significant.

Finally, the results from the table show the mean difference between the Small and Medium Enterprises with respect to ICT knowledge. The mean score of Small Enterprises is 1.667 with standard deviation of 0.949 and the mean score of Medium Enterprises is 1.888 with the standard deviation of 0.317. This indicates that Medium Enterprise owners possess more ICT adoption knowledge compared to Small Enterprise owners. The T-test result of 2.171 with the p-value of 0.001 proves that the difference is significant.

### **Discussion of Findings**

It was found that there are some salient determinants of ICT adoption. The nature of technology, technical strategy, perceived usefulness, perceived ease of use, technology in use, availability of skilled ICT personnel and reasonable budget explain the reason for ICT adoption by SME owners in Kogi State. On the broad empirical perspective, these determinants strongly predict the adoption of ICT (85.2%) by SME owners in Kogi State. Though, there are other factors that can explain the adoption of ICT by SMEs in Kogi State. It was further found that only technical strategy, perceived usefulness and perceived ease of use relate significantly with the adoption of ICT by SMEs in Kogi State. Perceived usefulness has significant positive influence on the adoption of ICT by SMEs in Kogi State. This aligns with the finding of Venkatesh and Davis (1996) that 'perceived usefulness and perceived ease of use affect intention to adopt ICT. Also, the finding of this study supports and clarifies the position of Otieno (2015) on the fact that perceived usefulness, ease of use and cost of deployment have impact on adoption behaviors of SMEs. Technical strategy and perceived ease of use have significant negative influence on the adoption of ICT by SMEs in Kogi State. This finding proves and advances the argument of Orlikowski and Gash (1994) that technical strategy addresses the rationale behind SME owners' adoption of ICT.

Findings show that there are significant differences between Small Enterprises and Medium Enterprises in Kogi State in terms of ICT adoption. The significant differences are identified with perceived usefulness, perceived ease of use, reasonable budget and ICT knowledge. Medium Enterprises are seen with better chance of ICT adoption in Kogi State. Though the Small Enterprise owners are found adopting ICT, but it is incomparable with the adoption of Medium Enterprises.

### **Conclusion**

The adoption of ICT by Small and Medium-scale Enterprise owners is subject to some considerations. SME owners consider technical strategy, ICT usefulness and ease of ICT use for the adoption of ICT in Kogi State. The perception of the usefulness of ICT has led to the

adoption of ICT by SMEs. The perception of technical strategy and the ease of ICT use have often reduced the adoption level of ICT by SMEs.

The dichotomy between small enterprises and medium enterprises are empirically proven. It is evident that medium enterprises adopt ICT more than small enterprises in Kogi State. Medium size enterprises perceive better use of ICT, perceive it easier to use ICT, prepare better reasonable budget for ICT adoption and possess appreciable ICT knowledge than the small size enterprises in Kogi State.

### Recommendations

The following recommendations are made that:

- The government and economic expert should create more awareness on the usefulness of ICT to enhance increasing level of its adoption by SMEs in Kogi State. Also, SME owners should seek the assistance of strategists and acquire ICT handling skills. These will influence positively the adoption of ICT by SMEs in Kogi State.
- Small enterprise owners should have positive perception of the usefulness of ICT, find alternative way of using ICT, source for adequate fund and acquire better ICT knowledge to have better chance of ICT adoption in Kogi State.

### Contribution to knowledge

The study contributes to existing literature both theoretically and empirically. It combined the suggested constructs of TFR and TAM. These constructs were investigated against ICT adoption. The study is able to prove that not all the constructs (variables) determine the adoption of ICT. This is empirical evidence that can fill the gaps in TFR and TAM.

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