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BARRIERS TO ICT DEPLOYMENT IN THE NIGERIAN REAL ESTATE PRACTICE

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ABSTRACT

The introduction of computer and the advent of internet has changed how man lives in the modern world. The versatility of ICT has led to its adoption in real estate services as property market is imperfect in nature. This makes information about the property not to be well disseminated. This study seeks to investigate the barriers to the deployment of ICT in Nigerian real estate practice. Lagos state was chosen as the case study and delineated based on locational pattern to ascertain the central business districts where the agglomeration of the professional practice of real estate lies. Questionnaires were administered to 172 real estate firms and 516 patrons of the firms within the metropolis. The stratified random and snowballing sampling technique was adopted for questionnaire administration on the population respectively. The data collected was analyzed using the weighted mean score and one sample t-test analysis. Findings revealed that the most salient barrier to the deployment of ICT in real estate practice is the rapid changes in ICT technologies. Recommendations were that practitioners should improve their learning culture on the use all forms of ICT software for real estate practice in the bid to build their level of expertise and also put the profession on a global scale among its contemporaries.

Keywords: Barriers, Deployment, Globalization, ICT, Real Estate Practice

INTRODUCTION

Information and communication technology (ICT) is a driving factor in the process of globalization as it accelerates the change of technology. The introduction of computer and advent of internet has changed how man live in the modern world. The pace of change occurs rapidly, thereby making people to always play catch up, trying to purchase or upgrade their devices. Kotlarsky and Oshri (2005), confirmed that technology is now the forefront of the modern world, creating new jobs, innovations, and networking sites to allow individuals connect globally. The use of ICT to gain competitive advantage has become a key strategy amongst organizations in the fast globalizing environment, as it plays a strategic role in the management of organizations (Kakabadse, Kakabadse and Kouzmin, 2005).

The introduction of ICT known as "digital divide" has made every professional to adopt various forms of technologies to aid the services rendered (Krubu and Osawaru, 2011). Much of the world's business today is carried out over digital networks that connect people and companies (Kotler and Amstrong, 2012). Information Communication Technology is growing rapidly and it represents the most important industry in the world today. Interconnectivity became the order of the day over a decade ago, when technology and its capabilities were discovered. Access to and usage of technological facilities occurs with so much flexibility that redefine man's interaction, with people, business, governments and the environment. Riggins (2005) noted that recent trend with access to ICT unite the globe for the purpose of communication, transactions, learning and interaction, thereby improving the overall lifestyle of its adopters.

Property industry is complex in nature. It involves various types of property, procedures and laws, which require the market players to have wide scope of knowledge and experience. Additionally, property is heterogeneous, and its market is imperfect when compared to the stock market (Aluko, 2007; Kilpatrick, 2011). This makes information about the property not to be well disseminated in the market. The evolution of technology constantly impacts man's everyday life as it is being integrated into provision of goods and services. Technology has been adapted to address a wide range of problems. The versatility of ICT has led to its adoption in many businesses and real estate services have not been an exception. However its adaptation in real estate is rather more prominent in developed economies. It is worthy to note that globalization has played a great role and will continue to do so, particularly when stakeholders and

agencies seek sustainable development that is socially harmless, financially viable and environmentally friendly (Oke, Aigbavboa and Ibitoye, 2017).

Real estate is an information intensive business that depicts the role of information. Estate agents connect buyers to sellers through control and dissemination of information. Clients value the role of the agents because of the information skills they can bring to bear on making both listings and sales. The trend of globalization affects the behavior and style of professionals and also enables real estate firms to provide better services for their customers. One of the obvious challenges facing the business is that, most firms still rely solely on traditional method of documentation and communications such as face-toface meetings and exchange of paper documents. In Nigeria, the adoption of information technology for real estate transactions began with property website where property information was published; however challenges such as failure of the sites to effectively meet the customer's need, unfulfilled promises on services, links to pages that are non-functional or nonexistent, has discredited this medium before their clients (Chukwuemeka, 2012).

Despite the wide use and applicability of ICT to enhance organizational performance, there are several impediments that limit its deployment in most firms. The barriers according to Abd-Majid et al., (2012) include legal and contractual issues such as data ownership and copyright holders, the legal validity of contracts, and digital signatures, oral culture and traditions especially where information is shared face-to-face, lack of shared standards for information exchange, lack of financial resources for ICT procurement, lack of ICT staff competencies, low internet connection, high cost of internet charges, lack of real estate ICT standards, high cost of hardware and knowledge about the cost and financial benefits of ICT investments. Regardless of the benefits and opportunities that ICT adoption promises, there are still issues that restrain people from properly investing in and using ICT systems.

The scope of this study is limited to Lagos metropolis where the vast majority of Nigeria's estate surveying and valuation profession agglomerate because it is considered the most vibrant and active property market in the country. Despite the wide applicability of ICT in real estate practice in the global economy, there exists limitation to its wide deployment in the Nigerian real estate sector, this gap is what the study aim to appraise. This study seeks to investigate barriers to the deployment of ICT in real estate firm with reference to real estate agency and property management aspects of the profession.

MATERIALS AND METHODS

Lagos was chosen as the case study because more than half of real estate consultancy firms in Nigeria have their offices located in the metropolis (Amidu, Aluko & Hansz, 2008). Nigerian Institution of Estate Surveyors and Valuers (NIESV) directory in 2002 reported that 52% of the practitioners firm is based in Lagos metropolis. Lagos metropolis was delineated based on locational pattern in order to ascertain the central business districts where the agglomeration of the professional practice of real estate lies. The metropolis which is divided into Island and Mainland, has several Central Business Districts (CBD's) and these firm concentrate along the CBD lines. The two (2) divisions consist of five major business districts (Ogunba, 2004). They include Marina and Ikoyi/ Victoria Island for the Lagos Island CBD's and Yaba/ Ebute Meta, Apapa/Ijora and Ikeja for the Lagos Mainland CBD's. Deductions were made for each of the districts in order to capture a fair but convenience representation of the Lagos metropolis. The population for the study includes estate surveying and valuation firms and clients involved in real estate agency and management transactions in Lagos metropolis.

The list of registered practicing estate surveying and valuation firms with either head or branch office in Lagos State as at 2017 was obtained from the directory of NIESV in order to determine the sample of the population. The sample frame for the clients of this real estate firm was obtained through referral system by the firms. Due to the geographical spread of the target population within Lagos metropolis, 50% of the estate firms was purposively and conveniently chosen from the sample frame to represent the sample size. They will be based on five (5) zones namely: Marina also known as Lagos Island, Victoria Island/ Ikoyi, Apapa/Ijora, Yaba/Ebute Metta and Ikeja business districts. Having adopted the delineation of the study area as put forward by Ogunba (2004), the stratified random sampling technique as employed in the studies by Iroham (2007) was adopted for the selection of the estate firms while the snowball sampling technique was employed in selecting three (3) clients each from the firm's portfolio. Table 1 represents the sample of the population. Table 1: Sample of the Population

S/N	Stratum	Sample	frame	Sample size		
		Estate firms	Clients	Estate firms	Clients	
1	Marina	94	282	47	141	
2	Ikoyi/Victoria Island	52	156	26	78	
3	Yaba/Ebute Meta	38	114	19	57	
4	Apapa/Ijora	26	78	13	39	
5	Ikeja	134	402	67	201	
	Total	344	1032	172	516	

RESULTS AND DISCUSSION Table 2: Administration of Ouestionnaires

Respondents	Questionnaire				
	Distribution	Retrieval			
Estate Surveying and Valuation firms	172(100.00%)	143(83.14%)			
Clients	516(100.00%)	403(78.10%)			

Source: Field Survey, 2017

The response rate obtained from the respondents is as shown in Table 2. Out of the 172 questionnaires administered to the real estate firms, only 143(83.14%) positively responded to the survey request. Questionnaires were also administered to the patrons of the real estate firms within Lagos metropolis. Due to the ever busy nature of the residents within the study area, out of the 516 questionnaires administered to the clients, only 403(78.10%) response obtained and considered valid for the study. Babbie (2007) suggested that any return rate that is over 50% can be reported, over 60% response rate is good, and that over 70% is excellent. This implied that the percentage of questionnaires retrieved from these set of respondents is statistically adequate to represent the whole from which inference can be made for the study.

Table 3: Background Information of the Respondents

-	Estate Surveyors and Valuers							
Category	Classification	Frequency	Percentage					
Sex	Male	102	71.33					
	Female	41	28.67					
	Total	143	100.00					
Educational Qualifications	OND	7	4.90					
	HND/PGD	60	41.96					
	B.Sc/B.Tech	48	33.56					
	M.Sc./M.Tech	25	17.48					
	PhD	3	2.10					
	Total	143	100.00					
Professional Qualifications	G r a d u a t e / Probationer	54	37.76					
	Associate	78	54.55					
	Fellow	11	7.69					
	Total	143	100.00					
Age of Firm	1-3 years	22	15.38					
	4-6 years	47	32.87					
	7-9 years	62	43.36					
	10 years & above	12	8.39					
	Total	143	100.00					
Staff Strength	1-3 staff	22	15.38					
	4-6 staff	47	32.87					
	7-9 staff	41	28.67					
	10 staff & above	33	23.08					
	Total	143	100.0					

Source: Author's compilation from NIESV Directory, 2017

	Clients			
Category	Classification	Frequency	Percentage	
Sex	Male	236	58.56	
	Female	167	41.44	
	Total	403	100.00	
Years of dealing with the firm	1-3 years	177	43.92	
	4-6 years	98	24.32	
	7-9 years	83	20.59	
	10 years & above	45	11.17	
	Total	403	100.00	
Number of properties in firms' portfolio	1-2	285	70.72	
	3-4	107	26.55	
	5-6	9	2.23	
	Above 6	2	0.50	
	Total	403	100.00	

Source: Field Survey, 2017

Findings from Table 3 the survey revealed that 71.33% of the sampled estate surveyors and valuers were males while 28.67% are females. The implication of this is that male gender were more represented than the female counterparts in the profession. Also, the educational qualifications of the sampled respondents depicts that 4.90% had OND, 41.96% had HND and/ or PGD, 33.56% also possess either B.Sc or B.Tech as qualifications, 17.48% possess M.Sc./M.Tech and 3(2.10%) of the sampled population had PhD. This implied that the minimum educational qualification which serves as a pre-requisite for having a formal education is duly possessed by the respondents. This may imply that attainment of higher degrees in real estate discipline is not a prerequisite to professional efficiency and competency but an added advantage. The data gathered on the educational qualification of the respondents brought about quality to the questionnaire administration process as they are deemed to possess the basic knowledge and understanding of the research instruments and their responses can be relied upon. The professional qualification of the respondents also showed that 37.76% of the estate surveyors and valuers are graduate/probationer members of the Nigerian Institution of Estate Surveyors and Valuers, 54.55% are associate members while 7.69% are in the fellow cadre of the professional institution. The implication of ascertaining the professional competence of the respondents is to investigate the level of their

commitment to the profession. It was evidenced that the only a few of the respondents belong to the least cadre of the profession and can be deemed to be in the process of upgrading in the professional calling.

The distribution of the respondents' firms according to age of establishment showed that 15.38% of the firms are set up between 1 to 3 years, 32.87% are between 4 to 6 years, 43.36% are established between 7 to 9 years while 8.39% are 10 years and above. It can be inferred from the data that the middle age group firm used more ICT facilities. This may be due to their level of awareness on the importance of ICT and business productivity. Also, the advent of globalization and the need to meet the citizenry demand on housing need of the nation has brought about the incursion of more registered firms to location where real estate business thrives. The analysis of the staff strength of the firms depict that 15.38% has a staff strength of 3 or less, 32.87% has a staff composition of 4-6, 28.67% has a staff of 7-9 while 23.08% has a staff of 10 and above. The implication of this suggests that as more staff are available in an organization, the workload reduces and more staff can be assigned to a particular role in order to boost productivity.

The background information of the clients revealed that 58.56% are males while 41.44% are females. 43.92% of the clients had been dealing with their choice firms between 1 to 3 years, 24.32% have been dealing with their firms for about 4 to 6 years, 20.59% have dealt with their firms for about 7 to 9 years while 11.17% have dealt with their firms for 10 years and above. The number of client's properties in firm's portfolio revealed that 70.72% of the sampled clients have between 1 and 2 properties in firm's portfolio, 26.55% had at least 3 to 4 properties in the firm's portfolio while only 0.50% had above 6 properties with firms.

Table 4: Reliability Coefficients

Measured Scale	Cronbach's α value
Level of expertise in the usage and application of ICT packages	0.855
Barriers to the use and application of ICT	0.699

Source: Data Analysis, 2017

In order to determine whether items in the questionnaire representing "level of expertise in the usage and application of ICT packages and barriers to the use and application of ICT" were internally consistent, reliability checks using Cronbach's alpha

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was performed. The attributes produced the Cronbach's alpha as shown in Table 4. This showed that the attributes are consistent and that the scales are internally reliable as observable from the Cronbach's α value for scale of measures of the research instruments. Shaib (2007) asserted that the degree of reliability of research instruments is more perfect as they tend towards 1.00. Hence, it can then be concluded that the instruments used for this research are significantly reliable.

ICT real-ages	Estate S	Surveyors	Cl	ients	Ov	erall	ıll	
ICT packages	Mean	Rank	Mean	Rank	Mean	Rank	t-Value	Sig
E-mail	3.88	1st	3.92	1st	3.90	1st	1.09	0.414
Database management	3.34	6th	3.00	9th	3.17	8th	2.73	0.192
Microsoft Office (Word)	3.84	2nd	3.88	2nd	3.86	2nd	0.97	0.664
Revit	2.28	14th	2.00	14th	2.14	14th	0.61	0.551
Microsoft Spreadsheet (Excel)	3.84	2nd	3.64	3rd	3.74	3rd	1.26	0.281
Microsoft Presentation (Power point)	3.77	4th	3.60	4th	3.69	4th	1.73	0.748
Statistical Packages	2.64	11th	2.44	12th	2.54	12th	1.68	0.755
Document reader (Adobe reader)	3.52	5th	3.18	8th	3.35	5th	9.71	0.613
AutoCAD	3.02	8th	3.42	5th	3.22	7th	7.21	0.424
Microsoft Project	3.16	7th	3.38	6th	3.27	6th	1.55	0.377
Corel Draw	3.02	8th	3.24	7th	3.13	9th	2.34	0.307
Microsoft Access	2.42	12th	2.20	13th	2.31	13th	1.52	0.593
Microsoft Publisher	2.68	10th	2.68	11th	2.68	10th	2.93	0.191
Adobe PageMaker	2.42	12th	2.86	10th	2.64	11th	1.29	0.926
Grand Mean	3.13		3.10		3.12			

Table 5: Conversance and Expertise with ICT Productivity Packages

Source: Field Survey, 2017

Table 5 showed the opinion of the respondents on the level of conversance and expertise with the use of the listed ICT productivity packages for real estate agency and property management transactions. The findings from the Estate Surveyors and valuers showed that the three (3) most applied ICT packages are Email (with a mean score of 3.88), Microsoft office and Microsoft spreadsheet (with a mean score of 3.84) respectively. Similarly, for the clients, the three (3) most applied ICT packages are email (with a mean score of 3.90), Microsoft office (with a mean score of 3.86) and Microsoft spreadsheet (with a mean score of 3.74. On the other hand, the least conversance and expertise ICT packages is Revit with a mean score of 2.28 and 2.00 by the estate surveyors and valuers and the clients respectively.

The overall grand mean from both group of respondents shows that the three most conversance were Email (with a mean score of 3.90), Microsoft office (with a mean score of 3.86) and Microsoft spreadsheet ((with a mean score of 3.3.76). The use of email can be attributed to the fact that it provides a platform for privacy and documentation in agency transactions. The findings suggest that there is a high level of expertise and knowledge on the application of ICT packages to real estate practice in the study area. The independent samples t-test was also used to generate the t-value and the p-value (significant) in order to ascertain the degree of discrepancies with respect to each variables in the responses of both group of respondents. All the listed ICT productivity packages had p-values of higher than 0.05. Since these value is above 0.05, it can be infer that there is no statistically significant difference in the mean responses of the two groups of respondents.

Table 6: Areas of application of ICT packages to real estate agency practice

Services	Mean	Rank	Mean diff (test value = 3.00)	t	Sig.
Office record administration	4.25	1st	1.250	5.612	.001*
Real estate agency	4.21	2nd	1.210	5.000	.002*
Real estate marketing	4.10	3rd	1.100	3.084	.005*
Property management	4.03	4th	1.030	4.681	.000*
Book keeping and accounting	3.75	5th	0.750	7.000	.000*
Project management	3.54	6th	0.540	5.642	.001*
Portfolio management	3.13	7th	0.130	6.841	.000*
Consultancy services	2.99	8th	-0.010	7.037	.470
Grand Mean	3.75				

Source: Field Survey, 2017

Table 6 depicts the areas of application of ICT packages in real estate agency and property management practices. Findings revealed that the mean item score for each of the area of application to the real estate services are all greater than 3.00 with exception of consultancy services. This indicated that the firm of estate surveyors and valuers attach high level of importance to the services rendered by the firms. This is evidence as observed with the level of ICT application in office record administration (with a mean score of 4.25), real estate agency (with a mean score of 4.10), property management (with a mean score of 4.03), book keeping and accounting (with

a mean score of 3.75), project management (with a mean score of 3.54) and portfolio management (with a mean score of 3.13). Using a test value of 3.00, the one sample t-test statistics was carried out in order to investigate the significance attached to the services by the respondents. Findings revealed that at p<0.05, there is a significant importance attached to the application of ICT in seven (7) out of the eight (8) services. This indicated that there is a low level application of ICT packages in consultancy services (with a mean score of 2.99) at p>0.05. This can be attributed to the fact that consultancy services required more of a face-to-face approach of consultation than the use of technological know-how.

Table 7: Estate Firm Perspectives on the Barriers to the Deployment of ICT in Real Estate Practice

Barriers	Mean	Std. Dev.	Rank	t	Mean diff (test value=3)	Sig.
Rapid changes in ICT technologies	4.77	.000	1st	7.514	1.770	.000*
Difficulty in operation of some packages	4.73	.463	2nd	7.213	1.730	.013*
High cost of implementing ICT networking	4.73	.707	2nd	7.000	1.730	.000*
Fear of virus attack	4.61	.518	4th	8.541	1.610	.000*
Ineffective training on ICT	4.57	.518	5th	6.275	1.500	.001*
Lack of staff with appropriate skill and knowledge in ICT	4.57	.744	5th	6.177	1.570	.000*
Shortage of skilled manpower	4.57	.518	5th	6.088	1.520	.003*
High cost of employing ICT professionals	4.40	.744	8th	6.007	1.400	.000*
Satisfaction with existing method of working	4.39	.535	9th	7.937	1.390	.000*
Inadequate/erratic power supply	4.37	.926	10th	4.583	1.370	.003*
Low internet connectivity	4.33	.535	11th	7.937	1.330	.000*
Lack of knowledge about the cost and financial benefits of ICT	4.33	.756	11th	7.612	1.300	.001*
High rate of obsolescence ICT products in the market	4.33	.916	11th	7.245	1.430	.004*
Lack of commitment by firm's management towards ICT acquisition	4.30	.518	14th	7.214	1.300	.002*
Escalating project cost	4.27	.518	15th	4.742	1.270	.007*
Fear of ICT making professionals more lazy	4.25	.518	16th	7.344	1.250	.000*
Continual demand for upgrading	4.13	.518	17th	5.227	1.130	.001*
Lack of sufficient jobs	4.07	.756	18th	4.497	1.070	.041*
Fear of personnel abuse	3.88	.991	19th	7.100	0.880	.000*
Grand Mean	4.40	0.236				

Source: Field Survey, 2017

In order to examine the estate surveying and valuation firm perception on the barriers to the deployment of ICT in real estate agency and property management practice in Lagos metropolis, the Likert scale of 1 = not agreed to 5 = highly agreed was used to rate the responses. Scores entered by respondents were transformed into weighted mean score (W.M.S) in order to determine the mean of the response. The results of the response as shown in Table 7 revealed that the most salient barrier is the rapid changes in ICT technologies (W.M.S = 4.77). This is closely followed by the difficulty in operation of some packages and high cost involved in implementing ICT networking with a mean of 4.73 and a p-value of 0.013 and 0.000 respectively. The least but salient barrier according to the estate surveyors and valuers is the fear of personnel abuse. This is evidence with a mean score of 3.88 at a p-value of 0.000. This indicates that most of the firms are of the opinion that the staff might abuse the use of ICT, hence the limitation in implementing it.

A one sample t-test was carried out to investigate the significance attached to the barriers by the respondents. Based on a 5 point Likert scale, a 2.50 score is usually considered as average but a score tending towards 3.00 indicates a more acceptable importance. It is evident from Table 7 that rapid changes in ICT technologies had a p-value of 0.000 while difficulty in the operation of some packages and high cost involved in implementing ICT networking had a p-value of 0.013 and 0.000 respectively. The least but salient barrier which is the fear of personnel abuse also had a p-value of 0.000. By using the t-test statistics, it was discovered that all the barriers listed in Table 7 are significant at p < 0.05. Thus, it can be concluded that all the variables can impede the use and application of ICT for effective service delivery.

Barriers	Mean	Std. Dev	Rank	t	Mean diff (test value=3)	Sig.
Rapid changes in ICT technologies	4.55	.707	1st	8.071	1.550	.002*
Low internet connectivity	4.53	.508	2nd	7.533	1.530	.000*
Inadequate/erratic power supply	4.50	.618	3rd	5.937	1.500	.000*
Fear of personnel abuse	4.47	.728	4th	6.781	1.470	.000*
High rate of obsolescence ICT products in the market	4.47	.750	4th	6.612	1.470	.001*
Lack of knowledge about the cost and financial benefits of ICT	4.43	.756	6th	5.988	1.430	.001*
Fear of ICT making professionals more lazy	4.17	.535	7th	7.042	1.170	.000*
Continual demand for upgrading	4.00	.706	8th	4.612	1.000	.012*
High cost of implementing ICT networking	3.97	.926	9th	4.583	0.970	.003*
Lack of commitment by firm's management towards ICT acquisition	3.97	1.069	9th	3.443	0.970	.005*
Fear of virus attack	3.77	1.061	11th	4.867	0.770	.004*
Shortage of skilled manpower	3.53	.886	12th	3.689	0.530	.005*
Satisfaction with existing method of working	3.23	.707	13th	4.469	0.230	.002*
Difficulty in operation of some packages	3.03	.886	14th	3.419	0.030	.005*
Ineffective training on ICT	3.00	1.165	15th	4.400	0.000	.010*
High cost of employing ICT professionals	2.93	.991	16th	3.211	-0.070	.015*
Lack of staff with appropriate skill and knowledge in ICT	2.75	1.126	17th	3.826	-0.250	.026*
Lack of sufficient jobs	2.73	.807	18th	5.420	-0.270	.109
Escalating project cost	2.63	.518	19th	3.681	-0.370	.221
Grand Mean	3.72	0.707				

able 8: Clients Perspective on the Barriers to the Deployment of ICT in Real Estate Practic

Source: Field Survey, 2017

The Likert scale of 1 = not agreed to 5 = highlyagreed was used to rate the clients responses in order to examine the barriers to the application of ICT in real estate agency and property management practice in Lagos metropolis. The information were then transformed into weighted mean score (W.M.S). Table 8 revealed that the most salient barrier is the rapid changes in ICT technologies (W.M.S = 4.55). This is closely followed by the low internet connectivity (W.M.S = 4.53) and inadequate/erratic power supply (W.M.S = 4.50). A one sample t-test was carried out to show the significance attached to the barriers by the respondents. According to Table 8, the t-test statistics suggested that, except for two (2) of the variables, all the barriers are significant at p < 0.05. These two variables are lack of sufficient jobs and escalating project cost whose p-values are higher than the required 0.05 as they gives a p-value of 0.109 and 0.221 respectively. It can be inferred that these salient barriers cannot limit the effective use of ICT. The findings of this study agrees with that of Oladapo (2006) and Babatunde et al., (2016) where it was established that changing trends in technology, service failure and insufficient/erratic power supply is a constraint to the widespread adoption of ICT. The study also corroborates that of Oladapo (2006) where fear of personnel abuse ranked among the least barriers impeding the use of ICT in the construction industry. The findings also disagrees with Esben (2012) where rapid changes in ICT technology was found to be a non-significant barrier to the deployment of ICT in

the construction industry.

CONCLUSION

The adoption of ICT to real estate agency and management practice is specifically the focus of this work. The application of ICT to real estate practice has aid in giving a better corporate image while at the same time enhancing business profitability. Information technology as a marketing tool, gives wide coverage to reach potential clients as information gathering is faster, more accurate and probably the cheapest way to sell real estate products. The use of ICT brings about customer satisfaction by improving service quality thereby offering new opportunities. Thus, ICT can bring about change in organizations and make them more competitive, innovative and assist to increase organizational growth. The deployment of ICT as helped in expanding and facilitating the development of contemporary practice of real estate in Nigeria. It has significantly changed the way real estate professionals adopt in marketing properties and service and the extent to which practitioners can get directly involved in the heterogeneous real estate market. Based on the findings of the study, it is recommended that practitioners should improve their learning culture on the use all forms of ICT software that can be deployed for the practice of real estate. This will help in building the level of expertise of the real estate practitioners and also put the profession on a global scale among its contemporaries.

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