

# THE ADOPTION OF KNOWLEDGE MANAGEMENT SYSTEMS (KMS) AMONG ACADEMICIANS IN NIGERIA UNIVERSITIES

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**ABSTRACT:** Higher Education Institution (HEI) is known as the knowledge hub where knowledge is acquired and shared among all. In order for the Nigerian universities to fully realize its knowledge management related objectives, there should be a requirement of supporting knowledge management system as these universities also face various challenges regarding this system, including whether or not to adopt it, whether users would accept to work with it. This study reports the factors of adoption of KMS among academicians in Nigeria. The following four major independent variables were studied i.e. 1) Organization (Structure, Government support, Culture, and organizational infrastructure), 2) Individual (Knowledge, Personal innovativeness, experience, and attitude), 3) Management Support (training, management initiatives and management) and 4) technology (trialability, compatibility, visibility and complexity). The study employed an explanatory quantitative method design using survey. Findings identified that individual and management support factors play a major role on the adoption of KMS in Nigeria than organizational and technological factors. Using these findings, future researchers can further verify and explore in more depth on factors for KMS adoption especially the management support and individual factors.

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**KEY WORDS:** Knowledge Management System, Adoption, Universities, Academician

## 1. INTRODUCTION

Knowledge management (KM) and its processes are growing steadily in popularity and importance among researchers back in the early 1990s and until today. This has led many organizations to develop KM initiatives to ensure the proper management of knowledge and knowledge generation within the organization. Furthermore, knowledge and information has been accumulated along the years for its growth and development, and their potentials will be totally appreciated through the possibility of assets gained from using knowledge and requirement from KMS (Maier, 2007). Knowledge management is described as the management of knowledge processes which involves not only the acquisition of knowledge but also its representation, storage, learning, sharing and innovation in an organization or sector. It's specifically involved with knowledge gathering,

storing, sharing, reuse and creation of knowledge which is used in developing knowledge assets in an organization, and also for the achievement of the organization's mission, goals and objectives (Nawaz and Gomes, 2014).

Generally, the creation of information system (IS) is to enhance the operational management achievements by storing huge amount of data for it to arranged automatically in a specific format and this shows that IS is different from KMS which is created to effectively and efficiently support organizational KM activities. With an adequate adoption of KMS and the ability to continuously create, accumulate and share knowledge, management was able to fully utilize organizational knowledge resources. In order to ease efforts made by an organization towards the effective and efficient management of tacit and explicit knowledge, KMS adoption is needed as it supports knowledge contributors/users with the insertion of practices used in KM in a information technology (IT) system that will act as a standard organization gained experiences (Onyeagbako et al., 2017). The adoption of KMS in organization is needed and most especially in Nigerian universities as these increases organizational effectiveness in the universities and this is possible because KMS discover and capture knowledge and also share the knowledge among certain population inside or outside of the organization.

One of the major reasons knowledge management system adoption and implementation is successful and effective is due to having a good knowledge sharing and storage apparatus which enables knowledge management to be achieved among knowledge seekers. In a situation whereby a knowledge worker with years of experience, skills and knowledge is required to share his knowledge with a new staff from the same or different department which will be carried out by sharing the knowledge by codifying it and sharing it electronically through a system (KMS); this type of worker can be called a knowledge contributor in the organization (Assegaff, 2015). The issues that have being of main concern for practitioners and researchers in KMS is that most organizations haven't created the proper approach towards KMS that will embolden knowledge management among their knowledge workers and also to encourage the sharing and seeking of knowledge among the workers. Therefore, the objective of this study is to identify the overall view and understanding of KMS amongst academicians and to investigate the factors affecting KMS in Nigerian Universities.

## **2. LITERATURE REVIEW**

### ***2.1. Knowledge Management (KM) and IT***

The arrival of the information technology (IT) era and the revolution of information completely transformed how information is being managed, processed, stored and utilized. Therefore, knowledge used presently shows interestingly that knowledge is to allow people, the customers, or students to feel happy, satisfied and contented on how knowledge is used and these transforms the way organizations/institutions behave and react (Ramlee, 2011). Knowledge management can be described as collecting, understanding, processing organization's data with the use of different technologies thereby creating an accessible, usable creative and valuable knowledge. It can also be described as the protection of existing knowledge within the organization/institution. Knowledge management is regarded as of high importance and that's why Knowledge, can be considered as the foundation of organization competition in the modern economy

and its being use as an important resource in organizations (Wang & Aspinwall, 2005; Chen et al., 2009).

Davenport and Prusak (1998) described knowledge as a mixture of values, experience, contextual information, and expert insight that offers a model for measuring and integrating new experiences and information. It is said that knowledge can be divided into explicit knowledge and Tacit Knowledge. Explicit knowledge is described as processed knowledge through information systems, recording the knowledge, being archived and protected by an organization (Barth, 2000). Tacit knowledge was defined as knowledge that was gained through experience and work practices stored in mental processes can be only transferred observing the individual with knowledge and applying it (Choi and Lee, 2003). Based on the qualitative observations of KM projects done by Davenport et al. (1998) in big organizations, they suggested that KM was effective through four important major factors namely culture, infrastructure (organization), motivational aids and management support.

## **2.2. Knowledge Management System (KMS)**

Knowledge management systems (KMS) can be described as an IT-based system created with the intention of supporting and enhancing the organizational processes of the creation, storage, transfer, and application of knowledge (Alavi and Leidner 2001). Davenport (1998) described knowledge management systems as a system developed and designed that gives decision makers/users in an organization the knowledge they need to make the right decisions and perform their tasks properly. This research objective is to investigate the adoption of KMS in Nigeria universities and Alavi and Leidner (2001) definition best describe the practices of a university setting and the processes involved in the adoption of KMS. This is because KM initiatives rely on IT as an important enabler and it can support KM in many ways. Examples include: the sharing of knowledge and working together in virtual teams; information access to past projects and a recorded source of knowledge using online directories and searching databases.

KMS can then be described as a system for managing knowledge in organizations which support creation, capture, storage and dissemination of information. KMS allows individuals or employees of an organization to have ready access to the organization's stored base of facts, sources of information, research papers and manuals (Maier, 2007). Knowledge management system can be said to have permeable boundaries which are difficult to position which is why knowledge that is useful to one person in one part of the organization maybe be useless to someone else in another department. The ever growing and flexible business environments have enlightened organizations worldwide into adopting knowledge management systems to develop knowledge as their source of competitive advantage (Alavi and Leidner 2001). To be able to understand KMS adoption successfully remains a high priority and this is because organization management made big and significant attempts in taking KM initiatives (Poston and Speier, 2005).

Further studies done by Wang and Aspinwall 2005, focused on 11 critical success factors after KMS have been adopted and implemented on how important it is to KMS: First was leadership based management and support followed by culture based in the organization, information technology (architecture), purpose

and strategy of having KMS, measurement, organizational infrastructure, processes and activities, motivational aids to encourage KMS usage, resources, training and education to enhance KMS skills, and human resource management. It is therefore seen that KMS adoption and the process of implementation involves technological issues, as well as culture, structure, process, and human factors which are based in the organization (Bertoni et al., 2008; Quaddus & Xu, 2005).

### **2.3.KMS and Knowledge Sharing Impact/Benefit or Effect in Africa**

In Africa, several projects were proposed at knowledge sharing (KS) among academics/academicians, of certain group of educational bodies. Universities in Africa are now more interested in Information Technology usage and the government have committed in funding IT infrastructure by providing a fast and reliable Internet so as to cater to academicians by giving access to services like online publications databases, online libraries and effective communication with email and forums (Osunade et al., 2009).

Skills involving internet and information are emphasized as a means of implementing knowledge management in Africa. In South African, the South African Quality Authority (SAQA) information skills was emphasized on to demonstrate its importance on all levels of education this is because it is necessary and a critical learning outcome before the implementation and usage of knowledge management. This is why the University of Pretoria made it compulsory for all first year students to take computer and information literacy. Master's students from environmental and chemistry education in the University of South Africa (Unisa) enroll in information research literacy course so as to improve their information technology knowledge (Fourie and Bothman, 2006). A study was done by Harbi et al. (2011) on small ICT firms in Tunisia about each firm shares knowledge and information among themselves and the result shows that employees and managers from these firms need more motivation, good IT Infrastructures and experience in the knowledge management area so as to encourage knowledge sharing in the firms.

### **2.4.KMS, Knowledge Sharing and IT in Nigeria**

The educational system in Nigeria has encountered many challenges like high cost of educational books with computer parts and infrastructure which led to a reduced or no particular interest in academic studies and this brought about the lower standard of teaching and less interest in research. After returning to democracy in 1999, there was a policy document supplementation on Information and Communication Technology (ICT). In 2000, the liberation of the telecommunications industry led to an Internet revolution: there were enough cybercafés to cater to most Nigerians hunger for the Internet. These changes in the country allowed academic institutions to invest in internet facilities and infrastructure on their campuses so that it will improve the academic staff's teaching and research activities and also encourage the learning activities of the students (Osunade et al., 2007).

A study was conducted on the usage of Internet facilities amongst lecturer (academicians) at the University of Benin, Nigeria and the results show that Internet usage was used towards writing journal and conference papers, journal or book publications, instructional materials searches and getting access to reference materials although there was no real important differences on the use of internet based on either they were male or female users (Aduwa-Ogiegbaen, 2005). A study

by Ureigho *et al.* 2006, which focuses on the impact evaluation of the use of the Internet, was conducted amongst the Delta State Polytechnic staffs and students which shows chatting online ranked highest among students mostly and it was followed by e-mail usage as a second and searching for online materials was third.

A survey which was conducted on academic staffs of certain disciplines in Ten (10) Nigerian Universities indicated that academicians rely heavily on the printing of information sources (Hard copy sources) for journals, conferences and abstracts. As this study shows that 64.4% of academicians have a computer, 50.4% have access to, and are making use of it with the Internet (Ehikhamenor 2005; Osunade *et al.*, 2007). It has been argued that every Nigerian Universities library are found to have ICT infrastructures and most of them have fairly improved internet access which can aid knowledge sharing. Nigerian university libraries now disseminate information through electronic portals and databases either with the aid of a consortium or by independent subscriptions (Womboh, 2008).

A study conducted in Nigerian universities describes the barriers facing information literacy which can also affect the management and sharing of knowledge and findings identified students' less interest in information literacy, less or no encouragement from the management to the teachers, no provision from human resources to handle Information Literacy training, inadequate facilities, low acceptance of online Information Literacy delivery approach and the absence of Information Literacy policy were the factors identified as stand against librarians' efforts when advocating and providing Information Literacy programmes in university libraries in Nigeria (Baro and Zuokemefa, 2011). Osunade *et al.* (2007) in their study about internet use in Nigerian academics concluded that Internet services usage has increased the process of information creation and dissemination which led to knowledge sharing opportunities that is accessible to Nigerian academics but some other services like videoconferencing, mailing lists and some knowledge websites are limited in Nigeria which shows the reason why most academicians are self-contradictory and deficient in skills to make full use of the internet for research work.

### **3. RESEARCH MODEL**

The research model would be adopting models based on similar and previous researches that were based in knowledge management system and also knowledge management in general. These models include the KMS Adoption and success model (Kuo and Lee, 2011), Roger's theory of Innovation Diffusion (1995), Davis's Technology Acceptance Model (1986), knowledge management system adoption model (Xu and Quaddus, 2012). The KMS adoption and success model uses five parts of the knowledge dimension namely perceptions of usefulness, ease-of-use, compatibility significantly affect behavioral intention of the adopter and empowering leadership encourages the adoption of KMS and increases its success after its being implemented. Davis's technology acceptance model suggests that organizational individual factors which are external factors will have an effect knowledge management system (KMS) adoption. The factors that were used in the knowledge management system adoption model includes external inspiring, individual, organizational, management support, KM characteristics and task complexity.

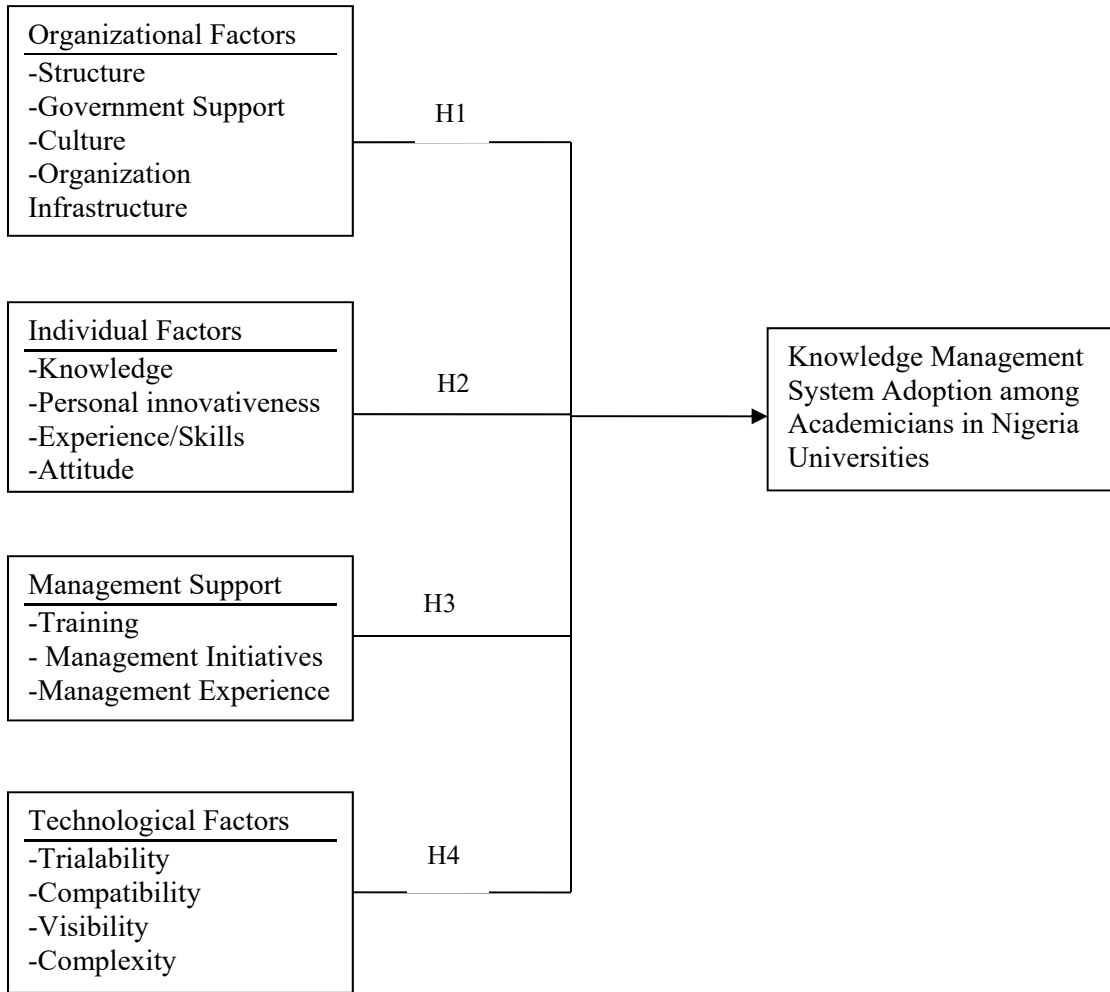


Fig. 1. Research Model

Table 1: Brief description of the research model variables

Factors	Description
Organizational	Culture (where people have positive orientation towards knowledge), government support, structure, information technology infrastructure.
Individual	Attitude towards knowledge management, Knowledge, experience/skills, personal innovativeness.
Management Support	Management initiatives, training, and management experience.
Technological	Triability, compatibility, visibility, complexity.
Training and Education	Mentoring, promoting courses and workshops, so as to encourage teamwork when the new employees are integrated into the organization.

**3.1.Hypotheses Formulation**

Based on the relationship shown in the research framework in Figure 3.1 and reviewed literature, research hypotheses were formulated in these sections.

H1: Organizational factor will positively influence Knowledge Management System Adoption.

H2: Individual factor will positively influence Knowledge Management System Adoption.

H3: Management Support will positively influence Knowledge Management System Adoption.

H4: Technological factor will positively influence Knowledge Management System Adoption.

### **3.2. Review of Theories Used in Supporting the Research Model**

#### **3.2.1. Review on Variables used in Organizational Factors**

Based on past studies and researches by (Kimberly and Evansiko, 1981; Kim and Srivastava, 1998; Yap et al. 1992; Gold, 2001; Davenport, 2002; Xu and Quaddus, 2012), they showed and discussed the significant influence of organizational factors in the adoption of KMS. Furthermore, Davis's Technology Acceptance Model (TAM) suggests that organizational factor which is in an external factor will have an effect knowledge management system (KMS) adoption by impacting perceived usefulness (Davis, 1986). According to Davenport and Prusak (1998), they suggested that the KMS adoption decision can be related to the size and dispersion of the organizations and this means that a huge multinational enterprise is ready and likely to adopt KMS and use its knowledge effectively.

#### **3.2.2. Review on Variables used in Individual Factors**

In the knowledge management and knowledge sharing context, studies shows that users' motivation to use the system is a significant factor in KMS success. Hahn and Subramani (2000), describes that the sure and effective way of increasing the acceptance of KMS is to involve the uses in the system development. This would allow the KMS to be developed along with the user's specifications as this is because the user's system acceptance is important to the success of KMS. According to Davis's Technology Acceptance Model (TAM), which suggests that individual factor which is one of the external factors will have an effect on KMS adoption and diffusion. In addition to past studies done by (Zmud, 1979; Igbaria et al., 1995; Jackson et al., 1997; Gefen and Straub, 1997; Agarwal and Prased, 1999; Venkatesh et al., 2000; Xu and Quaddus, 2012) shows that individual and characteristics and differences of end users are significant factors used to explain or predict the adoption of innovation.

#### **3.2.3. Review of Variables used in Management Support**

Information technology is being said to be an important factor in the successful establishment of KMS in an organization, but information technology wont necessary guarantee success without considering organization and people's perspectives that are with the organization. Past researches have stressed on the significant of management support and studies by (Davis et al., 1989; Premkumar and Ramamurthy, 1995; Thong and Yap, 1995; Beatty et al., 2001; Lee et al., 2011; Xu and Quaddus, 2012) proposes the factor of management support is significant in the adoption of innovation. Davis's Technology Acceptance Model (TAM) suggests that management will have influence on knowledge management diffusion. With the top management full support through the reward system, and the knowledge sharing culture, this are some of the factors of success in knowledge management systems in the organization (Ma and Hemmje, 2001).

### **3.2.4. Review of Variables used in Technological Factors**

According to Alavi and Leidner (1999), it was said that attributes of the managers over the concept of KMS was being combined into two (2) views related to IT. This is because knowledge management systems can be divided into two parts: **Information** which consists of real-time information, and readily accessible information; **Technology** consists of information systems, data mining, data warehouses, decision making tools, and intranet. An organization's KMS makes use of technology as its main infrastructure capabilities as the presence of information technology in an organization can integrate the previous and present flows of information and knowledge together effectively and it will eliminate naturally occurring barriers in communication between different departments in an organization (Gold et al., 2001). Furthermore, based on Roger's theory of Innovation Diffusion (1995), it was suggested an organization's determinants that allows it to make decision to adopt information systems are based on relative advantages of using adopting the technology, complexity and compatibility to the infrastructure they already have in place which are all innovation characteristics.

## **4. RESEARCH DESIGN**

### **4.1. Research Methodology**

A quantitative method would be used in this research through the conduction of a survey amongst academicians from various universities in Nigeria. Most academicians are just beginning to identify the usefulness of using knowledge management systems in improving their work performance that would benefit my survey. A set of questionnaires was distributed to acquire the necessary data from the respondents who are academicians and are active in their academic program. The survey was completed and the data collected from the respondents was run through statistical package for the social sciences (SPSS), which will analyze the data in a systematic way so that it can generate a detailed and statistical information from the survey. Parametric analysis which contains descriptive analysis, Factor analysis, Reliability and Multiple regression analysis was utilized in the analysis of the collected data.

### **4.2. Population**

The population of this study consists of academicians from selected universities across Nigeria which is approved by the National University Commission (NUC) of Nigeria. This was due to the distinct personality and behavior of the northern and southern part of the country. In addition, the educational sector in Nigeria plays a very important role in the economy, especially in terms of their proportion in the number of industry-ready graduates and fostering a higher rate of aggregate growth in terms of individual and higher labor productivity.

### **4.3. Sampling Frame**

As for this study, the sampling frame is the National Universities Commission of Nigeria website. This website is managed by the commission and contains information on 153 Federal, State and Private Universities in the education sector. The website provides University names, Vice Chancellor names, website addresses and the year each university was established. The website also contains different departments in the commission agency that monitor and inspect the



standard of the universities to deliver good quality education and to perform research. Distance learning centers are also included in the website as some of the centers are located in the few universities environment.

#### **4.4. Sampling Method**

Selecting the appropriate sampling method should be able to minimize the effects of errors facing internet surveys and these errors include coverage error, non-response error and sampling error (Cochran, 1963; Yamane, 1967; Salant & Dillman, 1994). In this case, saturation sampling helps to eliminate the non-coverage error and sampling error and this method is believed to be relatively more accurate than other sampling methods. Thus, the saturation sampling method has been selected for this research.

This method is still subject to non-response errors but based on past researches, various techniques can be implemented to improve the response rate and these techniques.

#### **4.5. Structure of the Questionnaire**

The questionnaire used in our research is constructed into two major sections: the demographic profile section and the KMS factors section. As for the latter, four sub-divisions are included, namely Technological, Management Support, Individual and Organizational factors. The demographic profile section consists of a set of questions pertaining to the background of the participating academicians. Some of the questions include their position in the university, the duration of the position, gender, age and education level have been structured.

#### **4.6. Pilot Test**

Pilot study was conducted randomly among forty-five academicians from different universities in Nigeria. The responses were collected and analyze for reliability and validity to check the reliability of the instrument.

Table 2: Reliability score for Pilot study

<b>Variables</b>	<b>Cronbach Alpha</b>
Organizational factor	0.597
Individual factor	0.751
Management Support	0.565
Technological Factor	0.603
KMS Adoption	0.550

## **5. DATA ANALYSIS**

A set of questionnaires was distributed to acquire the necessary data from the respondents who are academicians and are active in their academic program. The survey was completed and the data collected from the respondents was ran through statistical package for the social sciences (SPSS), which was used in analyzing the data in a systematic way so that it can generate a detailed and statistical information from the survey.

Out of the 550 questionnaires distributed online, a total number of 301 responses were considered for this study. These characteristics involved gender, age, level of education, profession (job), years of working experience and years of computer experience.

## **5.1.Descriptive Analysis**

### **5.1.1. Gender**

Around 77.1 % of the respondents are male and 22.9 % being female. A study conducted by Mulugeta (2010), indicated that gender gap exists in education at all stage and more so among academicians. This indicates a gap between male and female academicians, as male are geared more towards education in the developing countries than the female.

### **5.1.2. Age**

Respondents with age below 30 years 1% are academicians which shows that younger people are getting more involved in academics, while the age between 31 to 35 7.6% shows that there is an upward trend towards being an academician among younger adults as there are eager to prove that they have the capability of having an impact in the education sector. The age group 36 to 40 years account for the highest 48.2%, indicating that this group are providing the institution with technology and creative experience as this group are equipped to teach and have an impact on the students. Age group 41 to 49 are the second highest respondents and this group have being in the education sector for a while and have the experience to go with it while 50 years and above have deep knowledge and years of experience in academics and they are ready to share their experiences with young adults who ready to learn from them.

### **5.1.3. Level of Education**

Educational level of respondents shows educational background during their time as an academician. Most of the respondents are found to already have a PhD, this account for 61.8% (186 individuals), this indicates that the respondent's interest in achieving a Phd status before venturing in academics is high. As this is a common trait in developing countries, as there is a certain amount of prestige and respect when one has completed and acquired a doctorate degree. It shows one has pedigree of lecturing and contributing to the area of research and innovation is the educational sector. 1% of the respondents have a Bachelor degree. Respondents with master degree 37.2% are the second highest respondents as they are into academics about they still seek further knowledge and experience in the area research to make them a better academician.

## **5.2.Factor Analysis**

Factor analyses were conducted on these items to discover how the variables relate and group based on inter-variable correlations and to explore their validity within the sample and determine the factor structure of the dataset. IBM SPSS was used for this analysis, and was instructed to suppress factor loading not up to 0.50, suggestion by Hair et al. (2006) and all the items fits into their respective factors. Factor analysis is described as a method used in finding the relationship among a number of variables and identifies their factor within the data (Leedy and Ormrod, 2005).

### **5.2.1. Organizational factor**

All the five items measuring "Organizational factor" remain. Descriptive Statistics was checked to identify missing values; no missing value was found. Correlation Matrix was checked to identify singularity issues, checking items that

have correlation of more than 0.2 with other item and no singularity issue was identified. Kaiser-Meyer-Olkin (KMO) is 0.524 and Bartlett's test with significant value of 0.000 showing sample adequacy and no identity matrix found. Anti-image matrix was checked; all values are greater than 0.5 showing satisfaction. Communalities shows no item less than 0.5 showing satisfaction and Total variance explained shows only one factor with 32.528 per cent which is not greater than 90 percent, therefore, showing satisfaction.

### **5.2.2. Individual factor**

All the seven items measuring "Individual Factor" remain. Descriptive Statistics was checked to identify missing values; no missing value was found. Correlation Matrix was checked to identify singularity issues, checking items that have correlation of more than 0.2 with other item and no singularity issue identified. Kaiser-Meyer-Olkin (KMO) is 0.778 and Bartlett's test with significant value of 0.000 showing sample adequacy and no identity matrix found. Anti-image matrix was checked; all values are greater than 0.5 showing satisfaction. Communalities shows no item less than 0.5 showing satisfaction and Total variance explained shows only one factor with 42.549 per cent which is not greater than 90 percent, therefore, showing satisfaction.

### **5.2.3. Management Support**

All the five items measuring "Management Support" remain. Descriptive Statistics was checked to identify missing values; no missing value was found. Correlation Matrix was checked to identify singularity issues, checking items that have correlation of more than 0.2 with other item and determinant greater than 0.00001 and no singularity issue was identified. Kaiser-Meyer-Olkin (KMO) is 0.805 and Bartlett's test with significant value of 0.000 showing sample adequacy and no identity matrix found. Anti-image matrix was checked; all values are greater than 0.5 showing satisfaction. Communalities shows no item less than 0.5 showing satisfaction and Total variance explained shows only one factor with 55.021 per cent which is not greater than 90 percent, therefore, showing satisfaction.

### **5.2.4. Technological factor**

All the five items measuring "Technological factor" remain. Descriptive Statistics was checked to identify missing values; no missing value was found. Correlation Matrix was checked to identify singularity issues, checking items that have correlation of more than 0.2 with other item and no singularity issue was identified. Kaiser-Meyer-Olkin (KMO) is 0.857 and Bartlett's test with significant value of 0.000 showing sample adequacy and no identity matrix found. Anti-image matrix was checked; all values are greater than 0.5 showing satisfaction. Communalities shows no item less than 0.5 showing satisfaction and Total variance explained shows only one factor with 32.816 per cent which is not greater than 90 percent, therefore, showing satisfaction.

### **5.2.5. KMS Adoption**

All the four items measuring "KMS adoption" remain. Descriptive Statistics was checked to identify missing values; no missing value was found. Correlation Matrix was checked to identify singularity issues, checking items that have correlation of more than 0.2 with other item and no singularity issue was identified. Kaiser-Meyer-Olkin (KMO) is 0.563 and Bartlett's test with significant value of 0.000 showing

sample adequacy and no identity matrix found. Anti-image matrix was checked; all values are greater than 0.5 showing satisfaction. Communalities shows no item less than 0.5 showing satisfaction and Total variance explained shows only one factor with 42.126 per cent which is not greater than 90 percent, therefore, showing satisfaction.

### 5.3. Regression Analysis

By using the MRA technique for the analysis, it is important and adequate to check on the normality and linearity tests. The sample size, 301 is adequate for MRA and this means that running MRA is useful and agreeable. Other analyses that follows will be looking at the relationship existing among these variables (Pallant, 2011). The study will be investigating the relationship between Organization factor, Individual factor, Management and Support and Technological factor by using the multiple regression that includes Pearson product-moment correlation coefficient.

Table 1:

Model Summary <sup>b</sup>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.425 <sup>a</sup>	.280	.269	.91136566	1.510	
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.146	4	13.537	16.298	.000 <sup>b</sup>
	Residual	245.854	296	.831		
	Total	300.000	300			
a. Predictors: (Constant), TF_4, IF_2, OF_1, MS_3						
b. Dependent Variable: KMS_5						

Table 2: Correlations

Correlations							
		KMS_5	OF_1	IF_2	MS_3	TF_4	
Pearson Correlation	KMS_5	1.000	.629	.788	.760	.655	
	OF_1	.629	1.000	.574	.540	.581	
	IF_2	.788	.574	1.000	.574	.028	
	MS_3	.760	.540	.574	1.000	.537	
	TF_4	.655	.581	.028	.537	1.000	
Sig. (1-tailed)	KMS_5	.	.000	.000	.000	.004	
	OF_1	.000	.	.000	.000	.000	
	IF_2	.000	.000	.	.000	.317	
	MS_3	.000	.000	.000	.	.000	
	TF_4	.004	.000	.317	.000	.	
N	KMS_5	301	301	301	301	301	
	OF_1	301	301	301	301	301	
	IF_2	301	301	301	301	301	
	MS_3	301	301	301	301	301	
	TF_4	301	301	301	301	301	

There was a strong positive correlation as R is significantly different from zero at .425,  $F(4, 296) = 16.298$   $p < .001$  with a 95% confidence. It also achieves an  $R^2 = .280$  with the adjusted  $R^2 = .269$  which indicates Organizational factor, Individual factor, Technological factor & Management and Support explained about 28.0% of the variance in KMS adoption, and it is statistically significant.

## 6. DISCUSSION AND CONCLUSION

### 6.1. Investigating the Relationships Among Variables of The Model

Using the quantitative method in the study, MRA was used to measure the significance and correlation variables. The results of the formulated hypotheses were highlighted in this section. Four hypotheses were formulated for the study and all the hypotheses are found to be true.

#### **H1: There is a positive significant influence between Organizational factors and Knowledge Management system.**

Based on indications from the literature of Knowledge management, there was an investigation by the researcher into the relationship between Organizational factors and KMS adoption utilizing MRA. Finding shows an existence of a positively significant relationship. There was a strong relationship of 42.6% variance which was confirmed by the literature (Kuo and Lee, 2011; Xu and Quaddus, 2012), indicates the importance of Organizational factors in the adoption and implementation KMS. It was also perceived that Organizational factors influence the perceived value of knowledge management systems (KMS) which will have an effect on the organization's decision to adopt KMS. As it was described that KMS increases organizational performance by the decision made by an individual when they use knowledge in their daily work activities. Thus, the result supports the first hypothesis.

#### **H2: There is a positive significant relationship between individual factors and Knowledge Management System.**

The researcher investigates the relationship between Individual factors and KMS adoption using MRA. The discovery shows the existence of a positively significant relationship. The strong relationship is supported by the literature (Sandhu et al. 2009; Lu et al. 2010), indicates the importance of having an individual behavior towards the use of KMS and the ability to accept KMS in the organization. A study by Sandhu, 2009, shows there was positive response among the respondents towards knowledge sharing and knowledge has a source of competitive advantage.

#### **H3: There is a positive significant relationship between Management Support and Knowledge Management System.**

The researcher investigates the relationship between Management support factors and KMS adoption using MRA. The discovery shows the existence of a positively significant relationship. The strong relationship is supported by the literature (Premkumar and Ramamurthy, 1995; Beatty et al., 2001; Tan et al. 2010), indicates the value of having management support as a significant factor in the adoption of KMS. It is known and being said that knowledge management cannot succeed in organizations without the commitment and involvement of top management support. Having the full support of the top management in addition

with a good reward system and culture are factors of success in KMS in the organization (Ma and Hemmje, 2001).

#### **H4: There is a positive significant relationship between Technological factors and Knowledge Management System.**

Based on indications from the literature of Knowledge management, there was an investigation by the researcher into the relationship between Technological factors and KMS adoption utilizing MRA. The discovery shows the existence of a positively significant relationship. The strong relationship was supported by the literature (Alavi and Leidner, 1999; Gold et al., 2001), indicates the need for technology in KMS as well as in our society. As it is the main infrastructure capabilities in KMS for an organization as the presence of information technology in an organization can effectively integrate the previously fragmented flows of information and knowledge together which will eliminate barriers to communication that naturally occurs between parts of the organization (Gold et al., 2001).

### **6.2.Future research**

The limitations identified in the study earlier provide basis for the suggestion of future research. First of all, the area that couldn't be reach due to insurgency will have to seek employment opportunity in other parts of the country that wouldn't hinder that career development even better would be needing government support so that this problem can be attended to promptly as to allow education to prosper and grow in the region.

Another limitation of this research is based on the data collection process utilized in the research, respondents to this research are those that are currently lecturing and with experience who will only perceive the acquisition, sharing and storage of knowledge that would further boost their academic career and achievement, however, those that are in the Academic training phase should also be considered because they are newer generation that would ready benefit from the use of Knowledge Management System when it is implemented.

The final limitation is the secondary context of the study, which is mainly focus on the developing countries, specifically, Nigeria. Other developed countries can be involved in order to see the digital divide and how these infrastructures and culture affects academicians in their respective university.

### **6.3.Conclusion**

To answer the research questions and achieve the set objectives of this study, research framework and KMS model were developed. Based on the past literatures which this study is derived from, it was found that culture (organizational), IT infrastructure, IT department present in the university under organizational factors influence the perceived value of KMS adoption which shows the importance of a robust culture in a university setting.

The findings of the study show that individual factors such as attitude, knowledge and experience; Technological factors such as triability and compatibility; Management support which includes training and Management initiative (reward system) have significant influence on knowledge management systems and this shows the readiness in using KMS in an university environment as the perceived value is identifiable.

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