

## Information Technology Usage in Northern Nigeria: A Critical Task

By

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### **Abstract**

*This study examines the critical question of information technology usage in knowledge management in Northern Nigeria. The purpose of this paper is to x-ray the types of information technology used for knowledge management, determine the channels used for information provision and describe the challenges impacting the use of information technology in knowledge management in the region. To conduct this study, a survey of 350 participants from three (3) purposively selected states, Katsina, Kano, and Kaduna was carried out. The findings of the study revealed that information technologies that are mostly utilized are Computer system, Internet, Storage device, Search engines. The findings of the study revealed that 70% of the respondents used technology aided tools to access and manage information. While a paltry 20% used tradition modes to share and manage knowledge, The study further reveals that, poor creation of a sensitization programme on the use of technological tools to create, share, use and manage information and knowledge among the populace, Lack training and re-training exercise among others, were the major challenges that are impacting the use of Information Technology for knowledge Management. The paper therefore recommends that there should be provision of intranet to share information and resources for knowledge management. There should be tradition modes to share and manage knowledge and the creation of a sensitization programme on the use of technological tools to create, share, use and manage information and knowledge among the populace. Provision of training and re-training exercise among others.*

**Keywords: Knowledge Management, Information Technology, Information, Northern Nigeria**

### **Introduction**

Organizations seeks to acquire or create a potentially useful knowledge and to make it available to those who can use it at a time and place that is appropriate for them to achieve maximum and effective usage in order to positively influence organizational performance. It is generally believed that if an organization can increase its effective knowledge utilization by only a small percentage, great benefits and result will be achieved. Two types of Knowledge exist and they are : Explicit knowledge which exists in the form of words, sentences, documents, organized data and computer programmes and Tacit knowledge which inhabits the minds of people and is depending on one's interpretation and understanding whether impossible or difficult, to articulate (King,2009). Our economic well-being and competitive advantage are dependent on knowledge resources. In sum, the knowledge assets are the prime factors and resources of production in a knowledge-based

economy (Stankosky 2005). Therefore, KM deals with creating, securing, capturing, coordinating, retrieving and disseminating knowledge and use Roy (2015).

- The new paradigm is that, within the organization, knowledge must be shared in order for it to grow. It is believed that organizations that share knowledge tend to grow bigger and stronger as most organizations now realize that in today's life, knowledge sharing is necessary and that their singular efforts and important asset is the intellectual capital of their effective strategy. Whereas the huge investment made by organizations is only achieved through synergy between knowledge applied to create innovations whiles reducing cost and increasing productivity (Lupa,20
- Duhon (1998) defined KM as a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving and sharing the entire information asset. These assets may include databases, documents, policies, proceedings, experience. It also involves dealing with all aspect of knowledge creation, codification, sharing, learning and innovation. As said we have two commonly types of knowledge Tacit and Explicit and they are described below. Tacit Knowledge: Knowledge gain through experience, emotion, observation, etc. The use of cognitive processes to analyze and store information is tacit. It is also known and referred to as knowledge engrain in the context, experience, values, opinion, practices, ideas, perspectives etc. Explicit Knowledge: This type of knowledge is formalized and codified. It is easy to identify, store and retrieve. It is documented; it is objective, logical and technical. Finally, it is acquired through reading a text or graphic.

### **Literature Review:**

In this Research, the literature was reviewed and in tune with the research objectives and they are as follows: types of information technologies used for KM, the channels used for the provision of information/knowledge and the challenges that are impacting the use of information technology in the study area.

#### **a. Computer System**

A computer system is an electronic device capable of processing, storing and retrieving huge amounts of information and performing calculation. Computer are endowed with artificial intelligence and are capable of intermediate level reasoning as well as systematically storing huge amounts of information in its memory for subsequent retrieval and use (Igwe 2019).

#### **b. Storage Device**

A storage device is any computer hardware that is used for storing, porting and extracting data files, programs and objects either temporarily or permanently. It can hold and store information both temporarily, and permanently, and can be internal or external to a computer, server, or any similar computing device. Storage devices are available in different forms depending on the type of the underlying device. For example, a standard computer has multiple storage devices, including RAM, cache, and hard disk, as well as possibly having optical disk drives and externally connected USB drives. Others are magnetic storage, optical Flash devices and Online or cloud Igwe 2019.

Other means are sophisticated and relevant ICT tools and infrastructures, such as the internet, intranet, and web 2.0 tools, which support knowledge sharing among employees (Ali & Khan 2017) and Srikantasaiah (2008).

**c. Internet**

With its simplicity and ubiquitous presence, the internet provides extensive pathways with worldwide coverage to share knowledge. Knowledge providers are setting up websites accessible either gratis or for a fee (subscription or per use). HTML or other tools used to design and set up such websites. Those looking for knowledge can access the websites over the internet using appropriate browser software on their computer and a connection to an internet service provider. Netscape and internet explorer are examples of browser software.

**d. Search engines**

Search engines are software programs and services that accept a set of key words, or other forms of query, search various sites for information that matches the query, and return the results to the request eg. Google scholar.

**e. Intranets**

Intranets technology used within an organization, with restricted access from outside, is called an intranet. Those within an organization can access sites out-side the intranet, but access from outside an organization to an intranet is usually restricted. If the knowledge within an intranet is proprietary, the appropriate security measures must be implemented, e.g., firewalls.

**Methodology**

The researchers adopt a qualitative research paradigm to explore the phenomena of the study. In particular survey research design was employed to conduct the study to its logical conclusion. The population for this study comprised of the 350 respondent from three (3) purposively selected states. A Questionnaire was designed and used to collect data relevant for the study. Descriptive statistics through the use of frequencies, tables and percentages counts was used to analyze the quantitative data collected from the respondents.

**Table 1: Provides the distribution of selected state and the respondent**

S/N	Names of State	Number of Respondent
1	Katsina	95
2	Kano	150
3	Jigawa	105
	<b>Total</b>	<b>350</b>

## Results and Discussion of Findings

**Table 2: Types of Information Technologies used for Knowledge Management:**

S/N	Types of Information Technologies used for KM:	Frequency/ Percentages Yes	Frequency/ Percentages No
1.	Computer system	337(96.3%)	13(3.7%)
2.	Storage device	304(86.9%)	46(13.1%)
3.	Internet	315(90.0%)	35(10.0%)
4.	Search engines	281(80.3%)	69(19.7%)
5.	Intranets	145(41.4%)	205(58.6%)

The result presented in table 2 Shows that information technologies most used for Knowledge Management are Computer system with 337(96.3%), Internet with 315(90.0%), Storage device with 304(86.9%), Search engines with 281(80.3%) and Intranets with 145(41.4%).

**Table 3: Channels Used for the Provision of Information/ Knowledge**

S/N	Channels used for provision of Information/Knowledge	Frequency/ Percentages Yes	Frequency/ Percentages No
1.	Technology aided tools to access and manage information.	280(80.0%)	70(20.0%)
2.	Tradition modes to share and manage knowledge.	70(20.0%)	280(80.0%)

Table 3 revealed the Channels used for the Provision of Information/ knowledge as Technology aided tools to access and manage information and Tradition modes to share and manage knowledge with 280(80.0%) and 70(20.0%).

**Table 4: Challenges that are Impacting the Use of Information Technology for Knowledge Management**

S/N	Challenges that are impacting the use of Information Technology for knowledge Management	Frequency/ Percentages Yes	Frequency/ Percentages No
1.	Poor budget for IT Implementation and maintenance	192(54.9%)	158(45.1%)
2.	Lack training and re-training exercise among others.	222(63.4%)	128(36.6%)
3.	Technical Issues	150(42.9%)	200(57.1%)
4.	Data overload and information overload	169(48.3%)	181(51.7%)
5.	Poor creation of a sensitization programme on the use of technological tools to create, share, use and manage information and knowledge among the populace.	237(67.7%)	113(32.3%)

Table 4 revealed that the highest number of respondents 237(67.7%), 222(63.4%), 192(54.9%), 169(48.3%) and 150(42.9%) strongly agreed that, Poor creation of a sensitization programme on the use of technological tools to create, share, use and manage information and knowledge among the populace, Lack training and re-training exercise among others, Poor budget for IT Implementation and maintenance, Data overload and information overload and Technical Issues were the major Challenges that are impacting the use of Information Technology for knowledge Management.

### Discussion of Findings

Regarding the types of Information Technologies used for Knowledge Management; Findings of the study revealed that Information Technologies that are mostly utilized are Computer system, Internet, Storage device, Search engines and Intranets.

With regards to the channels used for the provision of information/ knowledge. The findings reveals that majority of the respondents agreed that they use technology aided tools to access and manage information.

The findings on the challenges impacting the use of information technology for knowledge management, Indicated that, poor creation of a sensitization programme on the use of technological tools to create, share, use and manage information and knowledge among the populace, Lack of training and re-training exercise among others, Poor budget for IT Implementation and maintenance, Data overload and information overload and technical issues.

## Conclusion

Knowledge and knowledge management (KM) played a crucial vital role in academic libraries. KM is a powerful tool for promoting innovation, realizing Knowledge in academic libraries can be acquired through: a) establishing knowledge links or networking with other libraries and with institutions of all kinds, etc. KM helps libraries and the other hand KM helps library professionals in improving the services being performed to their users. Information professionals have to reformation their roles as knowledge professionals. At the present time Library professionals have responsibilities to equip themselves with a new technology of knowledge management

## Recommendations

Based on the findings of the study, the following recommendations are made:

- i. There should be provision of intranet to share information and resources for knowledge management.
- ii. There should be tradition modes to share and manage knowledge.
- iii. Creation of a sensitization programme on the use of technological tools to create, share, use and manage information and knowledge among the populace is paramount.
- iv. Provision of training and re-training exercise among others.

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