Determining the Extent of Knowledge Management in Nigerian Universities: A Study of the Faculty of Science, University of Uyo, Nigeria

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ABSTRACT

The study sought to know the extent of Knowledge Management (KM) practice in Nigerian Universities. Lack of adequate KM impedes on quality decision making. The aim was to sensitize institutions with particular reference to the Faculty of Science, University of Uyo, Nigeria to develop different aspects of KM skills to curb administrative bottlenecks. The qualitative method was used in this study. Extensive literature study was done to collect materials related to KM. Theories and concepts of KM were examined. The study determined various conceptual frameworks in terms of activities of the Faculty of Science. Data was collected through interviews, 150 participants in the Faculty were used. For testing of research questions, simple percentages and frequency counts was used. Results of the study show that KM is necessary to enhance smooth administration (Frequency 130, 86.67%). Furthermore, people (frequency 60, 40%) and culture, (frequency 45, 30%) constitute the major players in KM. From a frequency of 95 (63.33%). Faculty members with frequency of 120, 80% agreed that KM can contribute to the creation of a culture in the Faculty. This allows the institution to overcome the administrative bottlenecks, quicker problem-solving and increased rate of innovation. This study shows that KM can turn individuals' learning into Faculty/institutions' learning. It behooves therefore on the individual to be equipped, if his ideas must be institutions' idea. When we are *"selfish"* it allows us to *fill up,* so we can pour to others. We therefore recommend the adopting of AI based KM system.

Keywords: Knowledge Management, Higher Educational Institutions, Selfish.

INTRODUCTION

In recent years, there has been growing interest in applying Knowledge Management (KM) practice in Higher Institutions (HEIs) to enhance academic and administrative functions.Knowledge can be defined as an experience or information that can be communicated or shared.

Importance of Knowledge Management

Knowledge Management is considered to be the most important asset of an institution. The application of KM practice in HEIs can help in the creation of a knowledge-based culture, promoting innovation and improving the quality of education and research, (Rashid2023). Knowledge Management offers a greater understanding of a situation, relationships, phenomena, and the theories and rules that underlie a given domain or problem,(Arshad & Khan, 2008). This paper posits that institutions would benefit more from a better understanding of the concept, knowledge management system to a reasonable extent.

Knowledge management systems in institutions provide a centralized platform where teaching materials, lecture notes, assignments, and additional resources can be stored and accessed by both staff and students.It is divided into three phases:

1) the creation phase, where knowledge is acquired and validated,

2) the storage phase, where knowledge is maintained and managed,

3) the transfer phase, where several individuals exchange and share knowledge (Cerchione& Esposito, 2017).

These phases are processes that can be implemented to create values or innovation for an organization.

Knowledge Management system is one of the key factors that helps educational institutions to improve on their capacity of gathering and sharing information and knowledge and thereafter apply the knowledge to solving problems. This ultimately gives support to research and continual improvement in the running of the institution. Managements of institutions are asking questions and making adjustments to produce the best. Questions such as;

Which programs and services are crucial to meeting themission and vision of the institution?

How can we meet the needs of our students and researchers?

What student interventions are most cost effective?

How do we improve students' outcome?

In thelight of the external and internal demands for improvement in education combined with the many demands of the teachers seeking to understand how they can be more effective in collecting, disseminating and sharing information, the researcher deemed it wise to undertake and document strategies and means to improving the running of the institution.

Aim and Objectives of the Study

The aim of this study is to make an exposition of knowledge management as a mechanism for acquiring problem-solving skills, enhancing productivity, and understanding how to go about effective collection, dissemination and sharing of information. With specific reference to the Faculty of Science, University of Uyo, Nigeria, the exposition is to educate tertiary institutions on the need to imbibe this mechanism sustainably.

The objectives are to:

i.   Expose tertiary institutions to knowledge management system;

ii. Examine the current situation of knowledge management in the Faculty of Science, University of Uyo, Nigeria.

iii. Explore the problems of knowledge management in the Faculty of Science, University of Uyo.

iv. Recommend based on the findings in this study, a suitable knowledge management system for the office of the Dean, Faculty of Science, University of Uyo.

Research Questions

The research questions that are put forth in this study are the following.

i.   What constitutes factors that expose educational institutionsin Nigeria to knowledge management?

ii.   What are the knowledge management strategies currently adopted in the Faculty of Science, University of Uyo, Nigeria.

iii. What are bottlenecks on the smooth implementations of knowledge management practices in the Faculty of Science/Nigerian institutions?

Significance of the Study

The significance of knowledge management cannot be overemphasized.

i.   Knowledge management helps educational institution to improve their capacity of gathering and sharing information and knowledge and apply same to problem solving and support the research and continual improvement of their work.

ii.   It enables the educational institution to use and share information more effectively

iii. Institutions develop, renew and exploit their knowledge-based resources, thereby allowing them to be proactive and adaptable to external changes and attain competitive success.

iv.   The agility of an institution isimproved.

v.   Better and faster decisions are made and quicker problem-solving using knowledge management.

vi.   This research would also help managers at both public and private sector universities by introducing specific policies that encourage employees to enrich their standards and act as a repository of knowledge for corporations. By doing so, universities can better their performance.and lots more.

Theoretical / Conceptual Framework

Knowledge Management is a process of creating, sharing, using, and managing knowledge and information within an organization to achieve its objectives. The theoretical frameworks can help in identifying the key factors that influence the successful implementation of KM practices, such as organizational culture, leadership, communication, and technology,(Rashid2023).Figure 2.1 illustrates knowledge management process.

Figure 2.1: Theoretical framework of knowledge management practices in higher educational institutions
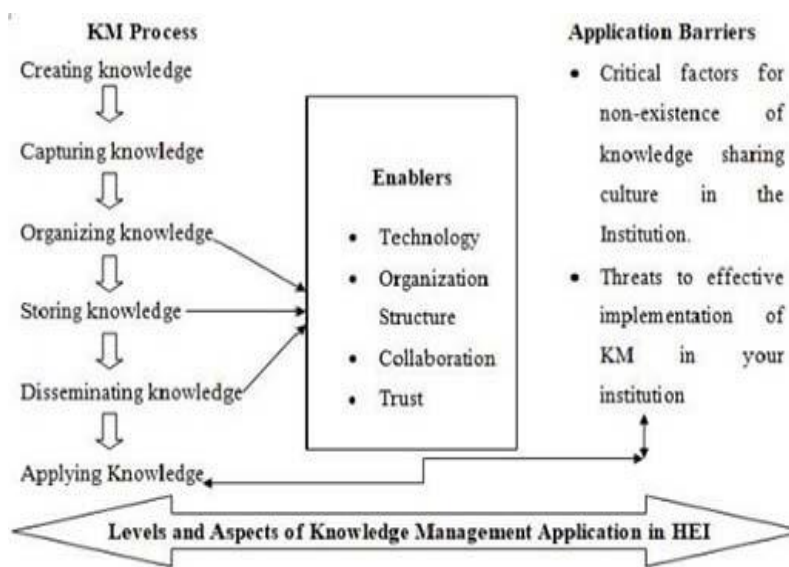
Source: Adapted from Rashid (2023).

Creating Knowledge

The first step in the KM process is creating new knowledge. HEIs are knowledge-intensive organizations that generate knowledge through research, teaching, and learning activities. Creating new knowledge involves the identification of new ideas, concepts, and insights that can be useful for the organization. This can be achieved through brainstorming sessions, research projects, workshops, and other collaborative activities, (Rashid2023).

There are steps in creating knowledge, they include:

i.   setting up a knowledge base is to determine the need your knowledge base will fulfil.

ii.   determine what type of knowledge base would best serve your needs.

Capturing Knowledge

Capturing knowledge involves identifying, collecting, and documenting knowledge from various sources such as research papers, reports, lectures, and discussions. In HEIs, this can be achieved through the use of various tools such as databases, knowledge repositories, and content management systems, Rashid (2023).

There are some ways of capturing knowledge, a few of them are listed below:

i.   **Organizational Culture**: setting up regular meetings, conferences, presentations and other one-on-one interviews with people.

ii.   **Mentorship Programs:** encourage senior employees to train juniors.

iii.   **Workplace Collaboration:** encouraging teamwork.

iv.   **Documentation:** use technology, information and document management systems to store knowledge in a structured manner for easy access.

v.   **Professional and Social Networks:** use of professional networks like LinkedIn and premium features to share knowledge in an exclusive tacit knowledge sharing platform**.**

Organizing Knowledge

It involves categorizing, classifying, and tagging the knowledge so that it can be easily retrieved and shared. In HEIs, this can be achieved through the use of taxonomies, ontologies, and metadata.

Storing Knowledge

This involves storing knowledge so that it can be easily retrieved and accessed by those who need it. In HEIs, knowledge can be stored in databases, knowledge repositories, content management systems, etc.

Disseminating Knowledge

The next step is disseminating knowledge to those who need it through various channels such as publications, lectures, workshops, and training programs. In HEIs, this can be achieved through the use of online learning platforms, e-learning modules, and social media platforms, Rashid (2023).

Applying Knowledge

The final step is applying knowledge to achieve the goals of the organization. In HEIs, this can be achieved through the integration of knowledge into teaching, research, and administrative activities, Rashid (2023).

Plan–Do–Check–Act

In their study, Deming, (1986) gave a well-defined concept, namely, the Plan–Do–Check–Act (PDCA) cycle, used to organize the tasks to be performed.

Academic Knowledge Framework

It has been suggested by Huang (1998) that four major processes form a culture of knowledge sharing and collaboration. They are:

  i.   making knowledge visible,

  ii. increasing knowledge intensity,

  iii. building knowledge infrastructure, and

  iv. developing a knowledge culture.

Collective knowledge begins with sharing: from individual, through teams and groups, to organizations. Individual strategy mainly deals with the teacher's individual professional growth. Once individual knowledge is captured, institutions and processes must be established to compel its dissemination throughout the organization (Figure 2.2).
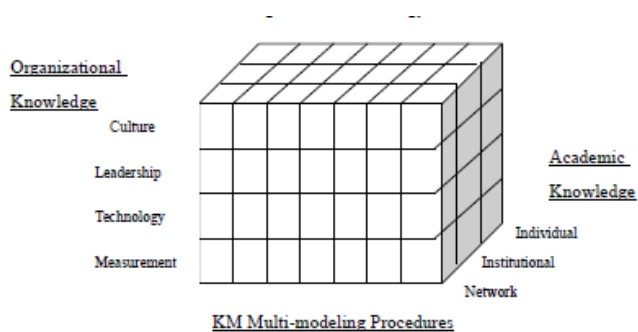

Figure 2.2 Knowledge Management Ecology Model

Organizational Knowledge Framework

The most recognized organizational knowledge management strategies are;

  i.   culture,

  ii. leadership,

  iii. technology, and

  iv. measurement.

As suggested by Coukos-Semmel (2003), examples of culture strategies in universities include staff development and training, and promotion of learning organizations. Leadership strategies in universities include hiring knowledgeable employees, and evaluating employees for knowledgeable contribution. The university is responsible for providing infrastructure of tools, systems (intranets, web pages, electronic repositories, and data base, etc.), platforms, and automated solutions that centralized the development, application, and distribution of organizational knowledge.

Kaira and Phiri, (2022) document that;

i.   There is a significant relationship between organizational strategy and knowledge management practice

ii.   There is a significant relationship between organizational culture and knowledge management practice

iii. There is a significant relationship between organizational structure and knowledge management practice

iv.   There is a significant relationship between organizational policy and knowledge management practice, see (Figure 2.3) below;

Figure 2.3. Conceptual framework
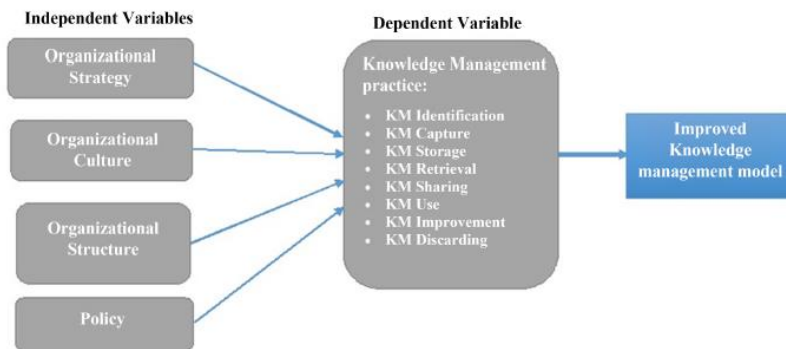
Source: Kaira and Phiri, (2022).

Galgotia and Lakshmi(2022), confirmed that one of the majorly deprived areas of education and research is Multidisciplinary. Most of the major archives and indexing services are based on focused research that lacks multidisciplinary and interdisciplinary research. AIbased KM systems can provide much of the required information and support in managing interdisciplinary knowledge and progressing to bring together communities of educators and experts from other multidisciplinary areas including social sciences, psychology, management, law, medicine and many other fields of knowledge. In terms of method, culture, technology, and assessment, Galgotia and Lakshmi(2022) found that there are no substantial differences in knowledge management techniques between professors at public and private colleges. In terms of leadership; however, there are substantial differences in KM approaches between public and private sector institutions. The finding revealed that private institutions have stronger knowledge management practices in terms of knowledge top management.

Knowledge is the nucleus of all organizations. A successful management of knowledge is needed to develop compatibility, efficiency and effectiveness of an organization (Ranko &Šefik (2010).It has been observed by Loncarevic(2004)that KM correlates with, culture, infrastructure and process, Figure (2.4).

Figure 2.4 Knowledge management: Design fields
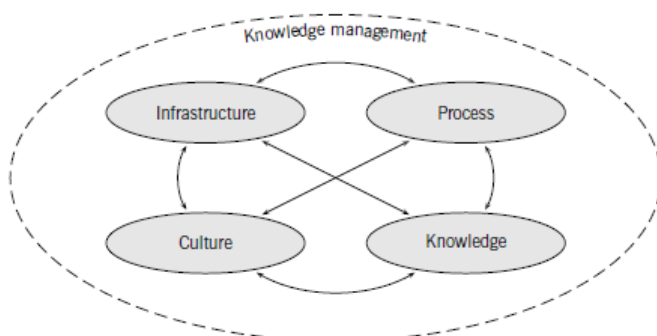
(After Loncarevic 2004)

METHODOLOGY

The different methods, research designs, data collection, etc used in the study are enumerated below.

Research Design

There are three types of research methodologies namely qualitative, quantitative and mixed methodology. In this research the qualitative approach was used, Creswell (2017). First, a thorough literature study was performed in order to collect material related to KM. The researcher then examined theories and concepts of knowledge and KM. Later determined various research conceptual framework in terms of scope of importance and activities of the Faculty of Science, University of Uyoin KM, KM cycle, KM model, and factors affecting KM for the target faculty development, examined the appropriateness and feasibility of the recommended KM model for faculty developmentby considering the following:

a) common targets;

b) working mechanisms in faculty development

c) organizing a participatory learning process in the following aspects of KM issues:

i. building knowledge,

ii. classifying knowledge,

iii. storing knowledge,

iv. implementing knowledge,

v. sharing learning, and

vi. evaluating knowledge;

Furthermore, the researcher conducted survey in knowledge management in the ten departments that make up the Faculty of Science, University of Uyo.

The interactions primarily intended to know;

• the interviewees experience borne out of KM

• the opinions of interviewees about KM.

• identify and investigate Faculty of Science practices in KM.

As the research approach of authors study is only qualitative, therefore, the authors used interviewing technique for conducting survey in the study area. There are three types of interviews namely; structured, unstructured and semi-structured interviews. Structured interviews are those interviews in which the interviewer asks questions in '*Yes-No*' form i.e. always leads the discussion to a specific direction. In unstructured interviews, interviewee is considered to be the source of both questions and answers because a lot of discussion is made broadly on the intended issue which yields useful relevant information. In semi-structured interviews, both structured and unstructured interviews approaches are adopted. In this study, the researcher used semi-structured interviews due to the fact that it enables the interviewers to ask any type of questions whether specific or open-ended questions. After identifying and mapping the challenges of requirements understanding in the departments ie both findings of literature and institution survey results, KM practices were proposed for reducing requirements understanding problems in the faculty of Science, University of Uyo.

Population of the Study

The study was limited to the faculty staff and members, Faculty of Science, University of Uyo. There were 15 persons in a target group of the 10 departments in the Faculty of Science totaling 150 persons. The department are;

i. animal and environmental biology

ii. botany and ecological studies

iii. biochemistry

iv. chemistry

v. computer science

vi. geoscience

vii. mathematics

viii. microbiology

ix. physics

x. statistics

Sample and Sampling Technique

The Census sampling techniquewas used since all members of the population from the 10 departments were sampled. This type of sampling examines the entire population that has the same characteristics, information is collected by the investigator related to all the items in the population.

Data Collection

As mentioned earlier, the qualitative research approach was used in this study. According to Bryman (2004) qualitative research usually emphases words rather than the quantification of the collected data. Qualitative research has the advantage that it can provide an in-depth investigation of the examined problem, while it has the flexibility to examine all of the aspects of the research.

Descriptive Research Design

Descriptive research design was used in the study. It supports cross sectional studies that involve gathering data from a specified set of individuals once in a particular time period.

i. Demographics

The researcher asked questions about the profile of the Faculty member and the Faculty. Since the nature of some items may negatively affect participants' willingness to complete the questionnaire in an honest manner. According to Biemer and Lyberg (2003) personal questions are more important when there is a survey about buyer behaviour and in general when the participants are consumers.

ii. Corporate Faculty Culture

Previous researchers, such as Gupta and Govindarajan (2000) and Mammadov and Galusca (2005), has found the degree of impact that culture has on knowledge management. Nonaka (1991)emphasises the creation of a business climate and culture that encourages the free flow and sharing of knowledge within the organisation. It seems that culture can either foster or disrupt the implementation of knowledge management.

iii. Knowledge Management Initiatives

Based on the work of Bennet and Bennet (2004), the researcher developed questions on how Faculty members are utilizing knowledge management. Addicott *et al*. (2006) stated that knowledge management combines the use of information systems, business administration and human resource management (that includes workplace learning and organisational learning).

The Interview

The interview comprised of 20 questions directed at Faculty members and Faculty Administrators. The structure of the interviews followed a rational pattern where it starts from howKM was viewed by faculty members, its usefulness, shortcomings and prospects.

METHOD OF DATA ANALYSIS

The items that made up the interview questions were used in order to study first the understanding of faculty members of KM, secondly on the preferred KM applications that would bring maximum results.The aim was to categorise the sample, based on the answers given on those questions, into groups; departments which have been adversely affected by poor KM base, faculty members and staff that have been affected by the adverse exercising of KM which have managed not to be exposed to the effect, so as to examine their reaction towards KM on each one of these categories.

For the testing of the research questions, simple percentages and frequency counts was selected. The selection was based on the following considerations. First, it is an appropriate test to use when examining differentiation of the dependent variable by an independent variable (Figure 2.3). Secondly, the independent variables in the study have more than two conditions. In the first research question, the dependent variables were the items of knowledge management and its implementation, which are scored on a 5-point Likert-type scale, and the independent variables were the items of knowledgemanagement initiatives and knowledge management for enterprises using knowledge management systems, which were nominal, multiple-choice items. For the second research question, the dependent variables were the items of knowledge management, and the independent variables were the items regarding corporate culture, also nominal, multiple-choice items.

For the main analysis, the descriptive statistics for the demographic characteristics are presented, followed by the detailed results for all main items and the sections of the questionnaire. These are supplemented by cross-tabulations of whether the Faculty follows a knowledge management strategy or not with a number of items of interest. For that reason, the implementation of a KM strategy by the Faculty is reported first.Finally, the main hypotheses of the study are tested.

Presentation of Data

The results are presented in the order of; (i). Demographic, (ii). Corporate Faculty Culture, and (iii). Knowledge Management Initiatives.

Demographic Data

Table 4.1 shows the demographic data in tabular form while Figure 4.1 shows it in graphical form.

Corporate Faculty Culture Data

Table 4.2 shows the corporate culture data in tabular form while Figure 4.2 shows it in graphical form.

Knowledge Management Initiatives Data

Table 4.3 shows the knowledge management initiatives data in tabular form while Figure 4.3 shows it in graphical form.

Table 4.1: Demographic data

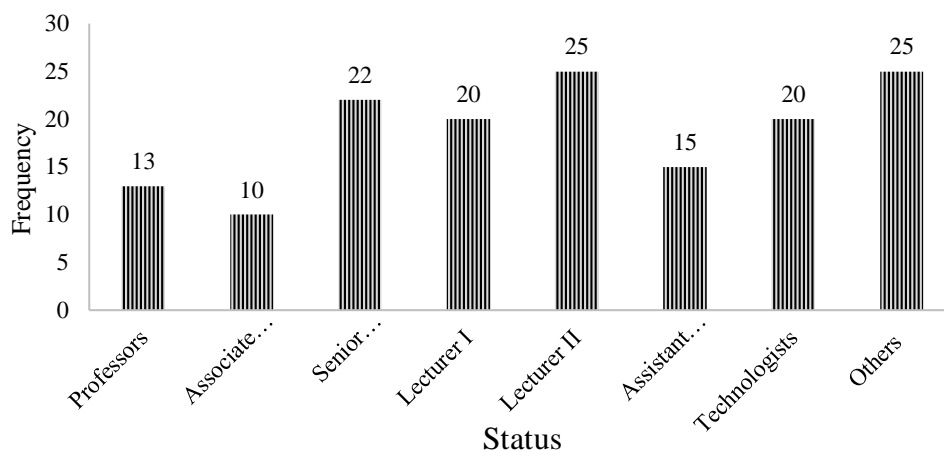|	Status	Frequency	Percent	Cumulative Percent
1	Professors	13	8.67	8.67
2	Associate Professors	10	6.67	15.34
3	Senior Lecturers	22	14.67	30.00
4	Lecturer I	20	13.33	43.34
5	Lecturer II	25	16.67	60.00
6	Assistant Lecturers	15	10.00	70.00
7	Technologists	20	13.33	83.34
8	Others	25	16.67	100.00
	Total	**150**	**100**	

Figure 4.1: Demographic data

Table 4.2: Corporate Faculty Culture data

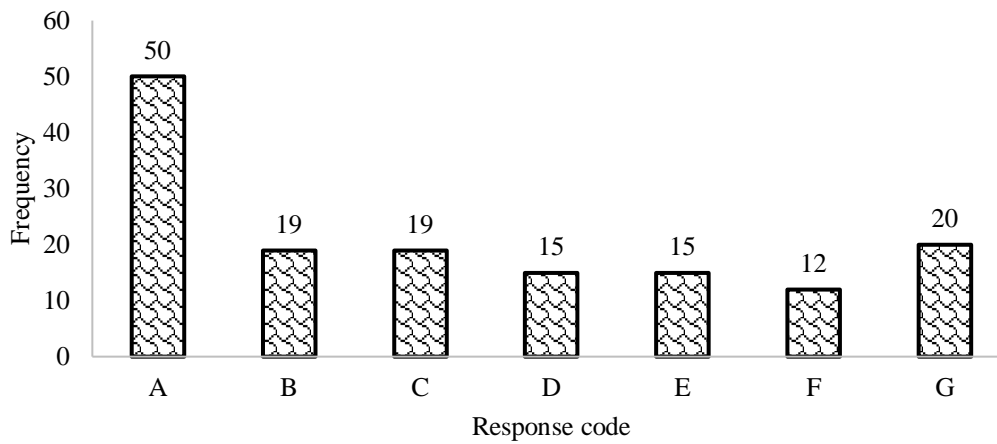|	Response on.	Code	Frequency	Percent	Cumulative Percent
1	Result oriented	A	50	33.33	33.33
2	Mentorship programs	B	19	12.67	46.00
3	Workplace collaboration	C	19	12.67	58.67
4	Documentation	D	15	10.00	68.67
5	Professional and Social Networks	E	15	10.00	78.67
6	Regular meetings and conferences	F	12	8.00	86.67
7	Student friendly	G	20	13.33	100.00
	Total		150	100	

Figure 4.2: Corporate Faculty Culture data

Table 4.3: Knowledge Management Initiatives data

|	Response on.	Code	Freq-uency	Percent	Cumulative Percent
1	Where did the Faculty of Science learn from about Knowledge Management strategy?	A	15	10.00	10.00
2	Did things change after the implementation of Knowledge Management compared to how things worked before	B	10	6.67	16.67
3	Did Knowledge Management help your Faculty members to feel more secure about their positions?	C	21	14.00	30.67
4	Did your Faculty implement the fundamentals of Knowledge Management before the economic crisis?	D	10	6.67	37.33
5	Did the implementation of Knowledge Management help the Faculty overcome the administrative bottlenecks?	E	10	6.67	44.00
6	What were according to your opinion, the main mounds of the economic crisis that Knowledge Management strategy had to deal with so as to come up with positive results?	H	15	10.00	54.00
7	Were the positive results of Knowledge Management related to the productivity of your Faculty member	I	15	10.00	64.00
8	Were the positive results of Knowledge Management related to the performance of the Faculty?	K	17	11.33	75.33
9	What were the main characteristics of Knowledge Management that were related to the performance of the Faculty?	L	18	12.00	87.33
10	Were the changes based on the application of Knowledge Management reflected on the rendering of services of your Faculty?	M	19	12.67	100.00
	Total		150	100.00	
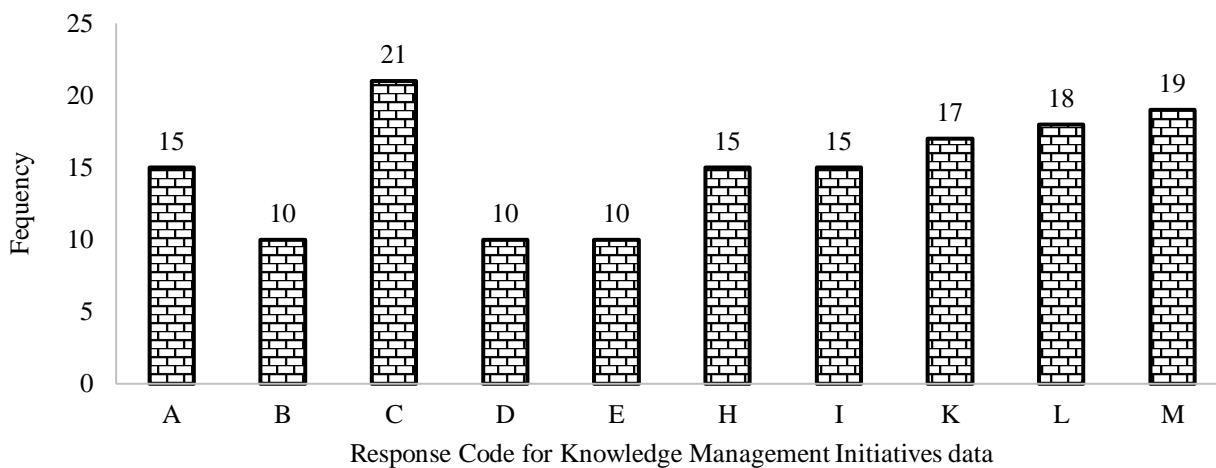
Figure 4.3: Knowledge Management Initiatives data

Data Analysis

Data Analysis on Demographic.

Regarding status of faculty members, 8.67% of the sample were Professors, 6.67% were Associate Professors, 14.67% were Senior Lecturers, 13.33% were Lecturer I, 16.67% were Lecturer II, 10% were Assistant Lecturers while the technologists were 13.33%. Others were 16.67%, Table 4.1 and Figure 4.1 respectively. The full sample size was 150 Faculty members.

Findings

This shows that the respondents were almost equally selected from the total sample size and each level of Faculty status had the chance of equal representation. Table 4.1 and Figure 4.1 confirms this findings.

Corporate Faculty Culture

Table 4.2 and Figure 4.2 shows the corporate culture on Faculty members on their deliverables. It is shown that the Faculty members are poised to be result oriented as that recorded the highest percentage of 33.33%. Table 4.2 summarizes the preferences or perceptions of respondents regarding different aspects of corporate faculty culture and their impact on KM and self-development in the challenging economic context within the education sector. The factors as considered by respondents are as follows: knowledge management and self development is seen as being result oriented by 33.33% of the respondents; mentorship programs and workplace collaboration are considered as contributory factors influencing knowledge and self- development by 12.67% for each of the items. Documentation and professional and social meetings are considered by 10% (for each) of the respondents as contributory factors to knowledge development and self-development. KM has contributed to regular meetings and conferences as well as being student friendly as showed by the response of 8% and 13.33% respectively.

Findings

Majority of the Faculty members strife to attain the highest level of professionalism despite the administrative bottlenecks. There are no incentives such as sponsorship to workshops and conferences as reflected in Table 4.2, having the lowest percentage of 8.

Knowledge Management Initiatives Data

From Table 4.3 and Figure 4.3, the Faculty of Science learnt about knowledge management strategy from many sources, some by private readings and study, some by self sponsored workshops. Truly, a lot of faculty members had fore knowledge of knowledge management, (10%) but its implementation had not taken a centre

stage primarily due to faculty management policies (6.67%). However, faculty members felt secure in their job assignment (14%). The positive results of Knowledge Management helped in the productivity of Faculty member (12%). The changes based on the application of Knowledge Management reflected on the rendering of services of the Faculty (12.67).

Findings

Truly, a lot of faculty members had fore knowledge of knowledge management, but its implementation has not taken a centre stage. This is confirmed from Table 1.3 and Figure 4.3.

DISCUSSION OF FINDINGS

Discussion on Demographic

Universities are channels in the society for the constant pursuit of knowledge. Knowledge management in educational settings provides a set of designs for linking people, processes, and technologies and discusses how organizations can promote policies and practices that help people share and manage knowledge (Galgotia, 2022).There are two types of knowledge involved in higher education settings: academic knowledge and organizational knowledge. Academic knowledge is the primary purpose of universities and colleges. Organizational knowledge refers to knowledge of the overall business of an institution: its strength and weaknesses, the markets it serves, and the factors critical to organizational success (Coukos-Semmel, 2003).In the KM Ecology model, Academic knowledge lies within the entire Faculty members as listed in Table 4.1, from the technologists, assistant lecturers, lecturer I and II, senior lecturers and those in the professorial cadre. The challenge therefore is for everyone to be s*elfish* in developing oneself, an integral part of the institution, consequently solving the corporate challenge of the faculty and institution at large.

Discussion on Corporate Faculty Culture

Corporate Faculty culture refers to the values, beliefs, behaviors, and customs that are shared by the members of the faculty. It influences the way that people behave within the organization and shapes their attitudes towards work and their colleagues. In the current studies, Table 4.2 indicates that there exists work collaboration attitude, mentorship programs, networking and general student friendliness. All these work towards achieving a dependable oriented result and deliverables. These are shown clearly in Figure 4.2. Knowledge management activities, such as discovery or acquisition (research), dissemination or share (teaching), application knowledge and their preservation (libraries, repositories) are important parameters to note. On the other hand, these issues miss their importance, if the institution does not have a strategy and a culture of creating, sharing and collaboration between the various actors across the organization. Research, which is one of the primary assignments of an institution, is the media for knowledge creation and knowledge diffusion. The Higher Education Institutions provide knowledge to the students, manage and archive the existing knowledge for future reference. Motivating and encouraging the academic community including faculty members, staff, students and parents etc. To share and contribute in the higher learning institutions are the key enablers for a successful knowledge management in the Higher learning institutions. The outlook, enthusiasm, and actions are the facilitators for effective application of knowledge management strategy, along with organizational strategy. Technology also plays an important role in knowledge transfer; it facilitates effective distribution of the tacit and explicit knowledge.

Discussion on Knowledge Management Initiatives

KM initiatives are those processes that assist the faculty in generating, selecting, organizing, using, disseminating, and finally transforming important information and experiences that the faculty possesses which are necessary for various administrative activities in problem solving, learning, and strategic planning. This research recommends three strategies to establish knowledge ecologies within the faculty framework: individual strategy, institutional strategy and network strategy. Interestingly, Table 4.3 and Figure 4.3 shows a great enthusiasm by faculty members in achieving the recommended strategies.

The results revealed that the majority of the respondents have a good level of knowledge management awareness; however, it is not commonly practiced in the faculty. The faculty does not have knowledge management policies or strategies in place and there is no presence of a KM unit.

Discussion on Research Question 1

What constitutes knowledge management in today's educational institutions in Nigeria? From Table 4.4 andFig. 4.4, respondents agree that people (frequency 60, 40%) and culture, (frequency 45, 30%) constitute the major players in knowledge management. Processes, technology and structure all have frequency 15, 10%. This shows clearly that human factor is the main driver of knowledge management.

Discussion on Research Question 2

What is the impact of administrative bottlenecks on knowledge management practices in Nigerian institutions? Table 4.5 confirms that knowledge management is the main key for the Faculty's growth. Besides, knowledge management also creates innovation and ideas that are unique. The respondents agreed unanimously that the administrative bottlenecks have severely affected educational institutions and knowledge management (Frequency 130, 86.67%, Table 4.5and Fig. 4.5). In Nigeria, the teaching and learning are facing many problems arising from slowness in decision makings, inadequate funding of programmes, inadequate instructional materials, poor research in economic education, negative attitudes of students, inadequate infrastructural facilities. Undoubtedly, there exist a frequency of 5, 3.33% who are probably not feeling the impact of the current economic crisis.

Discussion on Research Question 3

Can knowledge management contribute to the creation of a culture which will allow educational institutions to be better managed? Table 4.6and Fig. 4.6 indicates that faculty members with frequency of 120, 80% agreed that knowledge management can contribute to the creation of a culture in the faculty. This will allow educational institutions to be better managed, make better and faster decisions, quicker problem-solving, increased rate of innovation, supports employee growth and development. Faculty members with Frequency of 20, 13.33% did not agree that knowledge management contribute to the creation of a culture. The reason will be connected with their lack of knowledge of the potentials of knowledge management. Surprisingly too, frequency of 10, 6.67% had no idea of the subject matter.

Table 4.7 shows the summary of the hypothesis results.

Table 4.6 shows the summary of research questions.

Table 4.4. Response to Research Question 1

	Frequency	Percent	Valid Percent	Cumulative Percent
People	60	40.00	40.00	40.00
Process	15	10.00	10.00	50.00
Structure	15	10.00	10.00	60.00
Technology	15	10.00	10.00	70.00
Culture	45	30.00	30.00	100.00
Total	150	100.00	100.00	

Table 4.5. Response to Research Question 2

	Frequency	Percent	Valid Percent	Cumulative Percent
Severe	130	86.67	86.67	86.67
Moderate	15	10.00	10.00	96.67
Don't know	5	3.33	3.33	100.00
Total	150	100.00	100	
	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	120	80.00	80.00	80.00
No	20	13.33	13.33	93.33
Don't know	10	6.67	6.67	100.00
Total	150	100.00	100	

Table 4.6. Response to Research Question 3.

Hypotheses	**Sig.**	**Decision at $\alpha = 0.05$**
What constitutes knowledge management in today's educational institutions in Nigeria?	0.001	Accepted
Does knowledge management constitute an opportunity for Faculty members to develop self and get away from the negative impact of the economic crisis?	0.005	Accepted
Can knowledge management contribute to the creation of a culture which will allow Educational institutions to be better managed?	0.002	Accepted

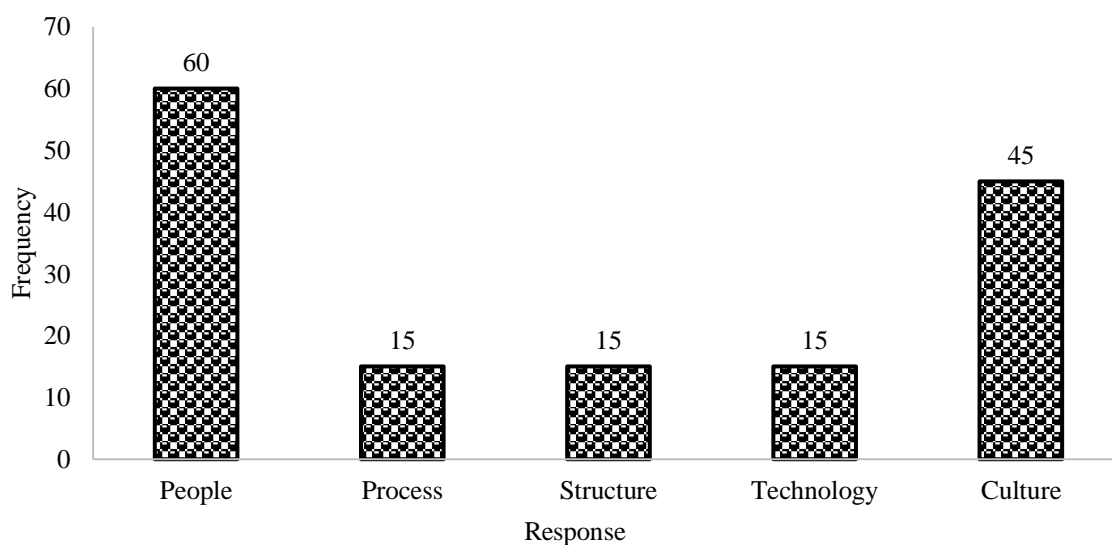Table 4.7 Summary of hypotheses results.
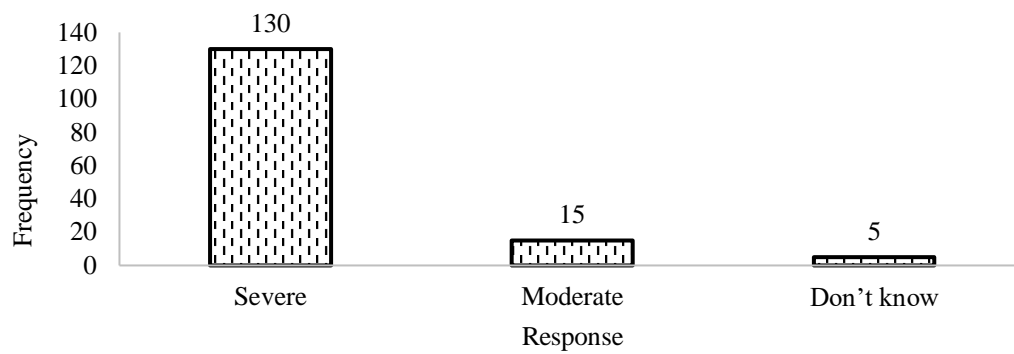

Figure 4.4: Response to Research Question 1

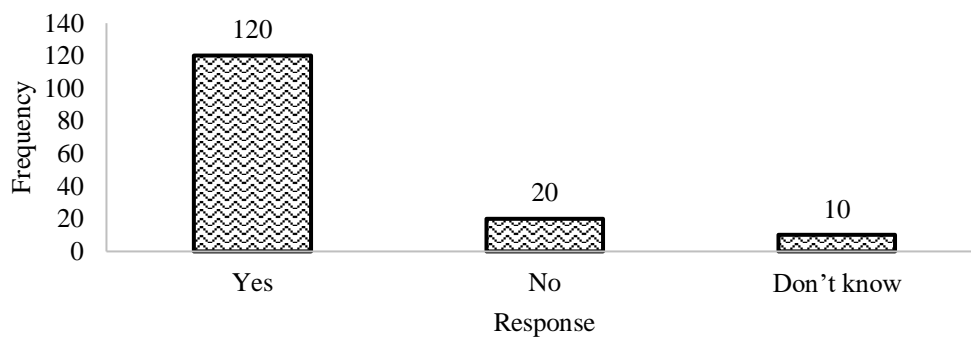Figure 4.5: Response to Research Question 2

Figure 4.6: Response to Research Question 3

CONCLUSION

It is of note to conclude based on the studies that there are faculty members, staff and faculty administrators, who are employing knowledge management strategies to improve quality decision making. Knowledge management programmes will fail to deliver if the following 'eleven deadliest sins' are not avoided:

i. not developing a working definition of knowledge. failure to distinguish between data, information and knowledge; and lack of a shared understanding of what the knowledge driven institution is all about

ii. emphasizing knowledge stock to the detriment of knowledge flow

iii. viewing knowledge as existing predominantly outside the heads of individuals

iv. not understanding that a fundamental intermediate purpose of managing knowledge is tocreate a shared context (through dialogue)

v. paying little heed to the role and importance oftacit knowledge

vi. disentangling knowledge from its users

vii. downplaying thinking and reasoning, i.e. failing to challenge prevailing modes of thinking,reasoning, assumptions and beliefs

viii. focusing on the past and present, and not on the future

ix. failing to recognize the importance of experimentation

x. substituting technological contact for human interference i.e. face-to-face dialogue

xi.   seeking to develop direct measures of knowledge.

This study has showed that there are gaps that need to be addressed by higher learning institutions in their quest to manage knowledge to the fullest. The Faculty of Science is full of intellectuals who understand how the system works therefore good policies and strategies which will help in ensuring that knowledge is adequately managed should be encouraged and if possible, must be enforced on those who are unwilling to share knowledge but are always eager to tap into the knowledge of others and use it for their own personal benefit.

RECOMMENDATIONS

From an academic knowledge perspective, the Faculty and the learning community should start at the individual level, create departmental knowledge, create domains of knowledge across departments that share academic interests or disciplines, create institutional knowledge networks and networks with other institutions and corporations. This research recommends three strategies to establish knowledge ecologies within the academic framework:

i.   individual strategy,

ii. institutional strategy and

iii. network strategy.

There is need for the Faculty of Science to design strategies that will enhance and facilitate the sharing of knowledge. Libraries in higher learning institutions have a big role to play in this realization. Libraries have to enforce and ensure the establishment of knowledge or institutional repositories to collect the scholarly communications of the university or college staff in a form that can easily be accessed and shared. However, sensitization must take place to help staff understand the importance of the exercise so that they can easily share the knowledge they have created to build the repository.

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