Application of Knowledge Management Strategies on the Management of Universities in North-West Geo-Political Zone, Nigeria.

By

Muhammad Jumare Abubakar

June, 2014

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Department of Educational Foundations and Curriculum, Faculty of Education, Ahmadu Bello University, Zaria-Nigeria.

June, 2014.

DECLARATION

I wish to declare that this dissertation titled Application of Knowledge Management Strategies on the Management of Universities in North-West Geo-Political Zone, Nigeria is the outcome of my research work. This research work has never been presented anywhere for any degree or diploma in any institution. All citations and sources are acknowledged by means of references.

…… ……

Muhammad Jumare Abubakar Date

CERTITIFICATION

This dissertation titled Application of Knowledge Management Strategies on the Management of Universities in North-West Geo-Political Zone, Nigeria, by Muhammad Jumare Abubakar meets the regulations governing the award of the degree of Doctor of Philosophy (Educational Administration and Planning) of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This research work titled Application of Knowledge Management Strategies on the Management of Universities in North-West Geo-Political Zone, Nigeria, is dedicated to my parents Alhaji Muhammad Jumare Umar and Hajiya Maryam Isa.

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ABSTRACT

This research titled Application of Knowledge Management Strategies on the Management of Universities in North-West Geo-Political Zone, Nigeria was set to achieve the following objectives: examine the application of brainstorming strategy on decision making; determine the application of collaborative physical workspace strategy on planning; identify the application of knowledge cluster strategy on communication; examine the application of after action review strategy on supervision; and determine the application of after action review strategy on maintenance of discipline in the management of universities in North-West, Nigeria. Hypotheses were formulated according to the objectives of the study. University as a system was faced with problems of inadequate use of modern approaches in decision-making, communication, and supervision processes among other things. Thus, the results of these problems are low staff turnover, wastages in terms of time, energy and other resources. A survey research design was adopted for this study for it gives respondent's attitudes, feelings and opinions toward subjects of research. Population of the study was made up of thirty (30) management staff and one thousand and seventy (1, 070) Faculty Board Members (lecturers) of the six sampled universities in the North-West Geo-Political Zone, Nigeria. The samples were (30) management staff and five hundred and thirty (530) lecturers. However, the analysis was on twenty five (25) management staff and four hundred and seventy five (475) lecturers based on the returned copies questionnaire constructed on five point Likert scale. The instrument was validated by experts in education and statistics. Pilot test conducted at Kaduna state university put the reliability coefficient at .610 and .612 alpha index and standardized item, respectively. This shows that the instrument was reliable. Mann-Whitney U test statistical method was used to analyze the data collected. The entire hypotheses tested were retained at 0.05 significant level. The research findings indicated that there was no application of brainstorming strategy on decision-making process, there was no application of collaborative physical workspace strategy on planning and there was no full application of knowledge cluster strategy on communication in the management of universities in North-West Geo-Political Zone, Nigeria. Based on the research findings, the following recommendations were made: there was the need for the provision of ICT facilities and staff training on the use of facilities; universities should employ trained educational planners to man planning unit; and staff behavior and output should constitute large aspects of promotion. Models were also developed on the application of brainstorming strategy on decision making, application of collaborative workspace strategy on planning, and application of knowledge cluster on communication in the management of universities in North-West Geo-Political Zone, Nigeria.

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LIST OF ABBREVIATIONS

K M	Knowledge Management
I.A.E.A	International Atomic Energy Agency
APO	Asian Productivity Organization
I.C.T	Information and Communication Technology
C.K.O	Chief Knowledge Officer
K.M.O	Knowledge Management Officers
MINT	Malaysia Institute for Nuclear Technology
A.K.M	Army Knowledge Management
A.K.O	Army Knowledge Online
D.K.O	Defence Knowledge Online
N.T.I	National Teachers' Institute
N.U.C	National Universities Commission
N.D.A	Nigerian Defence Academy
ASUU	Academic Staff Union of Universities
V.C.	Vice Chancellor
Ph.D	Doctor of Philosophy
N.P.E	National Policy on Education
N.Y.S.C	National Youth Service Corps
SIWES	Students' Industrial Work Experience Scheme
I.T.F	Industrial Training Fund
UNESCO	United Nations' Economic, Science and Cultural Organization
PERT	Program Evaluation Review Technique
NOUN	National Open University of Nigeria

ANCOPS	Association of Conference of Principals of Nigeria
N.I.E.P.A	National Institute for Educational Planning and Administration
A.A.R	After Action Review
M.A.F	Military Air Force

DEFINATIONS OF TERMS

The terms used in this study are hereby defined below:

- **Knowledge Management**: Is a deliberate effort by institutions to develop employees' abilities and skills through identifying, sharing and saving of knowledge for a better performance.
- **Management**: Is the duty of institutional head in organizing, planning, controlling, supervising, budgeting and evaluating the activities of both human and material resources for goal attainment.
- **Brainstorming Strategy**: Implies use of idea sharing among people to arrive at a decision.
- **Collaborative Physical Workspace Strategy**: Means use of environment and relevant facilities to accomplish task or organizations goals.
- **Knowledge Cluster Strategy:** Implies information sharing group with the view to increasing knowledge and expertise.
- **After Action Review Strategy:** Means assessment of an individual or activity with the view to identifying reason(s) which could lead to certain outcomes.
- **Supervision**: Is the measurement/assessment of a program or individual with view to understanding whether achievement agrees with set objectives or not.
- **Discipline**: Implies ability of an individual to comply with rules even when at variances with his wishes.

CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

Knowledge Management (KM) is a major tool most organizations use in today's scientific and other competitive environments. Assets of organizations are naturally the human and material resources. These resources preserve the organizational status and serve as determinants for goal attainment. Administration in an organization aims at synthesizing the existing human and material resources for attainment of goals. Therefore, administration is all about decision-making, planning, supervision, organizing, communicating, controlling, and staffing, which are used preserve, share, and develop organizational skills and knowledge.

''Knowledge'', being the basis for change, must therefore be shared among employees in organizations, According to Mezher (2005) in order to sustain organizational valuable assets, knowledge sharing must exist''. In the past, the concept of knowledge management enjoyed an increasing popularity across disciplines, the world over. Management-scholars began to proclaim the possibility of knowledge management becoming the most universal management concept in history (Takeuchi, 2001). In 1999, the term, 'personal knowledge management', was introduced which means management of knowledge at the individual level (Wright, 2005). It was revealed that the application of KM has a positive impact on the performance of organizations, (Boutis, 2002; Boutis & Serenko, 2007; Choo & Bontis, 2002). In managing university education, sharing among administrators may be the best approach through which ideas, feelings and strategies could be shared and used for goals attainment.

Knowledge management could be seen as the systematic management of knowledge process; gathering, creating, organizing, storing, disseminating and the use of knowledge,

(Nonaka, 1995). This has evidently proven that the need for knowledge management cannot be overemphasized, most especially in universities where teaching and researches are conducted consistently, which necessitate the need for knowledge generation and dissemination at all times. The management of skills and knowledge in organizations is the most essential function of administrators. Management of knowledge involves knowledge identification, capture, use (application), sharing, storage, reuse and integration. These put together define the administrator's functions in the area of personnel management for effective goal attainment. This entails having result-oriented approaches through harnessing personnel knowledge. The modern approach in management aims at minimizing wastages through optimum knowledge use.

It is worthy of note that information management has been accepted as an important aspect that yields positive result in the administration of organizations for several decades. However, scholars have developed and approved an approach similar to the one mentioned above. This approach includes, "Knowledge technology" "knowledge analysis" and "Knowledge planning". Knowledge management goes beyond these approaches because it involves identifying who knows what within an organization. This certainly may require proper placement, training, and use of knowledge. According to Filemon (2008) KM is a process of performing an audit of intellectual assets, focusing on the organizational unique resources and their crucial function. He added that the primary essence of knowledge management is to make organizational knowledge more productive and produce benefits that are significantly greater than those envisioned.

Change has been an inevitable phenomenon in the spares of life existence. In work place and other environments, changes could bring about an increase in work facilitation and reduce fatigue. It could also increase ability to reason and become innovative in planning and

other activities. It was argued in Tim (2013) that in recent time, the magnitude and pace of change in several areas have made office designers, planners and managers to develop new and better ways of supporting how people work.

Therefore, it could be deduced that KM is a deliberate effort to help human resource identify, share, store and apply relevant knowledge for duty accomplishment. It was opined in Raheed (2013) that ideas and power of imagination are actually responsible for change encapsulated in globalization, digitalization and interconnectedness, which seems to suggest that human brain is the most important asset every nation treasures, trains, nurtures and cultivates. This implies that human knowledge could be rated higher than natural resources, because it is with knowledge resources are explored, exploited and used to change human fortunes. Human knowledge changes and develops approaches to development through innovation and hence improves on current practices. No wander, World Bank report shows that comparative advantages among nations come less and less from abundant natural resources or cheap labor and increasingly form technical innovation and competitive use of knowledge (Rasheed,2013). The value of education (knowledge) is clear if it is seen as the passport to future, for tomorrow belongs to those who prepare for it today (Yahaya, 2013).

For a university to achieve its primary function, a synergy must exist between the findings of the university scholars and the practitioners of the body of research findings (theories). Thus, there is the need to reduce high focus on what has been described as falling into the trap of trying to develop “thinking machines” rather than using the machines to augment human thinking (David, 1997). All these efforts are geared towards having more satisfaction from the employee to the employer thereby increasing productivity and efficiency.

The university system is the reservoir of knowledge and a thinking tank for providing societal needs, aspirations and reorientation. University as a system entails all that is required for a society to exist. This might be the reason behind establishment of faculties and departments which are synonymous to all sectors of human life and existence in the society. Therefore, in the event of any need in any segment of human life, the expectation is always for that segment of the various universities to rise to that challenge or problem(s) with formidable solution(s). In fact, it is expected that, these university sectors think ahead of time in foreseeing the needs of society with the view to providing them.

University education, the world over, has been recognized as the most powerful tool for the training and production of high level manpower. In fact, university education is regarded as the determinant of success of a nation among its colleagues in the comettee of nations. Therefore, by implications the university system achieves its mandate for its people through research and solving societal problems. A university is expected to think globally and act locally in the pursuit of relevance to its immediate environment, but not withstanding be leveraging on its global connectivity (Olufemi, 2011;& The Nation, Oct 20, 2011, Pg. 28). Those assertions could only be realistic in a situation whereby the university administration is up to the task, meaning that all administrative principles are practiced to the later. For example, activities relating to planning are crucial in achieving university goals. It is believed that failure to plan is equivalent to planning to fail. Thus, planning is as important as resources in organization and it needs utmost priority.

Research and training are the bases for university purpose and existence. Research in university education has a wider linkage with teaching and community services, (Charles, 2011). This indicates that research is about human development as a service to humanity. This is concurred in Mamman (2008) when he noted that ignorance is a vicious cycle that

results in and is further reinforced by ill health, vulnerability and voicelessness. Researches help and educate people about all problems in life, which is the expected primary function of university. Communication is vital in organizations; knowledge is only known when it is communicated to the beneficiaries. In the university system, the use of information technology through knowledge management could be appropriate in assisting management members, directors, deans, head of departments and unit heads in the attainment of university goals.

Within the university set up, there exist interactions and relationships which differ from those outside the university environment. For a university to achieve its mandate, a certain level of freedom must exist. For example, issues such as autonomy, academic freedom, open policy in administration, involvement of stakeholders in decision making, and above all, a free, just and fair operational mechanism in administration are expected to prevail. These and many more will enable the university system to compete with other existing university systems in the world. This assertion reflects the statement of Ahmadu Bello when he said:

> *A university must be both national and international. The first duty of every university is the search for and spread of knowledge and the establishment of truths and, as such it must be international in outlooks. But it must also serve the needs of the nation in terms of manpower production, and promotion and preservation of local culture and traditional institutions. A university which fails to aspire to these objectives has lost its purpose and will lose recognition and respects.*

This assertion implies that a university ought to have dual face, operating locally but with an international outlook. It produces manpower for the nation; otherwise it turns to be a university only by name, not by action.

Higher education in Nigeria dates back to the first higher education training institution, the Yaba College in 1934.University College, Ibadan followed in 1948 as a degree-awarding college of the University of London, (Munzali, 2005).As needs keep increasing in the demand of higher qualified personnel, since before independence, Ashby Commission was

constituted. The commission among other things recommended the upgrading of University College to a full-pledged university and also the establishment of two other universities in the Northern and Eastern regions. The Western region established its own university (University of Ile-Ife 1962).The universities become six (the first generation universities in Nigeria) (Munzali, 2005).

There was the establishment of seven second generation universities between1975 and 1976. Ajayi (2008) reports that these universities include universities of Calabar, Ilorin, Jos, Sokoto, Maiduguri, Port-Harcourt and Bayero University, Kano, while the third generation universities were established between 1980& early 1990. They are Federal Universities of Technology Owerri, Makurdi, Yola, Akure and Bauchi. Inclusive were state universities, prominent in the first list as examined by Anyambele (2004) were in Imo, Ondo, Lagos, Akwa-Ibom, Oyo and Cross River. More-so, National Open University and very many private Universities came on board. As at October, 2011, statistics showed that there were 36 Federal Universities, 37 State Universities and 45 privately owned universities in Nigeria (Yushau, 2011).

In spite of these expansions in higher education, the need for a meticulous and revolutionized approach is to be adopted for quality, if Nigeria is to fix herself in a well deserved position in the current era of science and technology. With university education only accommodating 5% to the 18-25 age group in higher education, the trend is never encouraging. A sound of caution was made by Perkins, (1977) when he said "for university to survive and grow, every society must give access to those between 12% &18% of its relevant age cohort to higher education and that giving access to fewer than 12% of the cohort, to higher education would threaten the future of that society in a globalized and knowledge-based world economy". Therefore, expansion of institution must commensurate with the measures to relevance and opportunities for a comprehensive success.

Knowledge management strategies could serve as an approach/method to which the activities of the university could be revitalized. These strategies could serve as a lubricant to ease administrative processes for better results and increase in productivity. As results show in the business sector, knowledge management increases out-put. This is also assumed that its application would help university system to achieve its primary objectives. Knowledge management application will certainly improve in the areas of decision making, planning, communication, supervision, and discipline. The aim of the application of these strategies is to add value to university management for better out-put.

1.2 Statement of the Problem

Filemon (2008) argues that in spite of the fact that knowledge is seen as the most valuable asset to any organization, very few are able to harness this in a meaningful way. Knowledge Management, being a new concept in management of organizations, the concept is faced with challenges ranging from lack of a standardized frame-work for measuring organizational performance (Kim, 2006), dearth of texts dealing with explicit connection between knowledge and performance (Kalling, 2003) and inadequate practice for measuring knowledge management in organizations (Zain, 2007).

O'Dell and Gruyson (1998), De Goizer (2000), Bose (2004), Anantatmula and Kanuga (2006) and Grossman (2006) assert that "measurement is perhaps the least developed aspect of Knowledge management because of the inherent difficulty of measuring of something that cannot be seen or touched'' These issues made critics to condemn the new approach in Knowledge management. The case is similar to administrative principles. One can relate backwardness in university education to ineffective communication channels, subservience and one sided decisions, inadequate data for planning and ineffective monitoring and supervision of both human and material resources in the university as a

system. These and other problems result to Nigerian universities being rated low on the global scale.

Discoveries make knowledge a living being. In administration and administrative practices, there exist inabilities of managers to develop personal thinking in solving administrative challenges. In other words, there is a low record among administrators on the practice of critical thinking towards solving managerial challenges. Most approaches used in solving administrative problems in the 1970s are still employed today without much modification.

These problems put together, affect Nigeria and made her to be ranked very low in the global university ranking in 2011 (Kolo, 2011). These also, at the tail end produce ill trained graduates, who set trap of death in their respective work places for innocent citizens. It is the same graduates in building who supervise building only for them to collapse at completion. It is also not surprising to have a medical graduate who leaves objects after operation in patient's body or prescribes wrong drugs. While in the teaching sector, due to the inability of the graduate to deliver, he becomes the driver of examination malpractice car. Where malpractice is not possible, his inability results into massive failure in examination, as we experience in Nigeria today.

Also, priorities in respect of professionalism are not respected in appointment and allocation of course of study in the university. In fact, these are lack of connection between the needs and aspirations of the society and the priorities in respect of what the university produces. This lack of connection also exists between Federal Ministry of Education and Ministry for National Planning. This makes the university productivity at variance with societal needs and aspirations. Therefore, it could be said that there is no (much) direction in pursuing our needs and aspirations in the apex of educational system.

Meanwhile, university education from the view point of accessibility is on the shrinking side. Munzali (2005) reports that, the total estimated enrolment in higher education of 858,638 represents a participation rate of 745 per 100,000 of the population. This is quite disturbing in respect of the global trend in science and technology advancement. This shows that only 5% of the 18-25 years old are actually receiving higher education in Nigeria. These are contending issues which must initiate the re-examination of all events and issues that form the basis for higher education in Nigeria. To reverse the situation, going back to the drawing board has become imperative.

There exists a gap in the application of knowledge management strategies as it is related to the management of university education. Disciplines world over, especially those in the business sector, have continued to search for new approaches with view to increasing profit and productivity. Unfortunately, the trend should have been the same in the management of university education being the feeder of all sectors of human development. In addition, high rate of immoral acts such as intimidations by both staff and students, and corruption activities are on the increase daily. These are problems which eat the fabrics of development in any organization. The products of the problem create laziness, compromise to standard, produce low quality product and at the end brandish organization's integrity in the public eyes. This is as a result of inadequate discipline mechanism in the university system. This gap has created a lot of wastages in both human and material resources, thereby making a lot of underutilization of the available resources. In fact, due to inadequate application of knowledge management strategies in the management of university education there is little mechanism for staff performance evaluation (supervision). Many staff work below expectation simply because they are not given any target and they are not given training on modern management strategies and approaches Many university staff go to work at will and close at will, leave office without permission and some embark on business within work

hours. This is simply because the mechanism for performance assessment in the universities does not agree with the modern approach in staff assessment as it is in the private sector.

In the management of university education in Nigeria, there is hardly the use of brainstorming strategy, which creates democratic decision making process. The absence of these strategies results in autocratic leadership styles and misplacement of priorities in management activities. This problem is making the management of universities more complex, especially in this era of inadequate resources and economic meltdown.

Most communication channels in the university system are done in files, circulars and notice boards. This at times delay messages and some passed late. This results to ineffectiveness as time determines actions in communications. In some cases human nature delays communication flow for reasons such as political or financial. More often vital information are delayed because it is being done manually. Absence of effective communication mechanism reduces quick action, hence reduces productivity at work. In fact, most communication barriers are experienced through a manual communication channels.

The rate at which managers still use old approach to organizational management is alarming. Recent research finding shows that today's world of work is substantially more volatile, uncertain, and complex. The finding also revealed that the best way to defy complexity of work environment is creativity, (IBM, 2010). Similarly, research finding shows that educational planners and managers lay more emphasis and priority on project out-put than the process through which the process passes. This could be seen in inadequate physical work place or environment, which includes cubicles, work space, meeting rooms, tea rooms and other equipment that facilities staff creativity and innovativeness at work place.

Planning university programs and activities face challenges ranging from inadequate personnels, tools and conducive environment. This produces inaccurate design for future goal achievement. Thus, at the end, university products are found lacking in meeting global

challenges and be able to demonstrate skills equivalent to their certificates. Ineffective planning also results to wastages in resources and time, which are most valuable in productivity in spheres of life.

1.3 Objectives of the Study

The study was set to achieve the following objectives:

1. examine the application of brainstorming strategy on decision making process in universities in North-West Geo-Political Zone, Nigeria;
2. identity the application of collaborative physical workspace strategy on planning in universities in North-West Geo-Political Zone, Nigeria;
3. examine the application of knowledge cluster strategy on communication in universities in North-West Geo-Political Zone, Nigeria;
4. assess the application of after action review strategy on supervision in universities in North-West Geo-Political Zone, Nigeria; and
5. determine the application of after action review strategy on maintenance of discipline in universities in North-West Geo-Political Zone, Nigeria.

1.4 Research Questions

Based on the stated objectives of the study following questions were asked:

1. What is the difference in the opinions of university management and faculty board members in the application of brainstorming strategy on decision making process in universities in North-West Geo-Political Zone, Nigeria?
2. What is the difference in the opinions of university management and faculty board members in the application of collaborative physical workplace strategy on planning in universities in North-West Geo-Political Zone, Nigeria?

3. What is the difference in the opinions of university management and faculty board members in the application of knowledge cluster strategy on supervision in universities in North-West Geo-Political Zone, Nigeria?
4. What is the difference in the opinions of university management and faculty board members in the application of after action review strategy on supervision in universities in North-West Geo-Political Zone, Nigeria?
5. What is the difference in the opinions of university management and faculty board members in the application of after action review strategy on maintenance of discipline in universities in North-West Geo-Political Zone, Nigeria?

1.5 Research Hypotheses

Based on the research objectives and questions, the following hypotheses were formulated:

1. There is no significant difference in the opinions of university management and faculty board members on the application of brainstorming strategy on decision making process in universities in North-West Geo-Political Zone, Nigeria.
2. There is no significant difference in the opinions of university management and faculty board members on the application of collaborative physical workspace strategy on planning in universities in North-West Geo-Political Zone, Nigeria.
3. There is no significant difference in the opinions of university management and faculty board members on the application of knowledge cluster strategy on communication in universities in North-West Geo-Political Zone, Nigeria.
4. There is no significant difference in the opinions of university management and faculty board members on the application of after action review strategy on supervision in universities in North-West Geo-Political Zone, Nigeria.
5. There is no significant difference in the opinions of university management and faculty board members on the application of after action review strategy on

maintenance of discipline in universities in North-West Geo-Political Zone, Nigeria.

1.6 Basic Assumptions

The study has the following basic assumptions:

1. that the use of brainstorming in decision-making process could assist in effective management of university education in Nigeria for high staff performance;
2. that use of collaborative physical workplace among university management staff could improve planning activities in university education in Nigeria;
3. that the use of knowledge cluster could help in administrative communication in university education in Nigeria;
4. that the use of knowledge management after action review is helps administrators to have up-to-date skills on supervision for efficient university education in Nigeria; and
5. that the application of after action reviews strategy in discipline could improve staff administrative skills for management efficiency in the universities.

1.6 Significance of the Study

This section is an attempt to present areas to which this study helps unveil and improve management of universities through the use of knowledge management strategies. For instance, the use of brainstorming strategy is expected to help university management in taking concrete decision that will reduce wastage in both human and material resources. The study could be of help in developing a mechanism through knowledge management strategy on discipline and control. This is expected to improve efficiency and productivity in the management of universities in Nigeria. The study could also assist university management to develop a means of making university staff more skillful in thinking on solving

administrative problems. The research findings are expected to create new understanding and approach on decision-making as a process in university management in Nigeria.

The findings of the study are expected to improve worker performance and organizational effectiveness and efficiency through the use of improved work place strategy. This will in turn reduce cost and improve worker out-put. The findings of the research could help in unraveling ways through which modern approach in communication should be used to improve administrative functions in university management. The study is expected to help open doors for further researches in the areas of application of knowledge management in university management and other administrative functions. The findings of the study are expected to assist in developing a mechanism through which training of administrative staff can be improved for effective university management for effective service delivery.

In addition, the study, especially in the area of discipline, could serve as a measure for inculcation of the culture and behavior on the university staff discipline qualities for it is the propellant for change and goal attainment. Discipline in this context implies changing on an individual from low to high performance and becomes part of his behavior. Thus the research findings are expected to harmonize staff energies with the view to reducing wastages. Supervision measures organization's activities for a better performance and improvement where necessary. This study could be used as a new approach from the old ones since the supervision process would be friendly through the use of after action strategy. In other words, there could be a balanced judgment between the supervisor and the supervisee.

In general, this study could serve as an opener for other researches in the area of knowledge management in educational administration. This implies that other works could have bearing for additions and for a better university education and other levels of education.

The study is expected to do away with human rigidity on one approach to accomplish task. The study is expected to make education managers accept change, especially the positive ones, for better performance at all levels of university management.

1.8 Scope of the Study

The scope of the study is defined within the ambit of three variables which are the type of university; area of study and the respondents to be involved.

i) **Type of Universities:** the study is scoped to Federal and State Universities in North-West Geo-Political Zone of Nigeria. These universities were selected based on years of establishment and also established management system. The study is also scoped to North-West Geo-Political Zone because both federal and state universities have national characteristics. University like Ahmadu Bello has a national representation from almost all parts of Nigeria, and it is a multidimensional university. Therefore, this represents a Federal university in the zone. While, universities like Kebbi State University of Science and Technology, Aleru, Kano University of Science and Technology, Wudil, represent a one-dimensional university system. Katsina State University represents the state owned university in the Geo-Political zone. The researcher is of the view that due to the above justification, generalization could be made in result findings for the zone as a whole. In addition, the researcher believes that the population in the North-West universities is good enough for a PhD research.

ii) **Area of Study:** The researcher has never come across any research on KM related to university management. However, many researches were conducted in other areas of management especially in the private sector. This study is scoped to the Application of Knowledge Management Strategies on the Management of

Universities in North-West Nigeria. For a better management and dependable result, the study was scoped in content to selected knowledge management strategies which include brainstorming, collaborative physical workspace, knowledge cluster and after action review strategies. It should be noted that scoping the content to the above mentioned areas were done basically to give the researcher the ability to see the application of each strategy. Also worthy of note is the use of selected strategies in this study due to their relevance to the management of university education. In addition, only decision making, planning, supervision, communication and discipline were used in the application of those strategies. It is the belief of the researcher that the use of the strategies marched with relevant elements of management.

iii) **Respondents of the Study**: The respondents are university management and faculty board members of both Federal and State Universities in North-West Geo-Political Zone, Nigeria. The rationale was university management is the highest body charged with most management decisions in the university. While faculty board has similar responsibility at the faculty level in the university. Thus, these bodies responsible for decision making were made the respondents of the study. Deputy Vice Chancellors (Administration and Academic) were not included for the study for they deputize the vice chancellor in his absence. In other words, the Vice Chancellor's opinion covers that of Deputy Vice Chancellors.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter aims at reviewing related literature for the study. It reviews literature from text books, journals, government statutory laws, newspapers, magazines, audio/visual media, unpublished theses and dissertations and findings related to the area of this study. It covers areas such as theoretical framework, concept of knowledge, types and approaches to knowledge management, development of knowledge management and approaches. Others include strategies for implementing knowledge management, role of knowledge management in organizations, university education and development: historical view point, global development of university education and development of university education in Nigeria. Also reviewed is the role of knowledge management on functions of university management, which includes university council, senate, congregation, and the Vice-chancellor in achieving university objectives on university education in Nigeria.

Additional literature reviewed include the concept of administration, decision making in organization, concept and process, application of brainstorming strategy on decision-making process in an organization, concepts of planning and planning process in organization, application of collaborative physical work place strategy on planning process in an organization, concept of communication and its process in organization, application of knowledge cluster strategy on communication process in an organization, supervision, concept and process in organization, application of knowledge management after action review strategy on supervision process in an organization, maintenance of discipline in organization, application of after action review strategy on maintenance of discipline in an organization and empirical studies are also captured in the review. The chapter concludes with a summary.

2.2 Theoretical Framework

The theory selected for this study is 'system theory'. A system is a collection of interrelated and interdependent parts working together for the achievement of a specific goal(s) (Cole, 1993). This implies that a system is a collective responsibility or activity which involves input, through input/process and output (product). Meanwhile, a system is always influenced by the environment and sometimes the influence affects goal attainment.

Organization in this context would be viewed from the angle of collective responsibility within a group, and productive as an output. Ackoff and Gharajedaghi (1996) identify three models of organization, which are ''deterministic'', ''animated'' and ''social''. Deterministic model is described as a machine, where the system within does not matter much, but the outsider (owners, creators or controller) do. This system is not balanced. A balanced system must consider the human resources, not only the owners of production.

The second model is animated, which pictures organizations as organisms with several systems within a system. Nonaka (1991) asserts that living organisms with a collective sense of identity and fundamental purpose can easily achieve aims and objectives. Knowledge management could be a good method for knowledge sharing in this kind of model. Since members work hand-in-hand, there is a high chance that all kinds of knowledge are shared among members for the betterment of the organization.

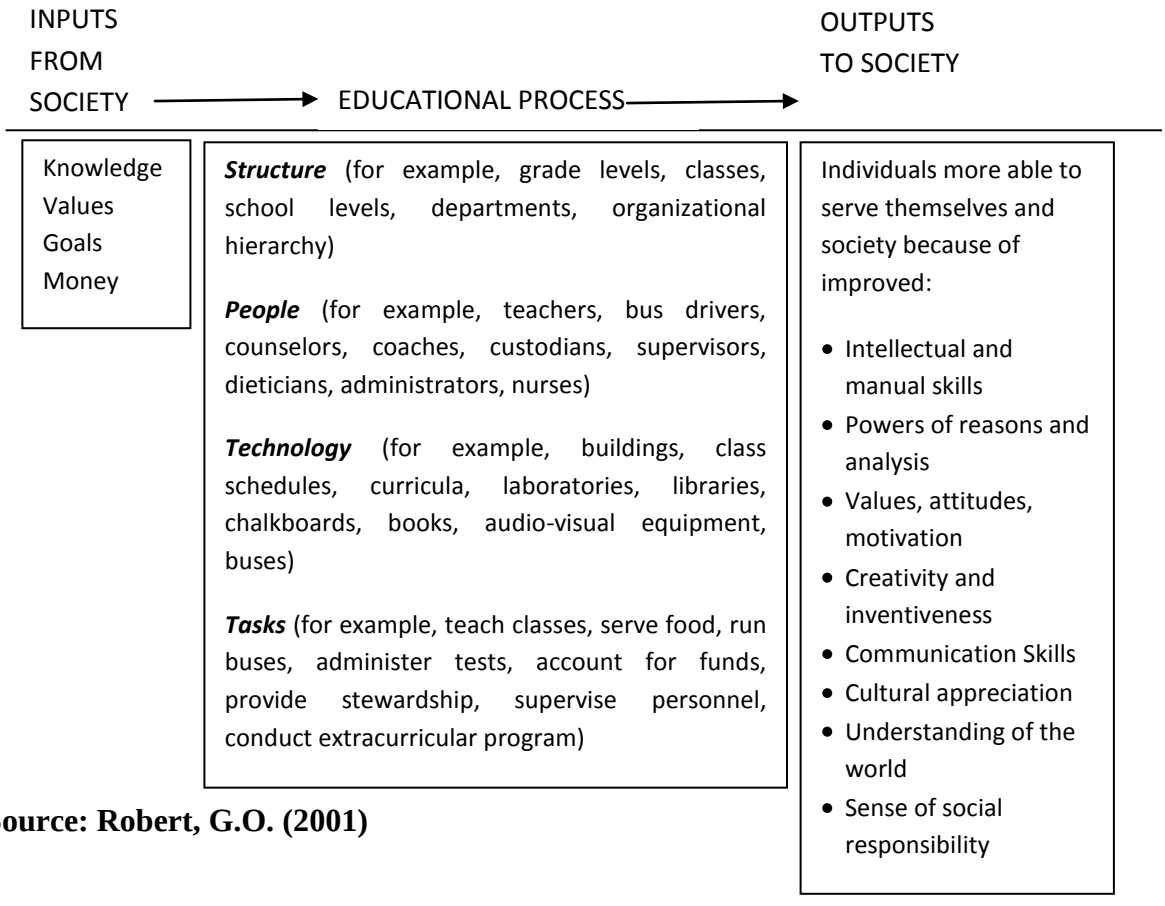
The third model is social-systematic model which advocates that an organization pictures her goals, objectives and ideals. These serve as measures for sticking to their achievable goals. This also shows that an organization must have its type of knowledge as modus oparandi which is also generated, distributed and shared among members. This is a pre-requisite to the success of any organization.

An organization could be viewed as a ‘’social system’’. It was argued in Cole (1993), that organization as a social system has variables such as people (those that manipulate events), technology; (the technical know, and show how), organizational structure; (hierarchy and division of labor), and environment; (the ground where all activities happen). It was noted by *Kenneth (1976)* that an organization is:

> *a integrated system of interdependent structures and functions, which constitutes a group and groups of persons, who must work in harmony. Each person must know what others are doing. Each one must be capable of receiving messages and must be sufficiently disciplined to obey.*

The ultimate goal of any organization lies in its ability to work within, in harmony through the environment and in the end be able to service the society. A university as a system is never exceptional. Figure 2.1 captures such kind of system in the school setting.

Fig. 2.1 Schooling as an Input-Process-Output System



Source: Robert, G.O. (2001)

A university as a system is primarily established for quite a number of reasons such as to promote individuals with intellectual and manual skills, create in them power of reasoning (which is the beginning of wisdom), mold their relevant values and attitude and make them understand their world and be sensible in social responsibility. Therefore, input must be involved as fig 2.1 shows. The sum of these segments provides a complete system. A system could be divided into “open” or “close”. A system is said to be open when it interacts with the environment, and close when it does not. Reference to fig 2.1, a university as a system, is an open system since in a normal situation, university operates on the basis of the needs and aspirations of the society. Therefore, this symbiotic interaction must be strengthened for the success of university education.

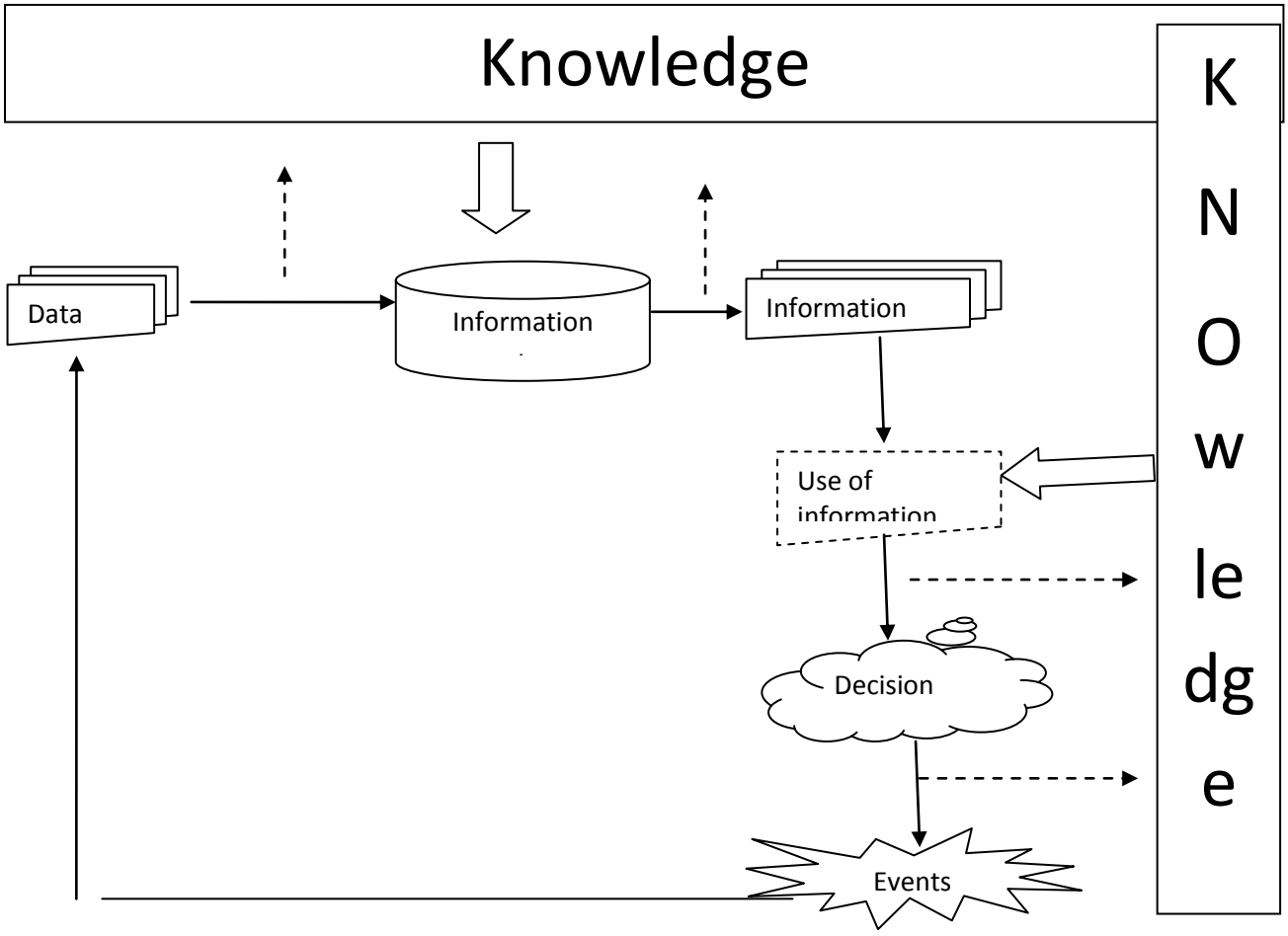
2.3 Concept of Knowledge

The term ‘knowledge’ falls among those concepts that have no single universally accepted definition. In most cases, societies define knowledge according to their needs or aspirations. However, there is consensus that it has to do with means ‘’good, valued and cherished activity’’.

In modern world, where technology has made access to several things easy, agreement seems to exist on some meanings. Knowledge is information that is valuable, because of addition of insight, experience, context or interpretation (Grover, & Davenport, 2001). This definition implies that knowledge is about what an individual knows from which others can benefit. In a similar vein, Vander-Spek and Spikervet (1997) view knowledge as what enables us to assign meaning to data. Knowledge consists of truth, beliefs, concepts, judgments and expectations (Wiig, 1993). These definitions underlined the relevance of knowledge in a university system, where meanings are assigned to data and objects, and it is also about truth and judgment for human development.

In a summary form, Tiwans (2002) sees knowledge as ‘’actionable information in terms of its relevance and availability in the right place at the right time in the right context and in the right way’’. This condition becomes the key resource in intelligent decision making, focusing, designing, planning, diagnosis, analysis, evaluation and intuitive judgment, which certainly take man out of darkness to light. Figure 2.2 shows the flow of knowledge channels.

Figure 2.2: Relation of Data, Information and Knowledge to Events.



Source: Fenandez, I; Gonzalez, A; and Sabherwal, R. (2004)

Figure 2.3 indicates the relevance of knowledge in decision making. Decision must be out of knowledge, otherwise it will have no base. This implies that knowledge is as

significant as resources for the success of an organization. For example, the International Atomic Energy Agency (I.A.E.A) (2006) defines knowledge as the acquiring, understanding and interpreting of information. The body further explained that knowledge is often used to refer to a body of facts and principles accumulated by human kind over the course of time. This denotes that knowledge is a process, which involves act of acquiring (research) over time and it must be factual (undisputed) and in agreement with nature and also must have the quality of practical 'know and show how' in the field of intellectual debate.

A combination of knowledge (which seems abstract), skills and attitudes makes person(s) to accomplish task. Therefore,

* **Knowledge = The capacity for effective actions**

* **Competence = knowledge + Skills + Attitude.**

Scholars have attempted to summarize the concepts for better understanding. In the area of knowledge, Figure 2.3 shows an implied knowledge map.

Figure 2.3: Simplified Knowledge Map

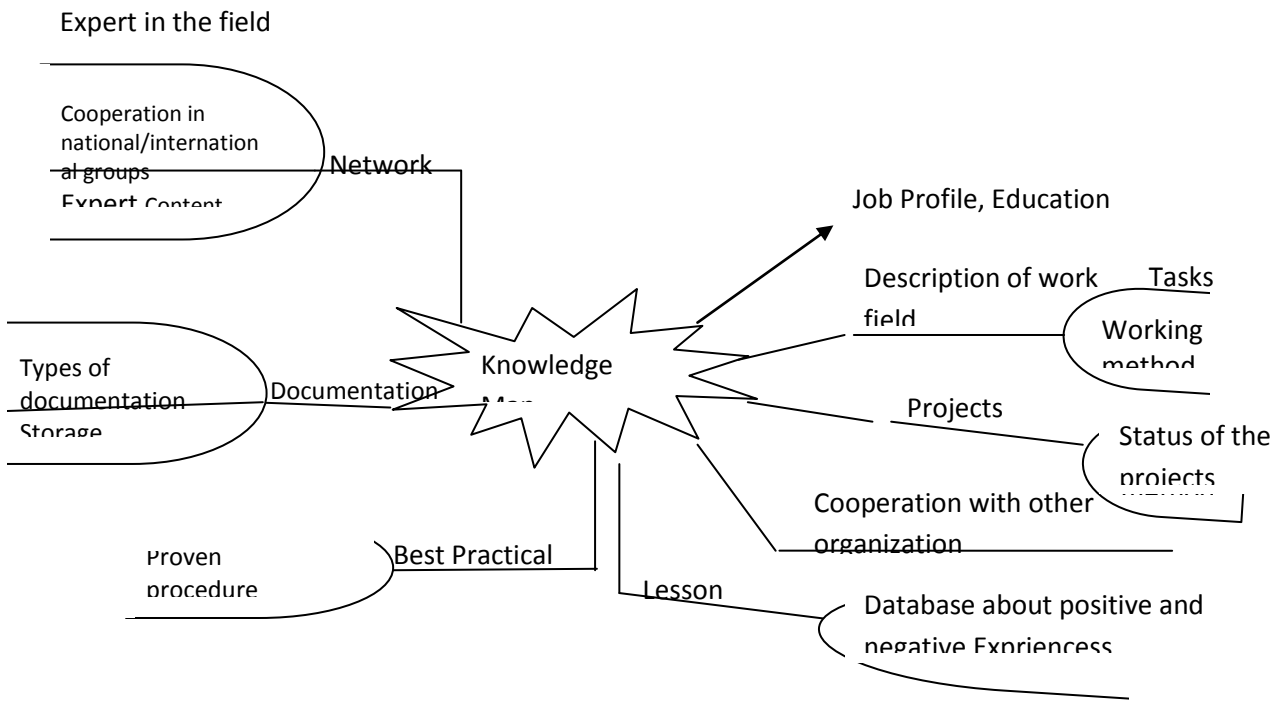


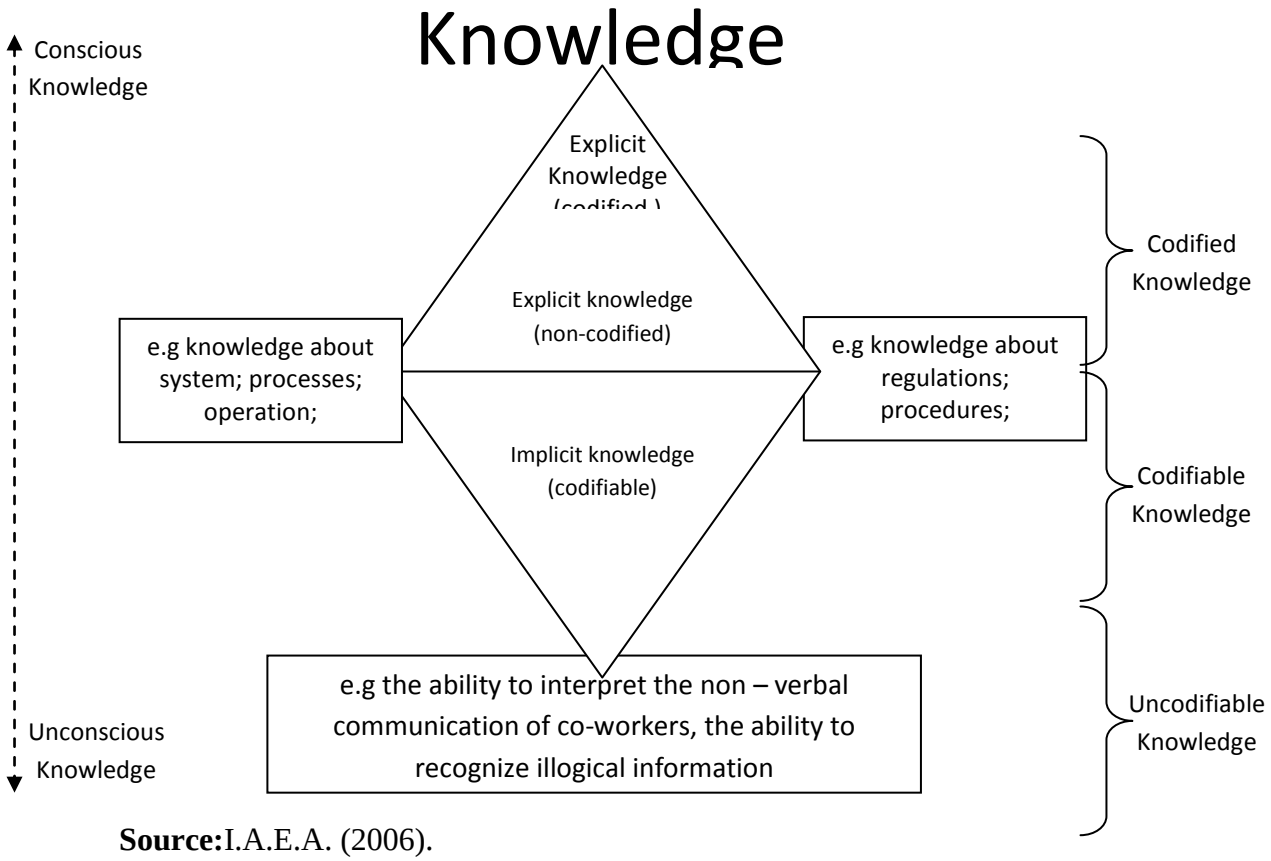
Figure 2.3 depicts the Network in knowledge which explains about having contact with experts and information in the interest-field of an organization. ‘’Documentation’’ refers to storage of information relating to the companies’ relevant knowledge description of work-field, refers to division of labour and job/task method in an organization and cooperation with other organizational units. This must exist within organization for unity of command and proper network in communication and sharing of organizational knowledge for the achievement of the overall goals.

2.4 Types and Approaches to Knowledge Acquisition

Alavi and Leidner (2001) argue that knowledge can broadly be of two dimensions; tacit and explicit knowledge. They further explained that tacit knowledge represents internalized knowledge that an individual may not be consciously aware of. This could be a situation where an individual could not explain how he accomplishes a particular task. In fact, acquisition of tacit knowledge is unconscious, as it is displayed. Tacit knowledge is highly personal and hard to formalize. Subjective insight, intuition and hunches fall into this category of knowledge (Nonaka and Takeuchi, 1995).

On the other hand ‘’explicit knowledge’’ is one that an individual holds consciously, in the acquiring process and can be passed or communicated to others. This means that explicit knowledge is produced by our discursive consciousness. Figure 2.4 shows the level of tacit and explicit knowledge.

Figure 2.4: Processes of Tacit and Explicit Knowledge.



Source:I.A.E.A. (2006).

Fig 2.4 shows the levels of both tacit and explicit knowledge forms. Explicit knowledge (codified) includes knowledge about organizational regulations, procedures, and instructions. These are what one can learn and pass to others consciously. This knowledge is highly important in every organization for progress and success. However, ‘’Tacit knowledge’’ could be the ability of an individual to interpret non verbal communications by co-workers or any illegal information. These are non-codified knowledge.

The organization as a system needs to understand these aspects of knowledge so as to make use of the useable and discourage the unwanted ones. In fact, knowing the useful ones is never enough. However, there is the need to improve the skills of staff for increase in production.

2.5 Development of Knowledge Management (KM)

The fact is that, one cannot specifically say a time or year when the use of the concept knowledge management began. It is clear that the concept was in use, but not in the name as it is called today. Davenport (2008) argues that in KM several efforts have been made in history on the improvement of job and job related issues, such as on-the-job discussion, formal apprenticeship, discussion fora, corporate libraries and professional training. Recently, in the second half of 20th century, with the increase in computer technology, the use of knowledge bases, expert systems, knowledge repositories, group discussion, support system, face-book, twitter etc have been introduced to enhance the effort of knowledge generation and sharing among institutions and intellectuals.

In the past, traditional factors were the approaches used as factors of production, such have become secondary (Reinhardt, 2001). This aspect is not limited to the use of tools, but also the knowledge that produces the "technical know and show how", which include knowledge sharing. Over the past 15 years, knowledge has progressed from an emergent concept to an increasingly common function in business organizations (McKeen, 2006). In fact, it was estimated that 81% of the leading organizations in Europe and the United State use Knowledge Management in one form or the other (Beccera, 2004 in Grossman, 2006).

The concept of Knowledge Management has no disciplinary boundary. It is applicable to every discipline, purposely for an increase in output. Davenport and Volpel (2001) say:

> *Technology can provide assistance in knowledge management, but it pales in comparison to developing knowledge oriented cultures, motivating individuals to share and use knowledge, and encourage persons to view their jobs in terms of effective knowledge management. Managing knowledge is managing people; managing people is managing knowledge.*

Today, unlike in the past, it is understood that knowledge of an individual determines his productivity and not the machine. It is opined in Lee and Choi (2003) that it seems businesses that could capture the knowledge embedded in their organization would own the future. As a result of research and development in knowledge management, Wright (2005) explains that in 1999 the term personnel knowledge management was introduced with a view to managing individuals' knowledge in organization. This personnel are expected to advise organizational management on how to improve, generate and share knowledge that is relevant to the organization within its members. In addition, the officer measures the performance of staff (productivity) after training, so as to advise the management accordingly.

2.6: Concept of Knowledge Management

Knowledge Management (KM) is a relatively new concept in the area of organizational management. Nonaka and Takeuchi (1995) argue that knowledge management is all about information technology that emphasizes matters such as knowledge capture, storage, retrieval and distribution. This conception relates more to the use of machines to manage knowledge in an organization. Davenport and Prusak (1998) view Knowledge Management as to think in market terms, develop market places, monitor market pathologies, outcome, trade business, dissolve artificial scarcity and monopolies. This view perceives knowledge management as an activity where an organization studies situations and acts accordingly with view to achieving stated objectives.

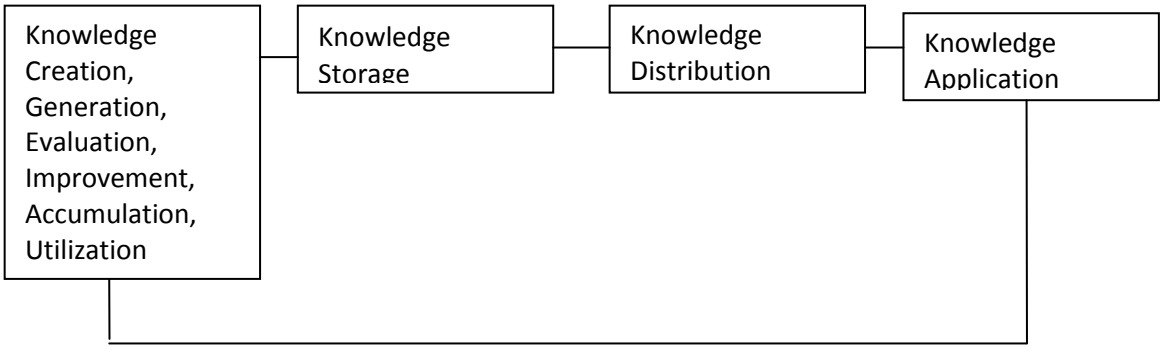
On the aspect of training and development, Takeuchi and Nonaka (2004) see Knowledge Management as a process of continuously creating new knowledge, disseminating it widely through the organization, and embodying it quickly in new products/services, technologies and systems. This indicates that knowledge management

applicability transcends both sharing and increase in product and services. In the university system product and services are the apex services rendered to the community by the university. In a different approach to the definition of knowledge management, Boisot (1995), Daveport and Prusak, (1998), Bell (1999) and Freeman (2001) argue that it is to draw up a ladder from data to information to knowledge. It is referred in Tuomi (1999) as the knowledge hierarchy.

Knowledge Management is a process through which organizations generate value from their intellectual and knowledge-based assets. Most often, this process involves codifying what employers, partners, and customers know and sharing in information among workers, departments, faculties and the entire organization. It was observed by I.A.E.A (2006) that knowledge management is an integrated, and a systematic approach to identifying, acquiring transforming, developing, disseminating, using, sharing, and preserving knowledge relevant to achieving specific objectives. The body (IAEA) adds that knowledge management helps organizations to have self understanding of needs, aspirations and activities through experience. Figure 2.5 shows knowledge management process.

Figure 2.5: Knowledge Management Process

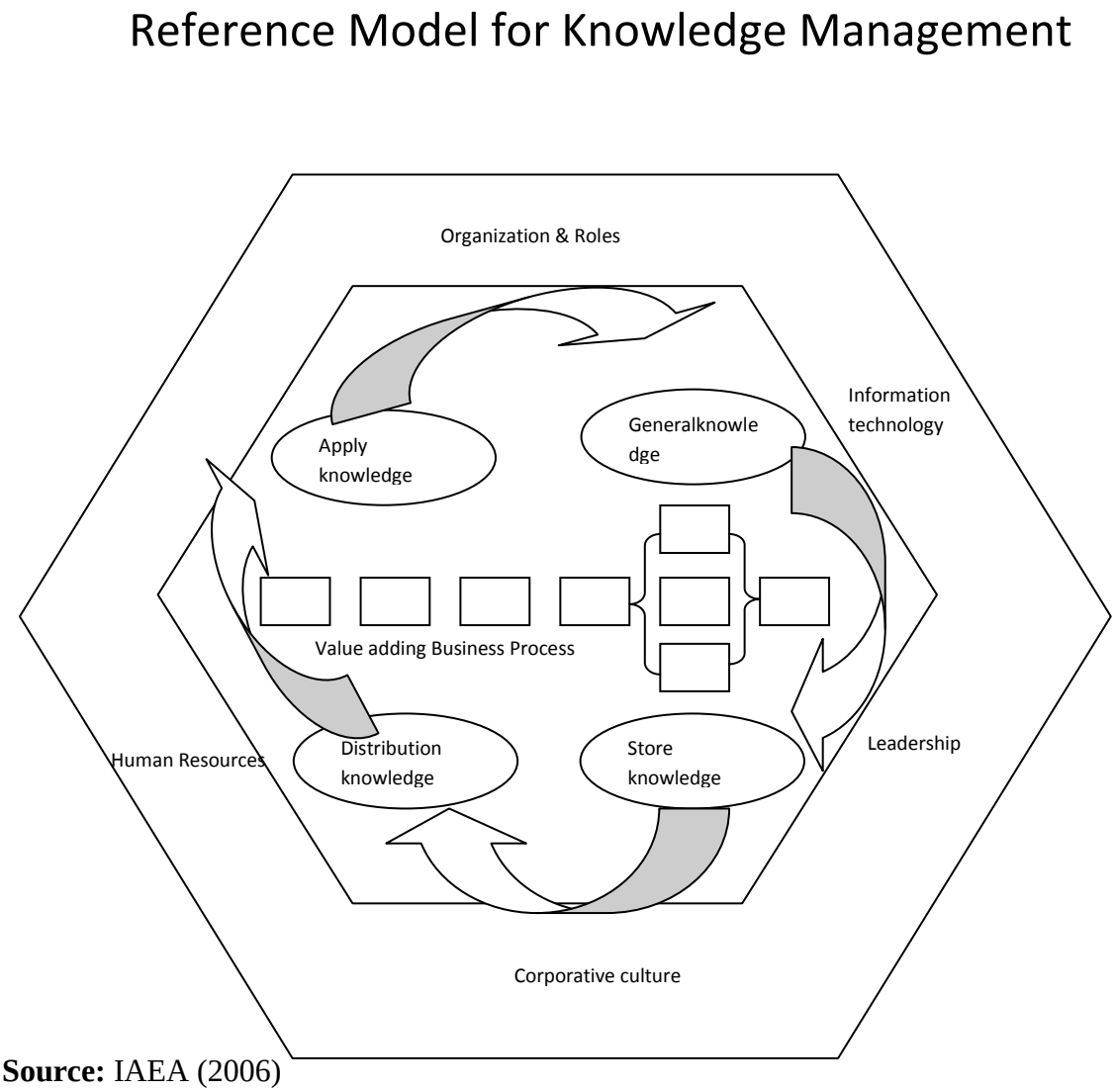
Knowledge management process can be divided into several parts e.g.



Source: I.A.E.A (2006).

Figure 2.5 shows four steps in knowledge management process which are creation (identification and development), utilization (practice of known information). The second stage/step is storage of what is considered useful to the organization. The third is distribution of knowledge among members (sharing, and application to achieve organizational goals or objectives). Figure 2.6 shows this explanation in a form of model activity of knowledge management.

Figure 2.6: Model for Knowledge Management Process.



Source: IAEA (2006)

Since Knowledge Management covers all disciplines, AKM (2008) defines it as a discipline that promotes an integrated approval to identifying, retrieving, evaluating and

sharing an enterprise's tacit and explicit knowledge to meet mission objectives. In the education sectors, we can equally postulate that knowledge management is a modern approach in to acquiring, verifying, storing and sharing knowledge for application to solve societal misfortunes. The table2.7 is provided to present further diverse concept of knowledge management.

Table 2.1: Definitions of Knowledge Management.

S/N	Author	Definition of Knowledge Management
1	Ouintas (1997)	Knowledge management also discovers, develops, utilizes, delivers and absorbs knowledge inside and outside the organization through an appropriate management process to meet current and future needs.
2	Allee (1997); Davenport (1998); Alavi and Leidner (2001)	Knowledge management is managing the corporation's knowledge through a systematically and organizationally specified process for acquiring, organizing, sustaining, applying, sharing and renewing both the tacit and explicit knowledge of employees to enhance organizational performance and create value.
3	Gupta (2000)	Knowledge management is a process that helps organizations find, select, organize, disseminate and transfer important information and expertise necessary for activities.
4	Bhatt (2001)	Knowledge management is a process of knowledge creation, validation, presentation, distribution and application.
5	Holm (2001)	Knowledge management is getting the right information to the right people at the right time, helping people create knowledge and sharing and acting on information.
6	Horwitch and Armacost (2002)	Knowledge management is the creation, extraction, transformation and storage of the correct knowledge and information in order to design better policy, modesty action and deliver results.

2.7 Approaches to Knowledge Management

An approach signifies a dimensional way of doing things. In today's global competitive world, technology has made it simple to change events and issues within the shortest time possible. In the area of Knowledge Management, the case seems the same. The whole intention is to facilitate the way human being does things. The use of information Technology (IT) is essential for initiating and carrying out knowledge management (Lee and Choi, 2003). Knowledge management is supported by computers in the areas of acquisition, structuring, storing, distribution and usage of knowledge.

On a general note, scholars have drawn attention to the links between type of knowledge and the benefits provided by IT in managing knowledge, (Gupta and Govindarajan, 1991; Simomin, 1999 and Ciabuschi, 2005). IT is not knowledge management itself but a knowledge management tool or facilitator in its approaches. Similarly, knowledge culture (How an organization runs its activities) was described by Davenport and Prusak, (2000), as "a positive orientation to knowledge: employees are bright and intellectually curious, they are willing, free to explore their knowledge creating activities and are given credence by execution". This knowledge culture creation in an organization is the responsibility of Chief Knowledge Officer (CKO) (Davenport and Prusak, 2000). Oliver and Kandadi (2008) add that organizational culture enables organization to create a way of life that motivates people to share and utilize knowledge for the benefit and enduring success of the organization. Knowledge culture as an approach in Knowledge Management enables organization to work as a team and save time, resources and human energy. This approach, without doubt, is highly required in university education in Nigeria, especially in this era of economic meltdown and inadequate budgetary allocation to education sector.

Knowledge Management Approach Among the World Powers

(a) American Organizational Approach to Knowledge Management

In the American organizations, knowledge management has become a strategic source of sustainable competitive advantage, for firms, industries and nations (Bell, 1973; Reich, 1991 and Drucker, 1993). The American approach mainly emphasizes on distribution and re-use of knowledge, with focus on collecting, distributing, re-use and measuring existing codified knowledge (Cohen, 1998). This implies that the American approach is more of capturing and distribution of explicit knowledge (which is planned, conscious and intended in nature).

In support of the above view, Takeuchi (1998) opines that the focus of the west on knowledge management has been on (1) explicit knowledge, (2) measuring and managing existing knowledge, and (3) the selection of few to carry out knowledge management initiatives. In summary, Knowledge Management approach of the American type does not recognize the use or existence of tacit knowledge in organizations, but there is evidence that the American approach in knowledge management does not contain 'human concern'. Social factors, culture, community practice and even power, conflict and politics (Lava & Wenger, 1991; Leonard, 1995; Davenport &Prusak, 1998; Ruggles, 1998; Wenger, 1998; as well as Preffer, 1981; March & Olsen, 1986). This shows that the American approach is more of a Tylorism approach, where preference in terms of concern is given to machines and production over the human factors.

(b) Japanese Organizational Approach to Knowledge Management

The Japanese organizational approach to knowledge management is directly opposite to that of America. Takeuchi (2001) argues that their differences are in three fundamental

areas which are: “how knowledge is viewed, what companies do with knowledge and who the key players are?’’

The Japanese give importance to tacit knowledge management, which is built on cognitive dimensions consisting of beliefs, values, emotions and mental models. This kind of knowledge is embodied in an individual’s direct experience, integrated into ones character far from being a detachable commodity (Takeuchi, 2001). These ideas are conceived/inherited from Budhism and Samurai education (Nonaka and Takeuchi, 1995).

This approach, mainly on tacit knowledge, leads Japanese managers to focus on creating new knowledge which enables their firms to be innovative and compete successfully in the global market place (Nonaka &Takeunchi, 1995; Takuchi, 2001). May be this could be target as the combination of what we call traditional education with modernity in the areas of research. No knowledge is a waste except, one is unable to tap it appropriately.

Nonaka and Konno (1998) explain the term ‘’Ba’’ in the Japanese context to mean a process or approach where individuals are a part and provide commitment, ideal, vision, inspiration and emerging relationship within which social interaction and conversation take place. The intention is to create, through series of intervention, a relationship between tacit and explicit knowledge which will result to knowledge network. This kind of interaction shall be of unquantifying value in the university set up and the community the university serves. It will create an avenue for success through one-on-one and first hand information will be accessed and used where necessary.

Meanwhile, critics of this approach are of the view that most Japanese material based companies such as chemical and automobile companies, where individual rich knowledge is critical; performed poorly, (Kusunoki, 1998; Whitley, 2002). This indicates that the group-

based knowledge management style has limitations. But knowledge management sharing within the organization shall remain relevant in this area. Edward (2003) reports a survey that shows that the approach to knowledge management remains the most influential.

(c) European Organizational Approach on Knowledge Management

The European organizational approach to Knowledge Management aims at questioning the functionalist reification of knowledge to unmask the managerial ideology of conflict-free knowledge creation, and to reconstruct knowledge management as a practice based discourse in wider changing capitalist contemporaries (Blackler, 1993; Easterby-Smith, 1998, 2000; Gheraidi, 2000; Swam & Scarbrough, 2001). This approach seems different from the two earlier mentioned. It is explicit in nature as that of the American, but varies in process. This approach recognizes the need for discussion among the professionals in a group, or company. It is in the belief of Blockler and McDonald (2000) that discussion does not happen in a vacuum, nor is it through sophisticated technology, but takes place in a landscape of differential power positions and relation, where power, institution, mastery and collective knowing become intertwined. Organizational Managers or Knowledge Management Officers (KMO) are responsible for identifying needs for a discussion among staff of the same or different levels and organize discussion forum on the basis of knowledge identification, sharing and storage.

The question that becomes germane is: what is the African approach? or does African approach exist? It is worthy to note, that most of the approaches mentioned above have affiliation to history (inheritance). In Africa, specifically in Nigeria, traditional education has been in existence. There were claims of the use of the tenents of traditionalist education in the modern education, but the result has not been successful. One may say, the system has not

been productive to a significant level. Meanwhile, going by the indices and approaches, Nigeria is using more of explicit knowledge, which is holistically the American Approach. But here the approach is not as productive as that of America, why?

2.8 Strategies for Implementing knowledge management

Strategy implies a plan designed for a particular purpose, which is a process that is skillful in nature (Oxford Advanced Learner Dictionary, Edited by Jonathan, 1998). In knowledge management as a concept, plans and designs have been put forward by professionals to ease skillful practice in knowledge management. I.A.E.A (2006) opines that a strategy could be employed to improve organizational value on the existing ones through:

- Identifying risks due to knowledge gaps;
- Increasing the value of existing knowledge;
- Converting tacit knowledge to explicit knowledge
- Continually learning in a smart and lasting way
- Access to more and more reliable knowledge/information.

This shows that an organization can evolve the above five points with the view to achieving its goals by the use of knowledge management. These strategies seem to be general in applicability that is, it is applicable irrespective of discipline.

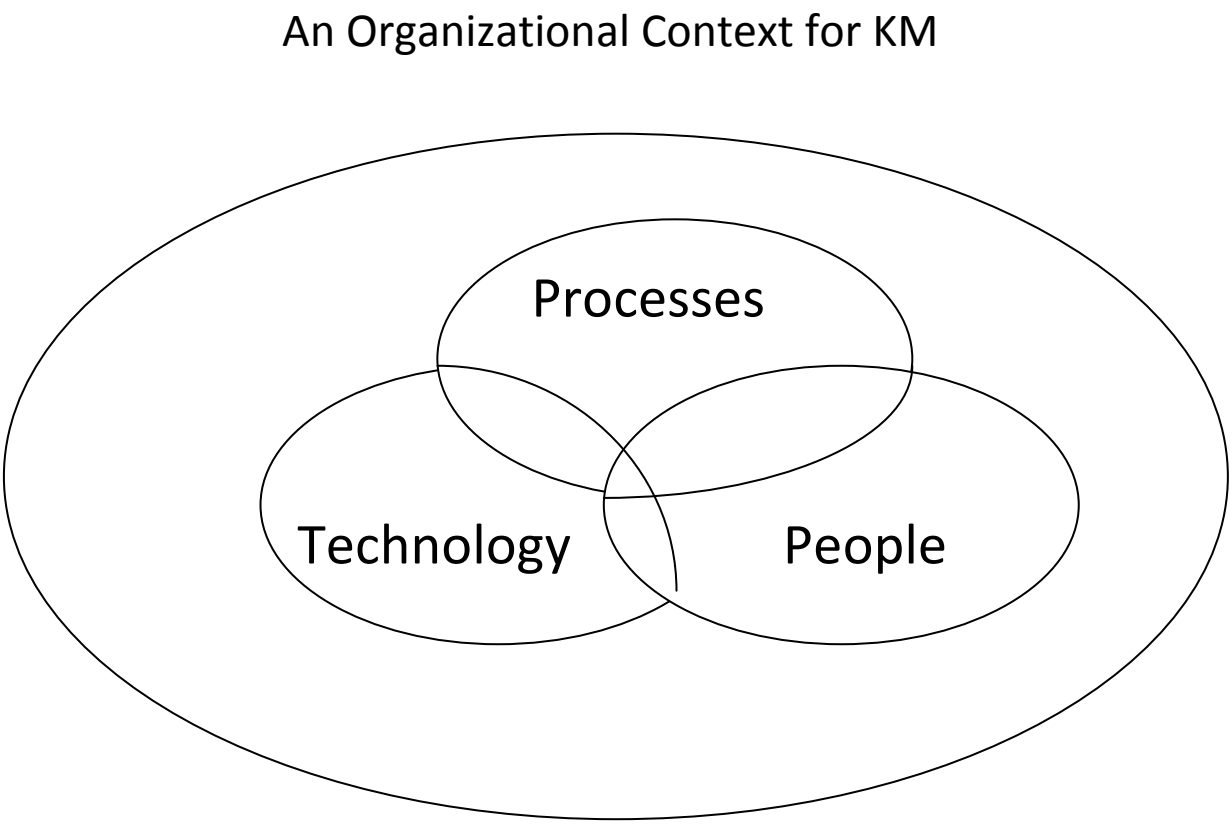
Malaysian Institute for Nuclear Technology Research (MINT), (2006) projects the following as ways to improve knowledge management strategies:

- develop systems, procedures and technology to capture, share and utilize lessons learned and develop best practices;
- organize programmes and develop systems for showing and transferring knowledge on core competencies among organizational members;
- promote formation of community of practice to provide forum sharing and transferring of knowledge, intellectual discussion, collaboration, cooperation and networking; and
- develop infrastructure and info-structure to support knowledge management initiatives

For the university system/education to achieve its basic objectives, the above strategy could be adopted. A system could be developed through the use of IT to share and store knowledge within a university, or among all the Nigerian universities in a discipline or in many fields. This may abibe relevant in the university education in the area of intellectual discussion and formation of infrastructure to support knowledge management initiatives. These can certainly assist in achieving the basic objectives of university education in Nigeria.

In Malaysia, for example, the army developed a strategy for the application of knowledge management (Santamaria, 2002). The strategy has principles around the main tenets of knowledge management, which are people/culture, process and technology working together to facilitate knowledge sharing. Figure 2.7 gives the illustrates.

Figure 2.7: Main Tenets of Knowledge Management



Source: AKM, 2008.

The above could be explained as follows:

a) People/Culture

* **Principle 1:** Train and educate knowledge management leaders, and champions
* **Principle 2:** Reward knowledge sharing and make knowledge management career rewarding.
* **Principle 3:** Establish a doctrine of collaboration
* **Principle 4:** Use every interaction whether face-to-face or virtual as an opportunity to acquire and share knowledge.
* **Principle 5:** Prevent knowledge loss.

b) Process

* **Principle 6:** Protect and secure information and knowledge assets.
* **Principle 7:** Embed knowledge assets (e.g links, podcasts, videos, document) in standard business processes and provide access for those who need to know.

* **Principle 8:** Use standard business rules and process across the organization.

c) Technology

* **Principe 9:** Use standardized collaboration sets.

* **Principle 10:** Use open architectures to permit access and searching across boundaries.

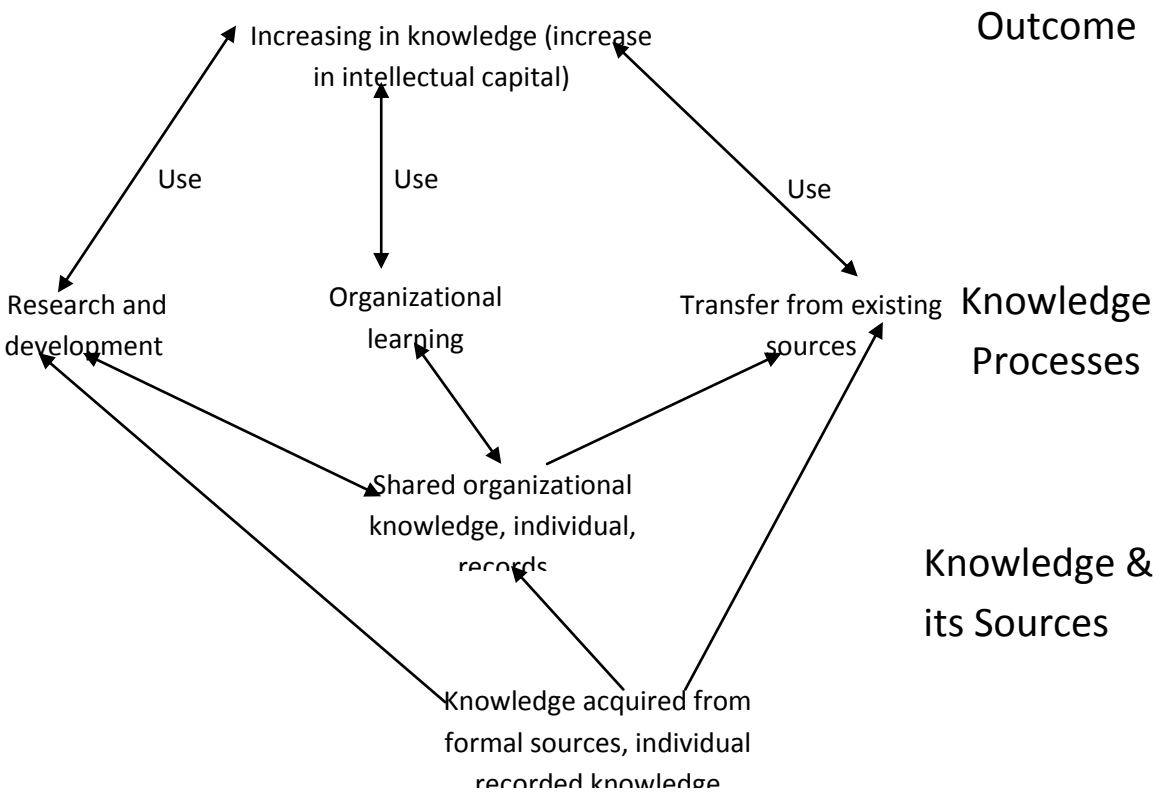
* **Principle 11:** Use a robust search capability to access contextual knowledge and store content for discovery.

* **Principle 12:** Army Knowledge Online (AKO), or Defense Knowledge Online (DKO) is the preferred portal and access point to all Army enterprise knowledge assets.

The above strategy could also be applicable in other disciplines of human endeavors. In essence it will be more relevant in the university system, where the major concept "knowledge" exists.

Also, as a part of the strategies in knowledge management, Snowden (2002) identifies as a strategy in knowledge management, a 'push strategy' which implies individuals strive to explicitly encode their knowledge into shared knowledge repository. This could be in a database. It could also be 'pull strategy'. This strategy is through making knowledge request from experts associated with a particular subject or discipline. This strategy shows relationship between knowledge 'giving' and 'taking' outside an organization. It also implies that the knowledge sharing partners may not have the same goals or work together, but share in common some elements and interest in a particular discipline. Klobas (1997) identifies 3 strategic levels of knowledge management as illustrated by figure 2.8.

Figure 2.8: Illustration of Sources of Knowledge, Knowledge Processes and outcomes of Knowledge.



Source: Klobas (1997)

The figure 2.8 above shows that sources of knowledge could be through schools and experiences which are external and also by training of employees through research. The knowledge processes are the day-to-day practices of the industrial or organizational activities. The outcomes are production in the case of industry and or increase in research and teaching in the case of a university institution.

2.9 Role of Knowledge Management in Organizations

Formal organizations are always on the strive to achieve their stated goals. In the school system, for example, training and retraining are aimed at unavailing new skills for

workers to increase productivity. The role of knowledge management in organization is, therefore, an intention to push workers to do more of what has been done in the past.

Stan and Jim (1994) postulate six features of knowledge-based business (organization) as:

i) The more you use knowledge-based offerings, the smarter they get;
ii) The more you use knowledge-based offerings, the smarter you get;
iii) Knowledge-based products and services adjust to changing circumstances;
iv) Knowledge-based businesses (or activities) can customize their offerings;
v) Knowledge-based products and services have relatively short life style; and
vi) Knowledge-based businesses enable customers to act in real-time.

These features are not limited to the business sectors, but transcend to all other sectors. Items i, iii, and iii have direct link with university education. The more you exploit knowledge, the more, you go deeper in searching. Also, researched products always change circumstance (people's way of life or events). Therefore, it may not be questionable to state that increase in knowledge changes situations. Against this background, Druker (1999) argues that the most important contribution managers can make in the 21st century is to increase productivity of knowledge work and knowledge workers.

Similarly, Morey and Maybury, (2002) explain that the role of knowledge management program can yield impressive benefit to individuals and organization, if they are purposeful, concrete, and action-oriented. This denotes that, knowledge management benefit is not limited to the organization (by increase in production), but also extend to the workers, through increase in knowledge and monetary.

For organizations and managers, Vestal (2002) opines that knowledge management plays a role that opens opportunity for identification of strengths and weaknesses of a system, thereby enables managers to adjust decisions. In the university system, teaching and research

could be measured from the view point of societal needs and aspirations. If strengths and weaknesses are identified, then, the manager's plans for change are strengthened or redirected in achieving the basic objectives of university education. In a nutshell, knowledge management is highly relevant in Nigerian university education.

2.10 University Education and Development: A Historical Viewpoint

The term 'university' could be viewed as a word with two segments a: 'uni' which means one and 'varsity' meaning many. This implies 'many in one', that is many components put together in one. This by extension captures the picture of a university as an entity with several research institutes, faculties, departments, units and sections all aiming to achieve the general goal of the university system. Jaspers (1960) views university as a community of scholars and students engaged in the task of seeking the truth. He added that university aims at initiating people professionally dedicated to the quest and transmission of truth in specific terms.

The Oxford Advanced Learner's Dictionary (2005) defines university as "an educational institution at the highest level". This implies that a university is institutions where teaching and learning take place. It also indicates that there is no other institution of teaching and learning above the university. Therefore, a university is an institution where the brain box of societal architectural plans is stored. Therefore, it must not be toyed with.

2.11 Global Development of University Education.

In the process of tracing history, one is always faced with several viewpoints, some in agreement, and others in contrast. However, evidence serves as measuring scale for acceptability or otherwise of any claim. In this context, university education could be traced back from the ancient Arabs in Qurdoba, where scholars of sciences lived and discovered several scientific ideas of today's science. Some of these issues were related to Bin Sina,

(Avacina), Al-Farabi (Faravious) and many more. This could be an eastern perspective of the origin of university system.

Meanwhile, the second viewpoint traced the origin of university system to Roman Catholicism, who sustained knowledge during the dark ages and were also responsible for the founding of the European universities in the 1200 AD. This school of thought accepted that, the institutions in Europe were stimulated by the learning of Arabic scholars through which they were acquainted with the philosophy of Aristotle which yielded scholastic materials in philosophy and theology.

As events were taken by time, the earliest western university was the famous medical school in Salerno, Italy in the 9th century. This school remained just a medical school not a university in the broad sense. The first fully fledged university was at Bologna, founded in the late 11th century, while the first university in northern Europe was the University of Paris, founded between 1150 and 1170.This university served as a model to Oxford and England, which become well established by the end of the 12th century.

These early universities received their charters (regulation) from Popes, Emperors and Kings. However, they were free to govern themselves so long as they taught neither atheism nor heresy. Students and teachers together elected their Rectors (leaders). Source of finance come from fees charged from students who had a lot of power in shaping the governance of the university.

Universities in those days had no permanent structures. This made them lose students to other universities for reasons of dissatisfaction. This kind of situation kindled the beginning of University of Cambridge in 1209, where a number of dissatisfied students moved there from Oxford, and for the same reason after 20 years Oxford in turn profited by students from University of Paris.

NTI (2008), reports that from the 13th century 1200AD, universities were established in many major European cities. This included Montpellier (1220), Aix-en-Provence (1409) both in France; in Padua (1222), Rome (1303), in Central Europe, at Heidelberg (1386), Leipzig (1409), Freiburg (1457), and Tubingen (1477) in Germany of today at Louvain (1425) in present Belgium and at Saint Andrews (1411) and Glasgow (1451) in Scotland.

History has proved that from time immemorial, university education was built on a democratic system of governance, which allowed a lot of freedom in almost all aspects. This may be as a result of the university being an industry of knowledge generation and dissemination. Also unique and worth noting was students' direct involvement in leadership selection (decision making process). This was extraordinary, and in fact, deserves commendation as recipients of knowledge were accorded this status. On the contrary students of today are denied the right of electing their leaders, not to talk of having a say in constituting the university leadership. This trend needs a holistic adjustment.

2.12 Development of University Education in Nigeria.

University is the peak level for manpower training and development for economic development and prosperity of nations of the world. In Nigeria, the history and background for higher education could be traced back to 1932, when Yaba High College was established. The aim was to create opportunities for Nigerians to acquire higher education and also produce manpower (Fafunwa, 1997).

In X-raying the nature of the Yaba college setup, Nuhu (2001), asserts that "one of the peculiar features of the college was its stringent admission policy. The number of students to be admitted annually depended on the number of prospective places in the various government departments that will be opened to students who successfully completed their courses". This effort, however, contravened the current admission mode, where nobody knows the market demands for production.

As usual, programmes in education were characterized with shortcomings, which usher changes and modifications. By 1943, Elliot's commission was established, which examined the need for higher institutions in the British colony. One of the committee's recommendations was an effort to address the shortcomings of Yaba High School, which brought about the establishment of University College, Ibadan in 1948, (NUC, 1992).The university was an affiliate of the University of London. Still, the university was criticized because its curriculum was modeled after that of university of London, to train students for London external degrees in arts, science, agriculture and medicine (Ige, 2010). Also, Ibukun (1997) argues that University College, Ibadan, was saddled with a number of problems at inception ranging from rigid constitutional provision, poor staff and low enrolment to high dropout rate.

In April 1959, the Federal Government commissioned a committee of inquiry to advise the government on higher education needs in the country (the Ashby Commission). The commission had the following recommendations among others:

- The Federal Government should give support to the development of new universities, planned in 1955 and open a few weeks before the publication of the Ashby Report in 1960;
- A university should be established in the north using the old site of the Nigerian College of Arts and Science in Zaria as its base;
- A university should be established in Lagos with day and evening courses in business, commerce and economics;
- University College Ibadan, should move away from its conservative position, widen its curriculum and develop into a full university;
- All universities in Nigeria should be national in outlook;
- There should be wider diversity and greater flexibility in university education;
- All the universities should have B.A. (education) degree courses;
- Courses in Engineering, Medicine, Law, Commerce and Agriculture should be offered;
- All new Nigerian universities should be independent of one another and each should confer its own degrees;
- A national universities commission should be set up to have undisputed control over the affairs of the universities, particularly in terms of finance, staff and courses (Musaazi, 1986;&Amadi, 2008).

Following the acceptance of some of the recommendations of the Ashby commission, several changes were made and establishment of new universities came up, which included University of Nigeria, Nsukka 1960, university of Ife (now Obafemi Awolowo University, Ile-Ife) 1962 by the eastern region, Ahmadu Bello University, Zaria 1962 by the northern region and University of Lagos 1962 by the Federal Government. Meanwhile, University College Ibadan became a full-fledged university in 1962 (Babalola, 2007; NUC, 1992), but only university of Lagos then was a Federal University, others remained regionally based. These universities which were established during the period of 1960-1970 were tagged first generation universities in Nigeria.

As a result of increase in the demand for higher education and training of high skilled manpower, more universities were established. These were named second generation universities. They were between 1970-1980. They included: University of Calabar (1975), Ilorin (1976), Jos (1975), Sokoto (1977), Maiduguri (1977), Port Harcourt (1977), and Beyero University Kano (1977). These universities became federal universities by decree 46 of 1977 which provided take-over of all universities by federal government.

Also in a related dimension of national needs, the provision of the 1977 constitution was amended so as to make university education be on the concurrent legislative list. This allowed the state governments to establish state owned universities. As a result of this development between 1979-1983, the following state universities were founded in Bendel, Anambra, Enugu, Imo, Ogun, Ondo, Rivers, Cross Rivers and Lagos State University (NUC, 2003).

Due to other needs in science and technology sectors, the need came up for the creation of universities of technology in many parts of the country. These universities were titled third generation. They were established between 1981-1985. There were Federal Universities of Technology, Bauchi (1982/1982); Makurdi (1981/1982), Owerri (1981/1982);

Yola (1982/1983); Akure (1982/1983); Abeokuta (1982/1983); Minna (1983/1984). Meanwhile, as the military government took over, some adjustments were made into the newly created universities (Musaazi, 1986). Federal University of Technology, Yola, became an out-post of University of Maiduguri. The University of Jos absorbed the Federal University of Technology, Makurdi as the out-post of the former, while the Federal University of Technology, Abeokuta became a campus of the University of Lagos (Okon, 2006). Ike (2010), adds that within this period was the establishment of Nigerian Defence Academy (NDA) at Kaduna as a degree awarding institution, with the view to train soldiers.

The fourth generation universities could be viewed as universities established from 1991 to date, among which are the open university (established to allow workers to advance their knowledge) and many more state universities and the last nine newly established federal universities (The Nation, 2011).

However, it is worth noting that, behind the establishment of any university there is a reason. In fact, each university is given specific area of academic pursuit. This enables the institutions to have bearing and avoid duplication of effort which may lead to waste of resources and energy. A careful study will reveal that, some of the areas of academic pursuit are defined according to the needs and aspirations of the immediate environment where the university is located. Table 2.2 indicates Nigerian universities on status/control, location/states, date of establishment and academic character.

Table 2.2: Nigerian Federal Universities by Location, States, Academic Character and Date of Establishment

S/No	Name of Institution	Date of Establishment	Status (control)	Location/states	Academic character
1	University of Nigeria Nsukka	1961	Federal Government	Anambra	Emphasis on social science and humanities and science etc.
2	Ahmadu Bello University, Zaria	1962	Federal Government	Kaduna	Emphasis on social science and humanities and science etc.
3	University of Ife, Ile-Ife	1962	Federal Government	Oyo	Emphasis on social science and humanities and science etc.
4	University of Lagos	1962	Federal Government	Lagos	Emphasis on social science and humanities and science etc.
5	University of Ibadan	1962	Federal Government	Oyo	Emphasis on social science and humanities and science etc.
6	University of Benin	1970	Federal Government	Bendel (Edo State)	Emphasis on social science and humanities and science etc.
7	University of Calabar	1975	Federal Government	Cross river	Emphasis on social science and humanities and science etc.
8	University of Jos	1975	Federal Government	Plateau	Emphasis on social science and humanities and science etc.
9	University of Ilorin	1977	Federal Government	Kwara	Emphasis on social science and humanities and science etc.
10	University of Maiduguri	1977	Federal Government	Borno	Emphasis on social science and humanities and science etc.
11	Bayero University Kano	1977	Federal Government	Kano	Emphasis on social science and humanities and science etc.
12	University of Port-Harcourt	1977	Federal Government	Rivers	Emphasis on social science and humanities and science etc.
13	University of Sokoto	1977	Federal Government	Sokoto	Emphasis on social science and humanities and science etc.
14	University of Technology, Enugu	1981	State Government	Anambra	Science and Technology
15	Federal University of Technology, Owerri	1981	Federal Government	Imo	Science and Technology
16	Federal University of Technology, Bauchi (TafawaBalewa University)	1981	Federal Government	Bauchi	Science and Technology
17	Federal University of Technology, Makurdi	1981	Federal Government	Benue	Science and Technology
18	Federal University of Technology, Yola	1981	Federal Government	Gongola state (Adamawa state now)	Science and Technology
19	Federal University of Technology, Akure	1981	Federal Government	Ondo	Science and Technology
20	Federal University of Technology, Abeokuta	1982	Federal Government	Ogun	Science and Technology
21	Federal University of Technology, Minna	1982	Federal Government	Niger	Science and Technology

Source: Musaazi (1986).

However, Mamman (2008) reports that as at August, 2009 there were 27 Federal Universities and the Nation (2011) adds the updated number of Federal Universities as at 29 December,

2011 to be 36. These are captured in table 2.3 which shows the name and year of establishment of the Federal Universities in Nigeria.

Table 2.3: List of Approved Federal Universities as at December 2011

s/no	Name of university	Year of establishment	Generation
1.	University of Ibadan	1948	First
2	University of Nigeria NSUKKA	1960	..
3	ObafemiAwolowo university, Ile-Ife	1962	..
4	Ahmadu Bello University, Zaria	1962	..
5	University of Lagos, Lagos	1962	..
6	University of Benin, Benin City	1970	Second
7	Bayero University Kano	1975	..
8	University of Calabar, Calabar	1975	..
9	University of Illorin, Illorin	1975	..
10	University of Jos, Jos	1975	..
11	University of Maiduguri, Maiduguri	1975	..
12	UsmanDanfodio University, Sokoto	1975	..
13	University of Port-Harcourt, Port-Harcourt	1975	..
14	Federal University of Technology, Owerri	1980	Third
15	Federal University of Technology, Akure	1981	..
16	Federal University of Technology, Yola	1981	..
17	Federal University of Technology, Minna	1982	..
18	Nigerian Defence Academy, Kaduna	1985	..
19	University of Abuja	1988	..
20	AbubakarTafawaBalewa University, Bauchi	1988	..
21	University of Agriculture, Makurdi	1988	..
22	University of Agriculture, Abeokuta	1988	..
23	NnamdiAzikiwe University, Awka	1988	..
24	University of Uyo, Uyo	1991	..
25	MichealOpkara University of agriculture, Umudike	1992	..
26	National open University, Abuja	2002	Fourth
27	Federal University of Petroleum Resources, Effurum	2007	..
28	Federal University, Dutse, Jigawa-State	2011	..
29	Federal University, Dutsin-ma, Katsina state	2011	..
30	Federal University, Kashere, Gombe state	2011	..
31	Federal University, Lafia, Nassarawa State	2011	..
32	Federal University Lokoja, Kogi State	2011	..
33	Federal University, Ndufu-Alike, Ebonyi State	2011	..
34	Federal University, Ituoke, Bayalsa State	2011	..
35	Federal University, Oye-Ekiti, Ekiti State	2011	..
36	Federal University, Wukari, Taraba State	2011	..

Source: Ajayi (2008); Mamman (2008); and The Nation (2011).

Stakeholders like Academic Staff Union of Universities (ASUU) are of the opinion that there is neither wisdom nor reason behind the establishment of new universities. The argued that the existing ones are at the verge of collapse, bedeviled with over populated classrooms, inadequate equipment, shortage of funds for research development, brain-drain,

and low staff motivation. Other problems are examination fraud, students and versus host community clashes (Amadi, 2008;& ASUU, 2011).

Other people see the establishment of new universities as a step forward since it paves ways for job creation, increase in accessibility to higher education, decongestion of the over populated universities and many more. Nonetheless, the concern of rational citizenry is not more than abiding by the rules and regulations of the game. All laws governing the establishment and running of the universities should be respected to international standard to ensure quality.

2.13 Administrative Functions of the University Management in Nigeria

The role of the university administration in Nigeria is the actualization of the national philosophy of education which was translated into the national policy on university education system. According to the National Policy on Education, the goals of university include the following among others:

1) acquisition, development and the inculcation of proper value orientation;
2) development of the intellectual capacities of the individuals;
3) acquisitions of both physical and intellectual skills; and
4) acquisition of an objective view of the local and external environment of the universities for developing high quality human resources, especially in an increasing technology driven world economy.

Others are the promotion of national unity and tolerance in Nigeria.

In another related view, Alele (1992), observes that the University has seven (7) possible functions: teaching, certification, research, storage of knowledge, publication of text, public service and enlightenment of the community. Yaqub (1993) adds as the role of the university system the promotion of truth and that, because of the under developed nature of Nigeria, the system has been given additional responsibility of manpower development such as producing engineers, doctors, architects, teachers, practical agricultural officers, dentists, other various professionals, as well as to foster national integration. It is indeed the realization of this practical role that the university education system could perform, that the

federal government continues to invest large sum of money in the system. Therefore, the role of university in achieving university education in Nigeria and the internal mechanism for realization of the goals of University system are many and those will be discussed in turn. It is in line with these functions, the university as a system is internally organized with the following levels for achievement of national policy objectives:

The University Visitor

The visitor of any university in Nigeria is the Head of State/President, in the case of Federal University. While in the State/Private, is the Governor/Proprietor. The visitor or his representative is expected to visit the university once in a year.During the visit, he will be briefed on the situational report of the university and its demands. The visitor has the powers to give any instruction as the university act provides (Ovwigbo, 1985). Also in the event of any doubt or dispute on any matter, the visitor is expected to take decision or give instruction. In fact, decisions taken by the visitor on students and staff are binding. No question as to the meaning of that provision shall be entertained by any court of law in Nigeria.

However, one may not have direct statement on the role of the visitor to universities in Nigeria. But, the act seems colonial and never democratic, which therefore, needs adjustment to suit a democratic environment of today's changing situations.

Roles/Functions of the Governing Council

The university governing council is the highest internal policy making body. The governing council by law is appointed by the federal government. The university governing council is headed by a chairman who is supported by some political office holders as members of the council who constitute the nucleus and the most powerful caucus in council and are also appointed by the federal government. Other members include the Vice-Chancellor, representative of the alumni association, student's union representative, one

senate member and at least two other members from the university community and the Registrar of the university as the secretary (Federal Republic of Nigeria, 1992).

The governing council is charged with the general control including appointment and super intended policy, finances and property of the university. This is a powerful committee in charged with decision making. It handles all budget proposals, discusses all promotions and appointment and conditions of services of the university staff of the various management and principal officers. The chairman of the council and the Vice-chancellor hold the key to the administrative success of any Nigerian University. The council and the senate, which consist of university professors and other academic staff selected according to criteria and procedures laid down by each university are the academic cornerstone of each University and are in charge of all matters dealing with academic duties. They control teaching, research, admission and discipline of students, examination, and the organization of hall of residence and the award of degrees. There is also the committee of council known as the finance and general purpose committee, which exercises control over the property and expenditure of the university. The committee also ensures that proper accounts of the university are kept and audited annually by an independent form of auditors approved by the council of Nigeria (Federal Republic 1992, Federal Ministry of Education, 2003).

Thus, specifically, the functions of the council are:

1) The approval of university budget.
2) Appointment of certain senior university posts such as the Registrar, Bursars and some professional post.
3) Confirmation of changes in academic regulations proposed by the senate.
4) To establish the educational and academic policies of the universities.
5) To be concerned and participate actively in decision making on matters that may directly affect the educational policies of the university.
6) To advise the President and the Vice-President on policies affecting the quality of student's life on campus (Federal Republic of Nigeria 1992, Federal Ministry of Education, 2003).

Therefore, the role of the council in the implementation of national policy on University education system in Nigeria is very crucial and critical to the success of the University functions.

Effective implementation involves planning and budgeting essential for efficient management of the federal universities in Nigeria. Planning in the context of the university involves careful determination of priorities of the universities and a proper assessment of the means of accomplishing them. It also involves forecasting future needs of the universities and planning the necessary steps to meet them. It consists of developing and implementing plans and programmes in the universities to ensure that the right type of resources are available at the right time and in right quantity and place to fulfill the needs of the universities. Budgeting involves strategies aimed at how to obtain and efficiently utilize resources for the purpose of achieving the goals and objectives of the Universities.

The quality of service provided by the council in relation to budgetary matters, appointment of the academic staff, establishment of the rules and regulations promulgation of sound policies as general administration which determine the extent to which the aims and objectives of university education system in Nigeria are achieved. Hence, the council of the university could be held responsible for the successes or failures of university education system by the public in Nigeria.

However, the politicization in the appointment and succession process of the Vice-Chancellors, council members and other principal officers in our tertiary institutions has been the major concern of the education stakeholders and the public in Nigeria. The power of the council is consciously or unconsciously transferred to a single individual (Minister) when the council is not in place. The government by right gives policy guidelines and directives to universities' governing councils, for, he who pays the piper dictates the tune. There is also the fear of insecurity of tenure of appointment because staffs of tertiary institutions are

sometimes rationalized according to the whims and caprices of government. Government has also on occasions deemed it fit to discipline staff thereby exercising the power of the heads of governing council who are the statutory employers (Onyeonru, 2001).

Thus, from all indications, it can be seen that the university council has not been well positioned to effectively and efficiently influence the achievement of university education system in Nigeria.

The Chancellor

The office of the Chancellor is ceremonial in nature. His major role is to open and close convocation ceremonies and grant degrees and certificates to graduates. The visitor appoints the chancellor on the recommendation of the university council.

The Congregation

The congregation is yet another arm in the governance of the university. This arm is very important in cementing relationship among members of the university community. The Congregation is the general assembly of all graduate members of the university staff irrespective of affiliation. The Vice-chancellor is its chairman. The general assembly serves as a forum where university issues are discussed and suggestions made to the council and the senate where necessary.

This assembly is expected to assist in achieving objectives of the university education. It could be a forum where issues will be brought out to all and for all to act/work as a team.

The Senate Council

The senate in the university is headed by the Vice-Chancellor with the following members. The Registrar, the two Deputy Vice Chancellors, Directors of Institutes, all Professors, Deans of Faculties, Heads of Departments, the University Librarian. Others include members of Academic Staff elected by the Faculties or congregations and those appointed by the Vice-Chancellor as specified by the university act.

This important arm of the university governance is responsible for organizing and controlling teaching activities in the university, the admission and discipline of students. It also has as a duty of promoting research, receiving and deciding on recommendations/reports from the faculty boards and other academic units.

The Vice Chancellor

The Vice-Chancellor is the chief accounting officer of the university. All staff and students are responsible to him. All members of staff report to their respective heads and, at the end of it all, to him as the administrative and academic head. The Vice-Chancellor is a member of the council and chairman of the senate, congregation and several other committees. He is vested with power to decide on many issues in the university system.

Therefore, the success of any university system depends on the organizational structure and the method(s) of operation. The Vice-Chancellor's role to ensure the success of the university goals is enormous. This means that the Vice-Chancellor must possess rare qualities which he will be able to manage and carry his people along in the event of rancor, which sometimes results from the leadership shortcomings and becomes a setback for goal attainment. Therefore, the Vice-Chancellor is at the centre and is directly involved and in making things happen unlike the Federal Ministry of Education, and National Universities Commission as the case may be.

The Roles/Functions of the Deans

The Dean according to the Oxford Advanced Learners Dictionary, 6th edition, (2000) is a person in the University who is in charge of a department of studies, example the Dean of the faculty of Medicine. A person who is responsible for the discipline of students. The Dean, according to the Amupitan (2000) is an honorable and respected senior academic in the University. His years of experience, knowledge and expertise are put to bear in his eligibility for the position of deanship. The tenure of a Dean is two years and this is subject to a renewal

for another term of two years according to the university academic regulations. In line with the university's regulations, only very senior academics are eligible to vie for the position in view of the numerous responsibilities, duties and challenges of the position.

In his most exhaustive analysis of the role/functions of the dean of the faculty in a university, Amupitan, (2000) presents the following:

1) **Day-to-day running of the faculty:** The Dean of the faculty is the academic and administrative head of the faculty, based on the provision of section 8(4) of the University of Jos statute No.1 that 'the Dean of a faculty shall exercise superintendence over the academic and administrative affairs of the faculty…' the Dean is saddled with the day-to-day running of the affairs of the faculty. He is to attend to every correspondence and carryout directive from the Vice-Chancellor who is the chief executive and academic officer of the University. He also ensures that every decision of the University senate is carried out in the faculty. In administering the faculty, he responds to every correspondence from within and outside the University. He ensures that all staff and students' matters that require the attention of the senate of the University are brought up for consideration.

2) **Leader of the Faculty:** The Dean chairs the Faculty Board and every other meeting of the faculty including every committee of the faculty board which he is a member. He also chairs the administrative committee consisting of the Dean, the Deputy Dean, and the Heads of Departments with the Faculty Officer in attendance. The Faculty Board consists of all the academic staff of the faculty with the Faculty Officer in attendance as the secretary of the meeting. The Dean also chairs all Faculty's meetings such as; appraisal committee which consists of the Heads of Departments and all Professors, Curriculum Committee, Admission Committee, ICT Committee and Postgraduate Committee.

3) **Academic leadership:** The Dean provides academic leadership in the faculty. In most cases he/she is a senior academic in the faculty and a mentor to most of the faculty staff. Apart from administrative responsibilities mentioned earlier, he teaches some courses at undergraduate and postgraduate levels and is also involved in research. He presides over every M.Phil/Ph.D Seminar presentations. He also leads the Faculty Board of examiners and ensures that students' results are prepared in line with university's regulation. He presents the students examination results to the Senate of the University. In consultation with Head of departments and the Professors in the faculty, he nominates external examiners for the approval of senate. He also leads the faculty for accreditation by the regulatory agency and ensures that all faculty's requirements for accreditation are put in place. The Dean is also a member of the University Senate and he makes useful contributions to the Senate apart from defending faculty's matters at the senate meeting. He ensures that the faculty's curricula are reviewed from time to time in line with the regulations of the University.

4) **Responsibility to the Vice-Chancellor:** In accordance with the rule of the University regulations, the Dean is responsible to the Vice Chancellor on all matters relating to appointment, promotion and discipline of academic senior technical staff after due consultation with Head of departments.

5) **Responsibility for the Promotion of Staff:** The Dean presents his staffs that are due for promotion on yearly basis to the University's Appraisal Complex Committee. This was after the departmental and Faculty's Appraisal Committee have recommended the staff for promotion. The Dean makes necessary recommendations on staff appraisal form, either for promotion, or for annual increment.

6) **Responsibility for Appointment of Staff:** The Dean advises the Vice-Chancellor on staff recruitment. He ensures that competent staffs are recruited based on the needs of

the faculty. He, along with the relevant Head of departments, are members of the interview panel. In exceptional cases, he can make recommendation for the appointment of a staff on a temporary position pending a formal interview.

7) **Responsibility for Discipline:** The Dean is responsible for the discipline of staff in consultation with the Head of department concerned. He ensures that all disciplinary cases are referred to the Vice Chancellor and also to the Council/Senate Disciplinary Committee.

8) **Responsibility During Convocation:** The Dean is a member of convocation. It is his duty to present to convocation for the conferment of degrees to person(s) who have qualified for such degrees of the faculty after a successful examination. He also ensures that names of successful candidates are sent to Nigeria law school for admission into the school so as to qualify them to practise law in Nigeria in the case of the Law Faculty. The Dean also forwards successful candidates' names below the age of thirty years to National Youth Service Corps (NYSC) for compulsory national service.

9) **Collation of Faculty's Budget:** He collates co-ordinates and presents the budgetary proposal of the faculty to the University Management. This, he does in consultation with the Head of departments.

10) **Advising the Vice-Chancellor on Academic Matters:** The Committees of Deans is saddled with the responsibility of advising the Vice Chancellor on academic matters. The Dean is also a member of all Senate Committee bothering on academic matters. This includes; Senate Business Committee, Senate Curriculum Committee, Senate Affiliation Committee and the Library Board.

Although, the above examination looks exhaustive, however, other functions of the Dean include; recommendation of a legible academic staff for training and re-training of

academic staff based on critical needs of the faculty. He also takes leadership in promoting academic staff growth and development through supporting the organization of seminars, conferences and workshops within and outside the faculty. He also welcomes and initiates innovation in the work of academic staff that is in teaching learning situation of the faculty. He promotes scholarly researches and takes leadership roles in its execution. This view is in line with the implementation of the National Policy on University Education (section 8, sub-section 60 of 2004 revised edition of NPE).

From the above catalogue of roles and functions of the Dean of a faculty in a University system, the importance of the deanship position as it relates to University education system cannot be over emphasized. The goals of the University education singularly and collectively can only be achieved through efficient leadership of the faculty.

The quality of teachers, research and development work that the Dean supervises in the faculty will be determined to a large extent by the rate at which the objectives of university education are achieved. In fact, that could be the reason behind the election of the Dean's office, for prudence and open policy in the administration of the faculty affairs.

Roles/Functions of the Academic Staff.

According to National Policy on Education, the goals of the university education shall be to:

a) Contribute to national development through high level relevant manpower training;
b) Develop the intellectual capabilities of individuals to understand and appreciate their local and external environments;
c) Develop and inculcate proper values for the survival of the individual and the society;
d) Acquire both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society;
e) Promote and encourage scholarship and community service;
f) Forge and cement national unity; and
g) Promote national and international understanding and interaction (NPE, 2004).

The above goals of university education shall be pursued through:
a) Teaching;
b) Research and development;
c) Virile staff development programme;

d) Generation and dissemination of knowledge;
e) Varieties of modes of programmes including full time, part-time, block-release, day-release, sandwich, etc.;
f) Access to training funds such as those provided by the Industrial Training Fund (ITF);
g) Students Industrial Work Experience Scheme (SIWES);
h) Maintenance of minimum educational standard through appropriate agencies;
i) Inter-institutional co-operation; and
j) Dedicated services to the community through extra-mural and extension services.

On top of the list, the basic objective of university education is teaching. Therefore, the role of a teacher in achieving University education is very essential to the success of university education. The university teacher is expected to be knowledgeable and articulate. He should be a man of great learning in his teaching field and a teacher who is able to interact and communicate with different kinds of students like those in Nigerian universities. Writing in similar mind Ross (1996) emphasizes the inevitable link between teaching and learning, when he stressed "a man who had not actually being a teacher, would have seemed a gross anomaly to the scholars of twentieth century". The above view, suggests a disagreement about the role of someone who is not knowledgeable and a professional to be considered as a teacher.

However, there seems to be a large degree of agreement about essentially who is an academic, a worthy scholarship; importance of teaching; indifference to material goods; the need for civilized relations on campus; the necessities of the neutrality of University on political issues; the importance of character, tradition, tolerance as qualities of a University lecturer, (Robbins, 1994). Other acceptable standards of behavior and responsibilities of a University teacher are such values as tolerance and honesty; publicity and testifiability; individuality and cooperativeness; acceptable standard of scholarly and scientific activities; the elimination of particularistic criterion e.g. racial and sectional prejudice in judging the merit of a work, and the elimination of unearned advantages like connections, rank-in considering the merit of a man (Ross, 1996). In considering the virtues of a University

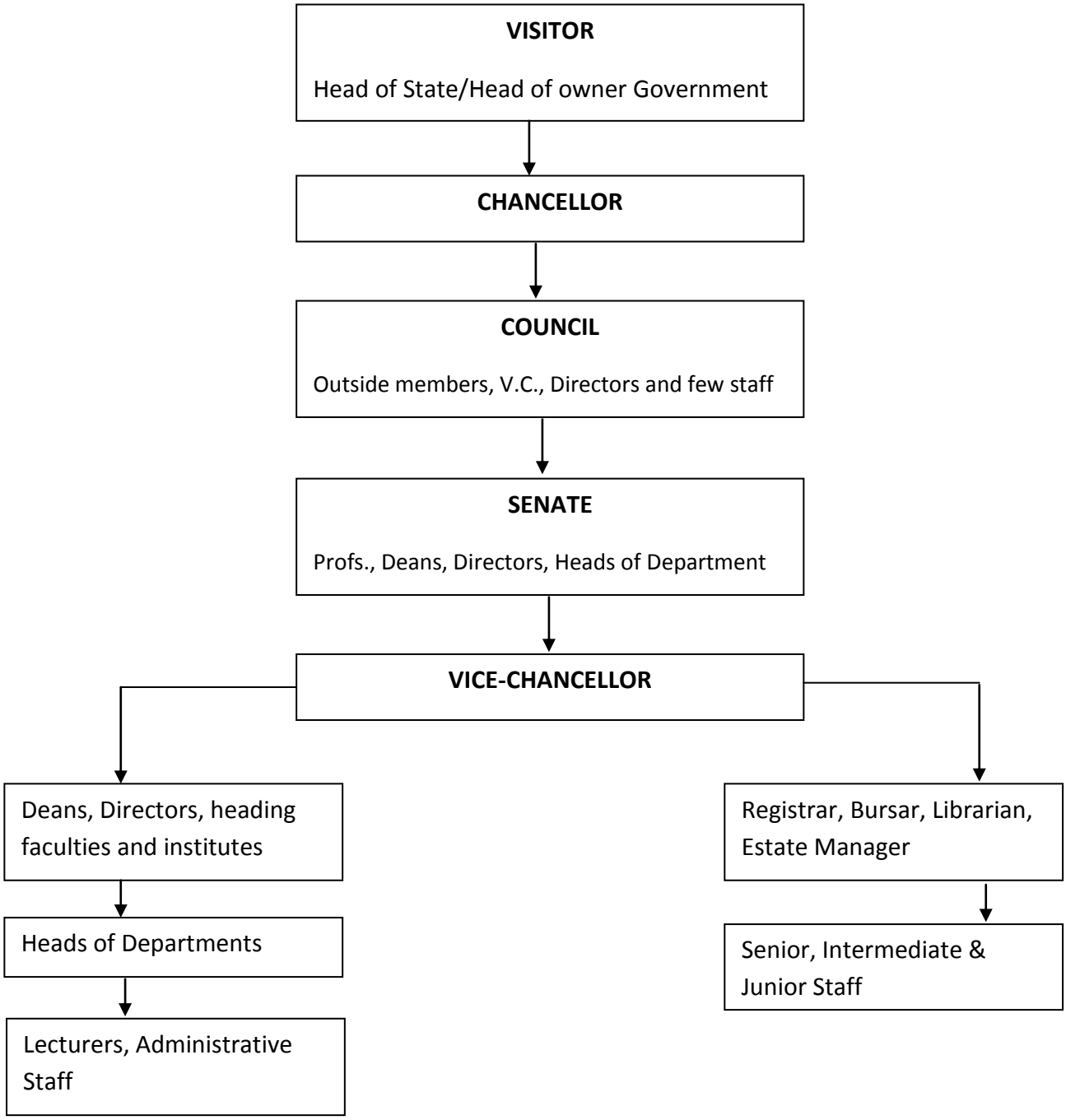
teacher, as stated above that is someone guided by a deep conviction of the worth and dignity of the advancement of knowledge, who recognizes the special responsibilities placed upon him.

> *University teacher considers his primary responsibility to his students is to seek and to state the truth as he sees it. To this end He devotes his energies to developing and improving his scholarly competence. He accepts his obligation to exercise critical self discipline and judgment in using, extending and transmitting knowledge. He practices intellectual honesty, as a teacher he encourages the free pursuit of learning in his students. He holds before them the best-scholar standard of his discipline. He demonstrates respect for the students as an individual and adheres to his proper roles as intellectual guide and counselor. He makes every reasonable effort to foster honest academic conduct and assures that his evaluation of students reflects their true merit. He avoids an exploitation of students for his private advantage and acknowledges significant assistance from them. He protects their academic freedom (Harss, 1993).*

The above expositions on the role, standards, specifications, ideas and the professional values of a university teacher are very relevant and effective measures to effective teaching in the universities. The achievement of university educational system will be more successful if university teachers in Nigeria imbibe the virtues of the teachers described above. This suggests that the quality of instruction exhibited by such teacher could facilitate and promote the attainment of developing and inculcating proper values for the survival of the individual and society. By putting reasonable effort that could foster honest academic conduct and assuring evaluation of students based on merit, providing intellectual guidance and counseling, University teachers in Nigeria could promote the achievement of national integration, unity and development among Nigerian graduates. Figure 2, 12 captures university administrative structure.

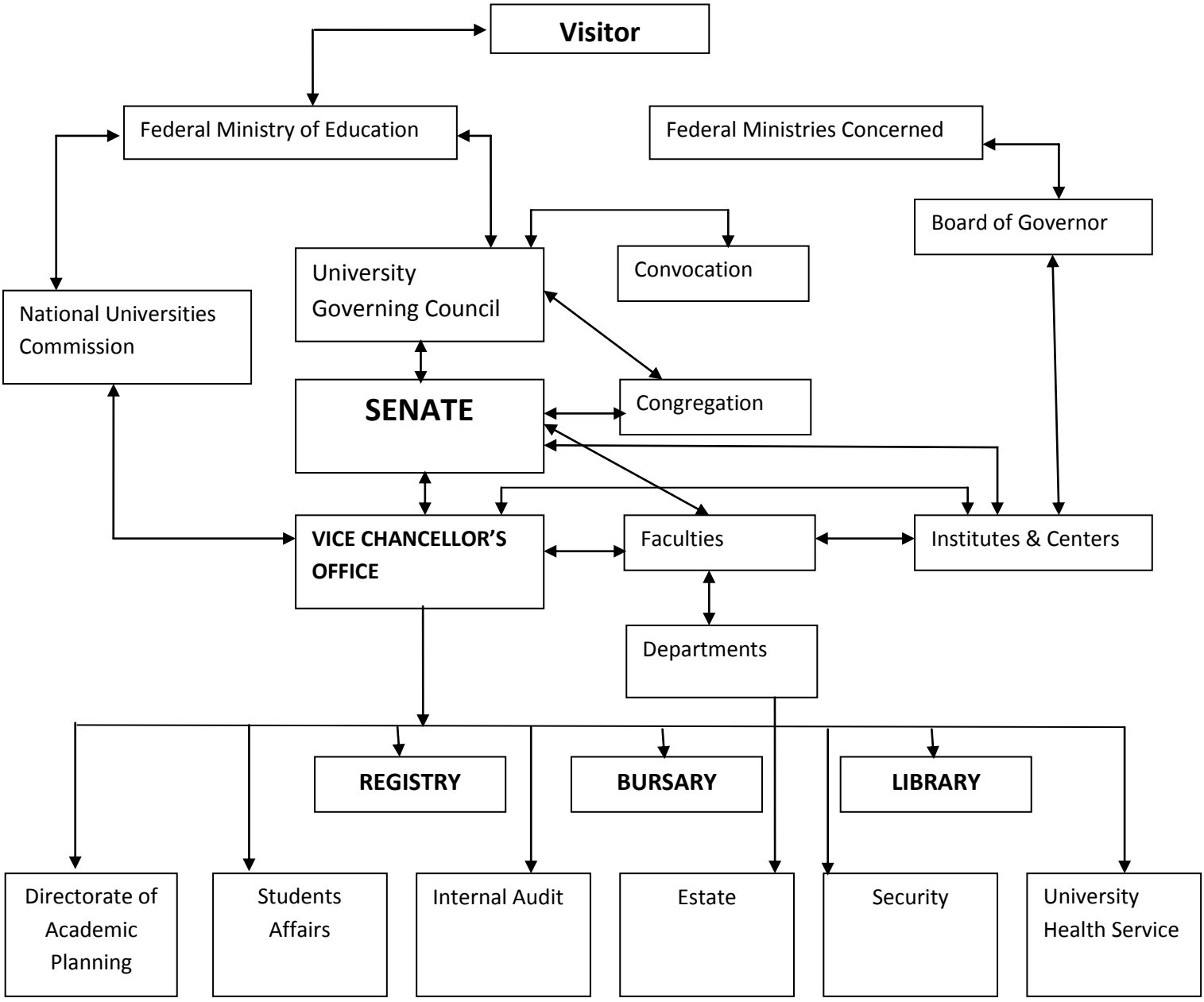
Figure 2.9

The Administrative Structure of Nigerian Universities



Source: Adopted from Ovwigho (1983).

Fig: 2.10: General Organ gram of University System in Nigeria with Channel of Communication.

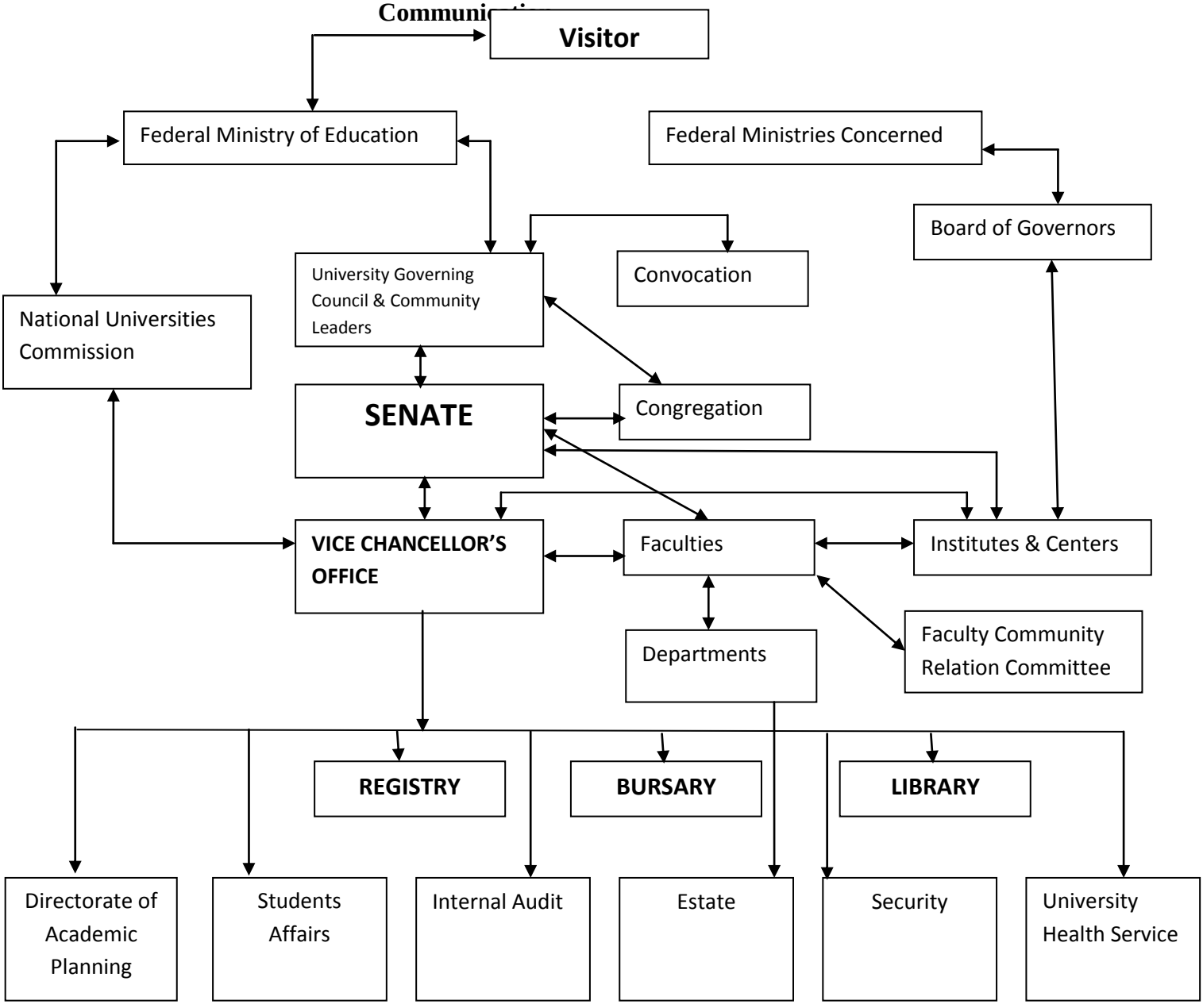


Source: Adopted from Dogo (2011)

The figure (2.13) captures the hierarchy and flow of information in the university as a system (within), and also how it relates with the outside (government). However, the figure (2.14) should have a segment, where the university (as an institution for public service) relates with the public directly. This relationship ought to be at the peak of university governance (at the University Governing Council). Also, to be included is a committee at

every faculty (to be named Faculty Community Relation Committee). It is assumed that this will ease access to information by the community to the researchers in the faculties, and subsequently, the university solves the societal problems. Figure 2.14 shows the proposed organ gram.

Figure 2.11: Modified Organ gram of University Hierarchy and Channels of Communication



The figure 2.14 has addition of membership in the Governing Councils of Universities. It is suggested that there should be a representative of the kingdom, emirate or traditional

leadership of the host community of the university. It is hoped that this representative in the council will facilitate/strengthen the university services to the community at the top governing body of the university.

Also, proposed is a Faculty Community Relation Committee (at the faculty level). This committee should comprise membership from the host community at the district/village levels and some members of the faculty (especially in areas where the community needs services). With this, an avenue will be created for interaction and exchange of local information by both sides. Certainly, this will help the university discharge its duties in the areas of community service.

University management could be effective through the use of knowledge management techniques. For example Allee (1997); Davenport, (1998) and Alavi & Leidner (2001) postulate that knowledge management is managing the corporation's Knowledge through systematically and organizationally specified process for acquiring, organizing, sustaining, applying, sharing and renewing both tacit and explicit knowledge of employees to enhance organizational performance and create value.

The above assertion indicates the importance of university management at all levels, i.e the University Council, Senate Council, Congregation, the Principal Officers, Directors, Deans, Head of Departments and Lecturers. These are responsible for organizing, planning, monitoring and evaluation of university activities. Therefore, the use of knowledge management strategies especially in the areas of sustaining, applying, sharing and renewing of knowledge is paramount.

The concept management implies coordinating all human and material energies towards achieving organizational goals. Therefore, management could be said to play significant role in achieving organizational goals since they take decisions at all levels. Knowledge management could a vital tool that can assist managers in areas of coordinating their energies, share and apply knowledge among them for effective function within the university system.

Also in the opinion of Blatt (2000) knowledge management is the process of knowledge creation, validation, presentation, distribution and application. In a form of relationship, all that is to be done in the university must get the consent of university managers. This indicates that knowledge management is a tool for the achievement of university goals.

2.14 Concept of Administration

Administration as a concept and process can hardly be traced in the history of man. Noticeably, the concept could be referred to the ancient Egyptian vast complex enterprise that required sophisticated planning, complex organization, skilled leadership and detailed coordination in the construction of their pyramids, which took one hundred thousand men twenty years to complete, (Robert, 2001). This work was equated to three times the size of shell Oil Company in the areas of administration. This implies that administrative functions have been in existance since the begging of man, where he solves his problems according to his needs and capacity.

The word administration has been derived from the Latin word 'minister' which means services rendered to others for their welfare (Mishra, 2007). This is in line with leadership functions in organizations which must be in agreement with established policies. He added that Gregg argued that administrative element include the following: decision-making, planning, organizing, commanding, influencing, co-coordinating and evaluating. Luther Gullick says the following are seven activities or component of administration: planning, organizing, staffing, directing, co-coordinating, reporting and budgeting. Also, Daniel (2011) is of the view that administration implies the main function of broad objectives, plans and policies. It also involves decision making, arrangement and organization of both human and material resources in all endeavors that have been in existence since the beggining of man. However, scholars have made several efforts to capture a formal meaning of the term administration. Ojelabi (1988) sees

administration as the execution of overall policy relating to the general purpose of an organization. Adeshina (1988) views administration as the ability to organize the human and non-human resources of an organization to achieve the objectives and goals of the organization. These definitions were directed towards policy formulation and policy implementation with the use of both human and materials resources of the organizations.

In a related but different approach with the above assertion, Hill (1982) argues that administrations are those functions in organization that deal with the collection, editing, storing and retrieval of information. To Tella (1983) administration is the process of directing and controlling life in a social organization and that administration serves to develop and regulate the decision making process in the most effective manner possible. One can deduce, from these definitions that administration is about leadership in an organization. Nowadays, a school head is called an administrator, someone who oversees the activities of an organization for goals attainment.

In addition, Drucker (1968) in Dare (2006) defines administration as a social process concerned with identify, maintaining , motivating, controlling and unifying formally and informally organized human, financial and material resources within an integrated system designed specifically to achieve predetermined objectives. Related with the former is the definition by Even (1985) also in Dare (2006) that administration is a professional discipline that assembles and uses resources to accomplish objectives through the exercise of universal function. He added that an administrator is expected to perform the following functions.

a- Cause things to happen and know what he wants to happen.
b- Exercise responsible stewardship over resources and turn them into purposeful account.
c- Promote effectiveness in the work done and search for continual improvement

d- Be accountable for the performance of the unit he is managing and
e- Set up a climate conducive to enable people give their best.

All these functions emphasized the meaning of administration towards leadership functions. Therefore, administration could be viewed as the harnessing of human, material and social relationship of an organization for goal attainment.

As the definition of administration varies also approaches among scholars vary. The National Society for the Study of Education (1964) argues that the three schools of thought namely, efficiency movement, the human relation group and rationalist had the same view on the concept of administration as:

1- Administration involves planning activities which are aimed at the fulfillment of the goals of a particular organization.
2- The activities include:
   (i) Describing the task to be performed to accomplish certain objectives and assigning these tasks to selected and trained personnel.
   (ii) Making the personnel perform efficiently by using the tools provide for them.
   (iii) Co-ordinating some formal structure (administrative unit, system, office or department) which permits a hierarchical (vertical) allocation of responsibilities and communication flow.
3- Administration requires good discipline through rules and regulations.
4- It calls for the ability of the administrator to make the right decision to fulfill the required goals.

2.15 Decision-Making: Concept and Process in organization

The major point in administration is decision making. Then, what is decision making? Olubadewo (1992) views decision as a process of making the best choice out of many other

conflicting pressing alternatives. He added that decision-making is the process of thought and deliberation that leads to a decision. Newman and Sumber (1961) say decision-making is synonymous to planning, while Dorsey (1957) views decision-making as thought it is synonymous to management.

In addition, Musaazi (1987) sees decision-making as a set of often competing alternatives, with sequential process that culminates in to a single decision (position of action) or series of choices. The definition implies that, decision-making is a daily activity of an administrator, which involves the selection of the best alternatives out of many alternatives. For example, a school head could be tasked to buy books in a school or repaire the school gate. In this context, two requests exist, the selection of the most pressing in the decision, which must be the immediate needed facility by the school. The decision,-making is a set of alternative solution resultant from suggestion to arrive at the eventual solution (Maina, 2006). This definition captures decision-making from the view point of consultation through selection of an action plan among many others.

Types of Decision Making

Simon (1960) argues that decision could be broadly categorized in to:

a- **Programmed Decision:** These are decisions that referred to written rules and regulations in organization. These kinds of decision need no adjustment or modification by the school administrator.

b- **Non –programmed Decision:** These decisions are the opposite of (a) above. In other words they do not have a clear cut role from a book or guideline. The administrator has the power to judge according to his assessment and consultation of his supporting staff.

Furthermore, the above decision could be divided to three, namely

Decision-making

Types of decision making: allocation of resources, steering, monitoring and checking control

Area of concern organization direction control.

Sources: UNESCO (1987)

a- **Allocation of Resources:** This involves decision on procurement and distribution of resources in the school. The resources include school-plant, finances, man power, time, skills, equipment etc. in the allocation process the administrator must consider needs and relevance as major guide in making decisions.

b- **Decision Concerning Steering the School:** The aspect is concerns with decision on whether an objective is short or long term range. These kinds of decisions are crucial in the life of a school or organization. In essence, long term decision can never be useful when decision on planned is short term. Due to change in leadership, these kinds of decisions are suggested to be documented in hard and soft. This certainly warrants continuity in leadership and goal attainment in organizations.

c- **Decision on Monitoring and Checking:** this kind of decision is based on standard and performance in organization. It translates the activities of a school administration in to whether what is being done is in accordance with organizational goals or not. Decisions are made as to adjust to the requirement of the organization.

This aspect could help in the area of manpower needs and development. Knowledge management strategies advocate for human resources upgrading through updates in

knowledge and skills necessity for proper functioning and productivity in an organization. As a strategy I.A.E.A (2006) argues that to improve the performance standard of organization the following could be adopted.

- Identifying risk due to knowledge gaps.
- Increasing the value of exiting knowledge
- Converting strict knowledge to explicit knowledge.
- Access to more and more reliable knowledge /information.

The most relevant in this context is increase in the value of existing knowledge. That implies updating staff knowledge for increase in the productivity and also for the staff to benefits in monetary aspect of their job.

Decision-Making Process

Decision-Making process could be synonymous to planning, thus setting achievable target for organizations. In decision-making, several approaches have been suggested by scholars and factory managers. Heinz and Harold (2005) suggest that the process of decision-making include; evaluation of alternatives, which implies thorough analysis and discussion on available solutions to the problem(s) before manager(s). Identifying alternative options gives the decision maker the insight on all alternatives for a better and viable decision. Second in the process is assessment of qualitative and quantitative factors, these means understating factors that are measureable in numerical terms. School administrator could use this approach in decisions related to provision of concrete materials that can be physically measured. While the qualitative factors are intangibles, in other words, factors that are hardly measurable numerically. These include labour relations, risk of technological change and political climate change.

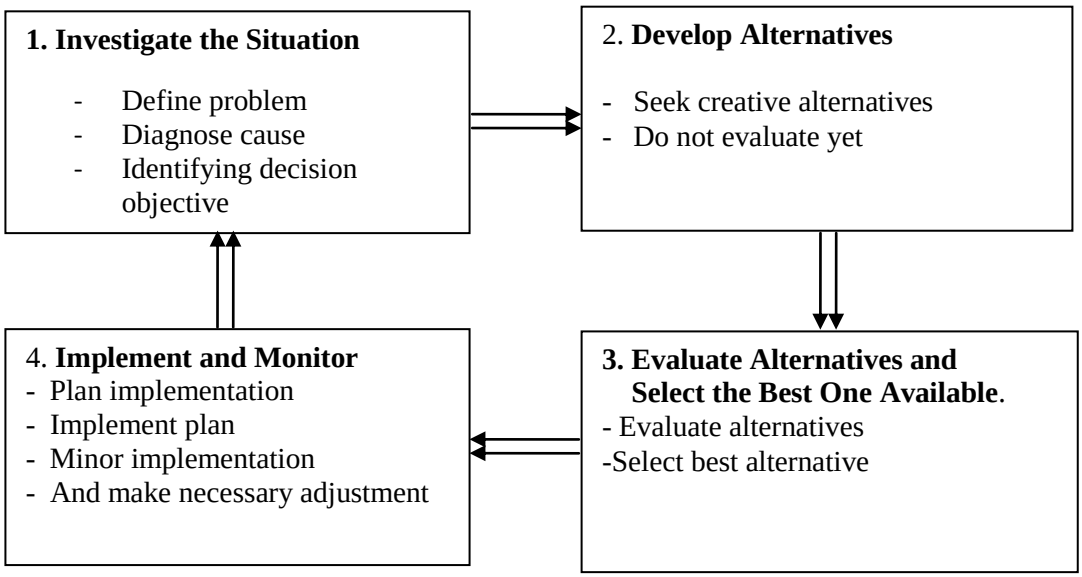
Thirdly, the marginal analysis, which compares in-put and out-put processes. This process certainly demands for a change in decision. In the university system, this implies that increase in students' enrolment, demands equal increase both in human and material resources. Otherwise, goal achievement in the organization could be a mirage. Last in the

process is cost-effectiveness analysis which seeks the best ratio of benefit and cost in the decision process. Decision must be made along analysis of cost and derivable benefit thereto. Any decision on cost that could not derive desired benefit could be termed as a waste.

In a related approach to the above decision-making process, Stoner, Freeman and Gilbert (2006) are of opinion that decision-making is a problem finding process. These scholars suggest the following as steps in problem finding process:

a. **A Deviation from Past Experience.** This implies that previous pattern of performance in the organization has been broken. To relate to university management, failure to consolidate on past experiences calls for problem finding process through decision-making. Understanding this deviation could be through university graduate and other activities below the past experiences (out-put).
b. **A Deviation from a Set Plan:** This implies inability of a manager to meet projections and expectation of a target. This calls for re-examining of the set plan through decision-making. As the case may be in the university system, inability to achieve vision and mission indicates the need for over holding of the system to meet projected successes.
c. **Other People often Bring Problems to the Manager.** This indicates presence of problem(s) in an organization, thus consumers not been satisfied. Indeed this indicates and calls for adjustment from the practice of the organization. In the university system, complaint by stakeholders is an indicator for dissatisfaction, hence calls for decision-making for change.
d. **The Performance of Competitors:** This implies improvement in performance by other competitors, thus making other institutions to re-decide on a way forward for a better production and performance. Therefore, the mentioned items could be sources for decision-making in organization. Charles and Benjamin (1965) develop the rational decision-making process in fig. 3 below.

Fig. 2.12: Rational Decision-Making Process.



Sources: Adopted from Charles and Benjamin (1965)

Figure 3 shows a 4-step process for a rational decision-making which could be explained as follows:

1. **Investigate the Situation:** This stage 1 involves defining the problem which are issues that led to the identification of the problem and their symptoms. Diagnose the cause of the problem, this will show the extend to which the problem is, is the problem within or outside the organization? Who is the cause of the problem? Etc. Identify the decision objectives, this implies identifying the most effective solution to the problem, for example in the university as a system, solutions to ineffective teaching could be inadequate infrastructural facilities or man power as the case may be.
2. **Develop Alternatives:** This means scouting for different solutions to the identified problems. Managers could use brainstorming strategy among management staff for decision-making with the view to developing alternative(s) solution(s). it is important that many alternatives should be developed.
3. **Evaluate Alternatives and Select the Best One Available:** The manager could answer the following questions as solution in the process of best selection of alternative(s); that, is this alternative feasible, thus realistic/achievable? Is this alternative a satisfactory solution? Meaning could the alternative solve the problem at

hand? What are the possible consequences on the rest of the organization? This implies that derivable benefit of the alternatives most outweigh the negative among the members of the organization. Otherwise the decision could be a waste of time, energy and resources.

4. **Implement and Monitor the Decision:** At this stage, plans are made ready for implementation. Implementation involves social, human and material resources. In fact, the availability of resources is not a guarantee for success but the ability of the manager to organize these resources to achieve goals. The organization of resources includes budget, allocation of responsibilities, time tabling for actions and evaluation mechanism among other things.

2.16 Application of Brainstorming Strategy on Decision-Making Process in an Organization

APO (2010) argues that discussion in a form of brainstorming implies a simple way of helping a group of people to generate new and unusual ideas. This kind of strategy could be relevant especially in decision making process. It is in decision making process people's ideas are mostly needed for better organizational goal attainment. The process involves participation by members. By implication, this signifies a democratic approach in decision making process.

The following are stages for brainstorming:

1. Agree who will facilitate the activity (leadership of the group)
2. Make sure everyone is aware of the basic guidelines (the do's and don'ts).
3. Ideally, give everyone sticky note and pens so that they can write their ideas down.
4. Write the problem on a flip chart or piece of paper, if you do not have a flip chart, write it on a white board so that everyone can see it all the time.
5. Ask everyone if they understand the problem, and whether there is anything that needs clarification. Deal with any information needs, if required.

6. Potentially, have a group discussion about the criteria that will be used for idea selection.
7. Ask everyone to start listing down their ideas (one idea per strictly note) and hand them to the facilitator, who then sticks them on the flip chart. If there are no sticky notes, ask people to shout out their ideas (one idea at a time) and the facilitator can write them down.
8. When the group has finally run out ideas, take the flip chart pages, and ask the group to:

a. Look for duplicate, and combine them
b. Vote by putting dots, tick (check mark) or some other symbols in their favorites ideas.
c. Pick the highest rated idea and have the group discuss how the ideas would be implemented (Apo, 2010).

Brainstorming strategy could be employed in two directions according to APO (2010) mannual.

a. Divergent Stage

1. Defer judgement
2. Go for quantity
3. See wild and unsual ideas
4. Comibine and associate
5. Write everything down.

Divergent approach to issues in decision making implies outward looking by meeting members with the view to arriving at a formidable position. The five stage process above attempts to explain the features of divergent approach. Defer judgement implies critical

analysis on issues to decide on. In other words, all possibilities surrounding the issue at hand ought to be checked. Go for quality implies voting or decision on the majority side and lastly write everything down refers to minutes taking which is very important in decision making for record keeping.

b. Convergent Stage

1. Improve ideas as you go
2. Use affirmative judgement
3. Be deliberate
4. Seek novelty
5. Check with your objectives

Convergent approach implies inward looking on issues. In decision making, it refers to the usage of and interpretation of organization rules and regulation within. The convergent stage shows that ideas be improved, meaning ideas could be better interpreted according to the organizational rules and objectives, not withstanding rejecting novelty and innovation in the manner an organization is managed. However, APO (2010) cautioned as brainstorming strategy could only be used when there is the need to generate options and ideas. In other words it could be used on issues that have no single solution or approach. While decision – making process that have one single solution, brainstorming is not applicable

This strategy shows that a leader in an organization can especially follow these steps to get the best idea among his staff. In fact the process can create an atmosphere where organizational members feel honored and also learn from one another.

In the context of application of knowledge management in decision-making, one cannot deny the fact that sharing is an inevitable tool in making concrete and useful decision.

Sharing is one of the major tools in the practice of KM. Davenport and Pruzak (1998) argues that knowledge can and should be evaluated by the decision or actions to which it leads. This by implication means management decision must be out of knowledge that can lead an organization to achieve its goals.

It is clear, that collective decision is more viral, since it has widened consultations and coverage. Knowledge management encourages coming together to share, both tacit and explicit knowledge. In decision making, brainstorming is highly significant in attempting to select an alternative out of many alternatives. The following are guidelines on brainstorming under decision making as suggested by Asian Productivity Organization (APO, 2010).

In addition, decision could be facilitated through information storage (data). Past experience could be a good tool in arriving at a formidable decision in organization. This means that the use of I.C.T is essential in sharing and developing decision ideas. However, it should be worthy of note, that democratization of brainstorming in decision making is imperative and timely, especially in the current knowledge expanding societies.

Factors to consider in decision-making when an administrator employes the above strategies in decision making, are in the words of Ovwigho (1991), who suggested the following as factors worth considering in decision making process:

(a) The decision making environment: the planner (administrator) should understand the environment under which his decision are to be made. In other words the right person at the right time. That decision could be deterministic or situation implies that the decision could be predicted with certainty, while situational has other outcomes which is unknown in other words, each action lead to another (which is not known)

(b) The objective of the decision maker: the need of the organization must be known, thereby making the decision to achieve goals.

(c) Alternative strategies or course of action: an administrator in the decision making process most have other alternatives (alternatives 'A', 'B', and 'C') for any eventuality. This will enable the administrator to act even in the event of failure in the first alternative. It is believed that this alternative strategy provides required result.

(d) Decision pay off: the planner or administrator is expected to take decision which certainly will pay for the cost of it actions. In fact decision must be measured (the alternatives) before they are taken. This will help the organization save both human and material resources. A decision at lower cost is most prepared than at higher cost, when both can serve the same purpose.

2.17 Concept of Planning and Planning Process in Organization

The success of every project is attached to its successful and objective plan. The term plan or planning has been viewed differently by different scholars. For example, Gulick and Urwick (1939) are of the view that planning is working out in broad outline things that need to be done and methods for accomplishing the goals of an organization. Fayol (1949) considers planning as an act of foretelling and preparing for the future. Newman (1971) sees planning as the process of determining in advance what is to be done, including classification of goals, establishment of policies, mapping out programmes and defining the specific methods or procedures. Musaazi (1982) views planning as a rational process of preparing a set of decision for future actions directed at achieving goals and objectives by optional means. Most of these definitions are directed towards forecasting future organizational goals.

Koontz and O' Donnell (1976) observe that view that planning is deciding in advance what to do, how to do it when to do it, and who is to do it. This implies that planning could be

an activity even within houses and individuals, in other words it most not necessarily be in a formal organization. They also added that planning must capture three elements which are:

a- Where we are : the position of the organizational achievement or success, this can only be known through assessment and productivity,

b- Where we want to be: the future ambition of the organization in terms of increase in element' a'. It could be increased in students' graduation or increased students' enrolment.

c- How we get there: at this point, allocation of human, material and time resources comes in. The real action plan and strategic approach is done here. In other words, all actions and resources required are distributed according to needs and aspiration of the organization.

In a related approach in planning UNESCO (1987) explains that Program Evaluation and Review Technique (PERT) is an effective planning strategy with the following steps:

Step I: define exactly the objective of a particular project: this indicates that needs benefits and relevance of every project is the first activity in planning. In an organization, the administration should make sure that all that should be part of his planning activities must be to pursuit the primary objective of the organization, otherwise, the activities will be a waste of resources.

Step II: list all the activities required to complete the project: this implies that both human and material resources (including time) should be listed. No matter small an activity it should be known through the list.

Step III: work out the relationship between the required activities including critical sequencing. This means clear definition of activities according to priority for example

location before master plan, foundation before building structure and the rest. This orderliness do away with wastage and concretizes projects.

Step IV: estimate the time required to complete each activity: time in every aspects of life is important, since it is within time, events are made. Timing help to save money in projects and also define when and where to get what. In some cases change of time in planning projects means additional money is required.

Planning in an organization does not only stop at structure and environment, it also involve the identification of needs for human development, list the requirement for human development, the required time and resources needed and the estimated time for developing individuals in the organization. These are also part of planning strategies for high turn-over in organizations. Therefore, it is imperative to note that planning is the future forecasting of the how, where, and when an organization will achieve goals through human and materials development.

Planning Process and Approaches

Planning is synonymous to decision making, but planning is more of futureristic in nature. Stoner et. al (2006) view planning process as the locomotive that drives a train of organizing, leading and controlling activities. Thus, planning is the process through which combinations of activies are involved in organizations. In planning, managers are always advised to set realistic goals, achievable within a time frame. It is against this background Stoner et al (2006) suggest a four step guide for planning and planners:

1. **Goals Provide a Sense of Direction:** Goals provide sense of direction in organizations, or else human energies will be at disarray among workers without coordination. This also eliminates duplication of efforts, which result to wastages. While sense of direction provides motivation and team work for problem solving.
2. **Goals Focus our Efforts:** This implies existence of priorities among aims and objectives in organizations. It includes division of labour for easy work

accomplishment. Goal focus is always invaded in the vision and mission of organizations, which is usually the first in planning.

3. **Goals Guide our Plans and Decisions:** Goals are sign post to organizations. Achieving goals most go along with road map/master plan of activities. These activities are in a form of mission statement i.e to become a first class university in the world or to produce a graduate capable fo compiting with any graduate world over etc. These kind of statements guide planning activities and decisions always.
4. **Goals Help us Evaluate our Process:** Standard goals are measurable within a time frame. Thus, enabling managers to control work execution in the process of activity implementation. Good plans are always with tangeble measurable mechamism. Hence given room to understand areas of failure for future corrections. Therefore, these steps could serve as a guide for a viral planning guide in the university system.

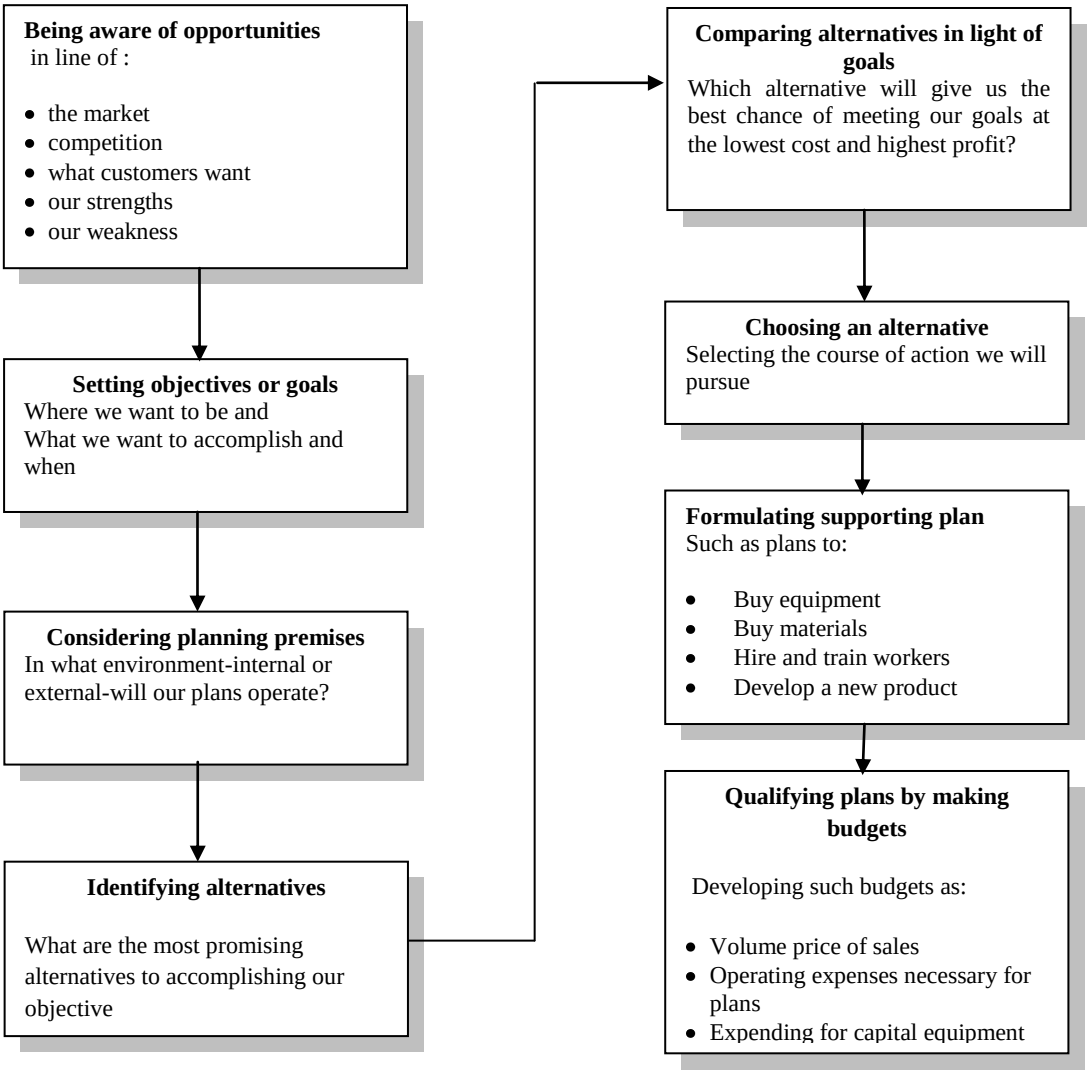
Furthermore, Hein et al (2005) identify the following as types of plans:

1. **Mission or Purpose Plan:** This plan entails the basic purpose or function /task an organization intend to achieve. This plan seems broad in nature as it requires further breakdown for better understanding. In the university system for an example, it aim at community services, teaching and research to mention but a few.
2. **Objectives or Goal Plan:** at this level, plans are characterized with a little specification towards an activity, examples could be in staffing, organizing, leading as specific areas to achieving objectives.
3. **Strategic Plans:** These are basic plans for a long term objectives. It involves allocation of both human and material resources for a period of ten and above years. The aim of this plan is to work ahead of time in procurement of resources. This type of plan is usually done by the top management team of organizations.
4. **Policy Plan:** This plan involves general statement that guides thinking in decision making; therefore, decisions most be consistent with the objectives/aspirations of the organization. In the university system for example, decision most be made towards teaching, research and or community service. Otherwise, he policy will be irrelevant to the purpose of university establishment. It should be worthy of note that decisions are not only by top management team but at almost all levels of operation in the organization.

Steps in Planning

Planning has been in existance for long in the life of man. Man in the quest for problem solving has developed several processes in planning. Heinz, et al (2005) suggest figure 4 as steps in planning process.

Figure 4: Steps in Planning



Source: Adopted from Heinz, et al (2005)

1. **Being Aware of Opportunities:** Managers in organizations are expected to take a look at possible future opportunities in their organizations, thus enabling them know areas of weakness and strength, understand problems and how to solve them. This is expected to bring to light realistic objectives for planning. In the university system, management could use their weakness in specific discipline;

thus, introduce other relevant courses with the view to solving community problems (service).

2. **Establishing Objectives:** The second step in planning is to establish objectives for every faculty, department and unit in long and short terms. These objectives serve as guide for operation to each segment of the system. This aspect is as important as the resources in the system. Otherwise, the resource would be used without directions.
3. **Developing Premises:** This entails, clear cut definition about operational environment, thus removing duplication of duties/efforts. Each segment of the system is given territorial landmark of operation. This creates a coordinated activity in organization, thereby reduce wastages and conflict among workers. In addition premise enable organizational members focus on relevant issues and face specific challenges peculiar to them as the case may be.
4. **Determining Alternative Courses:** This mean selection of an action/process. At his level critical examination need to be done, with the view to selecting best and right cause of action. Planners are advised to use all available skills to discover the most appropriate and relevant fruitful possibilities. This is expected to do away with wastages in time, resources and image in the public eyes.
5. **Evaluating Alternative Causes:** It is expected that item 4 above could come with two or more alternative causes of action. At this point the manager is expected to have a mechanism to examine the weakness and strength of each item for selection. An alternative could be relevant but require much money; another with low pay back; and also with another with the same but less risk. This situation demands for evaluation on the basis of organizational needs, efficiency and effectiveness.
6. **Selecting a Course:** At this stage the selected alternative is adopted, hence decision taken. In some situations, planners decide to select two alternative courses, thereby keeping one for 'Plan B' cases in the future.
7. **Formulating Derivative Plans:** Derivatives plan are invariable require to support the basic plan.
8. **Quantifying Plans by Budgeting:** At this level all the planned and decided course(s) of action are qualified through fund allocation (budget). However, it

advisable, that a ten percent of the total budget should be kept for contingency cases. Thus, solving impletions and other risk cases.

2.18 Application of Collaborative Physical Workspace Strategy on Planning Process in an Organization.

Work space strategy implies the dynamic alignment of an organization's work pattern with the work environment to enable peak performance and reduce cost (savage, 2005)

Physical work space as a strategy should lead to effective and efficient workplace designs that:

- Reduce real estate and facilities cost.
- Improve work performance.
- Increase organizational ability and flexibility.
- Improve communication and collaborations.
- Increase creativity and innovations.
- Increase employee satisfaction.
- Improve bread, image identity and culture.
- Improve employee work life balance.
- Attract and train the best talent.
- Reduce environmental impact.
- Improve healthy work environment.

APO (2010) suggests the use of collaborative physical workspace as a strategy in sharing knowledge among workers. The body argues that in the process of knowledge sharing people usually interact with each other face-to-face through communication (which involves discussions, dialogue or questioning). This kind of discussion is made in face-to-face meetings. One can say that conducive workspace can be a factor for better discussion in this

kind of process. The body suggested a three step strategy for knowledge sharing through environment/physical setting work spaces, which are:

a. Open Space for Ad-hoc/Information Interaction:

Working people naturally interact when needed; this is believed to generate unexpected good result. Good open space result to and encourages such ad-hoc, informal interaction among employees. This in the understanding of the researcher may help in planning the activities of organization. It may stimulate innovative thinking which must be welcomed especially in planning process. This implies that making environment friendly is significant in getting the best out of the employees.

b. Space for Team Collaboration

The body explained that the walls of a room can support collaboration significantly. This could be through placing of information and date on the walls of visualize context of project. Also, it could be through the use of whiteboard. These may serve to remind staff on their plans and its level. In planning, this strategy may be termed as drawing boards, where the master plan is situated.

c. Space for Prototyping

Organization should have space/area where its members experiment ideas (especially those related to their duties). In planning, especially in the university, this prototyping space could help for better understanding to anticipated projects. It could be practiced under the guide of experts not necessarily by the management staff. It is the belief of the researcher that, this could be used to reduce waste of resources and misplacement of priorities in the management of resources in Nigerian universities.

In addition, the environment may encourage thinking and refresh minds for better creativity, which is a basic tool for better planning. Therefore, administrators should encourage this approach especially at the managerial level of planning and decision-making.

The Asian Productivity Organization (2010), argues that:

(1) Knowledge Management Leadership: this category evaluates the organizations leadership capability to respond to the challenges of a Knowledge-based economy. The KM Leadership is assessed in terms of KM policies and strategies that are in place with the organization, the leadership is also assessed in terms of efforts to initiate guide and sustain KM practices in the organization.

This implies that as a known fact planning is the primary function of a leadership in an organization. These functions also include activity to solve organizational challenges which may include the need for training and retraining of staff and the need for increase in organizational out-put. All these can be possible when the leaders have the qualities to initiates, guide and sustain the organization most viable asset which is knowledge.

(2) People: In the peoples' category, the organization's ability to create and sustain an organizational knowledge-driven on leaning culture is assessed. The organizations effort to encourage knowledge sharing and collaboration is evaluated. The development of knowledge workers is also assessed.

The people's knowledge is the organizational asset. In planning leadership most include an area of priority creation of new knowledge among staff and device a means through which the knowledge would be shared and also saved for future uses. The administration must recognize the importance of three aspects in

safeguarding the organizational integrity and for sustainable existence among colleques.

I.A.E.A (2006) develops a process through which staff development could be achieved in an organization (see Fig 2.5). The process explained that knowledge management process could be through: knowledge creation, generation evaluation, improvement, accumulation and utilization (as first step), second step is knowledge storage, third step is knowledge distribution and finally knowledge application.

In planning, organization should conceive these steps especially in the development of human resources. The most related is the knowledge improvement, staff need, constant training through workshops, semester and conference. After which internal workshop could be organized to share knowledge among them for work improvement and through out-put. In fact knowledge sharing Nonaka and Kanno (1998) argue that participant benefit through both tacit and explicit knowledge. This is the kind of knowledge the Japanese's uses today.

2.19 Concept of Communication and Process in Organization

Understanding and proper use of communication in an organization are vital. In fact, communication could be termed as a life ware, which connect member of an organization. Similarly Dare (2009) opines that communication involves the transmission of information, direction, ideas, feeling, attitude and understanding. He adds that, it also means interacting among the personnel in any organization including the school system. This definition is in agreement with that of Maina (2006) as communication is a process through which information is transmitted from one party to another.

National Open University of Nigeria (NOUN) (2008), views communication as an intention for conveying information, instruction, advice, feelings, opinions, and facts correcting and accurately from one person to another or group of people. This implies that communication goes beyond formal organization, it is found almost everywhere, where two or more persons meet. The definition also indicates that communication can only be meaningful when facts are correctly and accurately conveyed. Therefore, every school head must take in to consideration his communication strategies which include his clarity in language, channel of communication and also the timing of communication to avoid barriers that result to ill communication.

Sim (2013) argues that communication channels among people with technology have been expanding. The channels include blogs, wikis, RSS feeds, instant messaging (IM), social media, texting group calendar, web conferencing, apps, desktop showing chat rooms, bulletin boards and discussion threads. It is in the belief of the researcher that these channels would enhance administrative communication for effective and efficient goal attainment. These approaches also enable members of organizations to communicate without distance barriers and in the end, minimize and save cost

Okeje (1992) thinks that communication can be defined as:

1. The imparting or exchanging of ideas, attitude and information by use of human abilities or technological media.
2. Transmission and reception of ideas.
3. The broad field of human interchange of thought and opinions, and
4. A process of giving and receiving facts, ideas and feelings.

Related to above opinions was in the opinion of Knezeviah (1976) who sees communication as a process in which a communicator attempts to convey an image to communicate. Image in the definition could be an idea, a signal, a message, a picture, a diagram, information, an attitude, a feeling or an emotion.

However, in a school set up almost all these image are used in communication process. The process ranges from the administrator to teachers and to the students and other members (staff) of the school. It is against this background that NOUN (2008) postulates the following as requirement for good communication to others.

a. Have something to say for example, as a school administrator, you might wish to interpret school policies and instructions, initiate to new program, what is important in communication is knowing exactly what to say.
b. Clarify all your ideas on the subject before seeking to communicate to others: This involves proper understanding of the subject of communication.
c. Be prepared, prior preparation: This includes defining purpose of the communication, the audience, and scope of the subject and could it be in a form verbal communication, written or newspaper. These are important aspect that the administrator must be prepared for, so as to avoid embracement on to the organization and the personality of the school head.
d. Develop a natural style of delivering your communication.
e. Use simple straight forward language whenever possible
f. Check and recheck whether your message talk/institution has been properly understood.
g. Seek to be understood all the time and also understand.

These are barriers, which if understood and practised could create smooth communication devoid of ambiguity and embracement in organization. This has also shown that communication problems are mostly from the communicator and in some cases the channel. Therefore administrators should take note of these two factors. Garton (1972) in a form Caution says as a communicator the administrator needs to be aware of the five basic aspects of communications.

1. The purpose to be achieved by the message: Time, channel and nature of the message are made by the goal of the communication.
2. The person (s) to whom the message is directed: Channel, language and process are significant in reading the kind of receivers (literate or illiterate) in an organization.
3. The senders of the message: the administrators must consider capability and experience while delegating authority to convey Information. This has either negative or positive influence by the senders.
4. The content of the message: In some instances, the receiver of a message may have barriers from the style the content of the message is /are sent. This barrier could be social, lack of interest, knowledge to mention but few.
5. The alternative channels for communication: This implies that, administrators should have many channels of communication to their subordinate. This will be significant in the event of failure with other means.

   The administrator ought to know that to achieve his goal in an organization through communication he must communicate through the following as Okeje (1992) advanced.

a. Upwards with his supervisors: The school administrator sends and receives information from the ministry. In the event of needs from his school, he sends up and in the event of instruction or change of policy, he receives and communicates to his subordinates for implementation.
b. Downwards with his subordinates: As administrator of a school, he communicates instructions in form of policy or give orders to his subordinates in day- to- day administration of the school. This communication could be in writing (circular) or verbal during meetings.
c. Horizontally with his coordinates: This use to be in committees or associations where school head share ideas and experience. For example at the university level the committee of the vice chancellor of federal universities or at the secondary schools, Association of Conference of Principals of Nigeria (ANCOPS) etc. These kinds of communication take place in their kind fora.

However, the importance of communication in an organization can never be overemphased. Afolabi (2001) identifies some of the following as importance of communication:

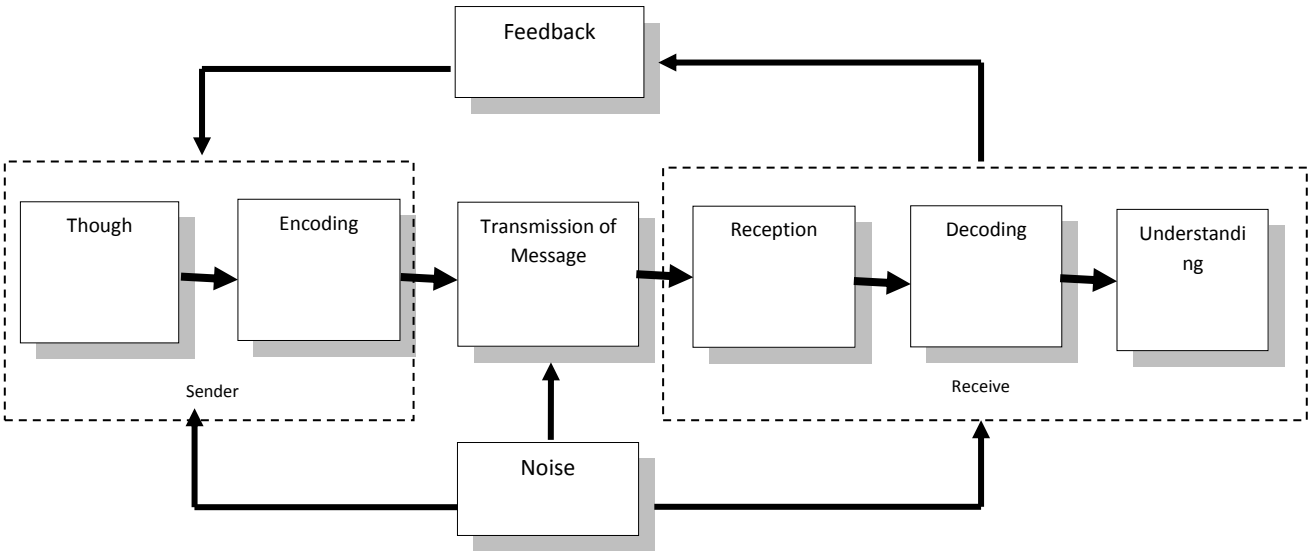
a. Communication enhances the operations of an organization.
b. Communication enables members of an organization to share views.
c. It enables members to know what, why, who, how, and where as it affects their function in the system
d. It enhances rapport between the members of the group and between the group and executive leadership.
e. Communication enhances democratic administration through deliberation, consolation, opinionating, and exchanging of idea among members of an organization (school)

f. Communication creates sense of belonging and good feelings among members of an organization. These could serve as a guide to school administrators to enhance proper communication, so as to derive all the above mentioned.

Communication Process

Communication processes are channels that message(s) are passed to beneficiaries in organizations. These processes involve people, tools, and symbols as major actors for communication effectiveness. Heinz, et al (2005) explains the process of communication in figure 2.14.

Figure 2.14: A Communication Process Model



Source: Adopted from Heinz, et al (2005)

Figure 2.14 could be explained in the following steps for a better understanding.

1. **Sender of the Message:** This is the source of the message and where communication begins. The source owns the idea, thus intending to send to the receiver. The message could be spoken or changed into written or symbol(s).
2. **Use of a Channel to Transmit the Message:** The sender normally selects the most appropriate channel for the message sending. These channels could include oral or written through memorandum, computer, telephone, telegram, e-mail, television and

many other means. However, the message sender ought to use the relevant channel depending on the appropriateness to the message receiver (decoder).

3. **Receiver of the Message:** This implies the decoder (receiver of the massage), thus who interprets and translates the message into meaningful information. Translating the message by the receiver most agree in meaning with that of the sender, otherwise communication has not taken place. Therefore, sender of any message most considers the receiver's level of knowledge in the communication.

Communication Barriers

As in the process of communication, there exist barriers which hinder effective flow of the message. These barriers could be from the sender, the receiver or in between the two Heinz et al (2005) identify the following as noise hindering communication:

1. A noise or a confined environment may hinder the development of a clear thought.
2. Encoding may be faulty because of the use of ambiguous symbols.
3. Transmission may be interrupted by static in the channels such as may be experienced in a poor telephone connection.
4. Inaccurate reception may be caused by inattention.
5. Decoding may be faulty because the wrong meaning may be attached to words and other symbols.
6. Understanding can be obstructed by prejudices.
7. A desired change that is communicated may not occur because of the fear of possible consequences of the change.
8. In cross-cultural communication, not only verbal expression but also gestures and postures can cause miscommunication.

These eight points ought to be avoided in the process of communication of any kind. In respect of organization communication, feedback is highly needed for confirmation of message decoding. Therefore, managers should consider effective communication of all kind as paramount and basic requirement for the success of the organization.

2.20 Application of Knowledge Cluster Strategy on Communication Process in an Organization

The term knowledge cluster implies coming together in a new way to create, innovate, and disseminate new knowledge. This could be among different individuals, teams and organizations. The whole aim is for better communication, collaboration, learning and shared knowledge through cluster (APO, 2010).

This strategy enables members of an organization gain access to and share knowledge among them. In school system, a network can be generated through internet or any other local network to communicate and share knowledge among the members of the organization. This certainly will promote sharing, access and feedback among members for better uniformed network activities.

APO (2010) founds the following as steps for knowledge cluster:

Step I: Become aware of the knowledge cluster that exist in your industry or sector (school or institution) and join them to a cluster. In administrative situation, the leadership makes people know about the existence of the system.

Step II: Become competent in participating in web-based collaborative knowledge working.

Step III: Understand and become active in the knowledge cluster by applying the principles of working in a community of practice. Building a trust relationship with other players is essential for successful knowledge cluster.

Step IV: Consider knowledge cluster as a key strategic resource and competitive tool within your business strategy.

Knowledge cluster brings organization members together for a purpose. In the area of communication, knowledge cluster could be used to bring staff together, under a general umbrella of sub-group(s) for a purpose. The cluster in this aspect could be through the use of interworked computers in communication. Communication is believed to aid and share knowledge. It is also assumed to create an avenue for innovation and increase in productivity. Establishment of knowledge cluster in communication could reduce time wastage and reduce money spending among the clustered members.

With the current efforts in information and communication technology, the world has become a global village. Training of organizational staff on the use of computers has become imperative. Becoming a component participant in cluster system, one must be computer literate. Institutions with computer literate staff shall benefit more, using knowledge cluster in communication. Therefore, institutions and non- governmental organization should put more efforts in educating staff on areas of (ICT).

The importance of communication in knowledge management can never be ever emphasized. The pillars of knowledge management are in the areas of developing distinctive synergy and consolidation of knowledge in an organization. It is worthy of note that knowledge management is not ICT but the two has link since the two work together almost all the time (Nonaka, 1991).

Communication could play a significant role in the area of knowledge distinction among staff in any organization. No matter the nature of Knowledge, if communication channel is not effective, certainly goal attainment will be mirage. Communication through the use of knowledge management and I.C.T. can improve administrative skills thereby, improving productivity and goals attainment in organizations. I.C.T may be employed by an

administrator to communicate directives to subordinate and also receive information by an administrator to communicate directives to subordinate and also receives order from the superior officers without time wastage. In fact through the use of knowledge management communication gadgets, managers will be able to get information necessary for the improvement of staff knowledge, skills and be up to date with modern discoveries in the area of communication in administration.

Knowledge management strategies advocate for synergy between the existing knowledge and new knowledge in an organization. This approach could be possible through concrete channels of communication in seminars, workshops and conferences in a broader direction, researches on the improvement of organizational out-put could be shared among members through communication. In addition, bottlenecks of an organization need to be known by members so as to avoid time and material wastages. Communication could be the appropriate channel to inform staff for better performance.

More so, for improvement by productivity through knowledge, Filemen (2008) suggests the use of information retrieval strategy in organizations. In this strategy organization can store knowledge information about their work guide and technical abilities of all their activities. This will be in a form of software in the organizational web-sites. Only those relevant to the information will be accessed, others pass-word. This is a kind of data-base within an organization with the view to communicate with staff. The primary purpose is to reduce time and energy wastages and also improve productivity. This kind data-base could be two in an organization for seeking information. One for intentional usage and the second for external users. The internal may be to communicate jobs description of all staff within the organization. While the other can be on what the organization can offer to customers. The two are imperative and also assumed to help organizations to increase productivity.

2.21 Supervision: Concept and Process in Organization

The term ‘supervision’ has several meanings and usage in many contexts. However, in spite of these differences, almost all the definitions have convergent point. For example Cater (1955) sees ‘supervision’ as all efforts to designated school officials directed towards providing leadership to teachers and other educational workers for the improvement of instruction. This definition was restricted to school activities which are at the center of instructions. Mbiti (1974) views ‘supervision’ as an aspect of administration for the maintenance of the efforts of the personnel in line with the goals of the administration.

Similarly, Musaazi (1982) defines ‘supervision’ as a consciously planned program for the improvement and consolidation of instruction involving content and process of guidance based on regular visit to the place of instruction in order to define and re-defined the objectives of instruction. This definition captures almost all the processes of supervision in a school system which involves effort to correct deviations from the status co. While Ukeje (1998) views the concept supervision from the angle of administrative function as the administrators’ effort, and cultivating good working personal relation so that all move collectively towards a more efficient performance of all the functions that lead to goals attainments. This indicates that, supervision ought to involve administrator’s leadership in influencing staff views and attention towards work and goal attainment.

Therefore, supervision can be defined as an administrative function that aims at making sure organizational activities are done according to the laid down rules and regulations, with the view to achieving goals. In the education sector and all other sectors, goal achievement can only be effective with a formidable supervision. It is supervision that gives account of happenings in the school or organization. These happenings are more or less to evaluate

activities in a shortest possible time.For supervision to be effective and meaningful Dare (2009) identifies the following as principles of supervision.

1. There should be a long term, medium term and short term planning supervision.
2. Supervision should be seen as a sub-system of the school organization.
3. Supervision is a dynamic exercise that needs the co-operation of all teachers to be supervised.
4. It is right and the need of all teachers to be supervised.
5. Supervision need to be conducted regularly to meet the need of individual teachers and other personnel.
6. Supervision should help to clarify education objectives and goals for the principals and the teachers.
7. Supervision should help improve the attitudes and relationship of all school personnel.
8. Supervision should assist in the organization and implementation of curriculum programs of the learners.
9. Supervision should help to identify or clarify government policies.
10. Supervision can be improved for education research, and
11. Supervision must be adequately provided for the annual budget.

These items are all guided towards teaching and school interaction. However, they are not limited to these; they could also be used in the other organization to improve productivity and goal attainment. This assertion was supported by Akanbe (1983) when he says, the main purpose of supervision of schools is to help create room for improvement in the teaching and learning situation. While Ogunsaya (1982)

says supervision is that phase of school administration that focuses attention upon the achievement of the appropriate instructional expectation of educational system.

Purpose of Supervision

Aliyu (2008) identify the following as purposes for supervision:

1. To Make Sure that Minimum Standards are Adhered to. This implies that supervision aim at making sure roles and regulation are following, thus avoid deviations from goals in the organization.
2. To provide a forum through which purposeful and constructive advice can be rendered for the sake of improving the quantity of teaching and learning. This indicates that supervision process ought to be interactive, thus becomes information seeking avenue. The information could be used to improve in old practices.
3. To make sure that prudence is maintained in the way and manner, public funds are spent in running the schools. Impliedly supervision brings about justice and fair play in administration, thereby increasing productivity.
4. To stimulate and provide guidance in the display of desirable educational practice. This shall serve as a guide to deviation and effect corrections where necessary.
5. To provide a verification foundation upon which various courses of action can be initiated by the teachers and principals locally within the school. In the area of administration, supervision could serve as check mechanism in the administrative activities with the view of making sure things are do ne according to schedules.

2.22 Application of After Action Review Strategy on Supervision Process in an Organization

APO (2010) suggests a strategy named After Action Review (AAR). This method implies discovering what happened, why it happened and how to sustain strength and improve on weakness. This method explicitly means supervisions obtain in all organizations. As the primary aim of supervision is to identify strength for

improvement and short coming for corrections and redefinitions. In organizations, this stratum could be applicable in the area of knowledge management, i.e supervision of the state of workers knowledge, how to strengthen it or even share skills and competency among workers for better performance.

This aspect of assessment could be in a form of a questioning or test (show what you know). APO (2010) develops the following items for review process:

- What was expected?
- What went well and why?
- What can be improved, and how?
- What are the lessons that can be used in the further?

APO (2010) explains the following as an additional meaning and significance of After Actions Review Strategy in relations to general management processes. That After Action Review is a technique to evaluate and capture lessons learned upon completions of a project. This approach is certainty relevant especially in the area of supervisions as an aspect of management functions. Evaluation could help improve organizational practices for better performance and goal attainment. This activity helps managers to make corrections and adjustment where necessary.

Related also is discussion with team members involved in the project. This discussion is assumed to help with the view to have first hand information on the project from the implementers of the project. In the school/university system discussion with workers in the process of supervision is imperative. Identification of strength and weaknesses of any project could be easy when participating members are involved in its review. Therefore,, University management should involve workers (dialogue) discussion while supervising project/programmes.

After Action Review to the researcher, could be a good avenue to not only improve output among workers but also increase good relationship between managers and workers. This is assumed to create an codicive environment for better performance, transparency and good evaluation and assessment mechanism.

These aspects could be adapted as items for supervision of knowledge-based assessment strategy. A member of staff could be trained on a particular skill. In action or during supervision, his assessment will certainly be on his knowledge i.e what is expected of him? If the answer is good, them how can he be improved or republished. This is assumed to improved productivity through supervision.

Knowledge Management in organizations is a duty of administrators in ensuring effective operations among staff. This duty could be assisted by supervision through knowledge management. Sharing of knowledge as an aspect of knowledge management could play an effective role for organizational efficiency. The role of supervision can be helped by knowledge sharing among administrators in organizations. Sharing of knowledge could be through internal seminars and conferences among supervisors in organizations.

In addition, knowledge generation could also be used in applying knowledge management strategies in supervision. Organization may wish to conduct research (as knowledge generation) and develop a manual performance assessment while supervising performance. The manual should be based on the kind of work description in the organizations. This certainly will create effective supervision techniques, and increase objectivity, efficiency and productivity in organization.

Also as an aspect of knowledge management, coding of knowledge could play a significant role in supervision. Coding implies storage of vital information in a form of soft-

ware. Therefore, for easy reference on supervision reports ICT could be used to facilitate supervision activities in universities. In fact, the use of either secret or open camera could be used to monitor staff performances in a school situation. This, if done will do away with inadequate staff class attendance by teachers and absenteeism.

More, so knowledge management advocates for evaluation of organizational activities. This implies that the supervision process is also evaluated. This is with the view to make corrections where necessary in the management of the organization. The evaluation process of the supervision mechanism could be through knowledge sharing among top management staff and head of sections. Supervision technique can also be improved through access to more and more reliable knowledge/information (IAEA, 2006). Supervision should be a continues one in terms of approach and model. Supervision should change as human behaviour changes. This is imperative for organizations to attain objectives.

2.23 Maintenance of Discipline in Organization

Existence of discipline in organization is agreed to be the concrete that cement the existence of individuals in harmonious living. No organization will achieve her goals without proper discipline among her members. Discipline serves as a guide in the operation of a group of people. This guide explains about the rules and regulations of the culture of the organization.

Concept of Discipline

Discipline to Maina (2006) means a system of guiding the individual to make reasonable and responsible decisions. He added that in the school system discipline implies control of teachers, students and other staff by the head towards achieving a desirable behavior. Adesina (1980) argues that discipline implies self control, restrains, respect for self

and respect for others. Therefore discipline could be the ability of an individual to control himself against wrong wishes and comply with rules and regulation governing his organization or society.

NIEPA (2011) views the definition of discipline from students view point as a pupil who comply with school rules and codes of conduct. Those rules could be expected standards in clothing, time keeping, social behavior and work ethics. When borrowed to an institution, discipline could also imply staff complying with institutional rules and codes of conduct. Therefore, a disciplined member of staff is one who comes to work in time, close at the stipulated hour, and conduct himself according to rules of the institution.

Ezewu (1983) opines that a discipline staff is never found in any of the following behaviours: stealing, dishonesty, sex offences, truancy, disobedience, wickedness, drug offences, bribery, and embezzlement of public funds to mention but some. Therefore, any staff found with one or a combination of some of the mentioned above is never a disciplined member of staff. These behaviours create locomotion in organizational goal attainment. Therefore, for any organization to triumph, these unwanted behaviuours most be eliminated.

Concept of Indiscipline in Organizations

Indiscipline is any act or behavior which is against the rules and regulation of an institution or organization. Indiscipline behaviours are always blockage to goal attainment of any institutions. These kinds of behaviours were, identified by NIEPA (2011) as:

a. Truancy
b. Lateness to school/class
c. Dereliction of duties
d. Skipping of topics perceived to be difficult

e. Nonchalant/irregular writing of lesson note, scheme of work and filling of appropriate records.
f. Foul language
g. Fighting among staff
h. Stealing, corruption, lying and cheating
i. Examination malpractice
j. Improper dressing and
k. Favoritism and inconsistency in dealing with pupils disciplinary problems.

These are some among many indiscipline behaviors found especially among teaching staff in schools. It is the belief of the researcher that schools management should in no way take these behaviors lightly; otherwise, it will not only put the organization at shame but also prevent it from achieving its goals.

In addition Eyibe (2000) identifies the following as act of indiscipline in work places.

a. Lateness to work
b. Theft
c. Absenteeism
d. Poor performance
e. Alcoholism
f. Sleeping on the job
g. Verbal abuse
h. Physical abuse
i. Sexual harassment
j. Dispute

The above rules seem general among teaching and non-teaching staff. It is also worthy of note that one or group of these behaviors set back the organization as a whole. Therefore none of these behaviours should be condoned at all times.

Causes of Indiscipline in Organization

Cause of indiscipline has been viewed by different persons. For example NTI (2000) identifies the following sources as causes of indiscipline.

1. **Indiscipline problems from organizational heads.**

i. Failure to promote cordial working relationship with staff.

ii. Lack of proper communication among staff and learners.

iii. Lack of integrity and firmness

iv. Lack of interest in staff and students welfare.

v. Lack of initiative and drive

vi. Failure to involve staff in formulation of policy and delegation of duties to staff.

2. **Indiscipline problems emanating from staff**

i. Lack of sincerity and devotion to work

ii. Moral laxity of teachers e.g not dressing well to school.

iii. Insubordination of staff to the head teachers.

3. **Indiscipline emanating from school management**

i. Lack of school facilities and equipment

ii. Lack of motivation for qualified staff

iii. Admission of children with poor academic standards in schools.

iv. Lack of sufficient religious instruction

v. Automatic promotion

4. Indiscipline emanating from parents

i. Failure to provide basic school needs like fees and textbooks.

ii. Interference of influential parents to children's school work

iii. Rich men indulging in sexual relation with female students.

iv. Parent supporting their children who break rules with impurity.

v. Undue publicity of sensational news by mass –media may lead to chaos in schools.

In addition, Fafunwa (1977) in Maina (2006) opines that causes of indiscipline could be nepotism, tribalism, favoritism, bribery, corruption, victimization, dishonesty, influence peddling, fear, timidity, bossism, reckless spending and any other behaviour which in one way or the other become an impediment to the success of an organization. This means indiscipline is an unwanted act to which sabotage the success of goal attainment by any individual in an organization. This sabotage could be by heads, subordinate students and parents.

2.24 Application of After Action Review Strategy on Maintenance of Discipline in Organization

APO (2010) explained that After Action Review (AAR) is a technique to evaluate and capture lessons learned upon completion of a project. The strategy could enable organizational members to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. This strategy could be used on projects and on staff activities within an institution.

The primary aim of (AAR) is to review projects or activities in an institution with the view to improvement where shortcomings exist. It is done for measurement of personnel behaviour and activities for managerial decision making process in organizations. It is worthy

of note that, this strategy could be used in measuring concrete project like buildings and other structures in institution.

How to conduct an After Action Review (AAR)

a. An AAR can be conducted as soon as possible upon completion of a project (or activity). This implies that the use of this strategy could be applied in assessment of discipline or indiscipline behaviours of staff in organization. This stage suggests that, the review must be after activity.

b. The following steps are taken for the review

i. What was expected to happen?

ii. What actually happened?

iii. What went well, and why?

iv. What can be improved and how?

v. What are the lessons that can be used in the future?

The sole aim of After Action Review is to bring about improvement after past assessment of project, actions and or even behaviors. Step I above is in respect of the expected function of a member of staff. For example, in the area of discipline every organization has a code of conduct. In using AAR, and discipline measures the expected behavior or function of staff must be considered as a guide for any decision against him. In addition as a measure, investigation on any indiscipline behavior must determine what actually happened. This implies that reasons for any action must be known for better judgment. This is expected to help institutional managers to implement discipline measures with evidence and for exoneration of the innocent individuals.

Meanwhile, the process of AAR, could be used after investigation for work improvement. This implies that there could be the need for adjustment in institutional activities due to rules or laws becoming absolute as a result of social change. It could also be as a result of investigation findings being positive on staff. This certainly will bring about what can be improved and how? It is the belief of the researcher that the use of AAR could be a good approach in improving discipline in institutions for improving staff strength and making adjustments for improved out puts.

This approach in the view of the researcher can be applicable in organizations in the area of discipline and indiscipline behaviours. The approach is to serve as a check and balance on every staff member, in other word, any behaviour by any staff could be traced back to see whether it is new or it happened in the past. In fact a form could be designed for this purpose to assess the behaviours of staff in organizations.

Therefore, institutional managers can use this as bases for recommendation (promotion) and punishment (queries). This may serve as a transparent process between the employer and the employee. It is the belief of the researcher that, if this is done with all commitment, increased in productivity would be developed and culture for hard work will be inculcated in workers.

2.25 Empirical Studies

This study ‘’Application of Knowledge Management Strategies on Management Universities in North-West Geo-Political Zone, Nigeria’’ has link with some of the following researches conducted on the relationship between Knowledge Management and organizational performance. For example:

Heerwagen, Kampschroer, Powell and Bieftness (2004) conducted a research titled collaborative knowledge management work environment. The research shows that increased

collaboration led to improved organizational performance. However the short coming of this study is that it does not give details of the method used to collate data, and the result was not detailed. The study is relevant to the current research. It would give an insight into the positive uses of collaboration strategy in knowledge management.

Martens (2008) conducted a research tilted unlocking creativity with the physical workspace. He found that: the work place has an experimental component creative workers like visual stimulation, the new workspace is productive, it adjust to the flows of modern creative work, it provides diversity (a wider and richer range of work settings that can support creative and collaborative work and it includes more shared space, space that is not owned and can be used by different staff over tie. This study seems not empirical in nature. The study will help the researcher's study especially in instrument construction and certainly give light to the direction to the current research major findings.

Pradorn, Nopasit,Yacine, Gilles and Abdelaziz (2013) conducted a research entitled knowledge management system for cluster development in small and medium enterprise. The study found that knowledge sharing is a key success factor in cluster management, information is very important for successful business cluster management and that use of cluster strategy assists in harnessing tacit and explicit knowledge among members of organization (small and medium enterprises). The study by Pradorn et al (1213) seem to be a position paper which the finding could be weak. The study can add value to the current research in the like nature review and instrument.

Mohammad, Maryam, Peigman, and Ali (2008) conducted a study tilted: How to Assess Knowledge Management. Developing a Quantitative Model. The study developed an evaluation of knowledgement assessment move. Table 2.7 below shows the model

The researchers used the following as research methodology: comparing the selected models according to experts idea, choose the ‘’know- all 10 model’’ as the best knowledge

management assessment model, weighting to the parameters of model by collecting experts ideas and evaluating the validity of new knowledge management assessment models. The short coming of this study seems to be on the methodology. The methodology looked like objectives or aim of a study. However, the current study can derive/borrow from the figure 2.7 as a tool for knowledge management assessment. This could help shape the current study towards better improvement in future researchers. In addition, Farid and Arif (2008) conducted a study entitled ‘’Knowledge Management: Assessment of Strategies and Innovative Technologies’’. The researchers surveyed the major knowledge management strategies and technologies and their roles in enabling knowledge generation and discovery. The researchers found that in the light of future major technological trends. The short coming of this study is that there was no analysis for data collected for the research.

David (2008) conducted a research entitled ‘’Engaging Tacit Knowledge in Support of Organizational Learning’’ The researcher as a methodology took a multi dimensional approach towards understanding tacit knowledge through the lens of neuroscience, evolutionary biology, psychology, competency theory and knowledge management. The research found resides beyond ordinary consciousness, showing tacit knowledge mobilizes organizational objectives. The shortcoming of this study is that all the findings were not based on scientific data, which means the authenticity cannot be dependable to a large extent. However, the research could be a reference point to the current research in literature review and also instrument development.

Alex and David (2007) conducted research titled ‘’Context: the Shared Knowledge Enigma’’ The researchers used eight different context avenues. Their relationship to the conscious and unconscious mind addressed and their impact on the sharing of knowledge considered. The researchers found that conscious mind play significant role in embedding context and creating meaning. As a short coming, the findings of the research disagree with

common sense. How can an unconscious mind play a significant role in any situation? This could be as a result of not using any scientific approach in the data collection of data method in the research. This research could help the current research to find out wither their findings are valid of otherwise.

Ismail and Raja (2011) conducted a research titled Perceptions of Knowledge Creation, Knowledge Management Processes, Technology and Applications in Military Organizations. The researcher adopted descriptive statistics as a research method. The research result shows that demographic elements have influence over the creation of knowledge and knowledge management influence. The process of technology infrastructure in Military Air Force (MAF) and knowledge management could be achieved through right leadership of MAF. This research could be relevant to the current research especially in the areas of statistical method and instrument for data collection. Also the finding could be another measure of reference to the current research for seminaries or differences.

Nwala and Nbokam (2011) conducted an empirical research titled Application of Knowledge Management Practices in Rivers State Secondary School, Nigeria. The researchers used comparative analysis between the public and private secondary schools in the Rivers State. The population of the study was school administrators, which were randomly selected. The data was analyzed using mean scores of each category. This research could give guide to my current research in literature review and major findings. In the area of weakness the research topic was not properly constructed, for it could not show the variables under research clearly. Thus items of the questionnaire were mixed up and at the end the findings could be related in solving management challenges.

Onyale and Modebelu (2011) conducted a research titled Attaining Managerial Effectiveness Through Acquisition of Knowledge Management Principles and Skills by

Anambra State Secondary Schools Principals in Nigeria. The study used principals of secondary schools as population. The principals were randomly selected and administered with questionnaire as instrument for data collection. The data collected was analyzed using mean scores. The research could not assist the current research in literature review and reliability test methods. The researcher is of the belief that the items in the instrument were not suitable. The items should have asked for the practice of knowledge management in the administration of secondary schools not indicators.

Even if indicators could be used, then the use of checklist method would have been better than opinion sampling. In addition, the respondent would not have been the principals alone; using principals certainly may have some element of bias. Since the administrators were asked about themselves.

2.26 Summary

The chapter attempted to review literature materials related to the variables identified for the study. ‘’System Theory’’ was chosen and related to the topic of study as the theoretical frame work. Concept of Knowledge Management in the literature indicates that knowledge is abstract in nature, but could be seen or assessed through action or technical show how in the field of work. Other aspects in the review were concept of Knowledge Management which implies generation, sharing, usage and storage of knowledge; Approaches to Knowledge Management Strategies for the implementation of Knowledge Management in this aspect, the literature indicates that most American organizations use explicit knowledge while the Chinise use both explicit and tacit knowledge; and role / functions of KM in organizations which increases productivity and staff output. University education historically could be traced in two dimensions, the Eastern and Western dimensions (Qurdoba and Roman Catholicism). In Nigeria, higher education began in Yaba

high school in 1932 later to University College Ibadan in 1948 while as at today there are about 37 Federal Universities in Nigeria.

Reviewed also are issues on administrative functions of university management, these include the visitor, council, senate, university management, congregation, deans, head of department and academic staff. Other areas in the review are element of administration which includes decision-making planning, controlling, supervising, and communicating staffing and organizing, concepts, process and development were discussed. The review shows that compliance to this element of administration certainly, increases productivity and efficiency in organizations. The research attempted to relate the application of brainstorming, collaborative physical workspace, knowledge cluster, after action review on these elements of administration. This new hybrid of concept is expected to play a vital role in effective management functions especially in the university system.

Other areas in the review are element of administration which includes decision-making planning, supervision, communication, and discipline under which concepts, process and development were discussed. The research attempts to relate each of these elements to the application of knowledge management. The aim of the research was to test these strategies for effective management functions especially in the university system. Empirical studies show that there is significant relationship between organizational performance and their knowledge which is the technical know and show how in organizations.

This research is unique for to the best of researcher's knowledge no research was conducted using knowledge management strategies (brainstorming, collaborative physical workspace, knowledge cluster and after action review) and element of management (decision-making, planning, communication, supervision and discipline). This uniqueness of this Study could also be in the hybrid of these approaches which is expected to yield a new

approach in the management practices of university system. In addition, the research was able add in the organ gram of university in Nigeria, Figure 2.11 indicated addition on inclusion of community leaders in university councils and creation of Faculty community relation commitee. This is expected to strengthen the function of universities on community service, thereby reduce societal problems based on the faculty's professionalism.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This study focuses on the Application of Knowledge Management Strategies on the Management of Universities in North-West Geo-Political Zone, Nigeria. The chapter was structured, outlined and explained on the following: Research Design, Population, Sample and Sampling Procedures, Instrumentation, Validity, Pilot Test, and Reliability of the Instrument. Other aspects of the chapter include Administration of the Instrument and Methods of Data Analysis.

3.2 Research Design

This research was a descriptive study, and therefore, survey research design was considered appropriate for the collection of data for this study. This is because through survey research design, the researcher was able to collect data from large and small samples from the population in order to examine the distribution, incidence and also attempted to analyze, interpret and report the present status of social institutions, groups and areas (Whitney, 1942; Denga & Ali, 1989). The design was also used because it permits the study of representative samples and making of inference from and generalization to population that cannot be studied as a whole in a research exercise.

Survey research design provides detailed description of the population, both in its size and heterogeneity, in relation to the respondents' attitudes, feelings or opinions toward Application of Knowledge Management Strategies on the Management of Universities in North-West Geo-Political Zone, Nigeria. The process involves analyzing the opinions of respondents in relation to the topic.

3.3 Population of the Study

The population of this study is made up of university management staff and faculty board members (lecturers) of all the fourteen Federal and State universities in North-West Geo-Political Zone, Nigeria. Management staffs included the Vice-Chancellors, Registrars, Bursars, Director of works and Librarians. Their total population is thirty (30). The lecturers included Deans, head of departments and lecturers. Their population is one thousand and seventy (1,070).

The two categories of the respondents were selected because they were involved in the management of university education in Nigeria. This was necessary for an acceptable generalization and conclusion in the study.

3.4 Sample and Sampling Procedure

Since it is neither possible, nor even necessary at times to study the entire population, drawing a sample from the parent population becomes imperative (Ferguson, 1981; Peil, 1982 and Akuezuilo, 1993). The main sampling technique used to draw sample from the parent population of this study was stratified random technique. Gregory and Ward, (1978) postulate that Random Sampling prevents bias that may likely change the final results and give each element equal chance of selection.

From the fourteen (14) Federal and State Universities in North-West Geo-Political Zone, Nigeria (NUC, 2013), Stratified Sampling technique was adopted with the view to ensuring that universities in the Geo-Political Zone were represented in the study. Thus, three Federal and three State Universities were randomly sampled. The representatives of the respondents' categories were in proportion to their number in each category and university as the case may be.

The aim behind using proportionate sampling technique was to ensure, 'that certain sub-groups in the populations were represented in the sample' (Borg and Gall, 1979 in

Maicibi, 1993). Ndagi (1984) states that various segments of a given population are included, and of facilitating the comparison of their response are necessary. Meanwhile, Roscoe, (1969) in Aderonmu, (1985) recommended 30% sample as adequate and enough for statistical analysis and conclusions. Also related is the recommendation by Nworgu (1991) who says a sample of 20% should be applicable to a population of different strata. For this research, Roscoe (1969) in Aderonmu's (1985) suggestion was selected with modification for the study. This study used 100% sample for university management staff and 50% for faculty board members (lecturers). The researcher expects that this was to give a wide coverage on the mother population for better results. Table 3.1 shows State, University, sampled universities and faculties.

Table 3.1: States, Universities, Sampled Universities and Faculties for the Study

S/N	State	University	Sampled University	Sampled Faculties
1	Kaduna	Ahmadu Bello University, Zaria.	Ahmadu Bello University, Zaria.	Education, Law, and Engineering
2	Kaduna	Kaduna State University, Kaduna.	Nil	Nil
3	Kano	Bayero University, Kano.	Bayero University, Kano	Law, Social Sciences, and Medicine
4	Kano	Kano University of Science and Technology, Wudil.	Kano University of Science and Technology, Wudil.	Engineering, Medicine and Agriculture
5	Kano	North-West University, Kano.	Nil	Nil
6	Zamfara	Federal University, Gusau	Nil	Nil
7	Kebbi	Federal University, Kebbi.	Nil	Nil
8	Kebbi	Kebbi State University of Science and Technology, Aleru.	Kebbi State University of Science and Technology, Aleru.	Engineering, Medicine, and Agriculture
9	Katsina	Umaru Musa Yar'adua University, Katsina.	Umaru Musa Yar'adua University, Katsina	Education, Law, and Administration
10	Katsina	Federal University, Dutsi-Ma	Nil	Nil
11	Jigawa	Federal University, Dutse.	Nil	Nil
12	Jigawa	Jigawa State University, Kafin-Hausa	Nil	Nil
13	Sokoto	Usmanu Danfodiyo University, Sokoto	Usmanu Danfodiyo University, Sokoto.	Law, Education, and Administration
14	Sokoto	Sokoto State University, Sokoto	Nil	Nil

Table 3.1 shows fourteen Federal and State universities in North-West Geo-Political Zone, Nigeria. Eighteen faculties were sampled from the six universities. The selection was based on university year of establishment and nature of university management. Also used for representation was the selection of Federal and State; and conventional and science and

technology universities. This certainly gave the sample a general outlook at the end of the research.

Stratified Random Sampling which is a process of dividing a population into strata or sub-population was used. This method has the advantage of ensuring that various segments of a given population are included, which could facilitate the comparison of responses where necessary (Ndagi, 1984).The population and sample of management staff and faculty board members (lecturers) were thirty in (population) and the thirty was sampled; and one thousand and seventy (population) and five hundred and thirty (sampled), respectively. Thus, the population and sample of the study were one thousand one hundred (1,100) and five hundred and sixty (560) respectively. The samples constituted over 50% of the population.

Altogether, there were two (2) categories of respondents from which the samples were drawn; university management and faculty board members (lecturers). Krejcie and Morgan (1975) in a table indicate that sample in these kind of population takes the whole number or there about (see appendix 'B'). Tables 3.2 and 3.3 show by category the total population for each stratum and the sample selected.

Table 3.2: Population and Sample of University Management for the Study.

S/N	University	Category of Respondents	Population	Sample
1	Ahmadu Bello University, Zaria.	University Management	05	05
2	Bayero University, Kano	University Management	05	05
3	Kano State University of Science and Technology, Wudil.	University Management	05	05
4	Kebbi State University of Science and Technology, Aleru.	University Management	05	05
5	Umaru Musa Yar'adua University, Kastsina	University Management	05	05
6	Usmanu Danfodiyo University, Sokoto.	University Management	05	05
		Total	**30**	**30**

Source: Respective Federal and State Universities in North-West Geo-Political Zone (2013).

Table 3.2 shows selected universities, category of respondents, populations and samples of the management staff for the study. The table indicates that the populations of management staffs were thirty and the thirty was sampled for the study. Table 3.3 is on population and sample of faculty board members (Lecturers).

Table 3.3: Population and Sample of Faculty Board Members for the Study

S/N	**University**	**Faculty**	**Population**	**Sample**
1	Ahmadu Bello University, Zaria.	Education	138	65
		Law	90	45
		Engineering	120	60
2	Bayero University, Kano	Law	40	20
		Social Science	90	45
		Medicine	60	30
3	Kano State University of Science and Technology, Wudil.	Engineering	40	20
		Medicine	25	13
		Agriculture	21	10
4	Kebbi State University of Science and Technology, Aleru.	Engineering	35	18
		Medicine	30	15
		Agriculture	20	10
5	Umaru Musa Yar'adua University, Kastsina	Education	45	23
		Law	30	15
		Administration	35	18
6	Usmanu Danfodiyo University, Sokoto.	Law	50	25
		Education	90	45
		Administration	105	53
		Total	**1,070**	**530**

Source: Respective Federal and State Universities in North-West Geo-Political Zone (2013).

Table 3.3 shows the selected university, faculty, population and sample of the faculty board members (Lecturers) for the study. The population for faculty board members was one thousand and seventy (1,070) with a sample five hundred and thirty (530).

3.5 Instrumentation

Data for this study were collected through the use of questionnaire, which according to Gray (1976) is suitable for a survey research study. A questionnaire was used for data collection because the sample size was large. Also, the questionnaire as an instrument was relevant since factual information was desired, and it could be useful to obtain facts about the past, present and for future planning. Also being literate respondents, it was easy and faster for data collection with minor error.

The instrument consists of sections 'A'-'F' which include introduction letter, bio data, guide line on filling the opinion statement, and opinion statements generated based on the research objectives. The instrument was a self constructed questionnaire (see appendix A). A five Likert scale was used to seek the respondents' opinions. These include:

Strongly Agreed	5
Agreed	4
Undecided	3
Strongly Disagreed	2
Disagreed	1

3.6 Validity of the Instrument

The questionnaire for this study was face validated by experts in educational management, statistician, and test and measurement. The researcher also used questionnaire on questionnaire with the view to finding out mean scores of each item statement in the questionnaire, (Item analysis). All item statements with mean scores below one (1) were modified (see appendix B). The instrument was ranked by the expert mentioned above. Corrections and modifications were effected as suggested by the experts. This has added quality on the item statements in the instrument. Kerlinger (1973) and Gray (1976) prescribe and approve the above procedure in the validation of instrument. They observe that experts in the related discipline which the research is being conducted could help to validate a research instrument through careful analysis and make desired corrections and amendments. This process covered both content and faces validity of the instrument. This by, implication implies that, the instrument had face and content validity. It is, therefore, believed that the instrument was able to achieve its objectives.

3.7 Pilot Test

A pilot test was conducted in Kaduna State University, Kaduna. Five (5) University Management staff and thirty five (35) Faculty of board members (lecturers) were selected for the pilot test. The intention was to ascertain the reliability of the instrument before the

research was carried out (Kalinger, 1973). A Coefficient Reliability Statistical Method was used to analyze the data collected, with the view to ensure whether the instrument was able to test what it was meant to test. Jerry and Jact (1996) suggested that a researcher should conduct pilot test to see whether the instrument items would be analyzed in a meaningful way and then ascertain whether some changes may be warranted for easy analysis.

Second pilot test was not done, for the first result was above .5. Thus, the first pilot test served the purpose. This also helped to ensure the consistency of the items in the instrument. The view of Tuckman (1975) was respected, when he says an instrument can be said to be reliable when the reliability co-efficient can be approximated to one.

3.8 Reliability of the Instrument

In the pilot test conducted in Kaduna State University, the subjects were five management staff and thirty five (35) faculty board members (lecturers), but the analysis was conducted on the thirty five (35) returned copies of questionnaire. Reliability coefficient test was conducted on five items (five sections of the questionnaire). The result shows Alpha index at .59035 and Standardized item Alpha at .58201, (see appendix C). Approximately .610 and .612, this was above .5. Thus, this implies that the instrument is statistically reliable. Therefore, there was no need for any re-test of the instrument further more.

3.9 Administration of the Instrument

The researcher personally administered the questionnaire to the respondents in some of the sampled Universities. He also employed research assistants who helped to administer the instrument to the respondents in other sampled Universities. The research assistants were adequately briefed on how and when to administer and retrieve the questionnaire to and from the various respondents. Employing the services of the research assistants was necessary due to reasons of differences, distance and also for easy facilitation in far areas, as well as the

number and the nature of the respondents involved. The use of research assistants in the study helped a lot in the research process.

3.10 Methods of Data Analysis

The method of data analysis adopted for this study was the use of frequencies and percentages because of the large number of persons involved. According to Osuala (1987), the percentage conversion in research work is necessary in order to reduce raw data and to ease or facilitate understanding.

Non-Parametric statistical test method of Mann-Whitney U-test was used to test the hypotheses with the view to verify whether difference exists among the respondents under study,(Borg and Gall 1989). The choice of this method enables testing difference between independent groups and one variable. In addition, Mann-Whitney U test statistical method is used with very small or fairly large groups and requires ordinal (rank) measurement (Jerry and Jack, 1996). Thus, university management staff responses were compared and tested with faculty board members (lecturers). In testing the hypotheses, a significant level of 0.05 was used as a bench mark for acceptability or rejection of each hypothesis. This is suitable for social science and education researches, (Best, 1981). Research questions were also answered as postulated in chapter one. In all the analysis, thorough explanation was made based on the results collated. This assisted in showing the opinions of respondents on the item statements and also allows the researcher to make generalization where obtainable.

CHAPTER FOUR

ANALYSIS, PRESENTATION AND DISCUSSION OF DATA

4.1: Introduction

This chapter presents the analysis of data collected for the study. The data presented was outcomes of the responses collected during the study. A total of five hundred and sixty (560) copies of the questionnaire were distributed to the respondents, but only five hundred (500) were returned, hence the analysis was based on the returned copies of the questionnaire. Thus, twenty five (25) copies were for management staff and four hundred and seventy five (475) for lecturers in the selected universities.

The chapter contains tables 4.1– 4.16. The tables for bio data are 4.1– 4.5. Respondents' opinions are in tables 4.6 – 4.10, hypotheses 4.11 – 4.15, and table4.16 contains summary of the hypotheses testing. However, Five point Likert scale (Strongly Agree, Agree, Undecided, Strongly Disagree and Disagree) was used to assess the opinions of the respondents. For the purpose of convenience in discussion of data, Strongly Agree and Agree were considered as Agree, and Strongly Disagree and Disagree as Disagree. The researcher presents data using frequency counts and percentages in a tabular form. This was to give a general description of the data obtained.

4.2: Bio Data of the Respondents

Bio data of the respondents were presented in tables 4.1 to 4.5. The items include category of respondents' gender, university ownership, and respondents' working experience. Table 4.1 was on category of respondents.

Table 4.1: Category of Respondents

S/N	Respondent	Freq	%
1	Management Staff	25	100
2	Lecturers	475	100

Table 4.1 captures category and number of respondents. Management staffs were twenty five (25) and four hundred and seventy five (475) lecturers. Thus the total number of respondents is five hundred. Table 4.2 respondents' gender.

Table 4.2: Respondents' Gender

S/N	Respondent	Gender	Freq	%
1	Management Staff	Male	22	88.0
		Female	03	12.0
2	Lecturers	Male	423	89.1
		Female	52	10.9

Table 4.2 shows respondents' gender. The table shows that twenty two management staffs respondents representing 88.0 percent were male, while three were female with 12.0 percent. Four hundred and twenty three lecturers representing 89.1 percent were male and fifty two female representing 9.9 percent. This indicates that most of the respondents of this research were male with more than 80 percent of management staff and lecturers. Table 4.3 presents university ownership.

Table 4.3: University Ownership

S/N	University	Respondent	Freq	%
1	Federal	Management Staff	12	48.0
		Lecturers	314	66.1
2	State	Management Staff	13	52.0
		Lecturers	161	33.9

Table 4.3 shows university ownership of the respondents. The table shows that 52.0 percent of management staff of the respondents was from the state's universities while 66.1

percent of the lecturers that responded to the research were from the federal universities in the study area. Table 4.4 respondents' work experience.

Table 4.4: Working Experience of Respondents

S/N	Respondent	Years	Freq	%
1	Management Staff	31 and above	08	32.0
		21-30	07	28.0
		11-20	10	40.0
2	Lecturers	31 and above	46	9.7
		21-30	139	29.3
		11-20	113	23.8
		0-11	177	37.3

Table 4.4 was on respondents' working experience. The data show that the respondents with 11-20 years in service had the highest percentage of 40.0 among the management staff, followed by 31 and above years. While among the lecturers those with 0 – 11 had 37.3 percent as the highest and those with 21– 30 years with 29.3 percent. Table 4.5 is on respondents' university.

Table 4.5: University of Respondents.

S/N	University	Respondent	Freq	%
1	Kebbi State University of Science and Technology, Aleru	Management Staff	04	16.0
		Lecturers	60	12.6
2	Umaru Musa Yar'adua University, Katsina	Management Staff	05	20.0
		Lecturers	64	13.5
3	Kano University of Science and Technology, Wudil	Management Staff	04	16.0
		Lecturers	57	12.0
4	Usmanu Danfodiyo University, Sokoto	Management Staff	04	16.0
		Lecturers	86	18.1
5	Bayero University, Kano	Management Staff	03	12.0
		Lecturers	67	14.1
6	A.B.U, Zaria	Management Staff	05	20.0
		Lecturers	141	29.7

Table 4.5 captures the University off Respondents. In the table, A.B.U. Zaria had the highest respondents among both management staff and the lecturers with 20.0 percent and 29.7 percent, respectively. ABU Zaria is followed by Usmanu Danfodiyo University with 16 percent for management staff and 18.1 percent for lecturers.

4.3: Analysis on Research Questions

This section presents data on the opinions of respondents on the application of knowledge management strategies in North-West Geo-Political Zone, Nigeria. All items in the questionnaire from 7 – 56 relate to the section. Responses of all the respondents were collected, analyzed and presented in tables, using frequency counts and simple percentages. This was to enable the researcher make general description of data.

Items 7 – 16 are related to the application of brainstorming strategy on decision making in universities in North -West Geo-Political Zone, Nigeria. These items include: some opinions on administrative decision in written form, hence do not attract verbal discussion; most major agenda of the meetings are written on boards for members to think deeply; the agenda for most meetings was explained before discussion begins; and criteria for idea selection are made clear before any decision is reached. Other item statements in the questionnaire reflect on whether or not decisions are sometimes reached through written votes, hence do not attract discussion; most administrative solutions are identified through knowledge sharing by way of discussion; decision do have criteria as a guide for discussion; before decisions are made members are asked whether they are see the need for discussion; most opinions are further discussed during meetings for better understanding; and during meetings members are asked to list points on paper before discussion.

Items 17 – 26 relate to application of collaborative physical workspace on planning in universities in North-West Geo-Political Zone, Nigeria. These items tried to find out whether meeting halls are specious with standard light/electricity; there exist syndicate groups (round table) for planning activities; there is refreshment in meeting halls where members work round for service; there are expert staffs that guide planning meeting; and there exist power points in different locations for planning meetings planning meeting halls are decorated with

posters an pictures. Other item statements in this section dwelt on whether there are available computers in meeting halls for effective planning; there exist syndicate group during planning meetings; there are visual data on different location for planning in all meeting halls in the university; and trees and flowers surround planning meeting halls.

Items 27 – 36 relate to the application of knowledge cluster strategy on communication in universities in North-West Geo-Political Zone, Nigeria. Item statements under this opinion tried to find out whether most administrative communications in different department/units are done through networked computers; most administrative communications are coded for future references; most administrative staff are trained on the use of computers in modern communication; most administrative decisions are communicated within and outside the universities through soft ware; and organizational web site is used to communicate meetings within and outside the university. Other parts of the questionnaire in this section solicited the opinion of respondents on whether committee members are coded on web site for easy communication in the university; computer literacy is a criterion for promotion in the universities; web site is being used to communicate with university community and on its operations, knowledge and information are shared through university web site; and most offices in the university are networked with internet for better communication in and outside the university.

Item 37- 46 are related to the application of after action review strategy on supervision in universities in North-West Geo-Political Zone, Nigeria. Item statements in the questionnaire dwelt whether training of staff is based on needs after supervision assessment staff assessment results are basis for promotion in the university; assessment tool is the basis for result oriented output; supervision in the university ensures identification, creation, storage, application and sharing of knowledge; and the essence of supervision in the

university is to ensure knowledge of supervision is shared with others. Inclusive also in this section were whether identification of job in universities is done through knowledge sharing; most punishments after supervision exercise are based on needs; punishments after supervision exercise are based on needs; most supervision reports are coded through soft ware for future references ; administrative supervision manuals are centered on staff knowledge in their work place in the university and supervision activities are centered on the expected function of staff members in their work environment.

Items 47 – 56 relate to application of after action review strategy on maintenance of discipline in universities in North-West Geo-Political Zone, Nigeria. Item statements in the questionnaire were attempt to find out whether staff promotion in university is based on past disciplinary records; staff promotion assessment is on account of previous behavior; the university uses staff discipline, measures based on the previous experiences; unruly behaviours are maintained based on situation/circumstance against which it happened; and the university rewards staff who excel in good disciplinary conduct based on their existing records. Also in this section attempt was made to find out whether there exist committees to select and award staff who are disciplined in the university; merit and award enhance discipline among staff in the university; the university uses disciplinary behaviours and staff knowledge of rules and regulations for special promotion students graduation is based on character assessment from the existing records; and the university authority does not allow influence peddling to deter it from disciplining staff or students with bad records.

4.3.1: Opinions of Respondents on the Application of Brainstorming Strategy on Decision Making in Universities in North – West Geo-Political Zone, Nigeria.

Items 7-16 of the questionnaire are presented in this section. The items solicit the respondents' opinions on the application of brainstorming strategy on decision making in

universities in North-West Geo-Political Zone Nigeria. Items intend to find out whether some opinions on administrative decisions are in written form, hence do not attract verbal discussion; major agenda of meetings are written on boards for members to think deeply; the agenda for most meetings are explained before discussion begins; criteria for idea selection are made clear before any decision is reached; and decision are sometimes reached through written votes, hence do not attract discussion.

In addition, other items tried to find out whether most administrative solutions are identified through knowledge sharing by way of discussion; decisions do have criteria as a guide for discussion before decisions are made; members are asked whether they see the need for further discussion; most opinions are further discussed during meetings for better understanding; and during meetings members are asked to list points on paper before discussion. Table 4.6 has the details of the responses.

Table 4.6: Opinions of Respondents on the Application of Brain Storing Strategies on Decision-Making in Universities in North-West Geo-Political Zone, Nigeria.

S/N	Item Statement	Category of Respondents	Opinions of Respondents										Total	
			SA		AG		UN		DA		SD			
			Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
7	Some opinions on administrative decisions are in written form, hence do not attract verbal discussions.	Management Staff	01	4.0	01	4.0	02	8.0	10	40.0	11	44.0	25	100
		Lecturers	25	5.3	20	4.2	53	11.2	169	35.6	208	43.8	475	100
8	Most major agenda of meetings are written on boards for members to think deeply.	Management Staff	00	00	02	8.0	03	12.0	08	32.0	12	48.0	25	100
		Lecturers	34	7.2	26	5.5	69	14.5	150	31.6	196	43.0	475	100
9	The agenda for most meetings are explained before discussion begins.	Management Staff	11	44.0	06	24.0	02	8.0	06	24.0	00	00	25	100
		Lecturers	185	38.9	133	28.0	44	9.3	56	11.8	57	12.0	475	100
10	Criteria for idea selection are made clear before any decision is reached.	Management Staff	10	40.0	06	24.0	00	00	06	24.0	03	12.0	25	100
		Lecturers	147	30.9	156	33.8	49	10.3	57	12.0	66	13.9	475	100
11	Decisions are sometimes reached through written votes, hence do not attract discussion.	Management Staff	01	4.0	01	4.0	03	12.0	10	40.0	10	40.0	25	100
		Lecturers	41	8.6	29	6.1	64	13.5	155	32.6	186	39.2	475	100
12	Most administrative solutions are identified through knowledge sharing by way of discussion.	Management Staff	02	8.0	02	8.0	06	24.0	10	40.0	05	20.0	25	100
		Lecturers	36	7.6	43	9.1	79	16.6	139	29.3	178	37.5	475	100
13	Decisions do have criteria as a guide for discussion.	Management Staff	01	4.0	01	4.0	05	20.0	11	44.0	07	28.0	25	100
		Lecturers	37	7.8	34	7.2	73	15.4	161	33.9	170	35.8	475	100
14	Before decisions are made, members are asked whether they see the need for discussion.	Management Staff	05	20.0	03	12.0	07	28.0	07	28.0	03	12.0	25	100
		Lecturers	56	11.8	36	7.6	74	15.6	143	30.1	166	34.9	475	100
15	Most opinions are further discussed during meetings for better understanding	Management Staff	07	28.0	11	44.0	01	4.0	04	16.0	02	8.0	25	100
		Lecturers	150	31.6	128	26.9	60	12.6	62	13.1	75	15.8	475	100
16	During meetings members are asked to list points on paper before discussion.	Management Staff	00	00	01	4.0	04	16.0	07	28.0	13	52.0	25	100
		Lecturers	52	10.9	39	8.2	62	13.1	146	30.7	176	37.1	475	100

The use of brain storming strategy on administrative decisions was not in written form which does not attract verbal discussion in decision making in universities in North – West Geo-Political Zone, Nigeria. Table 4.6 indicates that 84 percent of management staff, and 79.4 percent of lecturers disagreed with the opinion. This implies consensus of opinions with large percentage. Thus, this strategy application was not in practice. However, it is worthy of note that administrative decision in written form could assist in reducing unnecessary argument and waste of time, which creates rivalry among decision makers. This approach could be useful as it gives members the right to express views without afraid of intimidation by head of department or institution.

In responses to item 8 of the questionnaire, the responses show that in most major meetings of the management agenda was not written on board for members to think deeply. The opinions show that 60 percent of the management staff and 35.9 percent of the lecturers disagreed with the statement. Writing meeting agenda on white board is expected to help members to remember point easily and also think deeply for a better resolution. Item 9 of the questionnaire solicited respondents' opinions on whether agenda for most meetings are explained before discussion begins. The responses indicate the practice of this strategy in management meetings. The opinions show 68 percent of management staff and 66.9 percent of lecturers agreed with this practice. In the belief of the researcher, explanation of meeting agenda could assist not to waste too much time in decision making process and could give high light on issues of discussion for better resolutions. In fact, the use of this approach can give a meeting a focus with the view to having similar direction of understanding of issues in question during meetings.

Item 10 in the questionnaire sought to find out whether criteria for idea selection are made clear before any decision is reached. The opinions of both respondents show agreement.

These were 64 percent of management staff and 63.4 percent of lecturers. This was quite good because decisions need to have criteria for acceptance or rejection, otherwise it could generate unnecessary argument and result to unhealthy decisions. It is pertinent to note that decisions are to a large extent by products of the successes or otherwise in organizations. In response to item 11, the respondents agreed that decisions were sometimes reached through written votes, hence do not attract discussion. The percentages indicate that 80 percent and 71.8 percent of management staff and lecturers, respectively have high level of agreement to the opinion. This could be attributed to the wind of democracy blowing in almost all parts of the world. Thus, the approach could help into uniting meeting members and encourage team work as majority takes the lead. In addition, voting during meetings resolves debate, especially on issues that have no clear cut definition.

In response to item 12 which socialites respondents' opinions on whether most administrative solutions are identified through knowledge sharing by way of discussion. The responses indicate disagreement with the opinion, 60 percent of the management staff and 66.8 percent of the lecturers show disagreement that this practice does not exist. However, this practice is expected to guide administrators to have knowledge on administrative decision-making issues, and to enable them take decision based on what they know. Decision based on proper understanding of the circumstance surrounding it, certainly leads to concrete decision devoid of wastages in time and resources. Therefore, the researcher is of the opinion that issues that are not properly clear to university managers need clarification by experts and or among the meeting members.

Item 13 of the questionnaire seeks respondents' opinions on whether decisions do have criteria as a guide for discussion. The respondents agreed with the statement, which represented

by 72 percent management staff and 69.7 percent lecturers. This view agreed with item 10 above. Guide line for discussion is expected to do away with deviations from discussion topics during meeting, thereby reduce over hammering on less important issues during meetings. Majority of respondents did not agree on item 14, which says before decisions are made members are asked whether they see the need for further discussion. The responses were 40 percent management staff and 65 percent lecturers. It is quite important to note that meeting agenda needs discussion, to be discussed thoroughly if the need for further discussion arises, participants should be allowed to do so. The aim is to allow more idea sharing and educate members the more for better decisions.

There was consensus of opinion among the respondents on item 15, which seeks opinions of respondents on whether most opinions are further discussed during meetings for better understanding, 72 percent management staff and 58.5 percent lecturers agreed with the statement. This was a good practice for it gives deep discussion and share more ideas during meetings. It is worthy of note that meetings are not only for decision but also an avenue to get experience, and share knowledge through discussions. Lastly, item 16 solicited the opinions of respondents on whether during meeting members are asked to list points on paper before discussion. The responses indicated that majority of respondents agreed with the statement as represented by 80 percent management staff and 67.8 percent lecturers. It is the opinion of the researcher that this method could help meeting members make meaningful contributions during meeting. It could also serve as a measure to reduce number of point raised and repetition of ideas. Therefore, this practice is vital and ought to be practised for sound decisions.

4.3.2: Opinions of Respondents on the Application of Collaborative Physical Workspace on Planning in Universities in North –West Geo-Political Zone, Nigeria.

This relates to items 17 – 26 in the questionnaire. The items tried to find out whether there was the application of collaborative physical work space on planning process in the management of universities. The section also tried to find out whether meeting halls are spacious with standard light/electricity; there exist syndicate groups (round table) for planning activities; there is refreshment in meetings halls where members work round for services; there are expert staffs that guide planning meetings; and there exist power points in different locations for planning meeting; planning meeting halls are decorated with posters and pictures; there are available computers in meeting halls for effective planning; there exist syndicate groups during planning meetings; there are visual data on different locations for planning in all meeting halls in the university; and trees and flowers surround planning meeting halls. Table 4.7 gives details of the data and analysis.

Table 4.7: Opinions of Respondents on the Application of Collaborative Physical Work-Space on Planning in Universities in North-West Geo-Political Zone, Nigeria

S/N	Item Statement	Category of Respondents	Opinions of Respondents										Total	
			SA		AG		UN		DA		SD			
			Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
17	Meeting halls are spacious with standard light/electricity	Management Staff	07	28.0	11	44.0	02	8.0	03	12.0	02	8.0	25	100
		Lecturers	172	36.2	135	28.4	48	10.1	55	11.6	65	13.7	475	100
18	There exist syndicate groups (round table) for planning activities	Management Staff	02	8.0	01	4.0	03	12.0	11	44.0	08	32.0	25	100
		Lecturers	33	6.9	14	2.9	68	14.3	165	24.7	195	41.1	475	100
19	There is refreshment in meeting halls where members work round for service.	Management Staff	00	00	01	4.0	04	6.0	10	40.0	34	7.2	25	100
		Lecturers	34	7.2	29	6.1	60	12.6	157	33.1	195	41.1	475	100
20	There are expert staffs that guide planning meetings.	Management Staff	00	00	02	8.0	03	12.0	11	44.0	09	36.0	25	100
		Lecturers	29	6.1	26	5.5	81	17.1	158	33.3	181	38.1	475	100
21	There exist power points in different locations for planning meetings.	Management Staff	00	00	04	16.0	02	8.0	08	32.0	11	44.0	25	100
		Lecturers	22	4.6	29	6.1	70	14.7	161	33.9	193	40.6	475	100
22	Planning meeting halls are decorated with posters and pictures.	Management Staff	00	00	02	8.0	06	24.0	09	36.0	08	32.0	25	100
		Lecturers	36	7.6	22	4.6	63	13.3	154	32.4	200	42.1	475	100
23	There are available computers in meeting halls for effective planning.	Management Staff	01	4.0	01	4.0	02	8.0	09	36.0	12	48.0	25	100
		Lecturers	27	5.7	25	5.3	64	13.5	155	32.6	204	42.9	475	100
24	There exist syndicate group during planning meetings	Management Staff	00	00	06	24.0	06	24.0	06	24.0	07	28.0	25	100
		Lecturers	83	17.5	79	16.6	54	11.4	139	29.3	120	25.3	475	100
25	There are visual data on different location for planning in all meeting hall in the university.	Management Staff	01	4.0	00	00	03	12.0	11	44.0	10	40.0	25	100
		Lecturers	43	9.1	42	8.8	67	14.1	154	32.4	169	35.6	475	100
26	Trees and flowers surround planning meeting halls	Management Staff	11	44.0	07	28.0	02	8.0	02	8.0	03	12.0	25	100
		Lecturers	154	32.4	122	25.7	51	10.7	68	14.3	80	16.8	475	100

Table 4.7 shows item 17 which sought the opinions of respondents on whether meeting halls are spacious with standard light/electricity. The two groups of the respondents indicated disagreement in their responses to the item, 72 percent management staff and 64.6 percent lecturers. This is an indication that meeting halls lack facilities required for a productive planning meetings. Thus, planning activities might not be done properly. This calls for university managements to provide all the necessary materials needed for a standard planning hall. Item 18 solicited opinions of the respondents on whether there exist syndicate groups (round table) for planning activities. The respondents' opinions show that there was no syndicate groups for planning meetings, with 58 percent management staff and 80 percent lecturers disagreed with the item. Syndicate groups imply smaller team of not more than five persons. The syndicate discusses issues of meeting. The expectation was syndicate groups reach conclusion easily and comparism could be made between them. Therefore, university management could adopt this method for a better planning process devoid of hardship.

Opinions of respondents on item 19 was on whether there is refreshment in meeting halls where members work round for service. The responses show that 80 of percent management staff and 74.2 percent of lecturers disagreed with the item. The wisdom behind refreshment in meeting halls is to allow members work and get mind refreshed, to think and generate ideas. Experience has shown that long sitting degenerate human ability to think fast. In planning, meeting members need to be allowed to work around and refresh for improved ideas and for a better planning. Item 20 seeks the opinions of respondents on whether there are expert staffs that guide planning meeting. The responses indicated disagreement of the respondents to the item as represented by 80 percent management staff and 71.4 percent lecturers. However, university management should during planning meeting invite experts or professional to explain to them aspect not

known to them. Certainly, this will improve in achieving planning objectives and at the same time reduce wastages in resources. In addition, inputs of experts are assumed to ease planning activities and programs stand benefit in the university.

Item 21 of the questionnaire solicited respondents' opinions on whether there exist power points in different locations for planning meetings. The respondents disagreed with this statement as shown in 76.0 percent responses of management staff and 74.5 percent by lecturers. This opinion seems similar with item 20 above, thus experts not invited for planning meetings. Experts use power point to explain concepts and issues for better understanding, but the power points are not provided. The researcher felt that university management should provide power points not only in planning meeting halls but to all lecture halls, for it brings about better understanding of concepts been explained and ease presentations. In addition, it reduces waste of time and energy and also reduces absent mindedness from the audience. In the end policy makers could be better informed for better decisions and policies.

Item 22 sought the opinions of respondents on whether planning meeting's halls are decorated with posters and pictures. The responses show that 68 percent management staff and 74.5 percent lecturers disagreed with the statement. The disagreement was more from the lecturers; may be these inadequacies were high at the lower level of university management. However, it is worthy of note that decoration of planning meeting halls encourages generation of ideas which improve planning activities. However, decorations must be relevant to the required planning activities. Item 28 of the questionnaire solicited respondents' opinions on whether there are available computers in meeting halls for effective planning. Both respondents show disagreement with the item statement with 84 percent management staff and 75.5 percent lecturers. The inadequacies may be attributed to inadequate funds especially at the university

level, hence facilities were always inadequate. However, authorities concerned should provide facilities especially for planning. This is expected to connect education managers with the world practices for a better university education.

There exist syndicate groups during planning meeting was item 24 in the questionnaire. The respondents disagreed with the item statement with 52 percent management staff and 45.5 percent lecturers. However, the disagreement percentage was low, hence, the practice of syndicate groups exist but to a lower level. As an advantage, syndicate group improves and assist in arriving at decisions easily. The approach also allows group members to arrive at decision within the shortest possible time. Item 25 seeks the opinions of respondents on there exist visual data on different location for planning in meeting halls in the university. The respondents indicate disagreement with the item statement, management staff disagreed with 84 percent and lecturers with 67 percent. Planning as discussed tend to be futureristic and practical in nature, thus, the use of visual aid during planning meetings makes planning activities more realistic and practical. Therefore university leadership should provide gadget that could aid planning activities for better planning.

Item 26 in the questionnaire seeks the opinions of respondents on trees and flowers surrounds planning meeting halls. There was consensus of opinion among the respondents that Management staff agreed with 72 percent and lecturers with 68.4 percent. This is a good development and need to be sustained in the university environment. Trees and flowers beautify the environment; provide fresh air, and the air gives life. In addition flowers and green tress increase sight strength and enables the brain to think widely.

4.3.3: Opinion of Respondents on the Application of Knowledge Cluster Strategy on Communication in Universities in North-West Geo-Political Zone, Nigeria

This section covered items 27, 28, 29, 30, 31, 32, 33, 34, 35 and 36 in the questionnaire. The items intend to find out whether there was the application of knowledge cluster strategy in universities. The item statements were, most administrative communications in different department/units are done through networked computers; most administrative communications are coded for future references; most administrative staff are trained on the use of computers in modern communication; most administrative decisions are communicated within and outside the university through soft ware; and organizational web site is used to communicate meetings of the university.

Other part of the section includes committee members are coded on web site for easy communication in the university; computer literacy is a criterion for promotion in the university; web site is being used to communicate with university community and outside on its operations; knowledge and information are shared through the university web-site; and most offices in the university are networked with internet for better communication in and outside. Details of the respondents' opinions were obtained in table 4.8.

Table 4.8: Opinions of Respondents on the Application of Knowledge Cluster Strategy on Communication in Universities in North-West Geo-Political Zone, Nigeria

S/N	Item Statement	Category of Respondents	Opinions of Respondents										Total	
			SA		AG		UN		DA		SD			
			Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
27	Most administrative communications in different departments /units are done through networked computers	Management Staff	03	12.0	03	12.0	02	8.0	08	32.0	09	36.0	25	100
		Lecturers	154	32.4	122	25.7	51	10.7	68	14.3	80	16.8	475	100
28	Most administrative communications are coded for future references	Management Staff	00	00	02	8.0	03	12.0	08	32.0	12	48.0	25	100
		Lecturers	29	6.1	37	7.8	64	13.5	160	33.7	185	38.9	475	100
29	Most administrative staff are trained on the use of computers in modern communication.	Management Staff	08	32.0	08	32.0	02	8.0	02	8.0	05	20.0	25	100
		Lecturers	168	35.4	140	29.5	53	11.2	46	9.7	68	14.8	475	100
30	Most administrative decisions are communicated within and outside the university through soft-ware	Management Staff	01	4.0	07	28.0	06	24.0	06	24.0	05	20.0	25	100
		Lecturers	32	6.7	29	6.1	68	14.3	165	34.7	181	38.1	475	100
31	Organizational web site is used to communicate meetings within and outside the university	Management Staff	00	00	04	16.0	06	24.0	08	32.0	07	28.0	25	100
		Lecturers	30	6.3	28	5.9	66	13.9	158	33.3	198	41.7	475	100
32	Committee members are coded on web site for easy communication in the University.	Management Staff	02	8.0	03	12.0	05	20.0	08	32.0	07	28.0	25	100
		Lecturers	30	6.3	28	5.9	77	16.2	151	31.8	189	39.8	475	100
33	Computer literacy is a criterion for promotion in the universities.	Management Staff	09	36.0	08	32.0	01	4.0	05	20.0	02	8.0	25	100
		Lecturers	151	31.8	124	26.1	43	9.1	81	17.1	76	16.0	475	100
34	Web site is being used to communicate with university community and out on its operations.	Management Staff	07	28.0	05	20.0	03	12.0	06	24.0	04	16.0	25	100
		Lecturers	113	23	113	23.8	69	14.5	91	19.2	89	18.7	475	100
35	Knowledge and information are shared through the university web site.	Management Staff	01	4.0	01	4.0	05	20.0	09	36.0	09	36.0	25	100
		Lecturers	32	6.7	31	6.5	62	13.1	161	33.9	189	39.8	475	100
36	Most offices in the university are networked with internet for better communication in and outside.	Management Staff	04	16.0	02	8.0	05	20.0	07	28.0	07	28.0	25	100
		Lecturers	51	10.7	37	7.8	74	15.6	153	32.2	160	33.7	475	100

Table 4.8 covered the analysis of the respondent's opinions from items 27-36 of the questionnaire. Item 27 seeks to verify whether most administrative communication in different department/units is done through networked computers. Management staff disagreed with the statement with 68 percent, but on the contrary lectures agreed with 58.1 percent. This disagreement ought not to be because both management staff and lecturers were stakeholders in the management of the universities. However, whatever, the case, the need for modern communication network was needed, thus, it is effective, less cost, can reduce communication barriers and consumes less time if compared with traditional means of communication. Most administrative communications are coded for future references was item 28 of the questionnaire. In response to this statement 70 percent of management staff and 72.6 percent of lecturers disagreed with the opinion. The disagreement was high, which indicate a clear cut no coding of administrative communications. Coding of administrative communication could exist when there is internet communication. Administrative coding of communication helps in information reservation, sharing and easy retrieval within the shortest possible time. In administration this approach could help achieve a lot for a better management

Item 29 solicited the opinions of respondents on most administrative staff are trained on the use of computers in modern communication. The respondents' opinions show that both of them agreed with the statement, thus 64 percent management staff and 64.9 percent lecturers. This was a commendable strive by the universities to meet global standard. Therefore, more efforts could be added through purchase of the communication equipment for a better practice of the knowledge learnt. Item 30 attempts to verify whether most administrative decisions are communicated within and outside the university through soft ware. The responses show disagreement to the item statement. 44 percent of management staff and 72.8 percent of lecturers

disagreed respectively. By a way of deduction, this trend may be associated with inadequate fund in the universities. However, it is very important that universities should join the global practices especially in communication. The approach could save a lot time, money and could be more effective.

Item 31 seeks the opinions of respondents on organizational web site is used to communicate meetings within the university. The responses indicate that this practice does not mostly exist. Management staff disagreed with 60 percent and lecturers disagreed with 75 percent. In other words, even if the practices exist but very low if compared to the level required. University management should adopt this approach because it reduces wastages in the management process as shown above in item 30. Item 32 solicits the opinions of respondents on committee members are coded on web site for easy communication in the university. Respondents' opinions show disagreement with the statement with a high percentage, 60 percent management staff and 71. 6 percent of lecturers. As a known fact, university is known with several committees. If these committees would be networked on the internet, certainly the committees could be pasten for the committee member have other responsibilities to perform.

Item 33 which sought the opinions of the respondents on whether computer literacy is a criteria for promotion in the university. Both the respondents agreed with the opinions 68 percent of management staff and 57.9 percent of lecturers. The researcher was of the view that this position could assist university staff to be up –to–date in their area of primary assignment. Especially the academic staff that are expected to comfit with their clique in the globe. Since the world is past changing through technology, Nigerian universities need not to be left behind. Item 34 solicits respondents opinions on web sites are being used to communicate with university community on its operation. Management staff agreed with 48 percent while lecturers also

agreed with 46.8 percent. Also in the table, the difference between disagreement and agreement was not high, in fact not more than 10 percent each. This implies that there is the practice but not in a large quantum. Nonetheless, the need for communication between university and community is paramount. One of the major cardinal function of a university is community service, hence communicating the services to the community is also important.

Item 35 attempt to find out opinions of respondents on knowledge and information are shared through the university web site. The responses show disagreement with the statement, 72 percent of management staff and 73.7 percent of lecturers. This indicated low sharing of knowledge and information through the use of web site. However, it is good to note that research findings, messages, meeting schedules and other university activities could be shared within department, faculties and the university at large through the web site. This is what it is called cluster, in other words, group of individual with common characteristics sharing ideas, knowledge, research findings etc. Item 36 solicits respondents' opinions on whether most offices in the university are networked with internet for better communication in and outside the university, the respondents show disagreement with the item statement. Management staff disagreed with 73.7 percent and also lecturers disagreed with 65.9 percent. This implies that most offices were not networked/connected to the internet services. The researcher was of the view that free internet service for university staff could help them interact among themselves and with outside the university. Thus enable them share research findings for knowledge up-grading.

4.3.4: Opinions of Respondents on the Application of After Action Review Strategy on Supervision in Universities in North–West, Geo-Political Zone, Nigeria

In this section the research attempted to find out whether there was the application of after action review strategy on supervision process in the management of universities. In the

section items 37, 38, 39, 40, 41, 42, 43, 44, 45 and 46 were presented as contained in the questionnaire. The items include: training of staff is based on needs after supervision; staff assessment results are bases for promotion in the university; and supervision in the university is to ensure knowledge is shared with others.

Also inclusive in this section were identification of job in the university is done through knowledge sharing; most punishment after supervision exercise are based on needs; most supervision reports are coded through soft ware for future references; administrative supervision manuals are centered on staff knowledge in their work places in the university; and supervision activities are centered on the expected functions of staff members in their work environment. Details of the data collected were contained in table 4.9.

Table 4.9: Opinions of Respondents on the Application of After Action Review Strategy on Supervision in Universities in North-West Geo-Political Zone, Nigeria

S/N	Item Statement	Category of Respondents	Opinions of Respondents										Total	
			SA		AG		UN		DA		SD			
			Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
37	Training of staff is based on needs after supervision assessment	Management Staff	02	8.0	03	12.0	06	24.0	07	28.0	07	28.0	25	100
		Lecturers	28	6.1	11	2.3	72	15.2	170	35.8	193	40.6	475	100
38	Staff assessment results are bases for promotion in the University	Management Staff	03	12.0	09	36.0	05	20.0	03	12.0	05	20.0	25	100
		Lecturers	67	14.1	55	11.6	61	12.8	146	30.7	146	30.7	475	100
39	Assessment tool is the basis for result oriented output.	Management Staff	09	36.0	06	24.0	03	12.0	04	16.0	03	12.0	25	100
		Lecturers	168	35.4	132	27.8	43	9.1	58	12.2	74	15.6	475	100
40	Supervision in the University ensures identification, creation, storage, application and sharing of knowledge.	Management Staff	00	00	00	00	06	24.0	07	28.0	12	48.0	25	100
		Lecturers	38	8.0	34	7.2	68	14.3	157	33.1	178	37.5	475	100
41	The essence of supervision in the University is to ensure knowledge is shared with others.	Management Staff	00	00	03	12.0	02	8.0	12	48.0	08	32.0	25	100
		Lecturers	96	20.2	77	16.2	58	12.2	124	26.1	120	25.3	475	100
42	Identification of job in universities is done through knowledge sharing	Management Staff	05	20.0	05	20.0	06	24.0	05	20.0	04	16.0	25	100
		Lecturers	89	18.7	63	13.3	58	12.2	116	24.4	149	31.4	475	100
43	Most punishments after supervision excise are based on needs.	Management Staff	01	4.0	00	00	04	16.0	11	44.0	09	36.0	25	100
		Lecturers	41	8.6	32	6.7	72	15.2	146	30.7	184	38.7	475	100
44	Most supervision reports are coded through soft-ware for future references.	Management Staff	03	12.0	00	00	04	16.0	08	32.0	10	40.0	25	100
		Lecturers	27	5.7	24	5.1	73	15.2	146	33.7	172	36.2	475	100
45	Administrative supervision manuals are centered on staff knowledge in their work places in the University.	Management Staff	02	8.0	01	4.0	03	12.0	11	44.0	08	32.0	25	100
		Lecturers	37	7.8	43	9.1	67	14.1	161	33.9	167	35.2	475	100
46	Supervision activities are centered on the expected function of staff members in their work environment.	Management Staff	03	12.0	02	8.0	05	20.0	07	28.0	08	32.0	25	100
		Lecturers	26	5.5	30	6.3	71	14.9	154	32.4	194	40.8	475	100

Table 4.9 contains responses and analyses of the opinions of the respondents from item 37-46 were contained in the questionnaire. Item 37 sought to verify the opinions of respondents on whether training of staff ware based on needs after supervision assessment. The responses show disagreement with the statement with 56 percent of management staff and 76.4 percent of lecturers. In the opinion of the researcher, training of staff should be based on supervision report, which explains the details of staff capacity, need for up-grade and or even transfer. Certainly, this could place workers according to capability, knowledge and ability to accomplish task. Therefore management should include these practices for it could increase productivity among staff. Item 38 attempts to solicited respondents' opinions on staff assessment result are bases for promotion in the university. Management staff disagreed with the statement with 48 percent, while lecturers agreed with 61.4 percent. The reason for the differences could be on differences in promotion criteria, thus, lectures were promoted after fulfilling certain condition, while most management staffs were on time condition for promotion. None the less supervision assessment result could assist to increase staff productivity and commitment, when is it attached to promotion.

Item 39 sought to identify whether assessment tool is the bases for result oriented output. The responses show agreement to the statement, 60 percent of management staff and 63.2 percent of lecturers. This consensus could be as a result of target in work place increase staff effort towards goal achievement. Hence, management of universities should intensity/put more emphases on the quality of assessment tools, so as to achieve goals. However, the assessment tools should be geared towards humanistic theory for a better and balanced result between the employer and the employee. Item 40 solicits the opinions of respondents on whether supervision in the university ensures identification, creation, storage, application and sharing of knowledge.

The responses indicated high level of disagreement among the respondents. 76 percent of management staff and 70.5 percent of lecturers disagreed with the item statement. However, the researcher was of the opinion that universities should include identification, creation, sharing and application of knowledge by staff in supervision assessment tool. This is expected to increase practical application of knowledge which is a key to goal achievement and high productivity.

Item 41 attempted to verify whether the essence of supervision in the university is to ensure knowledge is shared with others. The results shows management staff disagreed with 80 percent and lecturers disagreed with 51.4 percent. If the results indicate disagreement, then supervision should include knowledge sharing among staff. This should cut across all levels, as it could serve as a synergy and interaction form, which may result to good harmonious relationship apart from increase in output among staff. Identification of jobs in the universities is done through knowledge sharing was item 42 in the questionnaire. The response shows that management staff agreed with 40 percent and lecturers disagreed with 55.8 percent. The difference may be because lectures were not directly management staff (employing staff) as such disagreed with the statement. The researcher is of the opinion that criteria for employment of staff in the universities should include ability of applicant to share/teach others what he/she knows. This approach should go beyond teaching staff alone but should also include non teaching staff.

Item 43 of the questionnaire solicited the opinions of respondents on most punishment after supervision exercise is based on needs. The responses disagreed with this practice in the university management. The disagreements were 80 percent management staff and 69.4 percent lecturers. However, punishment ought to be after action through supervision. This is expected to push workers to do more in their duty post. In other words, staff performance below average could be tag an offence, thus deserves punishment commensurate to the offence committed. If

the approach is applied, workers would work with caution and output would increase. Item 44 attempts to find out whether most supervision reports are coded through soft ware for future reference. The respondents show disagreement with this practice in the university system. The disagreements were 72 percent management staff and 73.9 percent lecturers respectively. The essence of this approach was it enables supervisors to review past event during decision making on staff records. This is done with the view to having reflection on past action to understand the present. This approach could also serve as a deterrent to others either not working as scheduled or those misbehaving on duty.

Second to the last item 45 sought to verify whether administrative supervision manuals are centered on staff knowledge in their work places in the university. The responses indicated disagreement with the statement. The percentages of the disagreement were 76 percent management staff and 69.1 percent lecturers respectively. However, to apply this approach, management should review supervision manuals to captures ability of a staff and to prove his knowledge in practical terms. This is because any knowledge that cannot be practiced is not knowledge. The researcher was of the opinion that for Nigeria to move forward, knowledge must be used to solve human problems, or else the knowledge is questionable. Item 46 asked the respondents on supervision activities are centered on the expected functions of staff members in their work environment. Both the respondents show non practice of this approach in the management of universities. The management staff disagreed with 60 percent and lecturers 73.2 percent. This approach is expected to strike a balance between the employer's schedule of duty and output. In other words, employer's assessment through supervision ought to be centered on anticipated functions or output. It was in the belief of the researcher that if this is practiced in the Nigerian universities staff turnover will increase as that of the private sector.

4.3.5: Opinions of Respondents on the Application of After Action Review Strategy on Maintenance of Discipline in Universities in North-West Geo-Political Zone, Nigeria.

This section covered items 47, 48, 49, 50, 51, 52, 53, 54, 55 and 56. The section also attempted to verify whether there was the practice of after action review strategy on discipline maintenance in the management of universities. In the section and the questionnaire the following item statements were raised: staff promotion in the university is based on past disciplinary records; staff promotion assessment is on account of previous behaviours; the university uses staff discipline measure based on previous experiences; unruly behaviours are maintained based on situation/circumstance against which it happened; and the university rewards staff who excel in good discipline in the university.

Other part of the section include, there exist committee to select and award staff who are disciplined in the university; merit and award enhance discipline among staff in the university; the university uses discipline behaviours and regulations for special promotions; students' graduation is based on character assessment from the existing records; and lastly the university authority does not allow influence peddling to deter it from disciplining staff or students whose records are bad. Details were captured in table 4.10.

Table 4.10: Opinions of Respondents on the Application of After Action Review Strategy on Maintenance of Discipline in Universities in North-West Geo-Political Zone, Nigeria.

S/N	Item Statement	Category of Respondents	Opinions of Respondents										Total	
			SA		AG		UN		DA		SD			
			Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
47	Staff promotion in the University is based on past disciplinary records.	Management Staff	02	8.0	02	8.0	03	12.0	11	44.0	07	28.0	25	100
		Lecturers	34	7.2	21	4.4	84	17.7	158	33.3	178	37.5	475	100
48	Staff promotion assessment is on account of previous behaviours	Management Staff	04	16.0	07	28.0	07	28.0	05	20.0	02	8.0	25	100
		Lecturers	52	10.9	53	11.2	71	14.9	110	23.2	189	39.8	475	100
49	The University uses Staff discipline measures based on the previous experiences	Management Staff	01	4.0	02	8.0	05	20.0	11	44.0	06	24.0	25	100
		Lecturers	43	9.1	43	9.1	89	18.7	157	33.1	143	30.1	475	100
50	Unruly behaviours are maintained based on situation/circumstance against the circumstance it happened	Management Staff	03	12.0	02	8.0	05	20.0	10	40.0	05	20.0	25	100
		Lecturers	46	9.7	42	8.8	64	13.5	156	32.8	167	35.2	475	100
51	The University rewards staffs who excel in good disciplinary conduct based on their existing records.	Management Staff	08	32.0	08	32.0	04	16.0	05	20.0	00	00	25	100
		Lecturers	174	36.6	123	25.9	43	9.1	64	13.5	71	14.9	475	100
52	There exist committees to select and award staff who are disciplined in the University.	Management Staff	06	24.0	09	36.0	03	12.0	05	20.0	02	8.0	25	100
		Lecturers	155	32.6	127	26.7	40	8.4	68	14.3	85	17.9	475	100
53	Merit and award enhance discipline among staff in the University.	Management Staff	08	32.0	09	36.0	01	4.2	04	16.0	03	12.0	25	100
		Lecturers	159	33.5	163	34.2	53	11.2	55	11.6	45	9.5	475	100
54	The university uses discipline behaviours and staff knowledge of rules and regulations for special promotion.	Management Staff	01	4.0	01	4.0	05	20.0	10	40.0	08	32.0	25	100
		Lecturers	49	10.3	30	6.3	71	14.9	146	30.7	179	37.7	475	100
55	Students' graduation is based on character assessment from the existing records.	Management Staff	02	8.0	05	20.0	05	20.0	09	36.0	04	16.0	25	100
		Lecturers	51	10.7	38	8.0	65	13.7	146	30.7	175	13.703	475	100
56	The University authority does not allow influence peddling to deter it from disciplining staff or students whose records are bad.	Management Staff	03	12.0	04	16.0	06	24.0	06	24.0	06	24.0	25	100
		Lecturers	81	17.1	89	18.7	72	15.2	120	25.3	113	23.8	475	100

Table 4.10 indicated responses and analysis of the opinions collected in the questionnaire from item 47-56. The analysis was based on the application of after action review strategy on maintenance of discipline in the management of universities in North –West, Nigeria. Item 47 attempted to find out whether staff promotions in the university are based on past disciplinary records. The respondent's opinions showed disagreement with the practice of this item statement. These disagreements were 72 percent management staff and 70.8 percent lecturers. This indicates that most punishments were based on current offence committed by a staff. But the approach ought to be through review of the past happenings. This was to do away with mistakes and also by giving the staff benefits of doubt in any offence committed. The researcher felt that this approach would help both the university management and the staff. Item 48 seeks the opinion of respondents on whether staff promotion assessment is on account of previous behvaiours, on this item statement there was no consensus of opinion between the respondents. Management staff agreed with 44 percent, while lecturers disagreed with 63 percent. The difference may be for variation in duties and functions between the respondents. For a better well behaved organization, there was the need to include past records of behavior as a criterion for promotions. Behavior should include relationship with other colleagues, senior officers and also behaviours in terms of hard work/patience. These were variables which should be part of assessment tool for staff promotions especially in the university system where morality ought to exist.

Item 49 was on whether the universities uses staff discipline measures based on the previous experience. The respondents show disagreement with the item statement. For example management staff disagreed with 68 percent and lecturers with 63.2 percent. The researcher was of the view that for a balanced judgment against offending staff, the need for the use of past

events should put in to consideration. Thus, past events should be reflected in determining the kind of punishment to be administered to the offending staff. This could justify the punishment for future corrective measures. Item 50 seeks to verify whether unruly behaviors are maintained based on the situation/circumstance against which it happened. The respondents disagreed with the item statement in total. The disagreements were 60 percent management staff and 68 percent lecturers. This implies that if an error was committed the process and cause of it is not considered. Humanly speaking, process and cause of any offence ought to be investigated. This will give a clear picture of preceding events that result to misbehavior and thus, judgment should be made bearing in mind those circumstances. The researcher felt that university management should treat workers as human beings, so as to tap maximum energy from them.

Item 51 was on university rewards staff who excel in good disciplinary conduct based on their existing records. The responses showed agreement with the item statement. The agreements were 64 percent management staff and 62.5 percent lecturers. This was a good development and need to be continued. The approach could serve as a challenge and guide to other staff to wake up and work harder. The researcher was of the view that reward for outstanding staff should done during convocation ceremonies. For let the world not only the university alone commend the good work their staffs.

Item 52 attempts to solicit the opinion of respondents on there exists committees to select and reward staff who are disciplined in the university. The respondents indicate acceptance to the item statement. The agreement percentages were 60 percent management staff and 59.3 lecturers. This opinion shows agreement with item 51 above. However, the committees should be objective and vigilant, thus giving the deserving staff commensurate reward and recognition. This no doubt would motivate staff to work hard in adding value to the university program and activities.

Item 53 seeks the opinion of respondents on merit and award enhances discipline among staff in the university. The responses were 68 percent management staff agreed and 67.7 lecturers also agreed. This indicates that additional effort was needed by university management on staff effort recognition. It is generally believed that motivation increase productivity. The researcher was of the opinion that as social change exists, so also motivation needs constantly changes. Thus, university management ought to keep to time change.

Item 54 asks the opinion of respondents on whether the university use discipline behaviours and staff knowledge of rules and regulations for special promotion. The responses indicated rejection of the item statement. The disagreements were 72 percent management staff and 68.4 percent lecturers. However, the researcher believed that the use of knowledge and rules on duty becomes keys to discipline practices. Hence discipline guides an individual to do the right thing even when not watched. Therefore, university management at all levels should encourage and recognize discipline behaviours among workers. Item 55 sought the opinions of respondents on students graduation is based on character assessment from the existing records. The respondent's opinions showed disagreement with the item statement. Management staff disagreed with 52 percent and lecturers disagreed with 49.1 percent. The researcher was of the opinion that substantial segment for students' graduation should include good character. This could be a solution to the degenerated character development among Nigerians.

Item 56 solicited the opinions of respondents on whether the university authority does not allow influence peddling to deter it from discipline staff or students whose records are bad. The responses show disagreement with the statement but with low difference. Management staff disagreed with 48 percent and lecturers disagreed with 49.1 percent. This result indicates that the university management allows law to take it cause in the event of indiscipline behaviours. This

should be encouraged, because behavioural change can only be effective with discipline. Also the disciplinary activities should have no bound, thus, any person found wanting should be disciplined according to the law irrespective of any affiliation.

4.4 Hypotheses Testing

Five hypotheses were formulated and tested in this research. These hypotheses were formulated in null forms. The hypotheses are; there is no significant difference in the opinions of university management and lecturers on the application of brainstorming strategy on decision making in universities in North–West Geo-Political Zone, Nigeria, there is no significant difference in the opinions of university management and lecturers on the application of collaborative physical workspace strategy on planning in universities in North–West Geo-Political Zone, Nigeria, there is no significant difference in the opinions of university management and lecturers on the application of knowledge cluster strategy on communication in universities in North–West Geo-Political Zone, Nigeria. Other hypotheses include; there is no significant difference in the opinions of university management and lecturers on the application of after action review strategy on supervision in universities in North–West Geo-Political Zone, Nigeria, and there is no significant difference in the opinion of university management and lecturers on the application after action review strategy on maintenance of discipline in universities in North–West Geo-Political Zone, Nigeria.

Mann–Whitney U test method of statistical analysis was used to test all the stated hypotheses. The level of significance used was 0.05, hence hypothesis is rejected when P value is greater than 0.05 and retained when P value is less than 0.05 level of significance**.**

4.4.1: Hypothesis I

Hypothesis I states that there is no significant difference in the opinion of university management and lecturers on the application of brainstorming strategy on decision making process in universities in North –West Geo-Political Zone, Nigeria. Details of data collected were presented in table 4.1.1.

Table 4.11: Mann-Whitney U Test Summaries on the Opinions of Management Staff and Lecturers on the Application of Brainstorming Strategy on Decision-Making in Universities in North-West Geo-Political Zone, Nigeria

Variables	**N**	**Mean Rank**	**Mann-Whitney U-Test**	**Prob.**	**Decision**
Management Staff	25	252.58	4949.5	0.159	N.S
Lecturers	475	210.90			
Total	**500**	**463.48**			

P>0.05

Table 4.11 indicates the P value of the Mann Whitney (P. 0.159) is greater than 0.05 at 5 percent level of significance. Thus, the null hypothesis which says there is no significant difference in the opinion of management staff and lecturers on the application of brainstorming strategy in universities in North–West Geo-Political Zone, Nigeria in hereby accepted. The acceptance of the hypothesis could be attributed to a total non application of this strategy been new approach in the management circle. Therefore, it is imperative for education managers to adopt new management strategies with the view to improving management practices and becoming part of the global practices.

4.4.2: Hypothesis II

Hypothesis II states that there is no significant difference in the opinions of management staff and lecturers on the application of collaborative physical workspace strategy on planning in

universities in North–West Geo-Political Zone, Nigeria. Data used in respect of this opinion were items 17-26 in the questionnaire. Mann-Whitney U test statistical method was used to analyze the data collected. Table 4.12 captures the details of the analysis.

Table 4.12: Mann-Whitney U Test Summaries on the Opinions of Management Staff and Lecturers on the Application of Collaborative Physical Workspace Strategy on planning in Universities in North-West Geo-Political Zone, Nigeria

Variables	**N**	**Mean Rank**	**Mann-Whitney U-Test**	**Prob.**	**Decision**
Management Staff	25	221.54	5213.5	.302	N.S
Lecturers	475	252. 02			
Total	**500**	**473.56**			

P>0.05

Table 4.12 show that P value of the Mann–Whitney U test, (P. 0.302) is greater than 0.05 at 5 percent level of significance. This indicates that the null hypothesis which states that there is no significant difference in the opinion of management staff and lecturers on the application of collaborative physical workspace strategy on planning in universities in North–West Geo-Political Zone, Nigeria is hereby accepted. The acceptance of the hypothesis could be related to the nature of buildings and spaces in the planning halls of the universities. Therefore, for an effective use of this strategy, planning ought to begin at the initial stage of building planning meeting halls.

4.4.3: Hypothesis III

Hypothesis III states that there is no significant difference is the opinion of university management and lecturers on the application of knowledge cluster strategy on communication in universities in North-West Geo-Political Zone, Nigeria. Data collected in this section were in items 27-36 in the questionnaire. Details of Mann-Whitney analysis were captured in table 4.13.

Table 4.13: Mann-Whitney U Test Summaries on the Opinions of Management Staff and Lecturers on the Application of Knowledge Cluster Strategy on Communication in Universities in North-West Geo-Political Zone, Nigeria

Variables	**N**	**Mean Rank**	**Mann-Whitney U-Test**	**Prob.**	**Decision**
Management Staff	25	293.80	4855.5	.123	N.S
Lecturers	475	250.35			
Total	**500**	**544.15**			

P>0.05

Table 4.13 shows that P value of Mann-Whitney U test, (P 0.123) is greater than 0.05 at 5 percent significant level. This implies that the null hypothesis which states that there is no significant difference in the opinion of management staff and lecturers on the application of knowledge cluster strategy on communication in universities in North–West Geo-Political Zone, Nigeria is hereby retrained. The acceptance of the hypothesis could be attributed to the strategy of knowledge cluster on communication been a new approach in the world. Thus, its practice has not yet been used especially in the public universities in Nigeria. However, the practice has a lot of advantages some of which are reduce time and energy wastages and also reduce human error related to message delivery.

4.4.4 Hypothesis IV

Hypothesis IV states that there is no significant difference in the opinion of university management and lecturers on the application of after action review strategy on supervision in universities in North –West Geo-Political Zone, Nigeria. Table 4.14 contains the details of Mann-Whitney analysis.

Table 4.14: Mann-Whitney U Test Summaries on the Opinions of Management Staff and Lecturers on the Application of After Action Review Strategy on Supervision in Universities in North-West Geo-Political Zone, Nigeria

Variables	**N**	**Mean Rank**	**Mann-Whitney U-Test**	**Prob.**	**Decision**
Management Staff	25	253.42	5864.5	.917	N.S
Lecturers	475	250.35			
Total	**500**	**503.77**			

P>0.05

Table 4.14 indicates that P value of Mann-Whitney U test (P 0.917) is greater than 0.05 at 5 percent significant level. This means that the null hypothesis which states that there is no significant difference in the opinions of management staff and lecturers on the application of after action review strategy on supervision in universities in North–West Geo-Political Zone, Nigeria is hereby retained. In the opinion of the researcher, the application of after action review strategy could assist in supervision process. Improvement in supervision implies increase in staff output and also a better understanding of staff situation by managers of organizations.

4.4.5: Hypothesis V

Hypothesis V states that there is no significant difference in the opinion of management staff and lecturers on the application of after action review strategy on maintenance of discipline in universities in the North –West Geo-Political Zone, Nigeria. Data used in this section were items 47 -56 in the questionnaire details of the analysis were contained in table 4.15.

Table 4.15: Mann-Whitney U Test Summaries on the Opinions of Management Staff and Lecturers on the Application of After Action Review Strategy on Maintenance of Discipline in Universities in North-West Geo-Political Zone, Nigeria

Variables	**N**	**Mean Rank**	**Mann-Whitney U-Test**	**Prob.**	**Decision**
Management Staff	25	233.20	5505.0	.538	N.S
Lecturers	475	251.41			
Total	**500**	**484.61**			

P>0.05

Table 4.15 shows that P value of the Mann-Whitney test (P 0.538) is greater than 0.05 percent significant level. Hence, the null hypothesis which says there is no significant difference in the opinion management staff and lecturers on the application of after action review strategy on maintenance of discipline in universities in North –West Geo-Political Zone, Nigeria is hereby accepted. Discipline in the view of the researcher need a very good concern by education Managers. Most of the respondents agreed with these items in respect of discipline. University mangers need to keep it up and add more value it. This could be the reason behind the acceptance of the hypothesis. Table 4.16 shows the summary of Man-Whitney tested hypotheses.

Table 4.16: Summary of Tested Hypotheses

S/N	Hypothesis	Statistical Method	Significant Level	Result	Restated Hypothesis
1	There is no significant difference in the opinions of management staff and lecturers on the application of brainstorming strategy on decision making in universities in North –West Geo-Political Zone, Nigeria.	Mann-Whitney U Test	0.05	Retained	There is no significant difference in the opinions of management staff and lecturers on the application of brain storming strategy on decision making in universities in North–West Geo-Political Zone,, Nigeria.
2	There is no significant difference in the opinions of management staff and lecturers on the application of collaborative physical workspace strategy on planning in universities in North–West Geo-Political Zone,, Nigeria.	Mann-Whitney U Test	0.05	Retained	There is no significant difference in the opinions of management staff and lecturers on the application of collaborative physical workspace strategy on planning in universities in North–West Geo-Political Zone,, Nigeria.
3	There is no significant difference is the opinions of management staff and lecturers on the application of knowledge cluster strategy on communication in universities in North-West Geo-Political Zone,, Nigeria.	Mann-Whitney U Test	0.05	Retained	There is no significant difference is the opinion of management staff and lecturers on the application of knowledge cluster strategy on communication in universities in North-West Geo-Political Zone,, Nigeria.
4	There is no significant difference in the opinions of management staff and lecturers on the application of after action review strategy on supervision in universities in North –West Geo-Political Zone,, Nigeria	Mann-Whitney U Test	0.05	Retained	There is no significant difference in the opinions of management staff and lecturers on the application of after action review strategy on supervision in universities in North –West Geo-Political Zone,, Nigeria
5	There is no significant difference in the opinions of management staff and lecturers on the application of after action review strategy on maintenance of discipline in universities in the North –West Geo-Political Zone, Nigeria.	Mann-Whitney U Test	0.05	Retained	There is no significant difference in the opinions of management staff and lecturers on the application of after action review strategy on maintenance of discipline in universities in North –West Geo-Political Zone,, Nigeria.

4.5: Summary of Major Findings:

The following summaries are made based on the analysis of the respondents' opinions. Thus, the summary of the research findings are:

1. There was no application of brainstorming strategy on decision making in universities in North-West Geo-Political Zone Nigeria.
2. There was no application of collaborative physical workspace strategy on planning in universities North-West Geo-Political Zone, Nigeria.
3. There was effective application of knowledge cluster strategy on communication in universities North-West Geo-Political Zone, Nigeria.
4. There was no application of after action review strategy on supervision in universities North-West Geo-Political Zone, Nigeria.
5. There was no application of after action review strategy on maintenance of discipline in universities North-West Geo-Political Zone, Nigeria.
6. There was no difference in the opinion of respondents of both Federal and states Universities on the application of all the tested knowledge management strategies.

4.6: Discussions of the Findings

Based on the collected and analyzed data derived from research questions and hypotheses the discussions of major findings are hereby represented. Discussions are based on the objectives of the study as captured in the research question.

4.6.1: Discussion of Findings on the Application of Brainstorming Strategy on Decision Making in Universities in North-West Geo-Political Zone, Nigeria

Research question one sought the opinion of respondents on whether there was any difference of opinion between the respondents on the application of brainstorming strategy on

decision making in the university. Answer to this research question shows no difference, that there was no application of this strategy in the management of the universities. This no application was in high percentage as table 4.6 shows majority of the responses were on the negative side. This rejection was unanimous between the management staff and lecturers. This uniformity could be attributed to a general non application of this strategy. In other words, most decision-making processes were done without the use of vote through writing, most debate were done on issues that have clear rule among other things. The non application of this strategy could also be attributed to inadequate facilities and knowledge of the practice of the approach.

This could be due to the newness of the strategy in Nigeria and public sector in particular. This findings collaborate with that of Nwala, et al (2011), when they found that public and private school administrators in River State were aware of KM concept to a low extend. They added that the practice of KM concept was very low. The reason for the low practice could be associated with newness and inadequate machineries of the KM concepts in management practices especially in school system and public sector. However, these practices could be found in high percentage in the private sector, like Banks and industries.

Thus, the result indicates contradiction of system theory which advocates existence of independents and inter-dependent systems working together to achieve goals. System theory if used properly especially in decision making process will enable individuals work freely, and collectivity with the view to arriving at a dependable decision. In addition, members of the meeting would be given the chance and encouragement to think divergently on issues of decision at stake.

The practice of this strategy could be a good approach in dealing with godfatherism syndrome and subservience among management staff. It is worth nothing that good decisions are but beggining of problem solving in organizations, thus wrong decisions only compound problems with wastages in time, energy and funds. It is in the belief of the researcher that the use of dynamic modern approach like this in decision making could serve as a step forward in achieving university goals in Nigeria. Figure 5.1 was a model on the use brainstorming strategy on decision making process. The process has seven steps which include: existence of discontentment, problem identification through brainstorming, analysis causes(s) of the problem through brainstorming, identify alternative solution(s) to the problem. Others in the process include selection of the most appropriate solution through brainstorming, apply the identified solution and evaluate the programme at the end.

Decisions are vital schedules of management in organizations and thus, needs good attention. This could be why Jumare (2012) cautioned school authorities to consult in decision making process. He added that stakeholders have right to be consulted and that good procedure in decision making results to team work and unity among not only management staff but all organizational staff in general.

4.6.2: Discussions of Findings on the Application of Collaborative Physical Workspace Strategy on Planning in Universities in North-West Geo-Political Zone Nigeria

Research question two was on whether there is different in the opinion of respondents on the application of collaboration physical workspace strategy on planning in the universities.The responses indicate non application of the strategy in the university, thus there was no application of the majority of the item statements raised in the questionnaire. That there was no use of syndicate groups during planning meeting, there was no use of power point presentation during

planning meetings and there were no available computers for planning meetings among other things. This non availability of facilities could be attributed to inadequate funds in the universities. This non application could also be related to inadequate experts in planning activities of the universities. In fact most of the planning units of the universities were headed by non trained educational planners. This could be part of the assessment used in rating Nigerian universities low. This strategy could relatively reduce mis-march in university program. Thus, reduce wastages in resources and energy. Martens (2008) in a research found that physical workspace has the advantage to create visual stimulation and diversity of vision among workers. This implies that workspace could serve as a mechanism for increase in staff output. The practice could be through office organization, facilities and program.

This finding agree with Jaiveoba and Alanda (2005) whom found that facilities which are material resources facilitate effective teaching and learning are grossly inadequate in schools, they added that this could be related to poor funding of tertiary institution and with an ever increasing demand for educational provision. Certainly, increase in population with decrease in facility provision result to unhealthy competition and disagreement. At the university level, graduate end up been half backed. This also could be attributed to the ranking of Nigerian university with very low standard among sisters globally.

In addition, a similar ascertain was made by Raymond (2005) that it has been noted, the manifest in poor quality graduate was as a result of lowering of academic standards, low morale of lecturers which pushed them to brain drain, long closure of universities and several other problems. This implies that fund inadequacies had cut a cross every comer of the university system. Related to the funding also was inadequate training, it could be deduced that non availability of these facilities are as a result of inadequate trained personal to operate/use the

facilities. To this Kaduhur, Dennis and Alhassan (2011) found that training maintained highly skilled employees with capabilities for better performance in every section of the economy. This by implication means non availability of trained personnel degenerate employee performance. In the university system planning without up-to-date knowledge of current planning activities and operational know-how of planning gadget results to the university been left behind in the global competitiveness.

The non application of collaborative physical workspace strategy could also be related to other factors such as poor management information system, inadequate of planning facilities, negative attitudes of Nigerian administrators, and inadequate information for planning (Mohammed, 2011). Dare (2006) adds that other setbacks for planning activities are political instability, poor monitoring and supervision, and poor strategy. These impediments could be characterized to the result which shows non application of planning strategy in the management of universities in the study area.

However, sharing of information knowledge and training could serve as a measure for working separately but together as system theory advocates. In this era of communication technology, system theory could be a means through which organization share information within the shortest possible time, communicate knowledge sharing through training for better results. The researcher among other recommendation for a better planning activities in the university suggests a model with steps for the application of collaborative physical workspace strategy on planning in universities with the view to placing Nigerian universities among the best in the world.

4.6.3: Discussions of Findings on the Application of Knowledge Cluster Strategy on Communication in Universities in North-West, Geo-Political Zone Nigeria.

The findings of research question three shows partial application/practices of knowledge cluster strategy on communication in the studied universities. Details could be seen in table 4.8. The findings which indicate that item statement such as training of staff on computer skills exist in the universities and most offices in the universities are networked with internet. While on the opposite the result indicates that communication is mostly not done through internet within the university and administrative communication are not coded for future use. This result indicates that to some extent the universities under studies were making efforts toward paperless communication process as the most organization do. But to what extend is this effort, the result indicates low. The implication of this is failure of the universities to have an average level in training of staff and students make the university low in producing quality graduate who can comfit with others within and outside Nigeria.

In fact, the little area of the application was not known as knowledge cluste in knowledge management by the staff in the university. This could be related to availability of some of the communication facilities in the universities. This also may be related to the effort of Nigerian Communications Commission (NCC) in equipping and networking most universities with internet. In fact an effort has been made for wireless network services for students to access information. It was argued that university of Ilorin was ranked best in Nigeria for its uniqueness in information and communication technology facility and usage. This could be what enabled the university to interact and share knowledge with sister universities within and outside Nigeria, thus, ranked first in Nigerian universities. Pradorn et al (2013) found that knowledge sharing (through communication) is the key success factor in the management of organizations. They

added that the use of cluster assist in harnessing tact and explicit knowledge among members of an organization.

Related to system theory, powerful nations of the world today became what they are after co-relating with big and smaller nations. In other words, Nigerian universities ought to relates and share information with others within and abroad so as to get more strength with wider coverage in knowledge. Thus, the use of open system generates/develops universities beyond local competition but to international knowledge -based university.

Meanwhile, availability of communication facilities develops organization, while on the opposite degenerates. Chika and Marchine (2011) found that inadequate training of staff on information and communication technology degenerate staff performance in terms of quality. This means that information and communication are vital factors for staff job performance. Thus, all staff activities are based on instructions and instructions are given through communication. Therefore communication is vital for goal achievement in organizations. Hadiza and Zarah (2011) argued that ICT in the 21st century in education are indispensable tools that for every individual to be relevant in the century must have this skill. They added that teachers at all levels should be made compulsory to learn ICT knowledge within specific period of time. This assertion advocates for the ICT knowledge, impliedly call for knowledge through which individuals in organization can be able to communicate and be communicated to through modern technology.

In addition to the findings of this research, other researches shows obstacles which hindered the use of communication technology to communicate in organizations, thus unless these obstacles are controlled or overcome, this utilization of the technology would continue to

be a mirage in Nigeria. Fatimah (2012) found among other challenges faced in ICT utilization as poor electricity (Supply), financial constraints, inadequate appropriate skills and cost. These are challenges which can be overcome with political will and determination by government and head of institutions. In a related analysis Joy and Shamija (2012) found that constraints for ICT include government inadequate determination to provide funds for the supply ICT facilities and at the end affect the quality of teaching and learning activities in the schools.

As away forward Joy et al (2012) opines that the use of ICT for communication in organization could have some of the following benefits: enhance and facilitates the collection, processing, storage, retrieval and transmission of information needed for the organization to achieve goals. The researcher by a way of recommendation developed a model on the application knowledge cluster on communication in the universities (See figure 5.3). The figure consists of six steps. In the belief of the researcher the figure could assist to more forward through the use of the model in communication.

4.6.4: Discussions of Findings on the Application of After Action Review Strategy on Supervision in Universities in North-West Geo-Political Zone, Nigeria

Findings in this section were on research question number four. The finding shows that there was no application of after action review strategy on supervision in the studied universities. This could be seen in table 4.9 where most of the item statements indicate strongly disagreed with only very few agreed with lower percentages. This non application of the strategy could be attributed to inadequate up-grade and revision of the long in use method of supervision. In other words, the use of traditional supervision approach has embedded supervision activity of the universities. In addition, it could also be related to inadequate training through workshops and conferences to management officers of the universities on modern supervision practices. It could

also be due to non proposed approach to the existing one, thus the old approach takes the day which certainly under develops / under utilize staff potentialities. Nwala et al (2011) found that the use of knowledge management practices (supervision) increase staff output. In the belief of the researcher the use of after action review strategy on supervision could improve work competence and dedication among staff.

Supervision as a process is expected to move all sections in the organization to work as planned. If each section is moved to work, then groups, sub-groups and a whole of the super system certainly will achieve general goal of the organization. In this situation system theory come in to play for the success of the organization. Unity in operation is paramount especially in this age of communication technology. On the other hand a problem from a segment of the organization becomes a problem to all. To this therefore, the need for a collective effort cannot be quantified.

To this end, the researcher concludes that supervision ought be done in the modern approach. Supervision process should change as the supervisee also changes. Otherwise the aim of supervision would be in vain. In agreement to this Jimoh (2008), Abubakar, (2008) and Inekwe (2008) whom found that close supervision keeps teachers on toes and make great impact on students' achievement. This is a clear indication that if workers are adequately supervised, their productivity increase. This finding is also in agreement with theory x which says some men only work under close supervision and with the fear of query, sanction and nonpayment of salaries. In other words they can only work under proper monitoring.

In the light of the above the researcher developed, a model titled application of after action review strategy on supervision in universities. The model has five steps with allocated

marks to each. The marks are expected to be put together at the end of an assessment period. The marks should serve as a guide for or against the promotion of a staff among other things. The researcher was of the view that this could help reduce unhealthy behaviors such as laziness and lack of commitment to work by staff. Thereby usher a new trend for a better performance in university management and activities.

4.6.5: Discussions of Findings on the Application of After Action Review Strategy on Maintenance of Discipline in Universities in North-West Geo-Political Zone, Nigeria

Findings in this section showed non application of after action review strategy on maintenance of discipline in universities, details could be seen in table 4.10. The non application of this strategy could be related to newness of the approach in the public sector and Nigerian Universities in particular. It could also be attributed to the traditional disciplinary measures being used for a long period of time. This indicates that most promotion processes do not include past disciplinary records. Thus, most assessments were based on feelings of the supervisors. Meanwhile the feelings could be bias due to some human weakness. Therefore, in this kind of situation a highly result oriented assessment could hardly be realized. Free book outline (nd) Were of the view that knowledge management promotes information reuse, increase experience and motivation for a better organizational goal productivity and intellectual capital. In relation to supervision, it instills hard work, respect for constituted authorities and dignity of labour among workers. In addition, discipline develops cooperation and team work in organizations.

Other hypothetical reasons for this non application could be inadequate professionalism in management practices by most education managers and to some degree inadequate monitoring of staff turnover in the universities (unlike the private sector where profit tend to be the target of the

owner of the company). These and many more reasons could be attributed to non application of this strategy in the universities.

However, it should be noted that man by nature is naturally lazy, he dislikes work, and until and unless he is pushed, he man may not do what is expected of him. This brings to relevance theory x into play. Discipline not only checks offenders but also serve as a lesson to others in organizations. Discipline brings about commitment, dedication, selfless service, unity and earns organization reputation which money could not get. Haruna (2011) while citing the Qur'an, Allah the most high said 'truly the best of men for you to employ is the best man who is strong and trust worthy' (Q28:26). This is a clear testimony on man been dependable and trust worthy. This behavior should cut across religion, tribe and geographical location. He added that the word trust worthiness implies fear of Allah, the moral obligation and commitment to societal and organizational goals.

However, for the above to be perfected, the organization must give commensurate commitment to the welfare of its staff, which will give the staff energy to discharge duties as defined in respect of the foregoing. Chapra (1976) in Haruna (2011) opines that principles of work in Islam include a clear definition of the requirement of the job so as to avoid any misunderstanding by the employee. In other words, all benefit and entitlement most be defined in clear terms. This is assumed to reduce unwanted behavior which leads to corrupt tendencies in organizations. By way of recommendations the researcher developed a model process for which staff could be assessed after action for promotions and other awards (see figure 5.5). The model has eight assessment items for which they are ranked from 0-5. Committing any of these acts deduce a point from the five scales. At the end of a period the points are totaled for decision. It

was in the belief of the researcher that this could assist in bringing sanity in the university management activities with the view to including discipline in staff behaviors.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

In the background to the study, statement of the problem, objectives of the study and research questions were presented. Other sub heads in the chapter were research hypotheses, basic assumptions, significance of the study and scope of the study. Background to the study captured issues such as knowledge management been a major tool most organization use for high productivity and staff turnover. It was asserted that organizational staff knowledge was the most valuable asset. Thus knowledge management was seen as the systematic management of knowledge process, gathering, creating, organizing, storing disseminating and application of knowledge. Higher education in Nigeria dates back to Yaba College in 1934, then university college, Ibadan in 1948. This was the result of Ashby Commission report in the 1940's.

The statement of the problem indicated challenges in the management of university education in areas such as inadequate modern communication strategy, obsolete decision making process, and inadequate facilities for a better planning. These resulted to low staff output, thereby Nigerian universities rated very low in the globe. Research objectives were on application of brainstorming strategy on decision making in universities in North -West Geo-Political Zone, Nigeria. Other four objectives were formulated related to knowledge management strategies and management concepts. Subsequently research questions and hypotheses were formulated according to the objectives. It was assumed that the research findings would help increase staff turnover and reduce management cost, hence reduce wastages in time and energy. The study was scoped to North-West Geo-Political universities. In the universities the respondents were management staff and lecturers of some selected faculties.

Reviewed literature materials were related to the variables identified for the study. ‘’System Theory’’ was chosen and related to the topic of study as the theoretical frame work. Concept of Knowledge Management in the literature indicates that knowledge is abstract in nature, but could be seen or assessed through action or technical show how in the field of work. Other aspects in the review were concept of Knowledge Management, Approaches to Knowledge Management Strategies for the implementation of Knowledge Management, and role / functions of KM in organizations. University education historically could be traced in two dimensions, the Eastern and Western dimensions (Qurdoba and Roman Catholicism). In Nigeria, higher education began in Yaba high school in 1932 later to University College Ibadan in 1948 while as at today there were about 37 Federal Universities in Nigeria.

Reviewed also were issues on administrative functions of university management, these include the visitor, council, senate, university management, congregation, deans, head of departments and academic staff. Other areas in the review were element of administration which includes decision-making planning, controlling, supervising, and communicating staffing and organizing, concepts, process and development were all discussed. The review shows that respecting this element of administration certainly, increases productivity and efficiency in organizations. The research attempted to relate the application of brainstorming, collaborative physical workspace, knowledge cluster, after action review on these elements of administration. This new hybrid of concept is expected to play a vital role in effective management functions especially in the university system and empirical studies that were related this study. The results showed that there was significant relationship between organizational performance and their knowledge which is the technical know and show how in organizations.

Research design, population, sample and sampling procedure and instrumentation attempted to highlight the research methodology. Other aspects were validation of the instrument, pilot test, reliability of the instrument, methods for data collection and analysis. The chosen research design was descriptive research design for its gives respondent's feelings, attitudes and opinions. The respondents' population was thirty management staff and one thousand and seventy lecturers from the six sampled universities. A self developed questionnaire was used to collect data from the respondents. The questionnaire has fifty six items. Five Likert scale opinion on sampling was also used to solicit respondents' opinions. The instrument was validated by research supervisors, professionals in education management and statistics.

The instrument was found reliable after pilot test. This implies that the instrument was valid to test accurately what it was meant to test. The instrument was distributed and retrieved through research assistants. Mann-Whitney U test was used to analyze the data collected. Mann-Whitney U test enables testing differences between independents groups and one variable. The hypotheses were tested at 0.05 significant levels.

Bio-data indicate personal information of the respondents. Lecturers had the largest respondents with 475, while management staff had 25. On gender the data indicates that both categories of the respondents, male had the highest respondents. Also under the bio-data federal university lecturers were the largest in the respondents of the research. In general Ahmadu Bello University Zaria had the highest frequency of respondents followed by Usmanu Danfodiyo University and Bayero University, Kano

In the area of analysis and discussion of data each objective with item statement (as contained in the questionnaire) was presented according to the order of arrangement in the

questionnaire. In each segment there was introduction of the item statement, followed by tables. Each table was titled and in each table there were columns on serial number, item statement, category of respondents and opinions of respondents. Under the respondent's opinion there was five Likert scaling which include strogly Agree (SA), Agree (AG), Undecided (UN), Strongly Disagree (SD), and Disagree (DA). There was also frequency and percentage under each of the five Likert scale. However, for convenience and easy understanding strongly agree and agree; strongly disagree and disagree were merged. Discussion of item-by-item was presented after each table. The researcher in some places gave an interpretive discussion on the result with the view to highlight reason(s) for the results.

Five hypotheses were tested using Mann-Whitney U test statistical method. The test was at 0.05 significant level. All the hypotheses were retained, meaning there was no significant difference in the opinions of respondents on the application of all the knowledge management strategies on the management of universities in North-West Geo-Political Zone Nigeria. The acceptance was attributed to lack of application of the strategies in a high percentage. It was also seen as KM strategies been a new approach especially in the public sector of the economy. This practice was contrary in the developed nations. There was table summary of the tested hypotheses. The table shows the following columns: hypothesis, statistical method, (used in testing the hypotheses), significant level, result (retained or rejected) and retested hypothesis.

In addition, discussion of major findings was presented in sections 4.6.1-4.6.5. Each item statement was presented and followed by discussion based on the researchers understanding. These interpretations were hypothetical through deductive analysis. The major findings indicated that there was no application of brainstorming strategy on decision making in universities in North-West Geo-Political Zone, Nigeria; there was no application of brainstorming strategy on

decision making in universities in North-West Geo-Political Zone, Nigeria; there was no application of collaborative physical workspace strategy on planning in universities in North-West Geo-Political Zone, Nigeria; there was partial application of knowledge management cluster strategy on communication in universities in North-West Geo-Political Zone, Nigeria; there was no application of after action review strategy on supervision in universities in North-West Geo-Political Zone, Nigeria; there was no application of after action review strategy on maintenance of discipline in universities in North-West Geo-Political Zone, Nigeria. These no applications were attributed to factors such as newness of the strategies in the public sector; the use of old approaches especially in supervision and discipline.

5.2 Conclusions

On the basis of the findings conclusions were stated as:

1. Based on the findings of this research, it was concluded that the application of knowledge management strategies in the management universities in North–West, Nigeria was insignificant. This could be attributed to newness of strategy in the management practice especially in Nigeria and inadequate funding of education and university system in particular. This non application could further be related to inadequate tools for the practices. For example inadequate facilities and equipment in planning halls; the use of computer soft and hardware in the management of university; the use of past records for promotion assessment; and the use of after action review strategy on discipline.
2. Inadequate planning facilities and professionals create set back in bringing to limelight relevant future forecast in university activities. Planning facilities and professionals ought to be marched for a positive change especially in meeting

global challenges/ change in the university management. It is worthy of note that combination of know ledged personals and working tools result to high goal attainment in organizations.

3. However, the application of these strategies certainly will assist in providing positive change in the management practices in the universities. In the area of decision making the strategy could ease decisions by way of reducing time and energy wastages; it could also improve in democratic decisions processes devoid of fear of intimidations. In the area of planning, collaborative physical workspace strategy was believed to improve planning activities in the universities. This is expected to bring about modern approaches to planning with the view to aligning with the global practice in a university.
4. In addition, provision of communication facilities in the university management could never be overemphazed. The use of internet in management communication is certainly opts, hence funds needs to be provided, otherwise university human energies could be in vain. This strategy would reduce time frame for decisions implementation and improves communication between the university and the community. Supervision and discipline through the use of after action review strategy is expected to change employee's behavior towards better commitments and performance to work. Therefore, results to good attitude to work, which needs no much monitoring.
5. The need for upgrade in assessment of discipline is required from tim-to-time. This need could be attributed to human dynamism especially with change in environment. It is a known fact that inadequate discipline cripples organizational

values and reputation. In the university, management ought to be given high priority for it gives knowledge a concrete foundation. Therefore, the need for after action review strategy on discipline is paramount. This strategy if practiced could solve problems of corruption, laziness, disunity and much other misbehavior that could become barriers to attainment of a disciplined organization.

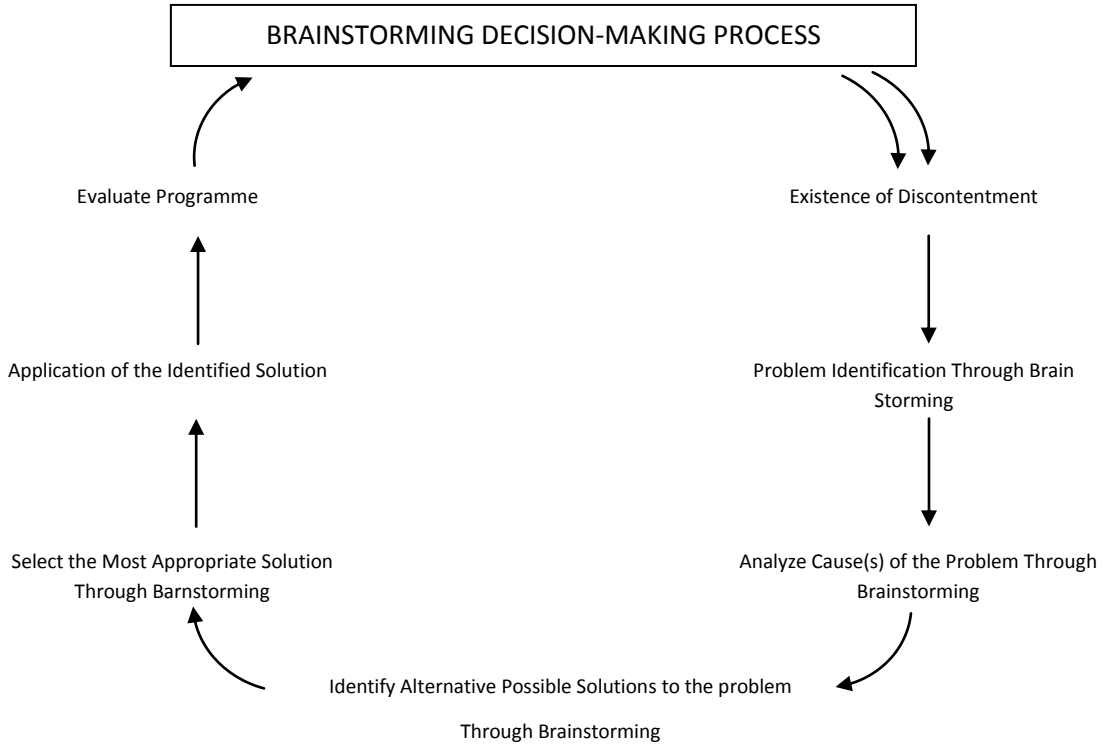
5.3 Recommendations

In the best of researcher's knowledge models in figure 5.1-5.5 could be used to improve university management practices through the use of the identified knowledge management strategies. The researcher developed these models through hybrid between element of management and selected KM strategies. The rational for developing the model was to strengthen relationship between the variables. This is expected to improve university management out-put and contribute to repositioning of university management activities in Nigeria. On the bases of the findings of this research, the following recommendations for a better improved university management are made:

I. In respect of the findings on the application of brainstorming strategy on decision making in universities. The researcher recommends the use of figure 5.1 for an improved decision making process in the university management. Decision-making as management function is vital and timely for the success of organization. Hence, figure 5.1 captures an eight step process on Brainstorming decision-making process. Brainstorming implies idea generation through discussion among people. Furthermore, the process encourages team work and participation among group members. Consequently, the process could be compatible via decision-making, thus enable democratic decision making process in organizations. It is worthy of note that brainstorming gives decision makers the opportunity to express views without fear of

intimidation or harassments. Its collect genuine ideas of group participant, hence lead to a better decision for a better system management. Figure 5.1 shows steps for the application of brainstorming decision-making process:

Fig. 5.1: Model on the Application of Brainstorming on Decision-Making in Universities in North-West Geo-Political Zone, Nigeria.



Source: Developed by the Researcher, (A.M. Jumare, 2014).

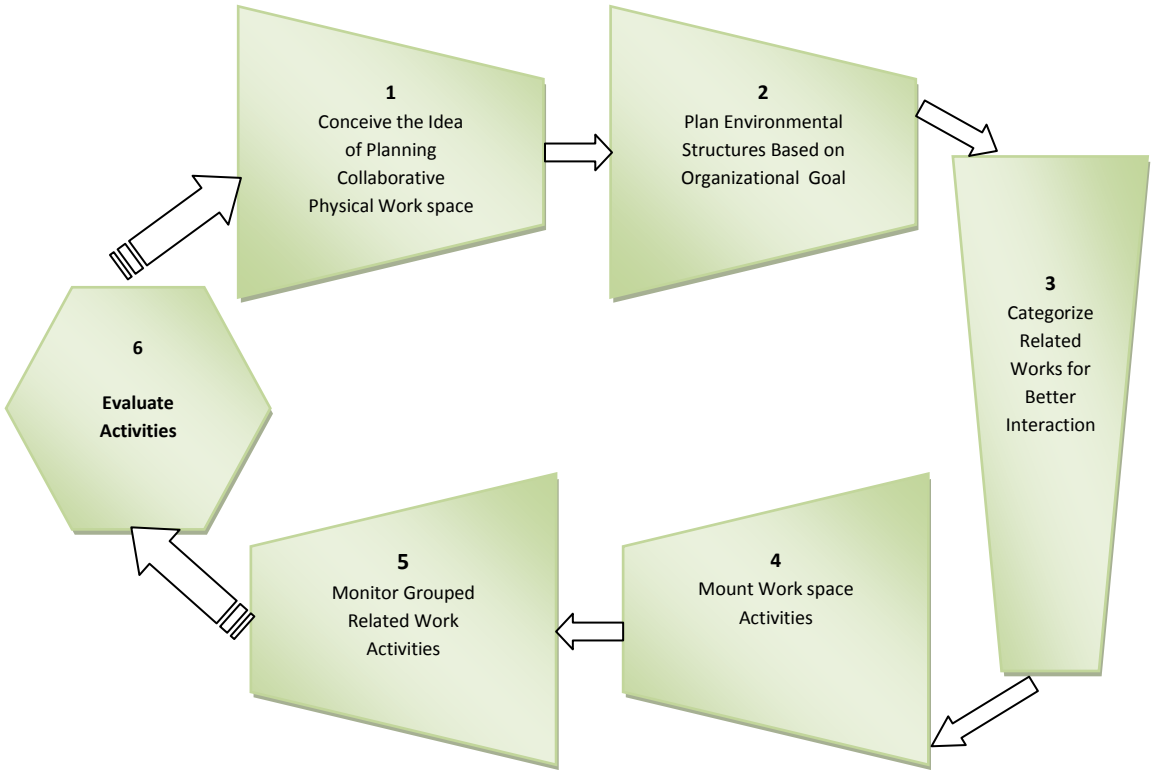
1. **Brainstorming Decision-Making Process:** This is the first step in the process, hence involves choosing to use the strategy. As the strategy is chosen, it is important to note that brainstorming could only be used in organizational issues that have no direct guiding laws, otherwise it may create confusion among group members.
2. **Existence of Discontentment:** This implies existence of a problem(s) in the system, thereby creating difficulties, set back and or slow work accomplishment. Once this exists, the need for problem identification becomes paramount.

3. **Problem Identification Through Brainstorming:** At this stage, decision makers are expected to meet with the view to identifying possible problem(s) bedeviling work process in the organization. Adopting brainstorming strategy implies making sure every committee member is aware of the topic of discussion i.e problem identification affecting high out-put among workers. The meeting members are given papers and pens to write their ideas on the topic of discussion. All the ideas are collected by the meeting chairman secretly.
4. **Analyze Cause(s) of the Problem Through Brainstorming:** The collected and listed problems by members are at this stage read out, members adopt a scale to ranking the collected ideas. This could also be in a form brainstorming through open discussion. These problems may be many, if so, step five comes in.
5. **Identify Alternative Possible Solutions to the Problem Through Brainstorming:** At this level, having understood the problem(s) in step four, then, meeting members are also asked to list possible solution(s) against the identified problem(s) as done in step three above.
6. **Select the Most Appropriate Solution Through Brainstorming:** Selection of the most appropriate solution using brainstorming could be through the use of idea selection criteria, in other words, using analysis in the evaluation of each solution to weigh the good and bad side, or use the voting approach. In brainstorming, voting is used on paper, each idea is read, members show agreement or disagreement using dots sign symbol. These are collected and counted at the end for decision making.
7. **Application of Identified Solution (Decision):** At this stage, a decision is made and hence become a policy. The policy in communicated to all concern for further action.

8. **Evaluate Program:** After a period of time the program in action is been evaluated. The aim of the evaluation is to ascertain compliance to the objectives of the program or otherwise. In addition, evaluation could be within (in the process) or at the end of program. Within the program helps to detect deviations and at the end measure achievement as the ease may be.

II. In respect of the findings on the application of collaborative physical workspace strategy on planning in universities indicates non application. The researcher recommend that: educational planners ought to be involved in headship of planning units of the universities and in the planning process of all university activities, university authorities should endevour to provide up-to-date planning equipment (such include hard and soft ware computers and the environment for planning). Also figure 5.2 could also assist in the provision and practice of collaborative physical workspace strategy on planning in universities.

Fig. 5.2: Model on the Application of Collaborative Physical Workspace Strategy on Planning in Universities in North-West Geo-Political Zone, Nigeria



Source: Developed by the Researcher, (A.M. Jumare, 2014).

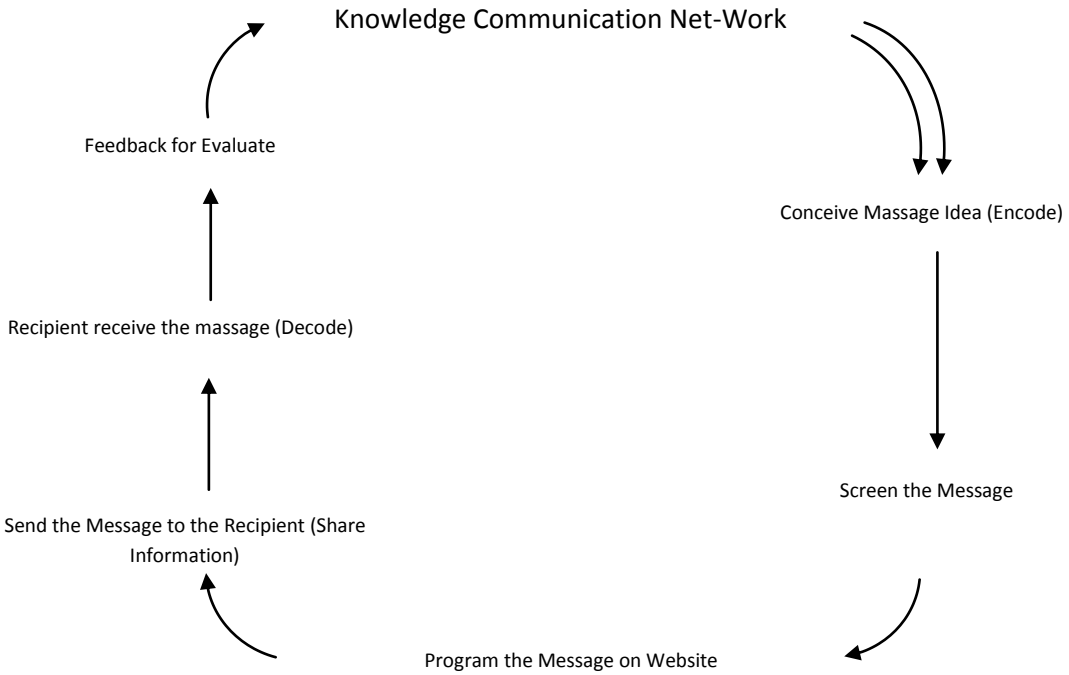
Figure 5.2 shows collaborative physical workspace planning process in a six step levels. The aim of the process is to enable university management mostly especially to create environment at work places which enable worker's motivation and share work skills for better performance. It is believed that the environment stimulates work performance among workers. In fact hygiene theory by Binerd Simon advocates for environmental friendliness and clearness as requisite for high job out-put. It is therefore, paramount that education planners and town planners put heads while constructing schools for a better teaching and learning environment. This collaborative physical workspace planning process unveils stages to which a plan could be followed in executing the process:

1. **Conceive the Idea of Planning Collaborative Physical Work Place:** At the beginning, the planners conceive the need for the creation of the relevant environment; this is usually derived from the mission and vision of the organization. Planning the process must be for solving/ensuring the way for goal attainment in the organization. This planning activity is usually done by top managers in any organization. This level is critical; hence it gives way to all the others activities within the process.
2. **Plan Environmental Structures Based on Organizational Goals:** This entails structural master plan, it should be a collaborative activity among professional viz educational planners, environmental planners, structural engineers and host of others to design the structures that enable workers to work in team and share skills among themselves. In addition, all structures must be for goal attainment of the organization.
3. C**ategorize Related Works for Better Interaction:** At this level of planning related works are put together according to the structural plan. This is expected to create a better interaction among workers. It could also be in a form of departmental categorization, since departments pursue similar goals in the university system.
4. **Mount Workplace Activities:** At this level structures and workers categorization are put in place, the next is to kick start the activity of collaborative physical workplace process. Workers are put in an open space office with relevant posters, tea corner and space for free movement of workers, thus enabling especially management staffs interact during planning process.
5. **Monitor Grouped Related Works/Activities:** At this level, planners are expected to monitor the group related activities. The aim is to check deviation and make correction where necessary. In other words, are groups achieving goals, if yes to what extent?

6. **Evaluate Activities:** At the end, grand assessment could be made for successes or otherwise for future corrections. The evaluation activity enables planners to give results of the entire process.

III. In relation to the findings on the partial application of knowledge cluster strategy on communication in universities in North-West Geo-Political Zone. The researcher recommends that communication gadget needs additional provision on those already provided. Also there is the need for additional training and re-training of staff on ICT and other packages on software communications. Thus, figure 5.3 was recommended with the view to improving the application of knowledge cluster strategy on communications.

Fig. 5.3: Model on the Application of Knowledge Cluster Strategy on Communication in Universities in North-West Geo-Political Zone, Nigeria



Source: Developed by the Researcher. , (A.M. Jumare, 2014).

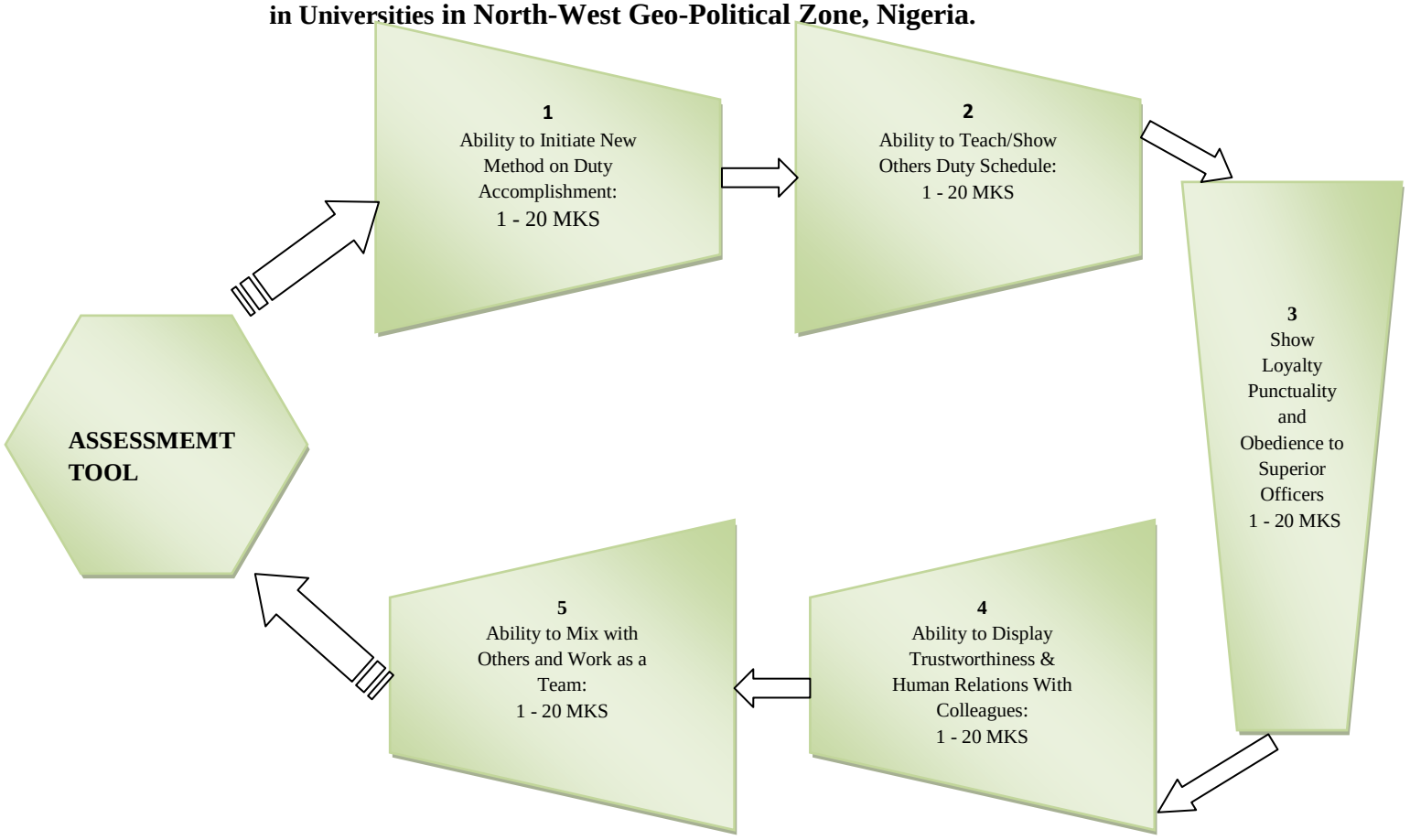
Figure 5.3 is on knowledge communication network process which could be explained as follows:

1. **Knowledge Communication Net-Work:** This is the name and title of the process. The process aim at creating a good channel in communication process, with the view to increasing and developing knowledge sharing through communication among staff in organization, especially in the universities. The importance of communication can hardly be quantified, thus, communication create wealth and prestige for organization. Knowledge communication net work present a process, through which university members could be net worked on computers and hand set phones. Thereby support information sharing on the aspects of work among both academic and non academic staff. For non academic information related to job description, meeting times/schedules, schedules/times for program, meeting minutes and host of others could be communicated to university committee members, departmental and faculty members and even to larger society depending on needs. More so, the same could be applicable to academic staff via sharing of research findings, meeting schedules and other related information as the case may be.
2. **Conceive Message Idea (Encode):** This implies the sender of the message having what to send at hand, thus the sender has defined/prepared the message. It is worthy of note that any message most be in agreement with the purpose /goal of the organization.
3. S**creen the Message:** The message needs to be thoroughly checked. This will help correct errors and ambiguity of content. Screening of message reduces waste of time, energy and wrong actions in organizations. A good way of message screening could be checking the message by two or more persons.

4. **Program the Message on Web Site:** At this level the screened message is programmed and hosted at the internet. The site ought to be for the organizational use only, thus should have security for the protection of distortion. The message could also be saved for future references in the organization.
5. **Send the Message to the Beneficiaries (Share information).** The next step is passing the message to the beneficiaries who are members to the organization. At this level information is shared, thus knowledge or vital messages passed.
6. **Recipient Receive the Message (Decode):** At this level of the process organizational members receive the message. The recipient could receive the message through computers or mobile handsets. It is at this level communication ends. However, one may enquire, has communication take place? Step seven gives the answer.
7. **Feedback for Evaluation:** At this stage the above question could be answered. Feed back for message could be response. Some responses could be through action by members of the organization or send back, acknowledgement for message received while some program in the internet shows delivery massage to show received by the encoder.

IV. In respect of the findings on non application of after action review strategy on supervision in universities. The researcher recommends among other things taking into consideration past staff activities as a measure for supervision and subsequently promotion. It is also recommended that activities preceding an action and historical records of a staff should be considered during supervision for any kind of promotion. In addition figure 5.4 is also recommended for the application of after action review strategy on supervision.

Figure 5.4: Model on the Application of After Action Review Strategy on Supervision in Universities in North-West Geo-Political Zone, Nigeria.



Source: Developed by the Researcher, (A.M. Jumare, 2014).

Figure 5.4 shows five (5) level scale for the assessment of a staff on duty in an organization. Each item is assessed with maximum of twenty (20) marks; the total marks will be one hundred. The items could be explained as follows:

1. **Ability to Initiate New Method(s) on Duty to Accomplish Task:** As an assessment tool in an organization each staff will be subjected to ability measure to initiate new method in achieving goals. In other words, he is expected to show and practice ways through which his duties could be accomplished without much stress and within the limited time possible. He is expected demonstrate several ways of performing duties through

effectiveness and efficiency. This quality earns a staff marks 1 – 20, in an annual assessment.

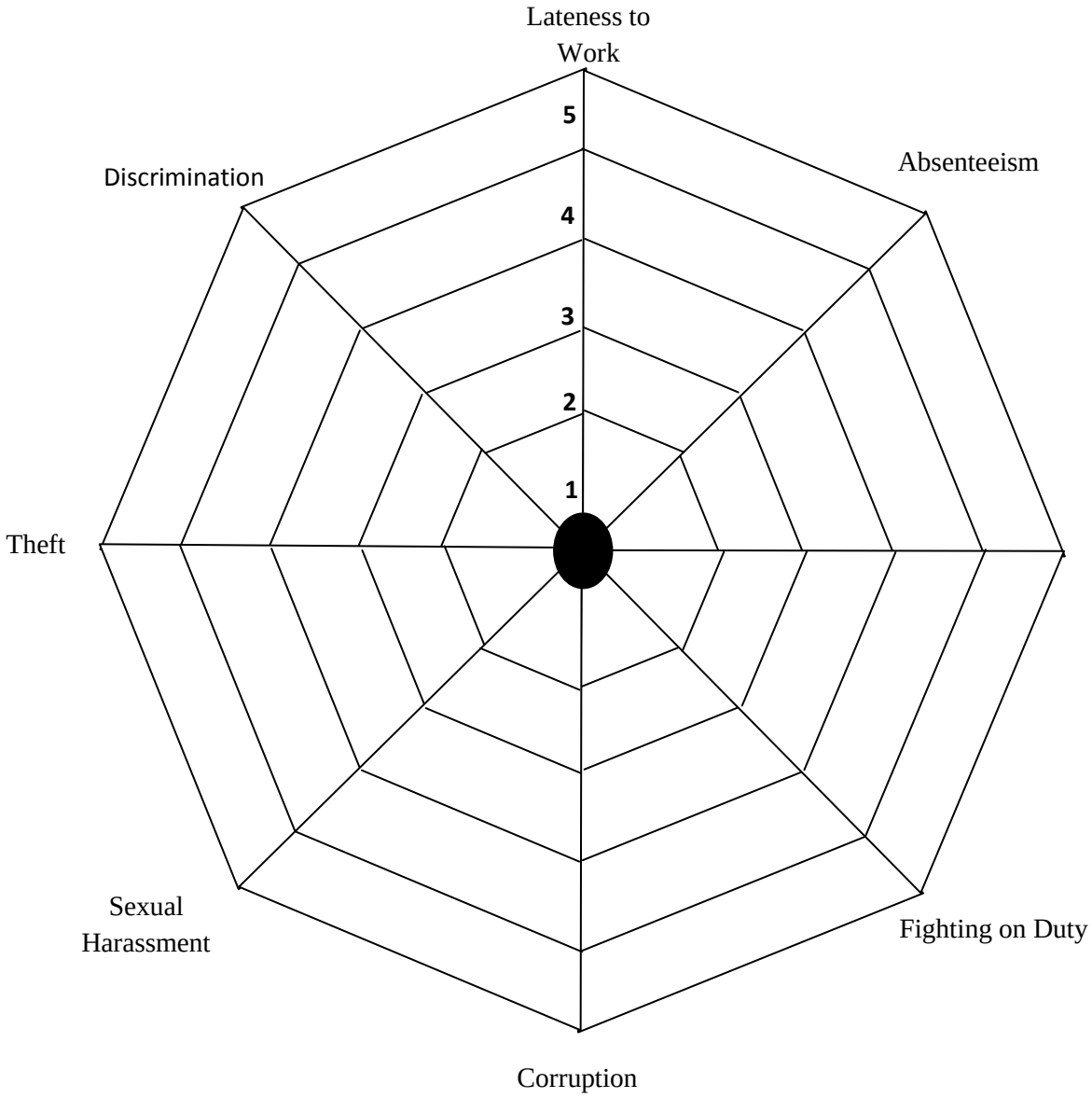
2. **Ability to Teach/Show Others Duty Schedules:** This denotes that a staff in an organization should be able to teach/show others his schedules. Thus, he should share knowledge and skills with co-workers, especially those with common schedules. This is important as it generates more knowledge, good relationship and increase output in organizations. A staff with this quality earns 1 – 20 marks maximum, in an annual assessment.
3. **Show Loyalty, Punctuality and Obedience to Superior Officers:** A staff in an organization is expected to be assessed on ability to respect senior officers and show willingness while receiving instructions. Also a staff should be at duty post at all times as stipulated by law. A staff should perform duties whether monitored or otherwise. This by extension implies a staff is a committed member of his organization. He sees the success of the organization as his. Equally, this quality earns a staff 1 – 20 marks, in an annual assessment.
4. **Ability to Display Trustworthiness and Good Human Relations with Colleagues:** Assessment **of** a staff could also include staff been found trustworthy during the period under review or assessment. A good staff ought to be found straight forward and always open especially on official matters, all that is found with him should be what they are at all times. He should also be able to avoid all things that generate disharmony and disagreement among colleagues. This quality earns a staff 1 – 20 marks, in an annual assessment.

5. **Ability to Mix and Work as a Team with Others:** Organization could assess staff on ability to relate with others in the organization, this could be on religion, tribe or race. This implies that, a staff has the organization's goal first above all other personal needs/selfishness. Also that a staff should be able to work with others as a team, which result to organizational goal attainment. This quality earns the staff 1 – 20 marks, in an annual assessment.

The total marks of the above five items are to one hundred marks. The researcher is of the view that organizations using this assessment tool could at their discretion decide on bench mark for pass, which could be reviewed from time– to –time. However, the researcher believe that, the use of figure 5.4 will assist in making concrete assessment on staff rather than mare assumption, empty of evidence, and full of selfish interest which result it to godfatherism in organizations.

V. In line with the finding of the application of after action review strategy on maintenance of discipline. The finding shows non application of this strategy. Thus, the researcher recommends that staff with exceptional commitment to work should be given convocational award with view to encouraging them to do more and for others to emulate. That promotions should include ability to invent new ways of accomplishing duties and also ability of staff to show to others knowledge for duty accomplishment. In addition, figure 5.5 is recommended for better maintenance of discipline in universities.

Fig. 5.5: Model on the Application of After Action Review Strategy on Maintenance of Discipline in the Management of Universities.



Source: Developed by the researcher (A.M. Jumare, 2014).

Figure 5.5 shows eight items on staff discipline behaviors, which was scaled from 0 – 5 levels. The following are explanation on the eight items on indiscipline behaviors of staff in organization.

1. **Lateness to Work:** Lateness to work implies staff coming and closing to work not as stipulated by law. Organization can only achieve goals when discipline guides its members. Staff through this approach is measured under lateness to work with scale 1 – 5 maximum. This measurement should spread within the promotion period under review on a staff. It is expected that the approach could check and bring about discipline among staff.
2. **Absenteeism to Work:** Absenteeism to work connotes staff not attending to work without reason or notice to his supervisor officer. This is a bad behavior which results to low output in organizations. To reduce this, machines are made available for staff to thumb prints nowadays. Thus, any staff found not attending to work is measured low as the figure 5.5 show the scales 1 – 5 maximum. This is assumed to push workers to work as theory X, Y, Z advocate. Any staff found guilty after being measured, ought not to be promoted or enjoy certain benefit among others things.
3. **Poor Performance:** Poor performance connotes a staff not been able to meet demands of his functions as specified by the condition of services or laws that establish the organization. In addition, poor performance could also imply low productive as against the agreed specification of functions. Any staff measured below expectation need to be pushed by a way of training, motivation and or assessment mechanism (the like of this). It is worthy of note that poor performance is an element of indiscipline behavior, a discipline staff task himself to perform better at work. The measurement scale is ranked 1 – 5 as figure 5.5 indicates.
4. **Fighting on Duty:** Fighting on duty shows inability of a staff to accommodate the behavior of others, which usually result to disagreement and physical convert. Fighting

depicts lack or inadequate discipline. Staff of organization can only achieve goals through unity and team work. Therefore, this aspect of staff ability to show self restrain ought to be considered during assessment of after action review. The scale is also ranked 1 – 5. The ranking is expected to be done by the immediate superior officer of the staff in question. It must also be on the bases of evidence not hear say of non established allegations.

5. **Corruption:** Corruption implies giving or talking any gratification with the expectation of doing legal or illegal act. As part of after action review on discipline scale, a staff ought to be assessed on corruption cases in the period under review during his promotion. The scale is ranked 1 – 5 maximum. A case may be used as one (1) as the case may be, and then decision, recommendations are made on disciplinary action.
6. **Sexual Harassment:** Sexual harassment may imply the use of force to have affair with opposite sex. This could be by a male or female staff. This act is against the law, and therefore, could be used to identify discipline and undisciplined staff in organization. A five (5) measurement scale could be used to assess staff discipline among other things for promotion or any motivational award. On the contrary staff found guilty should be demoted or have commensurate punishment.
7. **Theft:** Theft means stealing. This behavior set back organizational success, it create suspicion and disharmony among staff. Therefore, it will be good in taking drastic measures against this behavior. Thus, including theft as a measuring scale for discipline in organizations will go a long way in instilling good and moral behaviors among staff. This could be through inclusion into promotion assessment scale. Figure 5.5 shows 1 – 5 levels to which a staff could be assessed on theft cases.

8. **Discrimination:** Discrimination is the act of showing unlawful differences among equal individuals, it could be on color, tribe, religion, geo-political locations, sex, riches/poverty, state and or contrary. Discrimination creates disharmony and hatred among workers which affect performance. For the avoidance of disharmony hatred and low performance, there is the need therefore to check this behavior among staff in organizations. As a measure, staff, could be assessed on discrimination during promotion or award of benefit in organizations. Figure 5.5 could serve as a guide, where the scales are ranked 1 -5. However, it is at the discretion of the organization to define the ranks according to needs. In other words, what level is a pass mark and or fail?

It is worthy of note that other measuring variables could be added upon those in figure 5.3.5, depending on the needs of the organization. The primary aim of the measuring scales is to develop discipline among staff with the view to increasing output in organizations.

5.4 Suggestions for Further Studies

Based on the findings and conclusion of this research, the following recommendations for further research are made:

1. It is recommended that, a research could be conducted with any of the strategies used in this research but using a different research method like experimental research method. This is expected to further unveil solutions to management practices for an improved management in the universities in Nigeria.
2. It is recommended that, a research could be conducted on other area of knowledge management strategies such as taxonomy strategy and knowledge mapping strategy on

the management of universities in Nigeria. This is expected to further open doors for better and improved management approach in Nigerian universities.

3. It is recommended that a research could be conducted to assess availability of communication facilities related to knowledge cluster in Nigerian universities. The research could provide data for improved management practices in Nigerian universities.

References

Abubakar, B. (2008) *Teaching English Language in Primary Schools: For Teaching and Trainess.* Zaria Nasif Publishers.

Ackof, R. L. and Gharajedaghi, K. (1996). Reflection on Systems and their Models. *Systems Research and Behavioural Science,* 13(1): 13-22.

Aderonmu, W.O. (1985). *Introduction to the Administration of Schools in Nigeria.* Ibadan: Evans Brothers Ltd

Adesina, S. (1980). *Some Aspect of School Management.* Lagos. Educational Industries Nigeria Ltd.

Afolabi, A.S. (2001). *Essentials of Educational Management, Administration, Planning and Supervision*. Imo. Ave Maria Printers.

Ajayi, I.A. and Hassatrup, T.E. (2008). *Deregulation of University Education In Nigeria Implication For Quality Assurance*. htt/www/google.com Retrieved 2,April, 2010.

Akanbe, T. (1983). Examination Body Recognition and Inspection for Schools. *Sunday Herald*, July 24th , pp 10

Akuezuilo, E.O. (1993), Research Methodology and Statistics;

Alex, B. & David, B. (2007) Context: The Shared Knowledge Emgms. *The Journal of Information and Knowledge Management Systems*. Vol. 37, (1): pg 27 – 40.

Aliyu, S.M. (2008) Effective Inspection and Supervision: A Prerequisite for Qualitative Reform in Primary Education in Nigeria. *Zaria Educator. Journal of Association of Nigerian Educators 3 (1 &2).*

Allee, W. G. (1997) Proceeding of the 14th Annual CVC Seminar. *The Management of Nigerian Universities in the 1990s*. Benin. University of Benin Press.

Amupitan, J. (2000). *What is the Role of Dean Internally?* Paper presented in University of Jos. Jos. Plateau State Nigeria.

Anantatmula, V. and Kannuga, S. (2006). Structuring the Underlying Relations Among the Knowledge Management Outcomes. *Journal of Knowledge Management*. 10 (4): 25-42.

Anyanbele, S.C. (2004) Instructional Management in Higher Education: A Study of Leadership Approaches to Quality Improvement in University Management. Nigeria and Finish Cases. An Unpublished Ph.D Thesis submitted to the Department Of Education, University of Helsinki.

APO (2010) *Knowledge Management Tools and Techniques Manual*. Japan. Published by the Asia Productivity Organization.

Army Knowledge Management (AKM, 2008). *Army Knowledge Management Principles*. Retrieved on June, 20, 2003Available at: http://www.usasceicne.gov/pdf-does/AKMpricniepls 25.

ASUU, (2001). ASUU Strike: Review of Economy and Society. Vol. 1, No. 3.

Balckler, F. (1993). Editorial Introduction: Knowledge Workers and Contemporary Organizations. *Journal of management Sciences.* 30: 851-862.

Bell, D. (1973). *The Coming of Post Industrial Society*. New York. Basic Books Publishers.

Bell, D. (1999). The Axidage of Technology Forward 1999. *In the Coming of the Post-Industrial Society*. Bello, D. (Ed). New York. Basoc Books Press.

Best, J. W. (1981). *Research in Education.*.Second Edition. NewJessey. Prentice Hall Inc. Eagle Wood Cliffs.

Bhatt, G. (2001). Knowledge Management in Organizations: Examining the Interaction Between Technologies, Techniques and People. *Journal of Knowledge Management.* 5, (1): 68-75.

Blackler, F. and McDonald, S. (200). Power, Mastery and Organizational Learning.*Journal of Management Studies*. 37: 833-852.

Blatt, E.G. (2000). *Management Planning and Control*. New York. McGraw- Hill.

Boisot, M. (1995). *Information Space: A Framework for Learning in Organization.* London. Rutledge Publishers.

Borg, W. R. and Gall, M.G. (1989). *Educational Research: An Introduction*. Fifth Edition. New York. Longman Publishers.

Bose, R. (2004). Knowledge Management Metrics. Industrial Management and Dana System 104(6): 457-468.

Bountis, N. (2002). *World Congress of Intellectual Capital Reading.* Butetrworh Heinemann KMCI Press: Boston.

Bountis, N.; Hardie, T. and Serenko, A. (2007). Self-efficacy and Knowledge Management Course Weighing Selection: Can Students Optimize their Grades? *International Journal of Teacher and Case Studies* 1(3): 189-199.

Carter, N.G. (1955). *Dictionary of Education.* New York. McGraw Hill Book Company.

Charles, H.K. and Benjamin, B.T. (1965) *The Rationale Manger: A Systematic Approach to Problem Solving and Decision Making.* New York McGraw Hill Publishers Ltd.

Chika, J.A. I. and Marchie, N. (2011) Educational Inspectors and Educational Goal Achievement in Nigeria. *Journal of Educational Research and Development.* A Journal of the Faculty of Education, A B U, Zaria Vol. 6 No, 2, Pg 79 – 83.

Choo, C. V. and Bostin, N. (2002).*The Strategies Management of Intellectual Capital and Organizational Knowledge*. Oxford University Press. New York.

Ciabuschi, F. (2005). On IT System and Knowledge Sharing in MNCS: A Lesson from Siemens AG. *Knowledge Management Research and Practice*. 3(2): 87-96.

Cohen, D. (1998). Toward a Knowledge Context: Report on the First Annual University of California Berkeley Forum on Knowledge and the form California. *Management Review.* 40(3): 22-39.

Cole, G. A. (1993). *Management:Theory and Practice.* London. Dp Publishing Company.

Daniel, H. (2011) Dictionary of Management. Ogun. Published by Melmorse Books and Publishing.

Dare, M.O. (2006). *A Guide to Effective Management of Public Enterprise and Educational Institutions in Nigeria*. Kano. Published by Afomat des Printers.

Dare, M.O. (2009). *Theories and Concepts of Educational Administration, Planning and Supervision for Tertiary Institutions in Nigeria.* Kano. Printed by Afomat des Printers.

Davenport, T. H. (1998). *Working Knowledge: How Organizations Manage what they Know*. Boston. Harvard Business School Press.

Davenport, T. H. (2008). Introduction to Knowledge Management. Unc.educ.htpp://www.uneduc/~sunnyliu/in/s258/introducitontoknowledge management.html. Retrieved15January2010.

Davenport, T. H. and Prusak, L. (1998). *Working Knowledge.* Boston. Harvard Business School Press.

David, B. & Alex, B. (2008). *Engaging Tacit Knowledge in Support of Organizational Learning*. www.mountainquestatite.com. retrived25Juary,2013.

David, J. B. (1997). The Globalization and Virtualization of Knowledge. *Gyosei Journal,* 3: 23-34

De Gooiser, J. (2000). Designing a Knowledge Management Performance Framework. *Journal of Knowledge Management* 4 (3): 303-310.

Denga, D.I. and Ali, A. (1989). *An Introduction to Research Methods and Statistics in Education and Social Science, (2nd Edition).*Calabar. Rapid Educational Publications Ltd.

Dorsey, J.T. (1957). *A Communication Model of Administration, Administration of Science.* Englewood Cliff, New Jersey: Prentice Hall

Drucker, P. F. (1993). *Post-Capitalist Society.* New York. HerperBusienss.

Drucker, P. F. (1999). Knowledge-Worker Productivity: The Biggest Challenge. *California Management Review.* 41(2): 79-94.

Easterby-Smith, M. (2000).Organsational Learning: Database Past, Present and Future. *Journal of Management Studies*. 37: 783-796.

Edwards, J. S. (2003). Editorial Knowledge Management Research and Practice. *Journal of Management Studies* : 1(1), 1-8.

Eyibe, S.C. (2000). Discipline and the Difficult Employee. In Nnaka, C.V. (Ed) *Harmony in the Work Place Essays in Personnel Management.* Onitsha.Innoson Publication Ltd.

Ezewu, E.E. (1983). *Sociological and Philosophical Foundation of Education.* Ibadan. Heinemann Books.

Fafunwa, A.B. (1974). *Education in Africa*. Heinemann Press Ltd.

Fafunwa, B.A. (1999). Higher Education in Nigeria. *In Vanguard Publication*, 15 August, pg 15.

Farid, H. & Alif, S. (2008). Knowledge Management: Assessment of Stategies and Innovative Technologies. *Proceedings of the World Congress on Engineering and Computer Science. Pp 25-34*

Fatima, S. (2012) The Need for Information Communication Technology in the Law Library of Ahmadu Bello University, Zaria. *Journal of Educational Research and Development*. A Journal of the Faculty of Education, A.B.U. Zaria vol. 7, No. 3 Pg 199-204.

Fayol, H. (1949). *Administrative Industrielle et Generate In-Constance Stages General and Industries Management.* London. Sir Issac Pitman and Sons Publishers.

Federal Government of Nigeria (2004). *National Policy on Education (4th edition)*. FGN Document.

Federal Ministry of Education, (2003). The Role, Function and Responsibility of FME in Nigerian Education. The online official Portal of FME. Retrieved on 2, May, 2004

Ferguson, G. (1981). *Statistical Analysis in Psychology and Education 5th Edition.* New York, McGraw Hill Book Company.

Fernandez, I.; Gonzalez, A. and Sabherwal, R. (2004). *Knowledge Management: Challenges, Solution and Technologies*. New Jersey. Prentice Hall Publishers.

Filemon, A.U. (2008). *Introduction to Knowledge Management.* Japan National Academy of Science and Technology Government of Japan Publication.

Free Book Outline (nd) Three School of Thought and Approaches to Knowledge Management. Retrieved on 10th October, 2013 at htt://fre-books-online.org/management/knowledgemanagement/.

Freeman, L. (2001). Information System Knowledge: Foundations, Definition and Applications. *Information System Frontiers* 3(2): 249-266.

Garton, D.E. (1972). *Organize Schools for Effective Education.* Danwille. Interstate Printers and Publishers.

Ghererdi, S. and Nicolini, D. (2000). To Transfer is to Transform: the Circulation of Safety Knowledge. *Organization* 7:329-348.

Gray, L.R. (1976). *Educational Research: Competencies for Analysis and Application.* Columbus, Ohio Chates E. Merritt Publishing Company, USA.

Gregory, D. and Ward, H. (1978). *Statistics for Business*. London. McGraw Hill Publishers.

Grossman, M. (2006). An Overview of Knowledge Management Assessment Approach. *The Journal of American Academy of Business.* 8(2): 242-247.

Groven, V. and Davenprt, T. (2001). General Perspectives on Knowledge: Fostering a Research Agenda. Journal of Management Information System 18(1): 5-12.

Gulick, L. and Urwick, L. (1939). *Papers on Science Administration*. New York. Institute of Public Administration Publications.

Gupta, A. K. and GovinDarejan, V. (1991). Knowledge Flows and the Structure of Control within Multinational Corporations. *Academy of Management Review.* 16(4): 768-792.

Gupta, B. (2000). Knowledge Management Practice and Challenges. *Industrial Management of Data System*. 100 (1): 17-21.

Hamnza, A. and Zarah, L.A (2011) Information and Communication Technology (ICT) and Education Reform in Nigeria. *Nigeria Educational Forum*. A Journal of the Institute of Education, A. B. U. Zaria Vol. 1, No.2 Pg 375 – 380.

Haris, R. (1993). *A History of Higher Education in Canada*. Toronto. University of Toronto Press.

Haruna, M. (2011) Challenges of Human Resources Management and its Educational Implication: Islamic Analysis and Solution *Nigeria Educational Forum*. A Journal of the Institute of Education, A. B. U Zaria Vol. 1 No. 2 Pg 315 – 326.

Heerwagen, J. Kampschroer, K. Powell, K. & Loftness, V. (2004) Collaborative Knowledge Work Environment. *Building Research& Information Journal.* 36 (6): 510-528

Heinz, W. and Haroldm, K. (2005) *Eleventh Edition Management A Global Perspective*. New Delhi: Tata McGraw – Hill Limited.

Holm, J. (2001). Capturing the Spirit of Knowledge Management. A Paper Presented at the American Conference on Information System Boston. 15th August. Pp 3-10.

Horwitch, M. and Armacost, R, (2002). Helping Knowledge Management be all it can be. *Journal of Business Strategy*. 23 (3): 26-32

I.A.E.A, (2006). Knowledge Management Elements and Terminology. www.IAEA.com.Retrievedon 10 March 2012.

Ige, A. (2010). Increasing Demand for University Education in Nigeria: The Way Out. *Journal of Educational Research and Development.* Zaria. A Publication of the Faculty of Education, ABU. 5 (3): 19-24

Inekwe, I. O. (2008) Supervision of the Teaching of Mathematics in Primary Schools in Kaduna State. A Paper Presented at a workshop Organized by I.T.F for Kaduna State Universal Basic Education Board, Kaduna State.

Ismail, M. & Raja, A.R.Y. (2011). Perceptions of Knowledge Creation, Knowledge Management Process, Technology and Applications in Military Organizations. *Malaysian Journal of Library and Information Science.* 16 (1): 73 – 85.

Jaiyeoba, A. O. nad Atanda, A.I. (2005) Quality Sustenance in Nigeria Educational System: Challenges to Government. In G.O. Alapa, S.U. Udoh and E.O Fagbamiye (Eds) *Deregulating the Provision and Management of Education in Nigeria.* Jos. NAEAP Publishers.

Jaspers, K. (1960) *The Idea of the University.* London. Peter Owen Publishers.

Jimoh, A.A. (2008) Supervision of Teaching Social Studies in Primary Schools in Kaduna State. A Paper Presented at a Workshop Organized by I.T.F for Kaduna State Universal Basic Education Board, Kaduna State.

Joy, O. B. N. and Shamija, T.A. (2001) Information and Communication Technology and development of Entrepreneurship Education in Nigerian Institution. *Nigeria. Educational Forum.* A Journal of the Institute of Education, A. B. U Zaria Vol. 20 No 2 Pg 69 -79.

Jumare, A. M. (2012) Decision Making Process: A Strategy for Curbing Students' Unrest in Institutions of Higher Learning in Kaduna State. *Journal of Educational Research and Development.* A Journal of the Faculty of Education, A. B. U. Zaria. Vol. 7, No. 3. Pg 58 – 61.

Kalling, T. (2003). Knowledge Management and the Occasional Link with Performance. *Journal of Knowledge Management*, 3: 67-81.

Kenneth, F.B. (1976). A General System Approach to Organizations. *In Handbook of Industrial and Organizational Psychology*.(Ed) Marrin, D.D. (1976). Chicago. Rand McNally & Company Ltd.

Kerhinger, L.C. (1973).*The Morphology of Behavioural Research.* New York. Holt Rinehart and Winston Publishers.

Kim, J. A. (2006). Measuring the Impact of Knowledge Management. IFLA Journal 32(4): 362-367.

Klobas, J. E. (1997). Information Services for New Millennium Organizations Librarian and Knowledge Managements. In Raitt, D. (Ed). *Library Associations Publishing.* London. Pp 36-64.

Knezevich, O. (1976). *Productivity, Supervision and Morale in an Office: Survey Research Center.* Michigan. University of Michigan.

Kolo, F.D. (2011). A Counselor's Perspective on Educational Practices for the Achievement of Millennium Development Goals in Nigeria. Lead Paper Presented At 4th National Conference at the Faculty of Education, A.B. U. Zaria.

Koontz, H. and O' Doonell, C. (1976). *Principles of Management.* New York. MacGraw- Hill Publishers.

Krejcie, T. J. and Morgan, W. (1975). *Determining Sample Size for Research Activities*. Education and Psychological Measurement.Vol 30

Kusunoki, K. (1998). Organizational Capitalist in Product Development of Japanese Firms: A Conceptual Frameworks and Empirical Findings. *Organization Science.* 9: 699-718.

Laduhir, B. Demis and Alhassan, B. (2011) Developing An Effective Training Programme in Nigerian Universities for Enhancing Technical Vocational Education Standards for the Modern Economy. *Nigeria Educational Forum*. A Journal of the Institute of Education A. B. U. Zaria. Vol. 1, No., 2. Pg. 423 – 435.

Lave, J. and Wenger, E. (1991). Situated Learning: Legitimate Peripheral Participation. Cambridge University Press.

Lee, H. and Choi, B. (2003). Knowledge Management Enables, Processes and Organizational Performance: An Integrative view and Empirical Examination. *Journal of Management Information System.* 20(1): 179-228.

Leonard, D. (1995). *Wellsprings of Knowledge: Building and Sustaining the Success Innovation*. Boston Harvard Business School press.

Maicibi, N.A. (1993). Role Performance of Secondary School Bursars in the Administration of Schools in Kaduna State. Zaria,. An Unpublished M.Ed Thesis. ABU.

Maina, B.A. (2006). Conflict and Conflict Management Techniques in Nigerian Secondary Schools. Unpublished Ph.D Dissertation. Zaria. Department of Education, A.B.U.

Mamman, F.N. (2008). Proliferation of Private Universities in Nigeria: Challenges to Educational Management in the 21st Century. Zaria. *Journal of Educational Management and Planning.* 8 (1): 105-114.

March, J. G. and Olsen, J. P. (1986). *Ambiguity and Choice in Organizations.* Bergen. University Tests for Target.

Martens, Y. (2008). Unlocking Creativity with the Physical Work Place. http/www.brief.com/article/office.design. Retrieved 20June, 20113.

Mbiti, D.M. (1974). *Foundation of School Administration.* Nairobi. Oxford University Press.

McKeen, J. D. (2006). Knowledge Management and Organizational Performance: An Exploratory Survey. *In Proceedings of the Thirty-Ninth Annual Hawaii International Conference on System Science* (CD-ROM) January 4-7, Hawaii, Computer Society Press pg 9.

Mezher, T. (2005). Knowledge Management in Mechanical Industrial Engineering Consulting. *Journal of Management in Engineering.* 3 (2): 25-30

MINT, (2006) Malaysian Institute for Nuclear Technology.

Mishra, R.C. (2007). *History of Education Administration.* New Delhi. A.P.H. Publishing Company.

Mohammed, F. Maryam, S. Pegman, A. & Ali, A.M. (2008). How to Assess Knowledge Management: Developing a Quantitative Model. *International Journal of Electronic Business Management.* 6(1): 10-20.

Mohammed, U.S. (2011) Effective Planning: A Sinequanon for Education For All in Nigeria. *Journal of Educational Management and Planning*, A. B. U. Zaria Vol. 1 No.1 Pg 79 – 85.

Morey, D. and Maybury, M. (2002). *Knowledge Management Classic and Contemporary Works*. Cambridge: MIT Press http://mitpress.mit.edu/catalog/item/defficult.asp?ttype=2etid=8987. Rretrieved 2010.

Musaazi, J.C.S. (1982). *The Theory and Practice of Educational Administration.* London. McMillan Publishers Ltd.

Musaazi, J.C.S. (1986). *Planning and Development in Education: African Perspective.* London. Allen and Unwin Publishers.

National Institute for Educational Planning and Administration (2011). *Developing Head Teachers Skills for Effective School Management.*Ondo. NIEPA Publication.

National Teachers' Institute (2000). *National Certificate in Education Distance Learning Studies.* Kaduna NTI Publication.

Newman, J.W. (1971). *Management Applications of Decision Theory.* New York. Harper and Row Publishers.

Newman, W.H and Sumber, C.E. (1961). *The Progress of Management*. Englewood Cliffs New Jersey: Prentice Hall

Nonaka, I. (1991). The Knowledge Creating Company. *Harvad Business Review* 69 (November-December), 96-104.

Nonaka, I. and Konno, N. (1998).The Concept of ba; Building Foundation for Knowledge Creation. *California Management Review.* 40(3): 40-50.

Nonaka, I. and Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford. Oxford University Press.

Nonaka, I. and Takeuchi, R. (1995).*The Knowledge Creating Company.* New York. Oxford University Press.

Nonaka, I. and Takeunchi, H. (1995). *The Knowledge Creating Company.* New York. Oxford University Press.

Noun (2008). *Concept and Theories of Educational Administration and Planning.* Abuja. A Publication of National Open University of Nigeria.

NUC (1992). NUC at University System News. NUC at 30. Special Edition pg. 5-6.

NUC (2003).The NUC Annual Pocket Daily for the Year 2003. Pg5.

NUC, (2011), National Universities Commission Bulletin. (4): 29.

Nuhu, Y. (2001). Higher Education in Nigeria in Perspective. A Paper Presented during the proceedings of the 12th General Assembly of the Social Sciences Academy of Nigeria.

Nwala, O.M, Mbachu, A C and Nnokan N.C. (2011) Application of Knowledge ManagementZPractices in Rivers State Secondary School, Nigeria. Nigerian *Journal of Educational Administration and Planning (NJEAP)* Vol. 11, No.1 pg 73 -91.

Nworgu, B.G. (1991). *Educational Research: Basic Issues and Methodology.* Enugu. University Trust Publishers.

O'Dell, C. and Grayson, C. J. (1998). *If Only we Know What we Know: the Transfer of Internet Knowledge and Best Practice.* New York. The Free Press.

Obasajo, O. (2003). Education for All is the Responsibility of All. *New Nigerian News Paper,* Monday, 15, pg 1.

Ogunsanya, S. (1982). *Educational Supervision, Perspectives and Practices in Nigeria.* Nigeria. University of Ife Press Ltd.

Okeje, B.O. (1992). The Administration Process. In Ukeje B.O George, C.A. and Alice, N. (Eds) *Educational Administration.* Enugu. Fourth Dimension Publishing Company Limited.

Okon, E.J. (2006). *Educational Management: Thoughts and Practice.* Ibadan. Codat Publications Ltd.

Oliver, S. and Kandadi, K. R. (20060. How to Develop Knowledge Culture in Originations. A Multiple case study of large distinguished Organizations. *Journal of Knowledge Management.* 10(4):6-24.

Olubedewa, S.O. (1992). *Fundamentals of Educational Administration and Planning.* Ilesa. Jola Publishing Company Limited.

Olufemi, B. (2011). Our Universities Must be World-Class. Abuja. *The Nation News Paper* Pg. 28, Thursday 20, October.

Onyale, L. G. and Modebelu, M.N. (2011) Attaining Managerial Effectiveness Through Acquisition of Knowledge Management Principles and Skills by Anambra State Secondary Schools Principals, Nigeria. *Nigerian Journal of Education Administration and Planning (NJEAP)* Vol. 11, No. 1 pg 231 – 242.

Onyewuoru, O.F. (2001). Management of Information Services in Business Organization. Zaria. An unpublished M.BA Theses ABU.

Osuala, E.C. (1987). *Introduction to Research Methodology.* Onitsha. Africana-Feb Publishers.

Ountas, P.; Lefrere, P. and Jones, G. (1997). Knowledge Management: a Strategic Agenda. *Journal of Long Range Planning*. 30 (3): 35 45.

Ovwigbo, M.Y. (1991). *Theory and Practice of Educational Planning in Nigeria.* Kaduna. Think Publishers Company Limited.

Ovwigbo, Y. M. (1985). Conflict Management in Nigerian Universities: A Study of Students Unrest. Unpublished Ph.D Dissertation. Zaria. Department of Education, ABU.

Oxford Advanced Learner Dictionary (2005)

Perkein, J. (1977). *Four Anxious and Three Topics of Interest in the Field of Higher Education in the Contribution of Higher Education in Europe to the Development of Changing Societies*. Bucharest. UNESCO/CEPES Publication.

Pfeffer, J. (1981). Power in Originations. Potnan, Marshfield.

Pradorn, S., Nopasit, C. Yacine, O. Gilles, N. & Abdelaziz, O. (2013)……

Raheed, A.A. (2013) Education, Petroleum Resources and Nigeria's Quest for Development. A Key note Speaker at Zaria Education Development Association (ZEDA) Publication of ZEDA News Vol. 8, No. 2

Raymond, B. B. (2005) University Education and the Crisis of Funding in Nigeria: An Appraisal. *Journal of Educational Management and Planning,* A. B. U. Zaria. Vol. 2, No. 1. Pg. 22 – 84.

Reinch, R. B. (1991). *The Work of Nations.* Alfred, A. Knopf. New York.

Reinhardt, R. (2001). Intellectual Capital and Knowledge Management: Perspective on Measuring Knowledge. In Diereks, M; Berkoin, A.; Child J; and Nonaka, I. (Eds). *Handbook of Organizational Learning and Knowledge*. Oxford. Oxford University Press. Pg 794-820.

Robert, G.O. (2001). *Organizational Behavior in Education.* Boston. Published by Allyn and Bacon, A Pearson Education Company.

Roffe, P.D. and Testfachew, T. (2002). Bridges. International Centre for Trade and Development/WTO year 6, No.2, p.7.

Roscoe, G.L. (1969). *Condition for Success in Educational Planning.* Fundamentals of Educational Planning Services, No. 15 UNESCO, Paris.

Ruggles, R. (1998). The State of the Nation: Knowledge Management in Practice. *California Management Review* 40(3): 80-89.

Santamaria, J. (2002). Transforming the Army of Managing Knowledge at PEO, C35. *Army A & L Magazine* January-February.14-15.

Sim, W. (2013). *Higher Education in Nigeria: A Status Report. Higher Education Policy.* Abuja. UNESCO Publication.

Simon, H. (1960). *Developing Inter Personnel Skills the Future Education Staff Colleges.* Blagdon. Bristel. UNESCO Publication.

Simonin, B. L. (1999). Ambiguity and the Process of Knowledge Transfer in Strategic Alliances. *Strategic Management Journal.* 20(7): 595-623.

Stan, D. and Jim, B. (1994).The Coming of Knowledge-Based Business. Harvard. Harvard Business Review.

Stoner, J.A., Freeman, R.E; and Gilbert, D.R (2006) *Sixth Edition Management.* New Delhi Prentice. Hall of India Private Ltd,

Swan, J. (20010. Editorial: Knowledge Management: Concepts and Controversies. Journal of Management Studies. 38, 913-921.

Takeuchi, H. (1998). Beyond Knowledge Management: Lessons from Japan www.docuemtns, http://www.seriby.comany lecconsjpana.htm. Retrieved 3, January 2011.

Takeuchi, H. (2001). Towards a Universal Management Concept of Knowledge. *In Managing Industrial Knowledge.* In Nonaka, I. and Teece, D. (Eds) Pg 315-329, Sage, London.

The Nation, (2011). Issues that Shaped Education in 2011. *The Nation News Paper,* December 29, pg 26.

Tim, S. (2013). Fundamentals of Work Place Strategy. Kimball office. Wwww.kimballoffice.com. Retrieved on 20 June, 2013.

Tiwana, A. (2002). *The Knowledge Management Toolkit: Orchestrating II, Strategy, and Knowledge.* New Jersey. Prentice Hall.

Tuomi, I. (1999). Data in more than Knowledge: Implications of the Reversed Knowledge Hierarchy for Knowledge Management and Knowledge Memory. *Journal of Management Information Systems* 16(3): 103-117.

UNESCO, (1987).*Higher Education in the Twenty First Centaury Vision and Actions.* Paris. UNESCO Publication.

Vanper, S. R. and Spijkervet, A. (1997). Knowledge Management: dealing intelligently with Knowledge. *In Knowledge Management and its integrative Elements* Liebowits, J. and Wilcox, L. (Eds) pg 31-59 CRC Press. New York.

Whitley, R. (2002). Developing Innovative Competencies: The Role of Institutional Framework. *Industrial and Corporate Change.* 11: 497-528.

Whitney, F.L. (1942). *The Elements of Research.* New York. Prentice Hall Inc.

Wig, K. (1993). *Knowledge Management Foundations: Thinking about Thinking How People and Organizations Create, Represent and use Knowledge Management.* Arrington. Schema Press.

Wright, K. (2005). Personal Knowledge Management: Supporting Individual Knowledge Worker Performance. *Knowledge Management Research and Practice* 3(3): 156-165 Doi:10.1057/Palgrave.Kmrp.85000061.

Yahaya, A. (2013) For a Better Tomorrow. Speech by Guest Speaker at Zaria Education Development Association (ZEDA) Annual General Meeting 20th Anniversary Held in Kongo Conference Hotel. Zaria. Publication of ZEDA News Vol. 8, No. 2

Yaqub, N.O. (1993). *The Nigerian University System and Funding crisis: Where Does the Problem Really lay and what may be the Solution?* UDU Sokoto. Sokoto Cooperative Computer Services Nigeria.

Yushau, I. (2011). The Problems of Public and Private Universities in Nigeria. Abuja. *Daily Trust.* Pg. 33, Monday 17, October.

Zain, H. (2007). Performance of Knowledge Management Practice: A Casual Analysis. *Journal of Knowledge Management,* 11 (6): 54-67.

APPENDIX 'A'

QUESTIONNAIRE ON THE APPLICATION OF KNOWLEDGE MANAGEMENT STRATEGIES ON THE MANAGEMENT OF UNIVERSITIES IN NORTH-WEST GEO-POLITICAL ZONE, NIGERIA.

Department of Educational Foundations and Curriculum,
Ahmadu Bello University,
Zaria
20/10/2013

Sir,

REQUEST TO FILL A QUESTIONNAIRE

I am a PhD student in the above mentioned address, undertaking a research on the Application of Knowledge Management Strategies on the Management of Universities in North-West Geo-Political Zone, Nigeria. I solicit your assistance to fill the questionnaire attached herewith. Your assistance certainly will help in the success of this research and also in solving some of the perennial problems in the management of University Education in Nigeria. The information shall strictly be for academic purposes.

Thank you in anticipation of your kind response.

Yours faithfully,

Muhammad Jumare Abubakar
PhD/EDUC/10506/2010-2011
E-mail: abubakarmjumare@gmail.com

Please indicate in the appropriate column your opinion on the issues raised in sections A, B, C, D, E, and F.

Section 'A' Bio-Data

Please tick (√) in the appropriate box which relates to you.

1. **Status:**
   a) Management Staff ( )
   b) Dean ( )
   c) Head of Department ( )
   d) Lecturer ( )
2. **Gender:**
   a) Male ( )
   b) Female ( )
3. **Ownership of University:**
   a) Federal ( )
   b) State ( )
   c) Private ( )
4. **Working Experience in Years:**
   a) 0-10 ( )
   b) 11-20 ( )
   c) 21-30 ( )
   d) 31- above ( )
5. **University:**
   a) A.B.U. Zaria ( ), (b) Bayero University, Kano ( ), (c) UDUS, Sokoto ( ), (d) KSU ST, Wudil ( ), (e) Katsina State University ( ), (f) Kebbi State University ( ).
6. **Faculty:**
   (a) Education ( ), (b) Engineering ( ), (b) Medicine ( ), (d) Law ( ), (e) Agriculture ( ), (f) Administration ( ), (g) Social Sciences ( ).

Section 'B' Decision-Making

Instruction: The following item statements solicit information on the Application of Brainstorming Strategy on Decision-Making in University in North-West Geo-Political Zone, Nigeria. Use the scale provided below to indicate your agreement or disagreement with each statement.

S/N	Item Statement	SA	AG	UD	SD	DA
		5	**4**	**3**	**2**	**1**
7.	Some opinions on administrative decisions are in written form, hence do not attract verbal discussions.	5	4	3	2	1
8.	Most major agenda of meetings are written on boards for members to think deeply.	5	4	3	2	1
9.	The agenda for most meetings are explained before discussion begins.	5	4	3	2	1
10.	Criteria for idea selection are made clear before any decision is reached.	5	4	3	2	1
11.	Decisions are sometimes reached through written votes, hence do not attract discussion.	5	4	3	2	1
12.	Most administrative solutions are identified through knowledge sharing by way of discussion.	5	4	3	2	1
13.	Decisions do have criteria as a guide for discussion.	5	4	3	2	1
14.	Before decisions are made, members are asked whether they see the need for discussion.	5	4	3	2	1
15.	Most opinions are further discussed during meetings for better understanding	5	4	3	2	1
16	During meetings members are asked to list points on paper before discussion.	5	4	3	2	1

Section 'C' Planning

Instruction: The following item statements solicit information on Application of Collaborative Physical Work-Space on Planning in University in North-West Geo-Political Zone, Nigeria.

S/N	Item Statement	SA	AG	UD	SD	DA
		5	**4**	**3**	**2**	**1**
17.	Meeting halls are spacious with standard light/electricity	5	4	3	2	1
18.	There exist syndicate groups (round table) for planning activities	5	4	3	2	1
19.	There is refreshment in meeting halls where members work round for service.	5	4	3	2	1
20.	There are expert staffs that guide planning meetings.	5	4	3	2	1
21.	There exist power points in different locations for planning meetings.	5	4	3	2	1
22.	Planning meeting halls are decorated with posters and pictures.	5	4	3	2	1
23.	There are available computers in meeting halls for effective planning.	5	4	3	2	1
24.	There exist syndicate group during planning meetings	5	4	3	2	1
25.	There are visual data on different location for planning in all meeting hall in the university.	5	4	3	2	1
26.	Trees and flowers surround planning meeting halls	5	4	3	2	1

Section 'D' Communication

Instruction: The following item statements solicit information on Application of Knowledge Cluster Strategy on Communication in University in North-West Geo-Political Zone, Nigeria.

S/N	Item Statement	SA	AG	UD	SD	DA
		5	**4**	**3**	**2**	**1**
27.	Most administrative communications in different departments /units are done through networked computers	5	4	3	2	1
28.	Most administrative communications are coded for future references	5	4	3	2	1
29.	Most administrative staff are trained on the use of computers in modern communication.	5	4	3	2	1

30.	Most administrative decisions are communicated within and outside the university through soft-ware	5	4	3	2	1
31.	Organizational web site is used to communicate meetings within and outside the university	5	4	3	2	1
32.	Committee members are coded on web site for easy communication in the University.	5	4	3	2	1
33.	Computer literacy is a criterion for promotion in the universities.	5	4	3	2	1
34.	Web site is being used to communicate with university community and out on its operations.	5	4	3	2	1
35.	Knowledge and information are shared through the university web site.	5	4	3	2	1
36.	Most offices in the university are networked with internet for better communication in and outside.	5	4	3	2	1

Section 'E' Supervision

Instruction: The following item statements solicit information on Application of After Action Review Strategy on Supervision in University in North-West Geo-Political Zone, Nigeria.

S/N	Item Statement	SA	AG	UD	SD	DA
		5	**4**	**3**	**2**	**1**
37.	Training of staff is based on needs after supervision assessment	5	4	3	2	1
38.	Staff assessment results are bases for promotion in the University	5	4	3	2	1
39.	Assessment tool is the basis for result oriented output.	5	4	3	2	1
40.	Supervision in the University ensures identification, creation, storage, application and sharing of knowledge.	5	4	3	2	1
41.	The essence of supervision in the University is to ensure knowledge is shared with others.	5	4	3	2	1
42.	Identification of job in universities is done through knowledge sharing	5	4	3	2	1
43.	Most punishments after supervision excise are based on needs.	5	4	3	2	1
44.	Most supervision reports are coded through soft-ware for future references.	5	4	3	2	1

45.	Administrative supervision manuals are centered on staff knowledge in their work places in the University.	5	4	3	2	1
46	Supervision activities are centered on the expected function of staff members in their work environment.	5	4	3	2	1

Section 'F' Maintenance of Discipline

Instruction: The following item statements solicit information on Application of After Action Review Strategy on Maintenance of Discipline inUniversity in North-West Geo-Political Zone, Nigeria.

S/N	Item Statement	SA	AG	UD	SD	DA
		5	**4**	**3**	**2**	**1**
47	Staff promotion in the University is based on past disciplinary records.	5	4	3	2	1
48.	staff promotion assessment is on account of previous behaviours	5	4	3	2	1
49.	The University uses Staff discipline measures based on the previous experiences	5	4	3	2	1
50.	Unruly behaviours are maintained based on situation/circumstance against the circumstance it happened	5	4	3	2	1
51.	The University rewards staffs who excel in good disciplinary conduct based on their existing records.	5	4	3	2	1
52.	There exist committees to select and award staff who are disciplined in the University.	5	4	3	2	1
53.	Merit and award enhance discipline among staff in the University.	5	4	3	2	1
54.	The university uses discipline behaviours and staff knowledge of rules and regulations for special promotion.	5	4	3	2	1
55.	Students' graduation is based on character assessment from the existing records.	5	4	3	2	1
56.	The University authority does not allow influence peddling to deter it from disciplining staff or students whose records are bad.	5	4	3	2	1

APPENDIX B

A QUESTIONNAIRE ON QUESTIONNAIRE ON THE APPLICATION OF KNOWLEDGE MANAGEMENT STRATEGIES ON THE MANAGEMENT OF UNIVERSITIES IN NORTH-WESTERN STATES, NIGERIA.

Section 'A' Request Letter

Department of Educational Foundations and Curriculum,

Ahmadu Bello University,

Zaria.

20/06/2013.

Sir,

REQUEST TO VET/ RANK A QUESTIONNAIRE

I am a PhD student in the above mentioned Department and University, undertaking a research on the above mentioned topic. I solicit your assistance to rank the item statements attached herewith. Also attached here are the research objectives and questions. Please make corrections or amendments where necessary. Your assistance certainly will help in the success of this research and also in solving some of the perennial problems in the management university education in Nigeria. The information shall strictly be for academic purposes.

I hope your co-operation would be sought. Thank you.

Yours faithfully,

Muhammad Jumare Abubakar

PhD/EDUC/10506/2010-2011

E-mail: abubakarmjumare@gmail.com

Section 'C': Guideline

Please indicate your opinion in the appropriate column provided on the relevance of the items in the questionnaire sections below. The abbreviations in the column are interpreted as follows:

No idea (1)Not well constructed (2), Little well constructed (3), Very well constructed (4), Extremely constructed (5),

S/No	**Application of brainstorming strategy on decision-making process in the management of Universities in North-Western States, Nigeria.**	**1**	**2**	**3**	**4**	**5**
1	Some of our opinions on administrative decisions are in written form unlike verbal discussions.					
2	Most major agenda of our meeting are written on boards for members to think deeply during the meeting					
3	Most meeting agenda are been explained before discussion begins.					
4	Criteria for idea selection are made clear before any decision is reached.					
5	Decisions are sometimes done through written votes.					
6	Most administrative solutions are identified through knowledge sharing.					
7	Decisions do have criterion as a guide for discussion.					
8	Before decisions are made, meeting members are ask whether they have questions on topic of discussion.					
9	Most opinions are further discussed during meetings for better understanding					
10	During meetings members are ask to list point on paper before discussion.					

	Application of collaborative physical workplace strategy on planning process in the management of Universities in North-Western States, Nigeria.	**1**	**2**	**3**	**4**	**5**
11.	Meeting halls are specious with standard light					
12	There exist syndicate groups (round table) for planning activities					
13	In planning meetings members work around the hall for refreshment and tea service.					
14	Most planning meetings are guided by expert.					
15.	There exist power points on walls for planning meetings.					

16	Planning meeting halls are decorated with posters and pictures.					
17	There are available computers in meeting halls for effective planning.					
18	Magazines and books are always available in planning meeting halls.					
19	There is visual data on the walls of planning meeting halls.					
20	Planning meeting halls are surrounded by trees and flowers					
	Application of knowledge cluster strategy on communication process in the management of Universities in North-Western States, Nigeria.	**1**	**2**	**3**	**4**	**5**
21	Most administrative communication are through Networked computers					
22	Most administrative communication are coded for future references					
23	Most administrative staff are trained on the use of computers in modern communication.					
24	Most administrative decisions are communicated through soft-ware					
25	Organizational web site is used to communicate meetings					
26	Committee members are coded on web site for easy communication.					
27	Computer literacy is a criterion for promotion in our organization.					
28	Web site is being used to communicate with university community on its operations.					
29	Knowledge and information is shared through organizational web site.					
30	Most offices in our organizations are networked with internet for better communication.					
	Application of after action review strategy on supervision process in the management of Universities in North-Western States, Nigeria.	**1**	**2**	**3**	**4**	**5**
31	Training of staff are based on needs after supervision assessment					
32	Past staff assessment results are bases for promotion					
33	Assessment tool is on result oriented out put					
34	Assessment supervision in our organization covers process such as ability to identify, create, store, apply and share knowledge.					
35	Assessment supervision include ability of a staff to share knowledge/technical knowhow with others.					
36	Identification of jobs in the universities are done through knowledge sharing					

37	Most punishments are based on what exactly lead to the offence.					
38	Most supervision reports are coded through soft-ware for future references.					
39	Most administrative supervision manuals are based on consideration of staff knowledge to work.					
40	Supervision activities are based on the expected function of a staff.					
	Application of after action review strategy on maintenance of discipline in the management of Universities in North-Western States Nigeria.	**1**	**2**	**3**	**4**	**5**
41	Staff promotion is based on past discipline records.					
42	Part of staff promotion assessment is on previous behaviours					
43	Staff discipline measures are mostly on previous experiences					
44	Bases of indiscipline behaviours are measured against the circumstance it happened					
45	Discipline behaviours are commended and honored among staff.					
46	There exists annual ceremony to award for disciplined staff.					
47	Increase in staff performance has direct relation with disciplined behaviours.					
48	There is relation between discipline and knowledge of institutional rules and regulation.					
49	Punishable offence are based on staff past records of indiscipline					
50	Most punishments in organizations are based on deep investigation through past record.					