

## Academic Leadership and Knowledge Sharing in Nigerian Public Universities

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**ABSTRACT** :Leadership is indispensable in the lives of organizations and academic institutions are no exception, however, academic leadership is exceptional in higher institutions. Debatably, leadership in academia goes beyond the institutions into the larger society they strive to serve. Against this scenery, this study is aimed at empirically examining the influence of academic leadership (its components) on knowledge sharing(KS) among academics. A valid response rate of 391 was utilized in this study which was obtained from five hundred and ten (510) questionnaires (quota sampling technique was deployed) administered to lecturers in 13 public universities in north central region, Nigeria, while employing PLS-SEM to run the analysis. The findings reveal that four components of academic leadership out of six have positive significant influence on KS, however, the insignificant influence of ‘visionary and effective leadership’ was not predicted which may be due to study area-based issues – politicization of the emergence of academic leaders at the expense of merit criteria. Consequently, these six components of academic leadership may not be the only predictors of KS in academia. Hence, future research is called upon to widen the investigation by incorporating intervening variables and other relevant predictors to lend more credence to the model.

**Keywords** -leadership, academic leadership, knowledge management, knowledge Sharing

### I. INTRODUCTION

Globally, academics are saddled with functions, obligations and duties to be discharged to the communities or rather audiences they serve (i.e. themselves, academe community – students and the likes, dwelling communities and government at the larger spectrum). It is beholding of academics to strive to uphold these onerous tasks. In line with proliferation of literature in this sphere, academics are meant and known to carry out multifunctional activities ranging from teaching, research, supervision, scholarship, publications to community services etc[1; 2]. Along these lines, academic staff of public universities are saddled with the responsibilities of grooming the next generations of intellectuals/ scholars, functionaries and scientists. The academics deploy their acumen in transmitting skills and knowledge to the next generations. In discharging the onerous obligations, the academics require the instrumentalities of leadership. Notably, these formidable tasks of the academic staff are not unconnected with the leadership and knowledge sharing activities carried out by members of the faculty.

Leadership as one of the strategic planning tools, is about piloting with a vivid goal while influencing others to actively participate to earn obedience at ushering the process. Accordingly, Stogdill, [3, p.11] conceived leadership as “a process of influencing the activities of an organized group in its task of goal setting and goal achievement”. Kekale and Pirttila, [4] submits that leadership connotes basically two things – human relations and organization (i.e. the inclination or rather orientation towards regulating human relations in a bid to organizing its efforts aimed at accomplishing given goals). By the same token, leadership entails the process of providing directions, guidance and management that engender transformation (change). In the words of Astin&Astin, [5], leadership is conceived as the process of ushering and nurturing change. Leadership deals

with exercising control to bring about desired effects in a chosen domain. The capacity to wield influence over persons or individuals is the purview of leadership; along these lines, leadership is a key motivating factor that nurtures the continuous performance in given directions. Therefore, leadership is a 'shared enterprise' that is, leadership is not a one-way traffic affair. It entails the mutual relationship between the stewardship and followership. In other words, it is a dynamic reciprocal influence between leaders and followers to engender transformation. Accordingly, Nahavandi, [6] contends that effective leadership skills are required to bring about joint efforts between the leaders and the led to accomplish targets while responding to changing needs. Previous studies have attempted to investigate the impact of leadership on performance at varied fronts – job satisfaction, workers commitment, planning, person development etc [7].

There are scanty reviews on academic leadership especially how it influences other activities in the academia. Previous studies revealed that academic leadership (leadership in academes) has not been widely reviewed as other spheres of leadership [8], [9]. In other words, leadership in academia has not been accorded much attention in research as compared to other forms of leadership which may be due to the peculiarities of the academic environments. In addition, past studies have provided motivation for this current study in which calls were made for more or further studies in academic leadership; in that, much stands to be gained by studying in that angle [8], [10]. Therefore, in answering the clarion call, the study is anchored on academic leadership in public universities. In addition, there is scanty studies that attempted relating academic leadership with knowledge sharing, hence the preserve of this study. Succinctly speaking, the objective of this paper is to examine the influence of the academic leadership on knowledge sharing of academic staff in Nigerian public universities. This study employs six measures of academic leadership, viz visionary, adaptable to change, competency, effective leadership, transformational style, and charisma [7]. On the other hand, knowledge sharing is measured by the four factors influencing the sharing of knowledge between individuals in organizations. These include nature of knowledge, motivation to share, opportunities to share and working culture [7].

## II. LITERATURE REVIEW

### 2.1 Leadership in a University

Higher education institutions are established and run based on "departmental model". The leadership position at the departmental level is tenured. Every decision concerning faculty members (academics) ranging from promotion, compensation, discipline etc is initiated at the departments, and departments compete for resources allocation from the university[11]. In addition, leaders at the academic departments are indispensable for smooth running of institutions of higher education[12]. Thus, academic responsibilities or positions are requisite tools for the smooth running of a university. Leadership is greatly reckoned with in this context. It is contended that the accomplishment of institutions of higher education is largely influenced by effective leadership; thus, the need to match the needs of organizations with capabilities of human resource in academia [13], [14].

Leadership in academia entails a relationship between and among the academics – the leadership (by the academics) and followership (by the academics) [15]. Thus, academic staff members are the focus of this study. Leadership in academia is exceedingly demanding, in that, leaders here are faced with having to grapple with the triple or quadruple tasks of academic driven activities, administrative activities, political activities and entrepreneurial aspects [12]. Leaders in academia require an in-depth understanding of the complex managerial skills as well as possessing the attributes of academic leadership. Management and effective leadership have become the indispensable tools for academic leadership due to political and economic pressures, the increasing size and scope of university business, and increased demand for accountability[16]. Other issues confronting leadership in academia include among others attracting as well as retaining qualified academics, imbibing new techniques or technologies, leading institutional renewal, and students, satisfying increasing public demands, meeting the requirements of funding agencies, those of employers/ employees and students, and above all, searching for novel alternatives for funding. Therefore, there are clarion calls for leaders in academia who strive hard on the issues of transformation, innovation, stimulation of trust/learning, and leaders who can pilot themselves and their constituent units, departments as well as university at large [18]. Metaphorically, leaders in academia have been described as "thermostats": they do not have to regulate all affairs but rather emphasize on advancing issues that most strategic [16]. At usual times, they support routine job conditions, maintain an innovative atmosphere and put things in an appropriate manner within the spectrum of usual conditions of work. Leaders' contribution is multiplied during challenging or trying periods [16], [17].

Rowley et al., [14] provided the framework for leadership in academia, thus, they submitted that leadership in academia, university in particular, can be viewed from two perspectives – leadership levels and leadership settings. The former consists of positions of leadership – department chairs, deans, and vice chancellor/deputy vice chancellors. The latter refers to the locus of operation i.e. administrative and academic departments, and student and faculty organizations [14]. In addition, Rowley et al., [14]; Bisbee, [13] asserted

that the two perspectives are interconnected – i.e. department heads pilot the affairs of academic departments; deans pilot the affairs of the faculty/college, and vice chancellor/deputy vice chancellors pilot the entire affairs of administrative departments. The leadership in university domain is specifically tenure based in that academics have the opportunity to serve for a limited number of years. Thereafter, return to regular teaching, research and services as a bona fide member of the faculty. An individual academic does not feel as if he/she is leaving the faculty; instead, he/she is assuming the additional managerial/administrative responsibilities only for a short period of time. However, every academic staff ought to appreciate the high collegiality nature of the leadership or it becomes complicated to return to positions of leadership once the tenure of office elapses. The irony is that, most department heads do not vie to become heads of department, nor do they take successful exercise of management vis-à-vis leadership role as part of career advancement [18]. In a similar perspective, Brown submits that heads of department (HODs) conventionally object management's resistance of "collegiality", being weighed down with administrative jobs at the expense of academic work and being subjected to unnecessary assessment processes. Leadership at departments is meant for administrative responsibilities and academic tasks. Academics occupying positions of leadership may not necessarily have vied for the positions, particularly departmental heads. Thus, it creates a form of unique test of leadership in academia [14]. It is also noted that all academics who have handled management responsibilities ought to have a vivid appreciation of the demands of leadership roles as well as responsibilities and rise to the occasion to accomplish the mission of institutions.

In a similar connection, the dean is also a member of academic staff but one who may be willing to suspend teaching as well as research responsibilities for a while to become a full-fledged administrator. The deanship is twisted with the desire to pilot the faculty or colleges to new stride of excellence while considering that he/she will sometime return to department(s). In other words, the deanship is more managerial and professional which is like managers' in business organizations.

To cap it all, the vice chancellor is also a member of academic staff (faculty member). He/she might have at one time or the other become department chair, dean and later ascended to top administrative/ academic position(s) in the institution. In some cases, some academics move to other institutions in search of higher positions of authority. In the administrative departments, administrators (such as vice chancellors and deputy vice chancellors and deans) are the top rank of the campus administration. They lead the university towards higher goals and accomplishments [14]. However, the activities of other academics involve some degrees of management and leadership roles [14]. The responsibilities are amply mirrored in the classroom management and even guiding students and helping them in their learning. In addition, academics may also have responsibilities in a group of research projects. Academic staff frequently assume leadership roles in their respective functions and as members of teams or projects [14]. Thus, the role of the academic leader is different from the responsibilities of members of academic staff even though faculty members are often asked to serve in these capacities. Some academics are not interested in holding any academic administrative positions. This is due to the nature of academic work in which academics get rewarded for efficiency and effectiveness in their disciplines not for taking and excelling in leadership roles [13]. It poses challenges to universities' management when spotting academics willing to take on leadership responsibility and get incorporated in meaningful transformation in departments, faculties and university at large [14].

## 2.2 Leadership Structure of Nigerian Public Universities

Nigerian public universities are governed and regulated by the Federal Ministry of Education (FME) through the National Universities Commission (NUC). NUC is one of the parastatals under the Federal Ministry of Education in Nigeria saddled with the responsibility of overseeing the affairs of Nigerian university system. Politically, an Executive Secretary (ES) of NUC is appointed to oversee the operations of university education in Nigeria. The FME oversees the Nigerian education system irrespective of its status while the NUC is one of the parastatal in the ministry saddled with specific responsibility – overseeing the operations of Nigerian university system ranging from Public universities (federal and state universities), private universities, distance learning centres to approved affiliations in the country [19]. The Executive Secretary (ES) of NUC is assisted by several directors that head various departments in the commission.

Nigerian public university Chancellor's position is occupied or rather held by a father figure or a statesman appointed by the visitor(s) which could be federal or State government (for public universities) in Nigeria. The Chancellor is assisted by Pro Chancellor and Chairman of Council. Administratively, the university is governed by the university's executive committee consisting of a Vice Chancellor and two (2) Deputy Vice Chancellors: Deputy Vice Chancellor (Academic) and Deputy Vice Chancellor (Administration). Following the top echelon is the Director(s) and their Assistant(s) of various centres in the university system. Colleges, faculties and schools are managed by Provosts or Deans who are assisted by their Deputies. Following suit, the Department Heads (HOD)/ Chairs pilot the affairs of departments in the faculty or school. Unlike the Vice Chancellor's appointment, the appointment of departmental Chair is unique in that leaders at this stage are

nurtured internally within a given university. It is out of convention to have an external person from other institutions or government organizations to head or chair department in a given university system. In addition, appointment to departmental headship is tenable for a two-year term in the first instance, and subsequently, subject to reappointment by Vice Chancellor(s) if it is appointive or re-election by departmental members if it is elective.

Deanship in university structure is a preserve of the rank of professor among the faculty members; in the absence of a professor in a faculty, the VC can appoint among the faculty members anyone below that rank – associate professor, senior lecturer or lecturer. In other words, the positions of vice chancellor, deputy vice chancellor and dean are basically held by academics who have attained the rank of professorship or an associate professorship. Deputy Dean's position is held by associate professor(s), senior lecturer(s) or lecturer(s) below the above mentioned ranks. And departmental headship is usually held by professor(s), associate professor (s), senior lecturer(s) or lecturer I (s), while positions of director and assistant director of centres are held by professor(s) or associate professor(s) as the case may be.

### 2.3. Academic Leadership

The concept 'Academic leadership' was first posited by Ramsden [20] and it is conceived to represent stewardship across the basic functions in academes, for instance, stewardship in teaching, research, service and setting goals, inspiring others as well as communicating vision. In simple words, Nguyen and Barry, [21] perceive academic leadership as "leadership in academic settings". Therefore, academic leaders are persons with all embracing vision of their discipline, and with expertise power to engineer transformation in their discipline. These leaders have the power to harness the potentials of their colleagues while pursuing a common goal. Hence, they ought to nurture change and the vigor with which they do that must emanate from within the academia, largely shaped by the vision [22]. From the review of previous studies, academic leadership has been conceived in varied ways by different scholars/ authors. Strathe and Wilson, [23] maintain that academic staff have conservatively served as the fountain of leadership in academia via the different programs run which incorporate activities ranging from teaching, research/scholarship to services. In the words of Askling and Stensaker, [10], it is perceived as a duty discharged in an official manner. That is, academic leadership is viewed as a process of coexistence wherein individuals, groups and the likes are controlled, directed and oriented toward the accomplishment of shared objectives. For Marshall, Adams and Cameron, [24], they refer to it as a composite of responsibilities dispensed by individuals who have ascended to positions of authority in academic environment (i.e. heads, deans, directors, provost, deputy vice chancellor(s) academic and vice chancellor). From a different outlook, Jones et al., [12] conceptualize academic leadership on functions carried out by heads of department such as curriculum development and execution, departmental/ faculty-based activities and personal driven academic engagements. Based on the review carried out in this paper, academic leadership is perceived as the process of piloting the affairs of academic staff in the areas of their portfolios with the view to attaining shared and overall goals of institutions. The portfolios basically cut across three spheres – teaching, research/scholarship and service (i.e. community service) which constitute the core activities carried out by individual academic staff.

This paper deploys literature from various studies to conceptualize 'academic leadership' [14], [15], [25]– [27]. Therefore, it is contended that academic leadership is constituted by vision, adaptable to change, competencies, effective leadership and transformational style [7], [15]. Accordingly, [27]; [26] perceive charisma as an impactful aspect of leadership. In addition, Rowley et al., [14] submit that leadership in institutions of higher education should breed a leader that thinks of the influence of a decision on earning trust, respect, good and smooth relations with union and administrative departments. Therefore, this study conceptualizes academic leadership as built by vision, being adaptable to change, competency, effective leadership, transformational style and charisma. Additionally, the academic leadership constructs are analyzed and assessed from individual academic staff's viewpoints.

#### 2.3.1. Visionary

The concept of visionary entails an individual or a person who thinks, imagines and sees the future with foresight or wisdom. The operation of universities requires visionary leadership to pilot the affairs. In the context of 21st century epitomized by globalization and ICTs, academics in the university are required to predict the hurdles and opportunities beforehand. The challenges ought to be minimized while opportunities optimized. In the same vein, McLaurin and Al-Amri, [28] contends that effective leadership is characterized with a vivid picture and precise appreciation of the content and context of what performance should be and how it should be improved to accomplish a set goal. It is also pertinent to note that the vision of any given organization must be communicated to the workforce to bring about the desired outcomes. A leader that has foresight will scan the well beings of individuals, groups, teams and the entire organization. A visionary leader is driven by optimism about the future. He also amplifies the action(s) or activities that need to be undertaken. Being visionary in

academia, entails inspiring others to outgrow self-interests to what is best for the organization. It has been established that being visionary on the part of a leader can influence the performance of the followers [29]. In addition, it has also been contended that personal vision of a leader has a crucial function for building a common vision amongst academics [29].

### 2.3.2. Adaptable to Change

At the turn of 21st century, leadership has been confronted with myriad of challenges owing to the upsurge in ICTs and globalization. Thus, leadership in this century particularly in academia ought to be change driven to handle transformations that surround them. Marshall et al., [24] submit that it is not the strongest of the species that survives, or the most intelligent; it is the one that is most adaptable to change. Therefore, leaders in the academia ought to be adaptable to change in managing university towards resistance and overcoming the challenges. Leadership in a university is instrumental in accomplishing organizational objectives. In a bid to do so, adaptive leadership is required to bring about change as and when necessary [30]. In a nutshell, it is contended that the adaptability of academic leadership influences the performance of other academics [29], [31].

### 2.3.3. Competencies

A leader requires competency to discharge the responsibilities attached to the position. The term Competency is analyzed from the perspective of how he/she as a leader conducts him/herself while piloting the affairs of the institution. Competence refers to an act of possessing the requisite expertise to act in a successful manner (Oxford English Dictionary, 2010). Thus, leadership presupposes the possession of requisite skills to pilot the affairs of organizations in its entirety. In the same vein, academics require the requisite competencies as well as skills to function as effective leaders. Accordingly, McLaurin and Al-Amri [28] submit that academics ought to demonstrate capability, qualification as well as competency in piloting the affairs of the university. In other words, members of the academic staff ought to get acquainted with the competencies and qualifications required for the task in advance. It is submitted that competent leaders have the capability to implement the vision of the organization [32]. The competencies of academic leadership are functions of many factors -- record of past performance or success, experiences and the ability to accomplish tasks. In a similar development, Hancock [33], maintained that academic staff assume the responsibility of authority out of sense of duty, without any form of training, and more so without any form of prior administrative experiences.

### 2.3.4. Effective Leadership

Although there is some commonality between leadership and management, leadership has been conceived as a process of exerting influence on others that results to the accomplishment of set goals. This differentiates it from management, which entails the efficient and effective maintenance or sustenance of organizations' current activities, and the implementation of policies [34]. Having said this, effective leadership is defined by the American Association of Community Colleges (AACC) as a combination of effective management and vision. By implication, effective leadership is fundamental to success factor of any organization. Leadership theorists contend that the behaviour of individuals can substantially influence the conducts and actions of others [35], [36]. Therefore, it is contended that an effective leadership can influence others/employees to accomplish organizational goals. Leadership has traditionally been conceptualized as an individual-level skill. Effective leadership begets good management. In the same connection, Fitsimmons, [37] draws a distinction between good leadership and good management. Good leadership is driven by dynamism, whereas good management is static in nature. Good leadership is a prerequisite for effective leadership. In other words, effective leadership is mirrored in good management [38]. In addition, good management accommodates sharing of managerial skills and knowledge in general.

Effective leadership brings about the desired outcomes as driven by the objectives of organizations. In addition, effective leadership provides an atmosphere that integrates employees as well as clients while promoting focus, dedication and enthusiasm [39]. In this connection, we need to sum it up that some of the elements which influence the effectiveness of leadership are behavior, traits/ attributes (i.e. visionary, action and goal oriented, team builder and communication driven), capabilities/competencies, culture of the people, etc. [35], [40]. Therefore, leadership in academia requires to be driven by leadership competencies – credibility, experience and people skill/human aspects [35]. By implication, an effective leadership by academics can go a long way in producing the desired effects in accomplishing institutions' objectives.

### 2.3.5. Transformational Style

The philosophy of leadership widely celebrated in the 21st century is the transformational style of leadership. This style is a change driven form of piloting the affairs of a set of people, group(s) or organization(s). The word transformation entails altering, changing or replacing the status quo which could be in

full or part as situation(s) demand. In this scenery, a leader is perceived as a person who alters or brings change to the context and content of tasks and individuals in organizations. Thus, transformation incorporates conspicuous alterations in context and content. Empirical studies on leadership concentrate on transformational paradigm [15]. In other words, transformational leadership concentrates on change-based relationships between leaders and followers – a promising concept in the academia. Transformational leaders motivate, encourage, build trust, as well as win sympathy, respect, support and loyalty from followers [41]. Transformational leadership drives the effectiveness, productivity, innovation, and satisfaction; and it also instills the spirit of partnership as parties involved are preoccupied with attainment of efficiency in organizations through shared visions and mutual trust [42; 43; 44].

### 2.3.6. Charisma

The term Charisma refers to human characteristics, features, attributes or traits that make person(s) stand out from the others. It is found in persons whose personalities are exceptional or extraordinary, accompanied with inbuilt and unique capabilities of spellbinding communication. An individual can be said to be charismatic when he/she can employ his/her special personal traits, instead of rhetoric alone, to relate to others. Charisma connects to the way(s) an individual relates or deals with others. Charismatic individuals outgrow their self-interest and act for the benefits of all. Therefore, Charismatic leaders refer to persons who have high self-confidence, a clear vision, engage in unconventional behavior, and act as a change agent, while remaining realistic about environmental constraints [28]. The key behaviours of charismatic leaders include inter alia display of confidence, image building, role modeling, goals articulation and prompting followers' compliance. At the same time, a charismatic individual will display a sense of power and confidence. Thus, the leadership injects pride and confidence in others being connected to the leadership through the display and utilization of power and confidence. In addition, Lee and Liu sum it up that; charismatic leaders have the capability to articulate themselves freely. Charismatic leaders have full knowledge of themselves in terms of their strengths and weaknesses in such a manner that, they completely use their strengths to compensate for their weaknesses[45].

### 2.4. Knowledge sharing

Knowledge management (KM) has gained currency in intellectual discourse within and amongst the circles of academics as well as practitioners in recent times [46]. The transmission of information among individual employees is a crucial aspect of the KM process. KM incorporates the creation, acquisition, storage, transmission and application of knowledge; in addition, Hooff and Ridder [cited in 47] extended the catalog of activities involved in KM to include donation and collection. Accordingly, Tiwana [cited in 47] basically categorizes KM into three processes: knowledge acquisition, knowledge sharing and knowledge utilization. The acquisition describes the process of creation and development of ideas, insights, acumens and skills. The sharing entails the activities of exchanging, disseminating or transmitting knowledge that is already acquired; and finally, the utilization involves acting on the knowledge i.e. applying what is known to solve problem(s) in organizations. Knowledge sharing (KS) is an integral aspect of the KM strategies. Knowledge sharing is conceived as disseminating ideas, thoughts, experiences, understandings or events on given subject(s) with an anticipation to achieve more understandings/ insights. According to Willem; Sharratt and Usoro [cited in 48] viewed KS as the transfer of knowledge between two or more individuals in a mutual manner giving room for remodeling and sense making of the information in the different context. KS refers to the "process of capturing knowledge or moving knowledge from a source unit to a recipient unit" [49, p.1]. In addition, Jain, Sandhu and Sidhu added that "it also occurs when an individual is willing to assist as well as to learn from others in the development of new competencies"[48]. Many institutions achieve competitive gains through the facilitation of knowledge dissemination [cited in 47]. Therefore, knowledge sharing among individual employees and its potentials to influence performance has gained currency globally specifically in knowledge-intensive institutions like universities [50]. Accordingly, Steyn [cited in 47] submitted that to exploit the influence of knowledge in institutions of higher learning; people, structures and technology must be accorded equal emphasis. Thus, knowledge transmission is a means to an end. Previous studies reveal that effective engagement of knowledge sharing (KS) culminates in improved organizational performance. In the same vein, result of knowledge transmission leads to new knowledge and innovation being created which in turn enhance the performance of organizations.

Based on the reviews, knowledge sharing in this study is conceptualized by the principal factors that influence the exchange of knowledge between and amongst individuals in organizations as adapted from the following studies: [47], [51]– [54]: the nature of knowledge, motivation to share, opportunities to share, and the culture of the work environment. This paper explores the influences of academic leadership on knowledge sharing in academes. The academic leadership variable is made up of "visionary, adaptable to change,

competency, effective leadership, transformational style, and charisma” [7], [55]. Therefore, this study is built upon the following hypothetical statements:

- H1: Visionary has a positive influence on knowledge sharing.
- H2: Adaptable to change has a positive influence on knowledge sharing.
- H3: Competency has a positive influence on knowledge sharing.
- H4: Effective leadership has a positive influence on knowledge sharing.
- H5: Transformational style has a positive influence on knowledge sharing.
- H6: Charisma has a positive influence on knowledge sharing

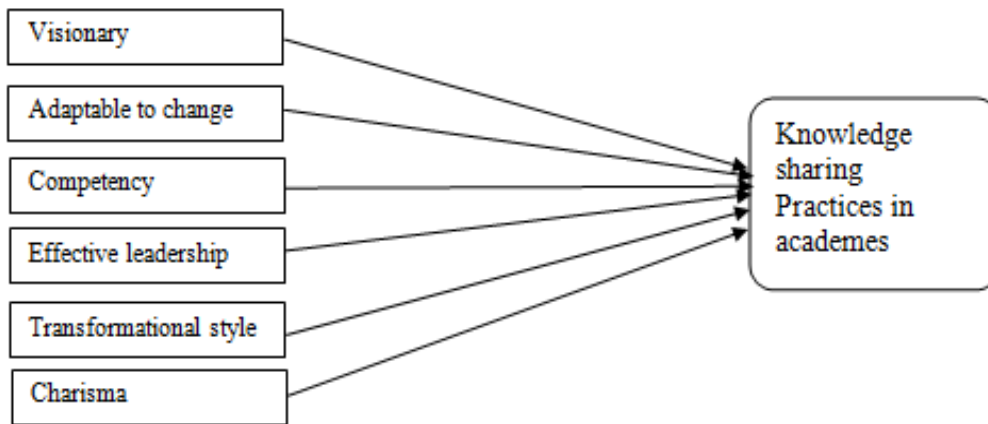


Figure 1 Academic leadership - Knowledge sharing model

### III. METHODS

The research design deployed in this study was basically descriptive by design. This study also deployed a cross-sectional survey as a time horizon to procure data from academic staff in public universities situated in the north central region in Nigeria. The unit of analysis for this study is the individual academic staff in the said public universities in Nigeria. The north central region in Nigeria has a total number of 13 public universities and 510 academic staff were drawn as the sample size for this study deploying quota sampling technique. A self-administered survey questionnaire was utilized as a data collection tool. A survey questionnaire deploying five-point Likert scale was used – spanning from 1 – ‘strongly disagree’, 2 – ‘disagree’, 3 – ‘neutral’, 4 – ‘agree’, to 5 – ‘strongly agree’. This scale was used to collect data about the variables of the model. The questionnaire was adapted from extant literature and modified to match the objective(s) of the study and the research framework. The instrument comprises 82 items to assess the seven (7) variables of the research model. Past studies established the validity of these items and in addition, this study also put them to test for validity and reliability. The survey questionnaire largely comprised two (2) parts. The first part aimed at eliciting the demographics of the respondents (i.e. public universities type, gender, age, qualification, present status (rank), working experience, and marital status).

The second part contained items measuring the dependent and independent constructs of the study as captured in the review and research model above. Drawing on relevant past studies, the dependent construct (i.e. knowledge sharing) is measured by four dimensions – nature of knowledge, motivation to share, opportunities to share, and the culture of the work environment [51]. Each of these dimensions is measured by given items. In the structural modeling, second-order construct was deployed to gauge knowledge sharing as a construct. Nature of knowledge was assessed by 7 items, motivation to share and opportunities to share were gauged by 5 items each; and Working culture was measure by 10 items[47], [48], [56]. Similarly, academic leadership is constituted by six (6) dimensions as independent constructs based on the review of literature; thus, these dimensions represent the six independent variables for this study [7], [55]. Academic leadership is measured deploying “the Leadership Behaviour Development Questionnaire – Form XII (LBDQ-XII)” [Stogdill, cited in 7]. In addition, Asaari submitted that “the LBDQ-XII Cronbach’s alpha of the samples was 0.54 to 0.86 across the nine-time periods”[7].

At the level of analysis, the Partial Least Squares -Structural Equation Modelling (PLS-SEM) technique was deployed utilizing the Smart-PLS software [57]. The PLS-SEM is perceived as the suitable tool for analysis for some reasons – it allows data to undergo evaluations without necessarily having to satisfy normality assumptions (i.e. non-normal data can also be evaluated); this study is descriptive in nature; it is researchers’ friendly; and above all, it handles both simple and complex path modelling [58]. In sum, two forms

of assessments were conducted in this research – the measurement model and structural model assessments. The former entails the evaluation of the relationship between items/indicators and the variables which was conducted first to test for the model's fitness, while the latter establishes the relationships between and among constructs via bootstrapping with 5000 subsamples, this was conducted to test the hypotheses drawn above.

#### IV. ANALYSIS AND RESULTS

The valid questionnaires used in this study emanated from an aggregate of five hundred and ten (510) questionnaires administered to the lecturers (i.e. the academic staff) in the North-central public universities in Nigeria. Out of a total of 510 questionnaires distributed, four hundred and sixteen (416) were completed and returned i.e. a response rate of 82 percent approximately was obtained from 510 respondents; however, 18% percent was not retrieved representing 94 questionnaires. From the 416 returned questionnaires, 391 were valid and usable for further analysis which accounted for response rate of 77% approximately. The point of departure, as recommended by [59], we employed SPSS to detect the presence of errors such as missing value, outliers, common method variance/bias(CMV) in the dataset. Data obtained from a single origin are strongly recommended for CMV check [60]. Hence, the data used in this were checked for CMV. To check for CMV, this study employed the Harman's single factor test via principal component factor analysis [61]. The result shows that the first factor revealed 28.37% as the largest factor accounting for the total variance, which is less than 50% signifying the absence of CMV in the current study. This is in consonant with the contention that CMV or method bias occurs when a distinct or rather one factor is accounting for more than 50% of the total variance [60], [62], [63]. Thus, the CMV or method bias is not a threat to outcomes of correlations in this study.

Table 1 Demographic Characteristics of the Respondents

Categories	Frequency	Percent (%)
<b>Public Universities</b>		
Federal University	249	63.7
State University	142	36.3
<b>Gender</b>		
Male	292	74.7
Female	99	25.3
<b>Age</b>		
Less than 30	38	9.7
30-39	136	34.8
40-49	125	32.0
50-59	68	17.4
60 and above	24	6.1
<b>Highest Qualification</b>		
Ph.D.	165	42.2
Master's Degree	189	48.3
Bachelor Degree	37	9.5
<b>Present Rank</b>		
Professor	22	5.6
Associate Professor	31	7.9
Senior Lecturer	61	15.6
Lecturer 1	101	25.8
Lecturer 2	67	17.1
Assistant Lecturer	74	18.9
Graduate Assistant	35	9.0
<b>Working Experience</b>		
Less than 1 year	16	4.1
1-5 years	146	37.3
6-10 years	94	24.0
11 year and above	135	34.5
<b>Marital Status</b>		
Single	58	14.8
Married	316	80.8
Widow/Widower	8	2.0
Divorcee/Separated	9	2.3



Note: Table 1 above captured the demographic breakdown of the study’s sample size that range from public university type, gender, age, educational qualification, working experience to marital status.

The assessment of the model in this study incorporates two basic forms of assessment – the outer and inner model assessments. In other words, the outer model assessment (i.e. measurement model) is a preliminary evaluation carried out to gauge the wellness of the items vis-à-vis the corresponding constructs they are meant to measure. Thus, this provides a clearance for the structural model to be conducted.

**4.1 Measurement model**

To establish the model’s items and constructs’ fitness for structural evaluation, this study commenced by carrying out a confirmatory factor analysis (CFA) of the items in question. This includes convergent validity (CV) and discriminant validity (DV). Hair et al., [59] contend that the CV is established via factor loading, average variance extracted (AVE), and composite reliability (CR). The CV was measured taking into consideration the following thresholds (rules of thumb) viz; the indicator loadings should be > 0.708 or > 0.5 may be considered if the AVE and other related parameters are achieved, CR > 0.7 and AVE > 0.5 [59]. As seen in Figure 2, it is apparent to observe that this study theorized knowledge sharing as SOC (i.e. second-order construct) with four dimensions. Therefore, this study drew on recommended PLS literature which culminated in the use of “repeated indicator approach” to design the path model of the SOC in the smart PLS assessment. As depicted in Table 2, all the items’ loadings were well beyond the threshold save for some items were removed partly due to low item loadings and in order to achieve other measures of the CFA ( i.e. AC03, AC04, AC06, AC08, ACO9, MS02, MS03, ELO01, EL02, EL05, EL06, NK07, TS05 and VS08); the values of the AVE and CR were greater than 0.5 and 0.7 respectively. In other words, some items with loadings between the range of 0.40 to 0.70 were removed from the scale in that, their removal enabled the achievement of AVE and other related parameters [64]. Thus, CV is validated with adequacy as the outer model went above the suggested thresholds.

Having validated the CV, the study moved on to evaluate the DV employing the parameter of heterotrait-monotrait ratio (HTMT) [65]. According to Kline [66], an adequate DV should be less than 0.85 (< 0.85), but for Gold, Malhotra, and Segars, (2001), the DV is accomplished if the HTMT values are less than 0.90 (< 0.90). As depicted in Table 3, the values of the HTMT are less than the recommended ceilings i.e. < 0.85 or < 0.90 [66; 67] indicating that the degree of distinction among the constructs is adequate. Thus, it is safely submitted that the items along with the variables as employed in this study depict adequate CV and DV (i.e. the reliability vis-à-vis the validity are achieved).

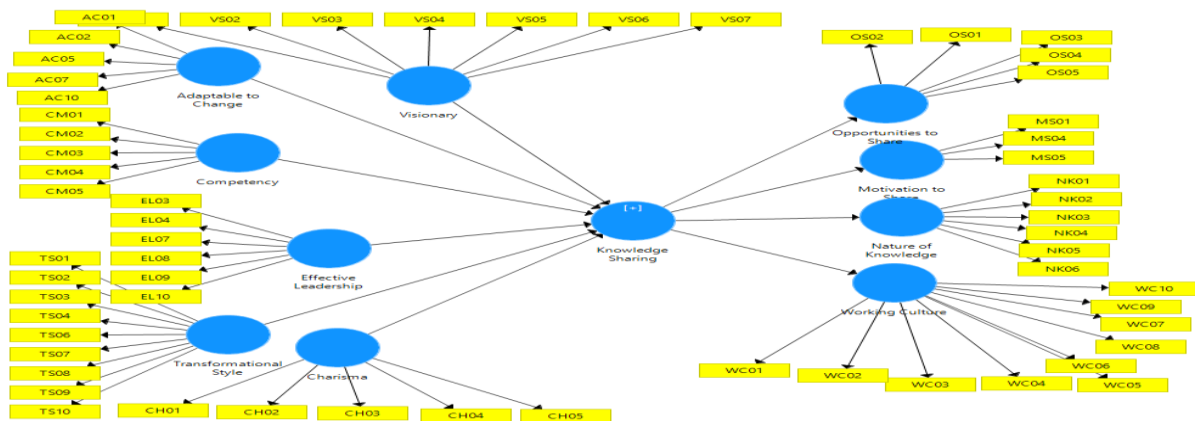


Figure 2: Path model showing the constructs, indicators and the dimensions of Knowledge sharing

Table 2 Convergent validity (CV)

FOC	SOC	Item	Loadings	AVE	CR
Visionary		VS01	0.798	0.58	0.906
		VS02	0.788		
		VS03	0.731		
		VS04	0.743		
		VS05	0.773		

FOC	SOC	Item	Loadings	AVE	CR
		VS06	0.714		
		VS07	0.781		
Adaptable to Change		AC01	0.764	0.513	0.84
		AC02	0.76		
		AC05	0.736		
		AC07	0.628		
		AC10	0.686		
Competency		CM01	0.796	0.665	0.908
		CM02	0.866		
		CM03	0.82		
		CM04	0.765		
		CM05	0.825		
Effective Leadership		EL03	0.769	0.58	0.892
		EL04	0.668		
		EL07	0.658		
		EL08	0.837		
		EL09	0.825		
		EL10	0.793		
Transformational Style		TS01	0.775	0.595	0.93
		TS02	0.777		
		TS03	0.743		
		TS04	0.641		
		TS06	0.826		
		TS07	0.788		
		TS08	0.818		
		TS09	0.797		
		TS10	0.763		
Charisma		CH01	0.723	0.637	0.898
		CH02	0.805		
		CH03	0.772		
		CH04	0.854		
		CH05	0.832		
Nature of Knowledge		NK01	0.821	0.568	0.886
		NK02	0.72		
		NK03	0.834		
		NK04	0.826		
		NK05	0.69		
		NK06	0.603		
Motivation to Share		MS01	0.696	0.504	0.753
		MS04	0.712		
		MS05	0.723		
Opportunities		OS01	0.807	0.606	0.885

FOC	SOC	Item	Loadings	AVE	CR
to Share		OS02	0.791		
		OS03	0.744		
		OS04	0.734		
Working Culture		OS05	0.812		
		WC01	0.756	0.567	0.929
		WC02	0.738		
		WC03	0.715		
		WC04	0.771		
		WC05	0.75		
		WC06	0.808		
		WC07	0.783		
		WC08	0.742		
		WC09	0.747		
	WC10	0.715			
	Knowledge Sharing	Nature of Knowledge	0.717	0.608	0.859
		Motivation to Share	0.67		
		Opportunities to Share	0.782		
		Working Culture	0.926		

Note: FOC - first-order construct; SOC - second-order construct; AVE -average variance extracted; CR - composite reliability.

**Table 3**

*Discriminant validity (Heterotrait-Monotrait (HTMT))*

	AC	CH	CM	EL	KS	TS	VS
AC							
CH	0.559						
CM	0.626	0.666					
EL	0.518	0.67	0.674				
KS	0.642	0.696	0.715	0.641			
TS	0.64	0.764	0.761	0.741	0.771		
VS	0.658	0.484	0.562	0.514	0.527	0.578	

#### 4.2 Structural model (SEM-PLS)

Having established the adequacy of the measurement model, we proceeded to evaluate the inner model which incorporates all the hypotheses (paths) drawn for the study. The hypothesized relationships were tested using the bootstrapping system with a resampling of 5000. Consequently, the following were assessed: the standardized coefficients ( $\beta$ ) and the t-value to establish the strength of the hypothesized paths (i.e. establishing the supporting or otherwise status of the paths) and the coefficient of determination (R<sup>2</sup>) value to ascertain the model's predictive capacity. Table 3 and 4 contained the outcomes of the hypothesis testing (i.e. revealing the standardized beta, t-value & significance of the paths) and the total R<sup>2</sup> value of the endogenous construct respectively. Therefore, this study examined the model's predictive capacity by computing the coefficient of determination (R<sup>2</sup>). The R<sup>2</sup> reveals the sum of variance accounted for by the independent constructs [Barclay et al., cited in 68]. The result as depicted in Table 3 revealed that the sum of six (6) exogenous constructs collectively accounted for 66.9% (per cent) of the total variance of the dependent variable (i.e. knowledge sharing).

**Table 2***Structural model (Hypothesis testing)*

Hyp	Path	S. Beta	S. Error	t- value	Decision	5.0% LL	95.0% UL
H1	VS -> KS	-0.011	0.053	0.27	Not supported	-0.095	0.078
H2	AC -> KS	0.19	0.048	3.914	Supported	0.111	0.269
H3	CM -> KS	0.196	0.054	3.646	Supported	0.107	0.286
H4	EL -> KS	0.051	0.05	1.003	Not supported	-0.032	0.133
H5	TS -> KS	0.335	0.065	5.182	Supported	0.225	0.441
H6	CH -> KS	0.175	0.057	3.072	Supported	0.079	0.265

Note: VS - Visionary; AC - Adaptable to change; CM - Competency; EL - Effective leadership; TS - Transformational style; CH - Charisma; KS - Knowledge sharing; LL - lower limit; UL - upper limit, Hyp. – hypothesis; S – standard.

**Table 3***Coefficient of determination (R<sup>2</sup>)*

Endogenous construct	R <sup>2</sup> (Total variance explained)	R <sup>2</sup> Adjusted
Knowledge sharing	0.669	0.664

Table 2 depicts the structural model analysis. From the results tendered, it was ascertained that VS ( $\beta = -0.011$ ,  $t = 0.270$ ,  $p < 0.05$ ) and EL ( $\beta = 0.051$ ,  $t = 1.003$ ,  $p < 0.05$ ) did not have positive influence on KS; therefore H1(VS -> KS) and H4 (EL -> KS) were not supported. This is in line with suggestions made by Preacher & Hayes [69] that hypotheses are supported if the boot class limit does not contain zero (0), hence, H1(LL = -0.095, UL = 0.078) & H4 (LL = -0.032, UL = 0.133) were not supported because their 5% and 95% boot class limits contain zero (0), depicting that visionary as well as effective leadership have no positive influence on knowledge sharing. Conversely, it was found that 'AC, CM, TS & CH' have positive influences on KS as depicted by the results respectively ( $\beta = 0.190$ ,  $t = 3.914$ ,  $p < 0.05$ ), ( $\beta = 0.196$ ,  $t = 3.646$ ,  $p < 0.05$ ), ( $\beta = 0.335$ ,  $t = 5.182$ ,  $p < 0.05$ ) and ( $\beta = 0.175$ ,  $t = 3.072$ ,  $p < 0.05$ ), thus H2 (AC -> KS), H3 (CM -> KS), H5 (TS -> KS) and H6 (CH -> KS) were all supported. To go further with the analysis of the results as revealed in Table 2, the 5% and 95% class limits of H2 (LL = 0.111, UL = 0.269), H3 (LL = 0.107, UL = 0.286), H5 (LL = 0.225, UL = 0.441) and H6 (LL = 0.079, UL = 0.265) revealed absence of zero (0) in the ranges thereby depicting the presence of a positive relationship between them (i.e. adaptable to change, competency, transformational style and charisma) and knowledge sharing [69]. Therefore, it is inferred that the path coefficients are statistically significant, implying that H2, H3, H5, & H6 were supported.

## V. DISCUSSION, FINDINGS AND IMPLICATIONS

The purpose of the study is to examine the influence of academic leadership on knowledge sharing (KS) in Nigerian public universities. The academic leadership was represented by six constructs i.e. visionary, adaptable to change, competency, effective leadership, transformational style and charisma [7]. These are the exogenous variables for this study; while the dependable variable was theorized as a higher order construct containing four dimensions [70]. The results of the study revealed that four out of six independent variables reported significant positive relationships with KS; therefore, H2, H3, H5 & H6 were supported. The positive significant association between majority of the constructs of academic leadership and KS shows that individual knowledge sharing between academic staff can be boosted as well as improved through effective presence and reflection of these four attributes in academic leaders i.e. adaptable to change, competency, transformational style and charisma, this result is in consonance with some previous similar studies, which attempted to establish some link between academic leadership and knowledge sharing, but this outcome is unique in that, it specifically found a positive relationship between some of the constructs of academic leadership and knowledge sharing among individual academic staff. Here these four constructs of academic leadership are significant predictors to knowledge sharing among academic staff. Thus, this finding is in line with previous studies [e.g. 7]. Therefore, it is contended that adaptable to change, competency, transformational style and charisma are

attributes of academic leaders that can influence level of knowledge sharing among individual academics in public universities. In addition, it has empirically been corroborated that all the six components of academic leadership are indeed constructs representing academic leadership and at the same time, knowledge sharing is reaffirmed as reflective second-order constructs with four dimensions - (RSOC)[70]. Conversely, it was found that two out of the six components (i.e. visionary and effective leadership) of academic leadership were reported not significant, hence they were not supported. By implication, it means they do not have influence on knowledge sharing. Although, the result is contrary to Asaari's findings in which they were found to be positive and significant with a different construct (i.e. organizational commitment). The non-significant of these two components of academic leadership may be due to some factors peculiar to the study area (public universities in north central region, Nigeria) – i.e. the politicization of emergence of academic leaders at the expense of merit, seniority and other criteria which may lead to emergence of visionless and in turn ineffective leaders. Therefore, the four significantly supported attributes of academic leaders (i.e. adaptable to change, competency, transformational style and charisma) play the most crucial role in determining the degree of knowledge sharing between individuals in the academia which in turn boost their performance. While on the other hand, visionary and effectiveness on the part of leadership are noble attributes or components but due to study area-based issues, these two components were not supported by the outcome of the test of structural modeling.

Theoretically, this study offers some contributions. First, it has revalidated the components of academic leadership as adapted from Asaari's study[7] as well as the dimensions of knowledge sharing as theorized by Ipe[51]. In other words, this study theoretically reveals that academic leadership is better predicted in the light of the six components and knowledge sharing is better envisaged in the light of the four dimensions (i.e. nature of knowledge, motivation to share, opportunities to share and working culture). Second, virtually all the previous studies were carried out by linking the constructs of academic leadership with other variables, but this study is one of the pioneers to link it with knowledge sharing in academic context; thereby establishing a significant positive relationship between academic leadership and knowledge sharing. Therefore, there is paucity of research that links academic leadership and knowledge sharing. This study fills this gap by undertaking an empirical evaluation of the relationship between academic leadership and knowledge sharing (KS) in public universities in Nigeria. By this token, this study contributes to the growing literature in the areas of leadership in academia vis-a-vis KM by empirically corroborating the components and dimensions of the constructs (i.e. academic leadership and knowledge sharing). Third, this study empirically revalidates the KS variable as reflective second-order construct (RSOC). Practically, this study provides some implications for some stakeholders – university managers, academic leaders, academics, and the researchers alike to appreciate academic leadership vis-à-vis knowledge sharing in the light of its influence on individual academic staff performance and the universities' performance at large. Therefore, this study practically contends that exercise of academic leadership has overriding effects on knowledge sharing among individual academic staff which may bring about improved performance both at individual and organizational levels.

## VI. CONCLUSIONS, LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study provides a better appreciation of how academic leadership is conceived and its relationship with knowledge sharing by offering empirical evidence on the influence of the components of academic leadership on KS. It is also presumed that this study has made some crucial contribution to the profession of academics in terms of leadership in academia and knowledge sharing, hence the ultimate purpose is to improve dissemination of information that would culminate in improved performance both at organizational and individual levels.

Some constraints have been noted in this study that may provide opportunities for future research endeavours to delve into the concept of academic leadership vis-à-vis knowledge sharing in a more efficient and comprehensive manners. In the first place, this study was carried out within relatively short period i.e. it was cross-sectional by design, whose validity and usage may be in the short term. To arrest this issue, future research is advised to be conducted in a longitudinal manner to unearth how other different issues or elements could be factored in to influence knowledge sharing among academic staff. Furthermore, the exogenous constructs (predictors) may assume different dimensions of influence in the short term as compared to the long term; thus, more research in this direction would be indispensable to assess such dependencies. Second, the unit of analysis is limited to list of public universities in north central region, Nigeria. This may suggest strength in terms of internal validity, but caution must be taken when running generalization of the findings in terms of its effects on other settings. Take for example, the impact(s) could be stronger or weaker on other settings. Future research may be conducted in different settings to lend authority to the findings of the study. Third, it is worthy to note that academic leadership is theorized in the light of six components [7] as the only predictors to knowledge sharing among academic staff. Along these lines, this may not be the only components of leadership that may influence KS; thus, future research is called upon to explore further with a view to incorporating other variables

that may have far reaching touch on KS. Additionally, future research is recommended to examine the relationship by incorporating demographics as mediating variables – gender, education or age, to offer more exhaustive ideas on academic leadership as well as its influence on KS among individual academic staff.

Finally, the insignificant influence of ‘visionary and effective leadership’ on KS as discovered in this study is rather unpredicted and quite surprising. Based on this, calls are made on future research to incorporate a mediator or moderator in the investigation of the relationship between the six components of academic leadership and KS. Regardless of the constraints, this study is still fit in providing grounds for advance research on the predictors (components of academic leadership) of KS among individual academic staff in Nigerian public universities.

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