# Knowledge Sharing (KS) Strategy and Operational Performance in University of Uyo Teaching Hospital, Uyo - Nigeria

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## Abstract

This study examined the effect of knowledge sharing strategy and operational performance at the University of Uyo Teaching Hospital, Uyo - Nigeria. In the study, we used the proportional sampling technique to determine the respondents. The clinical staff of the University of Uyo Teaching Hospital was used as respondents. We got a sample size of 400 clinical staff from a population size of 798 via the administration of four hundred and fifty (450) copies of the questionnaire to selected clinical staff. Thus, we employed frequencies; Linear Regression Model, and Morphological Analysis for data analysis. The findings revealed that knowledge sharing has a statistically significant effect on the operational performance of a tertiary hospital (p-value < 001). The morphological analysis revealed that technology is the key driver of knowledge sharing in the organisation. Regrettably, the use of technology in knowledge sharing at the University of Uyo Teaching Hospital is rather very low. We conclude that knowledge sharing practices have a significant effect on the operational performance of the University of Uyo Teaching Hospital. We also conclude the low knowledge sharing capabilities of the University of Uyo Teaching Hospital are because of poor technology utilization in knowledge management. Thus, we recommend that the University of Uyo Teaching Hospital should increase knowledge sharing through the extensive and diverse use of technology as such actions can lead to increased operational performance.

## Keywords
Knowledge, strategy, healthcare, operations, performance.

## 1. Introduction

The creating, sharing and transferring of knowledge in all organisations, especially the health sector, has become a critical factor in their operational success. It becomes highly demanding that managers and administrators of such organisations must possess the requisite ability to control, monitor, and enhance knowledge sharing in their organisations. This process is the management of knowledge (Cruz and Farreira, 2016). Knowledge management is "the creation and development of internal organisational conditions, which bring together all processes related to knowledge of reaching the goal of the organisation" (Alan, 2012). We can view knowledge management through culture, technology and human resources capabilities. These components influence the transfer and sharing of knowledge. They also regulate the sharing and dissemination of knowledge enhancing information. These components regulate the transfer and storage of knowledge in any organisation (Cruz and Farreira, 2016). Knowledge sharing requires the willingness of an individual, teams or units to work with each other and share knowledge with their collective interest. It has a more significant influence on the operational performance of an organisation more than financial performance (Son, Phong and Loan, 2020). We find knowledge sharing in literature to enhance the operational performance of every organisation (Nguyen et al., 2019; Oyemomi et al., 2016). Regrettably, certain individuals consider the sharing of knowledge as a loss to them when giving out knowledge and the competitive nature of the work environment makes the sharing of knowledge difficult since employees seek to prove individual or group efficiency. An organisation's recruitment process creates a perspective that they employ and kept in employees based on their knowledge prowess in all other considerations. This posture makes it difficult to manage the acquisition, sharing and transferring of knowledge. Despite being difficult, we could manage knowledge sharing in an organisation through the organisations' culture where individuals and groups either exhibit sharing culture or choose individualism. The

posting processes, training and staff turnover are a factor in organisations' knowledge sharing practices (Cruz and Farreira, 2016). It influences the cultural posture of the organisation. In assessing knowledge management in a public organisation, culture, structure, technology, personnel, and bureaucratic directives are key factors to consider (Syed-Ikhsan and Rowland, 2004).

Healthcare Organisation's ability to share knowledge among individuals, groups in an organisation and other organisations contribute to operational performance and reduce patients' waiting time (Son, Phong and Loan, 2020). Thus, knowledge sharing contributes to individuals, groups and organisations' operational efficiency (Son, Phong and Loan, 2020; Crue and Farreira, 2016). Patients waiting time affects the quality of health service and is the major determinant of its operational performance. Knowledge sharing drives organisational competencies and is key in regulating healthcare organisations' operational performance. The University of Uyo Teaching Hospital, being a training facility for undergraduate and graduate medical students alongside providing healthcare services to the public around Akwa Ibom State, has found knowledge sharing as a driver towards the attainment of its goals and objectives. Knowledge sharing among highly intelligent persons is usually very difficult and impossible because these individuals or groups in the organisation try to show their mental prowess, which leads to undue competition and hoarding of knowledge gained. This makes knowledge sharing in such a situation difficult. Organisations ignorantly make matters worse by making individuals feel they are kept at work because of their individualistic and exceptional knowledge, unconsciously creating selfishness and resistance to the free sharing of knowledge. These sometimes create fierce and negative competition among employees in an organisation. It also results in individualistic and anti-group behaviour towards sharing knowledge among individuals and groups in an organisation. In this situation, being faced by tertiary health facilities such as the University of Uyo Teaching Hospital, knowledge sharing practice seems difficult and inadequate.

The University of Uyo Teaching Hospital is a knowledge based-institution. We assess this organisation based on knowledge base and performance indicators such as patient's waiting time. The institution attracts intelligent and highly skilled individuals, teams, and groups who compete to show their proficiency. This competition makes these individuals individualistic and self-centred. In the light of this, strategic alignment of knowledge and capabilities is demanding. Yet managers of this organisation must enhance the sharing of knowledge among individuals and groups in order to achieve high quality healthcare delivery through operational efficiency and reduction in patients' waiting time in their organisation. Thus, it is admissible to appraise the effect of knowledge sharing and the operational performance in healthcare institutions such as the University of Uyo Teaching Hospital, Uyo through a reduction in patients' waiting time.

### 1.1 Objectives of the Study

The main aim of this study was to examine the effect of knowledge sharing on operational performance at the University of Uyo Teaching Hospital. Specifically, the study was to:

i) Examine the influence of Knowledge Sharing (KS) on Patient Waiting Time (PWT) at the University of Uyo Teaching Hospital, Uyo.

ii) Assess the morphology of knowledge sharing (KS) on Patients' Waiting Time (PWT) at the University of Uyo Teaching Hospital, Uyo.

## 2. Literature Review


Figure 1. Conceptual Model (Source: Authors Conceptual Model, 2021)

From Figure 1, the model establishes that there is a causal relationship between knowledge sharing and operation performance. The operational performance in a hospital is affected by the time in which a patient will wait to consult and treated. Knowledge sharing in the organisation increases outcomes such as operational efficiency (Son et al., 2020; Crue and Farreira, 2016; Wang and Wang, 2012). In literature, knowledge sharing has a positive significant relationship with performance guiding the organisation to increase capabilities and

enhance efficiency. In healthcare organisations, it leads to the reduction or improvement in patients' waiting time. Knowledge sharing is explicit and tacit knowledge sharing (Mohajan, 2017; Obrenovic et al.; 2015; Wang and Wang, 2012). Explicit knowledge is the easy communication of knowledge with words that are usually codified and shared subsequently (Obrenovic et al. 2015). While tacit knowledge sharing is the sharing of the unwritten, unspoken and hidden knowledge in an organisation (Mohajan, 2017). The very complex nature of tacit knowledge makes it sharing difficult and systematic. Although knowledge sharing helps organisations build positive teams and have a better organisational outcome, customarily it is not formally added to the job description and not a formal part organisation (Obrenovic et al., 2015). They carry knowledge sharing out through employees' citizenship behaviour (Mohajan, 2017). Yet increasing operational capabilities for the efficient outcome and reducing patients' waiting time is a key aim of any tertiary hospital such as the University of Uyo Teaching Hospital.

### 2.1 Knowledge Sharing and Healthcare Operational Outcome

The re-use and regeneration of knowledge in individuals, groups and organization is knowledge sharing. They increase knowledge by sharing (Farooq, 2017). Knowledge sharing has a positive impact on the operational performance of healthcare organizations (Vij and Farooq, 2014; Retala, 2015). It serves as a vehicle for effective knowledge management practice in the organisation (Vij and Farooq, 2014a; 2014b). Highly intelligent and productive workers find it difficult to share knowledge (Farooq, 2017). Tertiary hospitals have a sizeable number of highly intelligent employees. This makes knowledge sharing difficult, but a good reward system that encourages knowledge sharing enhances participation by the most intelligent and productive employees. Though there is no consensus among researchers on the measure of knowledge sharing, primary research questions can help the researcher's decision on knowledge management measurement. To have employees with knowledge sharing orientation, there must be top management support, organizational culture and a reward system that enhances knowledge sharing. Timely attention to the patient is a key aim in hospital management. Short waiting time and a positive experience represent important drivers of patient satisfaction (Sharma and Chowhan, 2013). Therefore, short waiting is a way of rating hospitals in terms of performance by the patient. This is made possible by the knowledge and skill stock of the organization at large. Knowledge is increased through sharing.

### 2.2 Information Technology and Knowledge Sharing

Technology is a key enabler of effective knowledge sharing. Components of Information and Communication Technology, such as databases, intranet, and the internet, are the key building blocks that enable knowledge sharing practices. Information technology allows for faster searches, access to information, collaboration, and communication between members of an organization (Yeh, Lai, and Ho, 2006). Undeniably, the most important factor influencing the implementation of knowledge sharing is information technology (McCampbell, Clare and Gitters, 1999). Data warehousing, intranets, and the internet are only a few examples of information technology. Thus, the application and incorporation of these examples into an organization's technical platform form a knowledge management system. Information technology, according to Zack (1999), plays four different roles in knowledge management: getting knowledge; defining, storing, categorizing, indexing, and linking digital objects relevant to knowledge; finding and classifying relevant material; and conveying content in a variety of ways, depending on the context of use. This provides channels for obtaining information, correct flow processes, and locating knowledge carriers and seekers. Effective information technology usage will speed up knowledge management (Mohamed, Stankosky, and Murray, 2006). Informing workers of an organisation's overall goals and priorities is very important in the implementation of information management systems, as well as how this technology will help them achieve these goals.

### 2.3 Organizational Culture and Knowledge Sharing

Sharing, learning, and awareness formation are all facilitated by culture. Attitudes, conscience, beliefs, the pattern of behaviour, and models make up culture. Culture places a high value on knowledge, encourages its development, sharing, and implementation. It fosters an open environment for a complimentary exchange of concepts and beliefs. The advancement of such a way of life is the most difficult aspect of knowledge management achievements. The most significant barrier that organizations face in developing a competitive knowledge-based organisation is culture (Wong, 2005; Chase, 1997). Culture in organizations is dynamic and develops with time as organisations adapt to changing circumstances. The organisation attempts to own distinct behavioural patterns (culture) and a set of procedures (Schein, 1984). These behavioural patterns and practices in organisations facilitate the sharing of knowledge among her workers and even between department lines, which make up an efficient knowledge management culture (Yeh, Lai and Ho, 2006). A key prerequisite for effective knowledge sharing is to create a competent and impressive way of life in the organisation (Gupta and Govindarajan, 2000). Many researchers looking into the reasons for knowledge management programs' collapse or decline have found out that an organisation's culture is the biggest roadblock to the progress of knowledge management programs (Tuggle and Shaw, 2000). It is a general term that encompasses a wide range of topics.

Collaboration is one aspect of knowledge management that is essential. Goh (2002) emphasized the importance of collaborative culture for information distribution among individuals and groups.

Collaboration has also been a significant contributor to knowledge formation in studies. According to Sviby and Simons (2002), one of the most important factors influencing the efficacy of information management is the collaborative environment. We need a positive and collaborative culture for effective knowledge management. Trust is another important part of information management. Swowden (2000) claims that the most important condition for knowledge transfer is confidence.

Information initiatives, according to Davenport and Prusak (1998), will fail if they lack confidence, disregarding how well such initiatives are backed by technology. People may suspect others' motives and actions if there is a lack of confidence, and they will withhold information. Knowledge sharing helps in developing a trusting accord between individuals and groups. It is discouraged by any existence of a lack of confidence. The knowledge management software will fail if there is no confidence. Without confidence, it is difficult to create fresh, valuable, and profitable information. Companies must ensure that their policies are in sync with corporate culture, according to Davenport (1998). If the case is different, the business should take steps to encourage matching. Effective knowledge management, according to Davenport and Prusak (1998), requires significant behavioral, cultural, and organizational change.

## 2.4 Theoretical Review: Knowledge Based Theory

The knowledge-based theory developed by Grant (1996) is a useful theory that contributes significantly to understanding the position of knowledge sharing. He claimed that the source of competitive advantage is not the organization's experience, because of obsolescence and replication of analogous knowledge. He promoted a non-proprietary form of expertise, such as implicit individual knowledge, which determines long-term competitive advantage. Since tacit awareness is both special and relatively immobile, it can provide a competitive advantage. However, since people rather than organizations, the capability of the organisation to align expert, special, and tacit knowledge of individuals. Hold that information. The knowledge-based philosophy of the firm's central concept is that companies exist because of their capabilities to handle knowledge more effectively than their peers under other forms of organizational structures. Organizations, simply, are social institutions that gain, keep, and store internal expertise, competencies, and skills that are critical to the growth and success of the organisation (Hakanson, 2010). Organizations are heterogeneous information-carrying bodies that administer knowledge to the provision of goods and services, as asserted by the theory (Foss, 1996). Since they are repositories of productive information, an organisation can position them for effective performance. From the foregoing, knowledge-based theory has been suitable for this study. The theory proposes the establishment of a heterogeneous knowledge structure across medical and clinical staff hierarchies of the hospital as a prerequisite condition for achieving sustainable knowledge-based competitive advantage.

## 2.5 Empirical Review of Literature

Wasim, Muhammad, and Nabila (2015) looked into the effect of information sharing (KS) activities on bank success by using a mediating process of the system and human strategy. They collected data from 810 middle-level managers from 42 banks using the survey method (amended instrument). They assessed the overall fitness of the model using the structural equation model (SEM) and confirmatory factor analysis (CFA). The CFA results revealed that all the indices used in the models adequately satisfied the regulated cut-off values. Implying a well-fitted model. The study's findings revealed that a framework and human-oriented approach substantially mediates the relationship for both explicit and implicit KS-driven success, enabling managers to place a greater emphasis on KM strategies because it allows them to better align KM initiatives for better information sharing, which can contribute to long-term performance. Therefore, the study showed that implicit KS practices have a greater impact on bank efficiency than explicit KS practices, implying that managers should place a greater emphasis on explicit information sharing.

Mukhtar (2015) assessed the impact of KM on the success of SMEs using a cross-sectional research design. They gathered the information used in this study in a single period and a sample of 278 managers and owners manufacturing SMEs in Nigeria through the sample with replacement. Small and medium businesses are critical to Nigeria's economic development because they create jobs, contribute significantly to industrial development, and serve as an origin of capital accumulation, an avenue for manufacturing intermediary products, and aid in the growth of artisanship. The result of the literature review is a model that seeks to investigate the relationship between the research constructs. Using the Smart Partial least square (PLS) method, the results revealed a significant and positive relationship between KM and SMEs' business success. They explored future research directions considering the results, which will help SME owners/managers and regulatory agencies. Nikolaos, Dimitris, and Georgios (2011) described the essential success ingredients that decide the efficacy of knowledge

management within organizations, which influence the firm's overall efficiency. They described the five significant ingredients that are assumed to be crucial for a successful KM accomplishment, based on current frameworks and models. They also looked at the impact of effective KM on firms' results. In Greece, they randomly selected 280 medium and large businesses. Of this number, only 109 of them correctly answered the questionnaire. The study's findings will assist organizations in determining the influence of various enablers on KM implementation progress and how KM effectiveness affects firm efficiency.

John and Ohimai (2015) looked into whether there is a connection between knowledge management and success, as well as whether knowledge management effectiveness varies across Nigerian universities. The paper looked at accredited universities in Nigeria that had gone through the Nigerian Universities Commission (NUC) accreditation process and chose six (6) universities based on ownership and age to be listed as two federal universities, two state universities, and two private universities. They chose the universities to use a combination of random and convenience sampling. 13,822 people worked at these six universities. Following that, they gave 389 respondents questionnaires based on the size of each university's workers. They analysed the data using correlations, regression analysis, and Analysis of Variance (ANOVA). Variations in knowledge management activities led to gaps in organizational performance; knowledge management was successful in all universities except Benson Idahosa University, and knowledge management was effective in all universities except Benson Idahosa University. They proposed communication facilities, information audits, library facilities, continuous upgrades of technology, and training of current university employees as a solution. Al-Hazim and Hassan (2011) found the relationship between KM and success to be inconclusive. They investigated the role of middle managers in KM execution in the Iraqi mobile telecommunications sector to enhance organizational efficiency. They discovered middle managers play a significant role in KM execution, resulting in a constructive relationship between the constructs. Annette and Trevor (2011) investigated knowledge management and organizational efficiency. They choose 189 senior and middle managers. Using structural equation modeling for data analysis and relying on Resource-Based View (RBV), their findings revealed that organisational success depends on information tools, such as organizational structure and knowledge implementation. While others, such as technology, had a major relationship with efficiency, knowledge transfer did not. Sandhwalla and McDermott (2011) found a close link between knowledge management and organizational performance.

Kharabsheh et al., (2012) analysed KM practices' effect on organizational success in Jordanian pharmaceutical firms. They debate the value of knowledge management as a useful tool for enhancing efficiency. They also emphasize that an organization's ability to execute knowledge-based practices can decide its competitive advantage's growth and sustainability. For data analysis, the study employs a survey questionnaire and the multiple regression method. They included thirteen pharmaceutical companies in the study. They saw that there was a significant and positive interdependence between KM practices and organizational performance. Davood and Morteza (2012) also tied into the study carried out by Kharabsheh et al., (2012) in the same year. They looked into KM capabilities and performing SMEs. They took a sample of thirty SMEs using a survey questionnaire and they analysed the data with regression methods. The result of the study showed that all three factors of KM capabilities have a significant and positive association with SME performance. Similarly, Emadzade et al., (2012) conducted an empirical study in Isfahan, Iran, to examine knowledge management capabilities and organizational success. They analysed the data using a survey questionnaire and the regression process. They chose 245 small business owners from 86 small businesses, using the RBV theory. Their result showed a partial relationship between the constructs.

Wang et al., (2012) investigated brand equity's impact and KM on marketing success in Taiwan branches of Japanese automakers. They use survey questionnaires for data collection and structural equation modeling for their analysis. Their findings disclosed a strong linkage between KM and firm performance. Nurach et al., (2012) used the same methods employed by Wang et al., (2012) to investigate the factors that boost the efficiency of ICT and KM systems for SME (s) in Thailand. The analysis involved seven hundred and seventy small and medium-sized enterprises (SMEs) and the results show a good relationship. Mohamad et al., (2013) followed the same path by using similar methods to study the impact of KM activities on organizational success in SMEs in Iran. Using simple random sampling, they choose 282 senior executives from these companies. Knowledge acquisition, storage, development, and implementation all have significant factor loadings on knowledge management, as do efficiency, financial morale, staff performance, creativity, work relationships, and customer satisfaction. The study's findings show KM practices have a direct influence on organisational performance. Zwain (2012) studied the effect of KM systems on academic success in Iraqi higher education institutions. Their inquiry focused on a survey and cross-sectional data. They used correlation and regression for their analyses. Findings show that knowledge management processes could support Iraqi higher education institutions. The study also recommends that decision-makers gain a thorough understanding of the effect of knowledge management processes in Iraqi higher education institutions.

William et al., (2012) conducted an inquiry into information recognition as a type of knowledge management method. The results of a survey were sent to 973 Australian organizations to examine and they present their information recognition practices in this paper. Although organizations consider awareness identification to be significant, the practice has not yet achieved widespread acceptance, according to the survey findings. The survey results also show two contrasting approaches to information recognition used by organizations, as they identified two types of knowledge identification: proactive and reactive. Ahmedi et al., (2013) used a survey approach to investigate the relationship between absorptive ability and information acquisition behaviour among Malaysian engineers working in the electronic field. The survey received 305 replies. They measured the relationships between variables using the partial least square (PLS) properties of structural equation modeling (SEM). The individual absorptive ability has a partial impact on employees' information acquisition, according to the report.

Abdel et al, (2012) used a questionnaire to collect data on the importance of knowledge management in improving organizational efficiency in some Egyptian organizations. At a 1% level of significance, the results show that all elements of knowledge management capabilities have a positive significant relationship with all measures of efficiency, implying that there is a strong connection between KM capabilities and organizational performance. Martin (2012) used quantitative and qualitative data to investigate information acquisition techniques and company success in a Young High Technology Company in Germany. The study identifies four distinct information acquisition techniques (low-key, mid-range, concentration, and exploration) and shows how the configuration of knowledge acquisition activities and the type of knowledge gained.

Ohiorenoya and Eboreine (2014) investigated whether there is a connection between knowledge management and efficiency, as well as whether knowledge management effectiveness varies between Nigerian universities. The paper looked at accredited universities in Nigeria that had gone through the Nigerian Universities Commission (NUC) accreditation process and chose six (6) universities based on ownership and age to be listed as two federal universities, two state universities, and two private universities. They chose the universities using a combination of random and convenience sampling. 13,822 people worked at these six universities. Following that, they gave 389 respondents questionnaires based on the size of each university's workers. They analyzed the data using correlations, regression analysis, and Analysis of Variance (ANOVA). They discovered that differences in knowledge management activities led to differences in organizational efficiency, knowledge management was effective in all universities except Benson Idahosa University; knowledge management was effective in all universities except Benson Idahosa University, and knowledge management was effective in all universities except Benson Idahosa University. The paper suggests the provision of communication facilities. Also, the provision of a full-scale information audit and library facilities. It is also important to train universities' existing staff and continuously upgrade technology.

### 2.6 Summary of Literature Reviewed

In a tertiary hospital such as the University of Teaching Hospital, the knowledge of individuals and groups in the organisation is very important. Therefore, sharing knowledge among these individuals and groups increases the knowledge of both parties. Hence, knowledge sharing increases operational efficiency and will reduce patient waiting time. It is a fact that knowledge is an important resource in an operation, a project, or an organisation. This resource can create a competitive edge; thus, Resource-Based View Theory provides a useful theoretical backing to studies in organisational knowledge, competition and operational efficiency. In literature, studies have provided support for knowledge sharing and organisational efficiency (Abdel et al., 2012; Ohiorenova and Eboreine, 2014). Also, Mohamad et al. (2013) suggested that knowledge management (including sharing) has a significant positive effect on employees' performance, creativity, workplace relationships and patients satisfaction.

## 3. Methods

### 3.1 Research Design

We used a survey research design in this study. The design's ability informed the choice of this method in aiding the evaluation of unambiguous outcomes of knowledge management on healthcare service delivery in a setting like the University of Uyo Teaching Hospital in Uyo. This implies that we will offer practitioners in this field opportunity to provide useful information for the analysis.

### 3.2 Population of the Study

The University of Uyo Teaching Hospital has a total population of 1,816 staff members with 924 clinical staff and 892 non-clinical staff. Table 1 shows the distribution of the clinical staff.

Table 1. Distribution of Clinical Staff at University of Uyo Teaching Hospital

| S/N | Nomenclature | Number |
|---|---|---|
| 1 | Hospital Consultants | 36 |
| 2. | Medical Officers | 18 |
| 3. | Resident Doctors | 171 |
| 4. | Nurses | 432 |
| 5. | Medical Lab Scientists | 56 |
| 6. | Pharmacist | 19 |
| 7. | Honorary Consultants | 52 |
| 8. | Sessional Consultants | 14 |
| 9. | Health Attendants | 49* |
| 10. | Porters | 8* |
| | Total<br>**Total Used** | 924<br>**798** |

* Not Used in the study
**Source**: Field Survey (2020).

The Health Attendants and Porters were excluded from the study which gave a total population of 798 clinical staff.

### 3.3 Sample and Sampling Technique

The study used the Proportional Sampling technique to determine the proportion of clinical staff at the University of Uyo Teaching Hospital, Uyo that will take part in the study.

From this value, Taro Yamane's sample size determination technique was used to determine the sample size, as shown in the formula given below:

$$n = \frac{N}{1 + N(e)^2}$$

Where: n = Sample size; N = Population; e = Sampling error (0.05); 1 = Constant

Applying the formula,

the sample size for the study =

$$n = \frac{\frac{798}{1+798\,(0.05)^2}}{1+(798 \times 0.0025)} = \frac{798}{1.995}$$

n = 400

The sample size was used to obtain a proportionate sample as shown in Table 2

Table 2. Derived Proportionate Sample of Clinical Staff at University of Uyo Teaching Hospital

| S/N | Nomenclature | Number | Used |
|---|---|---|---|
| 1 | Hospital Consultants | 36/798*400 | 18 |
| 2. | Medical Officers | 18/798*400 | 9 |
| 3. | Resident Doctors | 171/798*400 | 86 |
| 4. | Nurses | 432/798*400 | 217 |
| 5. | Medical Lab Scientists | 56/798*400 | 28 |
| 6. | Pharmacist | 19/798*400 | 10 |
| 7. | Honorary Consultants | 52/798*400 | 26 |
| 8. | Sessional Consultants | 14/798*400 | 6 |
| | **Total sample** | | **400** |

**Source**: Field Survey (2020).

We sent out four hundred and fifty (450) copies of the questionnaire with additional fifty copies randomly added considering the need. The respondents returned four hundred and eighteen (418) copies of the questionnaire. Wrongly filled copies of the questionnaire were sixteen (16), while, four hundred and two (402) were correctly filled. Therefore, the percentage of the copies of the questionnaire correctly filled was 89.33 percent

### 3.4 Sources of Data

We derived data in this study from the structured questionnaire administered at the University of Uyo Teaching Hospital to the workers. Thus, 402 copies of the questionnaire made up the respondents used in this study.

Model Specification

Operational Performance = f(Knowledge Sharing, KS)

Let Patients' Waiting Time = Operational Performance

Then:

PWT = $f$(KS)

$$PWT = \beta_0 + \beta_1.KS + \varepsilon \quad (3.2)$$

## 4. Data Presentation

Table 3. Assessing the Relationship between Knowledge Sharing (KS) and Patient Wait-Time (PWT) at the University of Uyo Teaching Hospital, Uyo

| S/N | ITEMS | SA | A | D | SD |
|---|---|---|---|---|---|
| 1. | Sharing knowledge in an organisation leads to a reduction in patient waiting time. | 229<br>57.0 | 169<br>42.0 | 4<br>1.0 | 0 |
| 2. | Lack of knowledge, skills and information will increase patients' waiting time. | 247<br>61.4 | 153<br>38.1 | 2<br>0.5 | 0 |
| 3. | We like to share knowledge among employees in my organization. | 227<br>56.5 | 175<br>43.5 | 0 | 0 |
| 4. | Highly intelligent persons find it difficult to share knowledge. | 180<br>44.8 | 220<br>54.7 | 2<br>0.5 | 0 |
| 5. | Competition among employees reduces knowledge sharing in organizations. | 153<br>38.1 | 105<br>26.1 | 58<br>14.4 | 86<br>21.4 |
| 6. | Not sharing adequate knowledge leads to an increase in patient waiting time. | 227<br>56.5 | 175<br>43.5 | | |

**Source**: Field Survey (2020)

Table 3 shows the responses used in assessing the relationship between Knowledge Sharing (KS) and Patient Wait-Time (PWT) at the University of Uyo Teaching Hospital, Uyo. When asked if sharing knowledge in their organization leads to a reduction in patient waiting time, 229 (57.0 percent) strongly agreed while 169 (42.0 percent) agreed with the assertion. On the question that lack of knowledge, skills and information will increase patients' waiting time, 247 of the respondents representing 56.5 percent strongly agreed, 153 (38.1 percent) agreed and 2 (0.5 percent) disagreed. When asked if they like to share knowledge among employees in their organization, 227 (56.5 percent) strongly agreed while 175 (43.5 percent) agreed with the assertion. Questioned if highly intelligent persons find it difficult to share knowledge, 180 representing 44.8 percent of the respondents strongly agreed, 220 representing 54.9 percent agreed while 2 of 0.5 percent disagreed. When asked if competition among employees reduces knowledge sharing in organizations, 153 respondents representing 38.1 percent strongly agreed, 105 (26.1 percent) agreed, 58 (14.4 percent) disagreed, and 86 (21.4 percent) strongly disagreed. The diversity of the respondents' answers reflects the diverse nature of their opinions. When asked if not sharing adequate knowledge leads to an increase in Patients' waiting time, 227 respondents representing 56.5 percent strongly agreed while 175 (43.5 percent) agreed

## 5. Results and Discussion

### 5.1 Numerical Results: Hypotheses Testing

Ho1: There is no significant relationship between Knowledge Sharing (KS) and patient wait-time (PWT) at the University of Uyo Teaching Hospital, Uyo.

$H_A1$: There is a significant relationship between knowledge sharing (KS) and patient wait-time (PWT) at the University of Uyo Teaching Hospital, Uyo

Table 4. Linear Regression Result

| R Square | F-statistic | Significance |
|---|---|---|
| 0.423 | 292.953 | 0.000 |
| Coefficients | | |
| | Beta-Score | t-Score |
| Knowledge Sharing (KS) | 0.650 | 17.116 |

**Source:** Researchers' SPSS Computation (2020)

A simple linear regression model was used to test the null hypothesis (Table 4). The R2 showed a value of 0.423. This implies that 42.3 percent of the changes in Knowledge Sharing (KS) can affect 42.3 percent of the changes in Patients' Waiting Time (PWT) at the University of Uyo Teaching Hospital, Uyo. The model showed a goodness of fit at p-value < 0.01, which implies that there is a linear relationship between knowledge sharing and patients' waiting time Beta score showed a positive relationship between the variables, this results from the positive posture that questions in the questionnaire with respondents agreeing that a positive knowledge attitude will lead to an improvement in the patients' waiting time. Thus, we reject the null hypothesis that there is no significant relationship between Knowledge Sharing (KS) and patient wait-time (PWT) at the University of Uyo Teaching Hospital Uyo. The results of the study show that knowledge sharing showed a statistically significant effect on Patients' Waiting Time (PWT) at a p-value less than 0.01. Patients' Waiting Time is an indicator of the operational efficiency quality of service in hospitals as specified by the World Health Organization.

The revelation that Knowledge sharing practices have a significant effect on the operational performance of healthcare organisations such as the University of Uyo Teaching Hospital, Uyo. This result agrees with various assertions in literature (Son et al., 2020; Mohajan, 2017; Wasin, Muhammad and Nabila, 2015; Mukhar, 2015; Ohiorenoya and Eboreine, 2014). Son et al. 2020 discovered that transformational leadership and knowledge sharing are the major determinants of operational and financial performance. This implies that any organisation that has good leadership and designs its system to promote knowledge sharing will benefit from an increase in operational performance. Obrenovic et al., 2015 found that same thing but noted that knowledge sharing using both tacit and explicit forms of knowledge increased the team performance of a group of highly intelligent science, therefore, encouraging the sharing of both explicit and tacit knowledge will break the difficult barrier seen in highly intelligent person as experienced by the University of Uyo Teaching Hospital. Mohajan (2017) saw that building capacity in the storage and sharing of tacit knowledge in organisations will lead to the sustainable development of such organisations.

Findings of Wasin, Mahammad, and Nabila (2015), who in their study found out that Knowledge Sharing practices carried out by banks have a significant effect on the bank's performance with a positive increase in their performances. The result of the finding also reflects this assertion as 65 percent of the changes in patients' waiting times is influenced by 65 percent of the changes in knowledge sharing. We transform the sharing of knowledge among practitioners in an organization to increase the knowledge base and efficiency of such an organisation. This will transform the organisation into a learning organization (Senge, 1990).

Technology development is the vehicle that drives the growth in knowledge sharing, but regrettably, the application of technology to knowledge sharing practices in the University of Uyo Teaching Hospital is rather low (poor). Individual employees who use their devices for this purpose only find knowledge sharing practices. The hospital has no digital database where employees can source and use operational information in the organisation.

## 5.2 Morphology Analysis

Table 5. A Morphological Analysis of Knowledge Sharing in the University of Uyo Teaching Hospital

| S/N | Dimension | Possible Options | Score | | | | |
|---|---|---|---|---|---|---|---|
| | | | 0 | 1 | 2 | 3 | 4 |
| 1 | **Knowledge** | Characteristics (diversity) | | | | | ✔ |
| | | Leakage | | | | | ✔ |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Territoriality | | | | ✔ | |
| | | Engagement | | | | ✔ | |
| | | Task Interdependence | | | | | ✔ |
| 2 | **Individual** | Personality Traits | | | | ✔ | |
| | | Power Ambitions | | | | | ✔ |
| | | Psychological Ownership | | | | | ✔ |
| | | Knowledge Seekers | | | | | ✔ |
| | | Creativity | | | | ✔ | |
| 3 | **Team** | Trust | | | ✔ | | |
| | | Communication | | | ✔ | | |
| | | Deception | | | | | ✔ |
| | | Time pressure | | | | | ✔ |
| 4 | **Organisation** | Regulations | ✔ | | | | |
| | | Climate | | | ✔ | | |
| | | Interpersonal Dynamics | | | ✔ | | |
| | | Competitiveness | | ✔ | | | |
| | | Innovation | | | ✔ | | |
| | | Leadership | | | ✔ | | |
| 5 | Technology use in Operations KM | Database for operational Manual | ✔ | | | | |
| | | Knowledge management applications | ✔ | | | | |
| | | Organisation induced virtual training | ✔ | | | | |
| | | Hardware for Knowledge Management | ✔ | | | | |

**Source:** Researchers' SPSS Computation (2020)

From Table 5, a morphological analysis to show the practice of knowledge sharing in the University of Uyo Teaching Hospital. In assessing the knowledge components, we observed that the hospital requires diverse knowledge. Although this organisation needs diverse knowledge, the task carried out in the hospital are interdependent. This knowledge requirement clearly defines areas of knowledge needed; by this, they showed clear territory. The organisation comprises highly intelligent persons who are power ambitious and need psychological ownership of the knowledge they offer for sharing. This makes knowledge sharing difficult, even though individuals in this organisation seek to expand their knowledge. Regrettably, the interdependence of task in the organisation creates a need for knowledge sharing practices. Despite these bottlenecks, the individuals in this organisation showed high personal traits from sharing knowledge and the desire for creativity provides a leverage for knowledge sharing. The groups or teams in this organisation have poor knowledge communication and barely trust the knowledge sharing practice. We found this between individuals in teams that are competing among themselves and teams who see themselves as competitors. Negative group dynamics was a common feature in their knowledge sharing structure. There was also high time pressure to complete task need for smooth operations of the organisation and very little time allocated for sharing knowledge

Management commitment to knowledge sharing is a key component in achieving effective knowledge sharing practices. The management of this organisation has no regulation on the sharing of both tacit and explicit knowledge in the organisation. This resulted in poor knowledge sharing climate and interpersonal dynamics. There was no clear definition of how individuals' interpersonal skills in an organisation are guided to enhance the sharing of tacit knowledge. This showed poor leadership and innovation in terms of knowledge sharing in the tertiary hospital where knowledge in the key component of their operations. There was no deliberate action to introduce technology in her knowledge management system.

## 6. Conclusion

Knowledge sharing practices have a significant effect on the operational performance of tertiary healthcare organizations such as the University of Uyo Teaching Hospital (UUTH). UUTH being a tertiary healthcare facility is driven by the knowledge of individuals, and groups in the organization. They enhance the growth of this organisation through the capabilities of these individuals and their ability to deliver knowledge to others. Highly intelligent persons make up the individuals and groups in the organisation, that is the reason knowledge sharing is difficult. A good reward system that encourages knowledge sharing will improve the knowledge sharing capabilities of such an institution. The result, which shows a positive significant relationship between

knowledge sharing and operational performance, agrees with various assertions in knowledge sharing literature (Son et al., 2020; John and Obimal, 2015; Sandhwalla and McDermott, 2011; Wang, Lee, Wu, Chang and Wei, 2012).

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