

Effect of Knowledge Management on Corporate Performance of Pharmaceutical Companies in Nigeria

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ABSTRACT

The study examined the effect of knowledge management on corporate performance of pharmaceutical companies in Nigeria. The research utilized quantitative and descriptive method to analyze the study. The study's target population comprised all the staffs of the seven (7) pharmaceutical companies listed on the floor of the Nigerian Stock Exchange. The sample size for the study was 289 employees from 7 pharmaceutical companies in Nigeria. Primary data with the aid of questionnaire consisting of 46 items, rated in a 5-point Likert scale was used. The gathered data was analyzed using both descriptive and inferential statistics. Descriptive statistics, including frequency component with aid of SPSS and in order to test the research hypotheses multiple regression was used to provide meaningful result to the hypotheses. The findings of this study have drawn conclusions that pharmaceutical companies in Nigeria have implemented a high level of knowledge management techniques. Knowledge creation primarily occurs through participation in seminars, conferences, industry products and benchmarking. The study recommended that functional heads within the pharmaceutical industry should encourage knowledge management.

INTRODUCTION

The environment of business has often created new challenges for business to remain competitive. Thus, companies have to face high competition from other businesses and run the risk of losing their customers because of difficulty in understanding and responding to rapid changing market trends. It is widely accepted that knowledge equates to power, leading individuals to accumulate and safeguard it in order to maintain a competitive edge. The prevailing attitude among many is to withhold knowledge, recognizing it as the key asset that makes them valuable to the organization (Ning & Ali, 2020). Pandey and Dutta (2013) have argued that knowledge is progressively being perceived as the most critical resource for organizations, prompting many to implement knowledge management strategies aimed at creating, storing, and disseminating knowledge throughout the entire organization for future use. According to Oludare, Oladeji, and Adeyemi (2023), the management of knowledge primarily involves establishing, facilitating, and supporting conducive learning environments within an organization, fostering and empowering capable individuals to utilize and share their knowledge, thereby generating new knowledge.

In the contemporary economy, an organization's competitive advantage lies in its ability to harness knowledge that is created, stored, and shared throughout the entire pharmaceutical companies in Nigeria. This advantage is achieved by fully utilizing information and data, while also tapping into the skills, ideas, commitments, and motivations of its people. Within the corporate context, knowledge is the result of organizational and systematic reasoning applied to data and information.

Knowledge represents the outcome of learning, which provides the organization with its only sustainable competitive edge. In today's economy, knowledge has become a crucial asset that holds greater significance

than land, labor, or capital (Ning & Ali, 2020). Consequently, there are two primary types of knowledge: tacit knowledge and explicit knowledge, each further subdivided: Tacit knowledge resides within the minds of individuals, while explicit knowledge is documented or stored in other forms of media beyond the human brain. Explicit knowledge can be embedded in facilities products, processes, services, and systems. Both forms of knowledge can be generated through market interactions or innovations, as well as through relationships and alliances. They permeate the daily operations of organizations and contribute to the achievement of their objectives. Both tacit and explicit knowledge empower organizations to effectively respond to new situations and emerging challenges.

Despite the growing interest in knowledge management. There is limited empirical evidence linking knowledge management practices with firm-level innovation, particularly from the perspective of developing country like Nigeria. It is crucial to examine the connection between knowledge management and innovation for strategic and theoretical reasons. Firstly, researchers recognize the importance of identifying, managing, and developing intangible assets like intellectual capital and knowledge to enhance firm value (Darroch, 2005). However, there is a lack of empirical evidence on how to effectively manage these intangible assets. Secondly, previous studies examining the link between knowledge management and innovation have predominantly focused on developed countries, neglecting the perspective of developing countries (Dickel & Moura, 2016; Donate & Pablo, 2015; García-Álvarez, 2015). There is a scarcity of studies exploring this link from a developing country perspective, particularly in Africa (Gaviria-Marin, Merigó, & Baier-Fuentes, 2018). It is important to acknowledge that firm-level practices can have context-specific effects (Anning-Dorson, 2018), necessitating research on practices that are suitable for different contexts. Studies focused solely on developed countries offer limited perspectives and have limited implications for firms operating in different economic and geographical contexts (Anning-Dorson, 2018). By solely focusing on developed country contexts, our understanding of emerging markets and the unique characteristics of developing countries' market structures becomes blurred.

Replicating studies from developed economies without proper contextual delineation can diminish the contributions of emerging markets to research and the global economy. This research work seeks to examine the effect of knowledge management techniques on corporate performance of pharmaceutical companies in Nigeria.

Statement of the Problem

In Nigeria, the pharmaceutical firms have performed below expectation due to a combination of problems which ranges from factors such as poor infrastructure, low-sales, double taxation, infrastructural decay, erratic power supply and frequent government policy inconsistencies among others which has led to the failure of the industry to achieve stated goals and objectives. Knowledge is an essential resource of every firm, pharmaceutical firms inclusive. However, only some organizations have been able to exploit this resource in a way that will enhance the performance of the firm. As today's economy becomes more knowledge-oriented, so does the need to effectively and efficiently apply the right knowledge management tools in all organizations to improve performance. However, one of the major factors that have affected organizational performance of today is inability to apply the right tool and behaviour that promotes knowledge acquisitions, sharing, as well as storage (Hasan, 2016). Also, having knowledgeable employees does not guarantee continuous success and performance in the pharmaceutical firm, the reason being that the success and performance of the organization lies in the application of knowledge with the right tools (Heisig, Suraj, Kianto & Faith 2016). The capacity to manage human intellect and transform intellectual output into a service or a group of services embodied in a product is fast becoming the critical executive skill of this era. Despite its importance, knowledge management in pharmaceutical firm has remained a black box for both scholars and practitioners. Many organizations are reasonably good at acquiring knowledge but end up wasting this resource by not effectively disseminating it. Due to lack of knowledge creation on quality service and knowledge share on customer satisfaction, knowledge storage on shareholder

and knowledge sharing on employee efficiency hinders organizational performance in pharmaceutical firms in Nigeria. All these problems which hinder the performance of organizations in pharmaceutical firms have necessitated this study the effect of knowledge management techniques on corporate performance in the Nigerian pharmaceutical industry.

Objectives of the Study

To achieve the primary goal of the study: effect of knowledge management techniques on corporate performance of pharmaceutical companies in Nigeria, the following research objectives were developed

1. To Examine the effect of knowledge creation and sharing of innovative performance of pharmaceutical companies in Nigeria.
2. To Assess the effect of knowledge creation on market share of pharmaceutical companies in Nigeria.
3. To Evaluate the effect of knowledge storage and sharing of market share of pharmaceutical companies in Nigeria.
4. To Investigate the effect of knowledge storage on innovative performance of pharmaceutical companies in Nigeria.

Research Questions

For effective exploitation of the subject matter, the following research questions were developed from the specific objectives as follows:

1. What extent is the effect of knowledge creation sharing of innovative performance of pharmaceutical companies in Nigeria.
2. What extent is the effect of knowledge creation on market share of pharmaceutical companies in Nigeria.
3. What extent is the effect of knowledge sharing on market share of pharmaceutical companies in Nigeria.
4. What extent is the effect of knowledge storage on innovative performance of pharmaceutical companies in Nigeria.

Research Hypotheses

For the purpose of the study hypotheses were formulated in a null form for the basis of drawing conclusion in this study as follows:

H0₁: There is no positive and significant effect of knowledge creation and sharing of innovative performance of pharmaceutical companies in Nigeria.

H0₂: There is no positive and significant effect of knowledge creation on market share of pharmaceutical companies in Nigeria.

H0₃: There is no positive and significant effect of knowledge storage and sharing on market share of pharmaceutical companies in Nigeria.

H0₄: There is no positive and significant effect of knowledge storage on innovative performance of pharmaceutical firms in Nigeria.

CONCEPT OF KNOWLEDGE MANAGEMENT

Knowledge management is a systematic process involving the creation, collection, organization, storage,

dissemination, and utilization of knowledge to create business value and competitive advantage (Pandey & Dutta, 2013). Several local and international studies have been carried regarding the influence of knowledge management on the performance of organizations, and have illustrated that knowledge management practices positively affect the performance of the organizations. Alfandi and Bataineh (2023) discovered the positive influence of knowledge management on organizational performance. They understood that the customers' knowledge leadership, as the independent variable, and innovation, customers' level of satisfaction, and products and services quality, as various dimensions of organizational performance, were related.

Gholami, Asli, Nazari-Shirkouhi and Noruzy (2013) analyzed the influence of knowledge management on the performance of micro and moderating effect of firm-size. They concluded that acquiring knowledge, storing knowledge, sharing knowledge, creating knowledge, and applying knowledge were among the leading factors for knowledge management. They also discovered that production, financial performance, staff members' performance, innovation performance, market share and professional relationships were the leading positive factors related to organizational performance. They concluded that knowledge management would have a direct impact on the performance of micro and mediating business-sized. Therefore, the current study adopted knowledge creation, knowledge sharing and knowledge storage as indicators of independent variable while market share and innovation are for dependent variable.

2.1. Knowledge Creation

Knowledge creation (KC) is the initial step of Knowledge management (KM). In fact, by utilizing Knowledge creation and performance new thoughts emerge by combining existing information (Mukuria, Awino, Ogollah and Njihia 2021). According to the theory of KC, which was introduced by Nonaka and Takeuchi (2021), knowledge is created by the SECI model which covers four modes, namely socialization, externalization, combination, and internalization. This procedure of KC depicts the dynamic contact between two types of knowledge, called explicit knowledge (EK) and tacit knowledge (TK), and it creates value for the firm through producing new thoughts (Ning & Ali, 2020). Most scientists concur that information is a basic element for performance and that it is considerably more important for organizations' competitiveness (Ning & Ali, 2020). Knowledge creation needs continuous work and management to maintain and improve institutional knowledge.

It also provides support for organizational development and hence, an appropriate theoretical framework since it recognizes various types of knowledge management practices. Ning and Ali (2020) aver that virtual, mental, or physical space where knowledge emanates should be continuously monitored. Information interpretation should address the location in support of knowledge creation and enhance the theoretical place where knowledge creation occurs. Knowledge falls into two categories: media and type of interaction (Ning & Ali, 2020) Dialoguing and systemizing theoretical places of knowledge creation and knowledge sharing involve exercising, originating and mutual interactions. Firms that apply the Knowledge creation and performance can interface information in novel methods and give additional worth to clients by enhancing market aids; they will be more effective in attaining improvement and return. Along these lines, creating new knowledge is fundamental since it has a beneficial outcome on performance (Ning & Ali, 2020). To confirm this contention, the researcher hypothesized that:

2.1. Knowledge Sharing

Knowledge sharing (KS) is an aspect of knowledge management, it is the fundamental means through which employees can contribute to knowledge application, innovation and ultimately the competitive advantage of the organization (Oludare, Oladeji & Adeyemi, 2023). Knowledge sharing refers to organizing, reusing, capturing and transferring experience-based knowledge that is in an organization and ensuring that such

knowledge is made available to others in the business (Alfandi & Bataineh 2023). It is a process by which existing information from different sources is shared in organization in a way that leads to the formation of new knowledge for the organization (Beigi, Malekakhlagh, Nosratpanah & Safari 2023). Chiekezie, Dibua and Chineny (2016) stated that KS can be enhanced by increasing employees' beliefs about their capability through peer mentor training. Similarly, employees are highly motivated to share their knowledge if they are confident in their ability to contribute knowledge that will enhance the success of their organization. Knowledge sharing between employees and within and across teams allows organizations to exploit and capitalize on knowledge-based resources (Salama 2017). Research has proven that knowledge sharing enhances reduction in cost of production; fasten completion of new projects, team performance, firm innovations and performance, increase in revenue from new products and services (Beigi, Malekakhlagh, Nosratpanah & Safari 2023).

It is very useful and mandatory for organizations to achieve the organizational objectives through proper staffing and trainings system. In this 21st century, knowledge exchange is the element of high value among all the organizational individuals (Beigi, Malekakhlagh, Nosratpanah & Safari 2023). Knowledge sharing is the joint sharing of knowledge and to maintain a healthy relationship in the context of exchange of knowledge, it is keenly important for the smooth execution of business (Chiekezie, Dibua & Chineny 2016). It is very important to develop the system of advance equipment and technology to facilitate knowledge sharing in the organization because effective communication between members of organization is an integral part for the knowledge exchange culture (Alfandi & Bataineh 2023). Knowledge sharing is characterized by freedom to share and disseminate ideas without restriction. It is a voluntary process (Salama, 2017). Many researchers have linked knowledge sharing to performance and innovation (Chiekezie, Dibua & Chineny 2016).

Knowledge Storage

Knowledge storage involves both the soft or hard style recording and retention of both individual and organizational knowledge in a way to be easily retrieved. Knowledge storage utilizes technical infrastructure such as modern informational hardware and software and human processes to identify the knowledge in an organization, then to code and index the knowledge for later retrieval (Alfandi and Bataineh (2023). Knowledge storage involves storing information in a central location that is readily accessible to those members of an organization who can use for everyday tasks. Stored information can be stored in the format of soft and hard copies like in the case of college and university repositories. It is also important to regularly update records for easy and faster retrieval. This approach encourages people to document approach. Chiekezie, Dibua and Chineny (2016) argued that when knowledge stored, it allows many people to search for, and retrieve codified knowledge without having to contact the person who originally developed it. This saves time and other organizational resources and thus improved performance.

From theoretical literature, knowledge storage provides for the coding and indexing of knowledge for future retrieval. The area of organization in knowledge management offers not only the storage but the organization of information to facilitate a better understanding of knowledge (Mukuria, Awino, Ogollah and Njihia 2021). Organizational memory is utilized in data mining and learning tools for the knowledge storage and retrieval phase. It is vital for that in the era of high employee turnover and management changes, storage of information plays an important role for future use. The organizational manual provides for an organizational structure that stores information that can be accessed and shared among all the staff (Liebowitz & Frank, 2016). Novak (2017) sought to identify applicable literature more recent on the relationship between knowledge management and organizational performance in terms of knowledge storage. The majority of the reviewed studies showed that there was a positive effect of knowledge management factors on organizational performance.

Corporate Performance

The performance of an organization is profoundly influenced by the infrastructure it has in place for managing knowledge. The knowledge management along with the level of knowledge management practices plays a crucial role in determining and enhancing organizational performance (Chen, Wang, Huang, & Shen, 2016). Cheng and Krumwiede (2017) suggested that organizational performance can be progressively enhanced by the cumulative outcomes of research and development, innovative performance and as well as market share. This improvement is achieved through the acquisition of intellectual resources, which are based on adaptability and continuous improvement for enhancement of organizational performance. Hence two types of performance are adopted here for the purpose of this study: innovative and market share.

Innovative Performance

Product-service (PS) innovation is a significant way for firms to maintain their competitive advantage in a competitive business environment (Chen, Wang, Huang, & Shen, 2016). Most previous studies take a limited view of innovation in product-services, with a greater focus on technological innovation (Ning and Ali (2020)). Due to the intangible nature of PS and the role of customer interaction, a bias towards technological innovation is often inadequate to explain innovation in product-services firms. This is because when compared to manufacturing, product-services are less standardized, more dispersed and less centralized with less focus on products. Some previous studies also argue that service innovation is becoming an important element in manufacturing firms (Cheng & Krumwiede, 2017; Cheng and Krumwiede (2017) defines innovation in product-services as a “new service experience or service solution that consists of one or several of the following dimensions: new service concept, new customer interaction, new value system/business partners, new revenue model, new organizational or technological service delivery system”. Innovation in product-services can also emerge from a novel combination of existing services, technologies, people and approaches to satisfy existing and potential customers (Chen et al., 2016). From the foregoing, this study defines innovation in service as the process of developing something new or a combination of existing services in new ways that is beneficial to a target audience. Ning and Ali (2020) argues that service firms should approach innovation in way that enables them to identify opportunities for breakthrough service offerings that are not constrained by current or proposed service offerings.

Market share

Among the financial or non-financial measures, market share has been considered by researchers and business managers. The biggest reason why market share got the most attention is that it has been empirically proved that market share can lead to profitability (Bhattacharya et al., 2021)

The marketing literature generally views market share as an indicator of the success of a firm's efforts to compete in a product-marketplace (Varadarajan 2020). From this perspective, market share is an outcome of a firm's marketing efforts including its advertising and promotion, product/service offering quality and price, channel and customer relationships, and selling activities. Also, Market share refers to the percentage of total sales or revenue that a company or brand captures within a specific market or industry. It is a measure of a company's relative strength and position within the market. Market share can be calculated based on various parameters such as unit sales, revenue, or customer base.

American Marketing Association website defines market share as “the proportion of the total quantity or dollar sales in a market that is held by each of the competitors. The market can be defined as broadly as the industry, or all substitutes, or as narrowly as a specific market segment. The choice of market depends on which level gives the best insight into competitive position

The Merriam-Webster dictionary defines market share as “the percentage of the market for a product or

service that a company supplies. Market share is an outcome of a company's product or service offering, distribution channels, marketing initiatives, and customer relationships. Some markets tend toward winner-take-most outcomes. Lee Cooper and Masao Nakanishi, professors of marketing (2022), suggest that market share analysis should be competitive, descriptive, and profit-oriented.¹¹ Competitive emphasizes that any assessment must be in the context of the position and decisions of competitors, including potential entrants. Descriptive captures the market structure and the potential impact of marketing initiatives on product performance. Profit-oriented considers how changes in market share lead to changes in profitability.

Theoretical Review

The knowledge management Process Framework by Bukowitz and Williams (1999) model illustrates a process that outlines the strategy for managing, building, divesting, and enhancing knowledge assets. This model places significant emphasis on the "why" and "when" aspects of knowledge management. Its strengths lie in its strategic focus, which effectively contextualizes knowledge management actions. While the model offers a comprehensive overview of the KM strategy, it does not provide detailed insights into which specific initiatives are suitable for a given situation.

This model aims to provide a more comprehensive depiction of the knowledge management (KM) process, acknowledging the overlapping and interactive nature of its three broad categories. Similar to Gamble & Blackwell, the model focuses on managerial initiatives, omitting the strategic aspect (the "when" and the "why") of KM. Notably, this model specifically includes the creation of new knowledge as a distinct KM initiative. Additionally, it highlights which categories are more people-oriented and which are more technology-focused. The question of whether knowledge sharing should primarily rely on technology remains debatable, and this will be addressed in future sections. However, it is important to recognize that organizations often approach KM as a technological challenge rather than an organizational and social one. So far, we have examined three models that adopt different approaches to KM.

There is one vital aspect of KM that these models have not directly addressed, and that is the measurement of effects to determine whether the implemented initiatives are achieving the desired results. This aspect relies on effective data and information management and holds significant importance for future KM endeavors.

Review of Empirical Studies

Oludare, Oladeji and Adeyemi (2023) examined thematic analysis of knowledge management practices and performance of multinational manufacturing firms in Nigeria. This study adopted quantitative research design; eight respondents were interviewed to complement the findings of the questionnaire. Thematic analysis was used to analyze the interview data with the aid of Nvivo, the study found that top management of their company invests much human and financial resource for knowledge management.

Alfandi and Bataineh (2023) investigated the mediating influence of knowledge management on the link between Green entrepreneurial orientation and sustainable performance. A quantitative approach was adopted. Through a self-administered questionnaire, 108 questionnaires were collected from five-star employees in managerial positions. The gathered data was analyzed using structural equation modeling to assess the link between our research variables. According to the findings of structural equation modeling, Green entrepreneurial orientation has a beneficial impact on knowledge management and sustainable performance. Furthermore, the knowledge management has a favorable effect on the sustainable performance. The outcome also revealed that knowledge management partially mediates between Green entrepreneurial orientation and sustainable performance, suggesting that the favorable effects of Green entrepreneurial orientation on sustainable performance may be amplified by knowledge management's mediating action. The findings have implications on the Jordanian's tourism and hospitality industry. The

numerical population for the study was not stated and not even the procedure to which the sample size was obtained.

Beigi, Malekakhlagh, Nosratpanah and Safari (2023) investigate the effect of knowledge management (KM) and dynamic capabilities (DCs) on the improvement of the performance of knowledge firms through the mediating role of sustainable competitive advantage (SCA). The study was applied in terms of purpose and descriptive correlation in terms of nature. A number of knowledge firms in Tehran province were selected as the statistical sample. The optimal sample size was 288 employees using G-Power software version 3.1. 186 questionnaires were collected for data analysis using Smart PLS3. The findings revealed that KM and DCs enhanced the performance of knowledge firms through strengthening SCA. The current study extends the literature on management by bridging the research gap. It was suggested that creating and applying KM and DCs simultaneously, through SCA, can provide the essential setting for the significant improvement of knowledge firm's performance and assist managers and policymakers understand how to improve the firm performance (FP) in dynamic environments. This paper was built on the assumptions of the resource-based view and the perspective of the firms' dynamic capabilities. The findings of the study help firm managers and practitioners to create and maintain a SCA and improve performance through a KM approach and DCs. In addition to theoretical contributions, this study provides a variety of practical advice for managers and policymakers to succeed in applying KM and DCs to achieve better performance.

Tamsah, Nurung, Nasriani and Yusriadi (2023) examined talent and knowledge management on employee performance in public organization. This research was conducted in two public health centers, namely Durikumba Health Center and Lara Health Center, Karossa District, and Central Mamuju Regency. The sampling technique used was total sampling. However, in this study, only 70 out of 74 health workers completed the questionnaire completely at the Durikumba Health Center and 45 out of 53 officers at the Lara Health Center. The total final sample obtained was 115 health workers. The model and research approach use explanatory quantitative by choosing structural equation modeling (SEM) as the basis for statistical analysis to determine the influence and relationship between variables processed using AMOS software. The study's results found that talent management can encourage knowledge management improvements and improve health workers' performance at the research sites. Based on the results of research and discussion, it can be concluded that talent management can improve knowledge management and employee performance simultaneously. It was recommended that it is necessary to manage their expertise through knowledge management to get the maximum benefit from the knowledge possessed and know the knowledge that must be included.

Mbah and Maduafor (2022) study examined the effect of knowledge management and organizational performance of pharmaceutical manufacturing firms in Enugu State, Nigeria. The population of the study comprised 1590 employees. The sample size was 310 employees which were obtained using statistical formula devised by Borg and Gall. This study made use of primary source of data. The research instrument was questionnaire, which was subjected to face and content validity procedures. Data gathered was retested using Cronbach Alpha. The data collected were analyzed using simple percentages to answer the research questions while multiple-regression was used to test the hypotheses. The result revealed that knowledge accessibility has a significant positive influence on market share in pharmaceutical manufacturing firms; Knowledge sharing has a significant positive effect on customer satisfaction in pharmaceutical manufacturing firms and Knowledge creation has a significant positive influence on employee efficiency in pharmaceutical manufacturing firms in Enugu State, Nigeria. The study concluded that knowledge management had a significant positive effect on organization performance using pharmaceutical manufacturing firms in Enugu State. Manufacturing firm should ensure the protection of their acquired knowledge within the organization so as to gain a better-quality service and better performance. Organizations especially manufacturing firm should efficiently and effectively manage knowledge and embrace knowledge sharing in order to gain sustainable competitive advantage and customer satisfaction.

Knowledge creation should be made availability for formal and informal networks between organizations employees and external experts; memberships of professional bodies; constant experimentation with new ideas; and employee efficiency in pharmaceutical manufacturing firms.

Mukuria, Awino, Ogollah and Njihia (2021) established the relationship between knowledge management and performance of retail pharmaceutical firms in Nairobi County, Kenya. The study applied positivism philosophy and descriptive research design. The population of the study was all registered retail pharmaceutical firms in Nairobi County. Systematic sampling method was applied. The study sample comprised 116 retail pharmaceutical firms in Nairobi County, Kenya. Primary data was collected using semi-structured questionnaires. Data were analyzed using descriptive and inferential statistics. The results showed that knowledge management significantly influences performance of retail pharmaceutical firms in Nairobi County. Study findings concur with dynamic capabilities theory which presents knowledge management as a fundamental strategic initiative that guarantees firms competitive edge and performance. Stakeholders and owners of the retail pharmaceutical firms should develop policies that facilitate knowledge management process in their firms as well as the entire sector and having processes for applying knowledge learned from experience. Keywords: Knowledge Management, Firm Performance, Retail Pharmaceutical firms, Kenya.

Kavalić, Nikolić, Stanisavljev, Đorđević, Pečujlija and Stojanović (2021) examined the predictive effects of knowledge management on financial performance are analyzed. The study explores descriptive statistical research design method to include the moderating effects of National Origin and Enterprise Size and their relationship. Primary data was adopted through questionnaire was used for data regarding the application of knowledge management through 50 items. The items were structured in seven-point Likert scales. The data was gathered by interviewing 520 managers from manufacturing companies operating in Serbia. Pearson's correlation and multiple regressions were used for data analysis. The most important conclusions of the research were; high levels of knowledge management positively influence business performance, quality and competitiveness; financial performance is mainly influenced by the dimensions connected to the effects of knowledge management regarding its implementation and protection and the acquisition of competitive advantages. The study recommended for implementation and application of processes for acquiring knowledge about customers and suppliers.

Ning and Ali (2020) measured knowledge management strategies and organizational performance in West Peninsular Malaysia utilizing a structural equation modeling (SEM) approach. The research method of this research is a solely quantitative method where the total sample size is considered 331 employing simple random sampling. For this research, the structural model exhibited the relationships among the variables. The findings reveal that, knowledge management structure is positively related to knowledge management strategy, same to knowledge management practice is positively related to knowledge management strategy. However, knowledge management structure was found not really positively related to organizational performance. Unexpectedly, knowledge management practice has not also found significant either in terms of positively related to organizational performance. On the other hand, knowledge management strategy is positively related to organizational performance as well as reciprocal relationship found between knowledge management structure and knowledge management practice. This research has contributed to the existing knowledge by providing an empirically validated model which could be used to predict the organizational performance as a whole.

Salama (2017) investigated the relationship between knowledge management capability, organizational learning, supply chain management practices and organizational performance. Such a study is important as it contributes to the growing body of literature that links organizational capabilities and practices with organizational performance. In addition, it also contributes to empirical knowledge by applying the proposed conceptual framework in the Egyptian context, which is currently under-researched. The research approach adopted in this research includes empirical examination of the hypothesized relationships among

research variables applied on 63 factories with more than 100 employees located at New Borg Al-Arab industrial city using self-administrated questionnaires. The findings of this research provide evidence that knowledge management capability has an impact on organizational learning as well as on supply chain management practices. However, none of the research variables; i.e. knowledge management capability, organizational learning and supply chain management practices have an impact on organizational performance. The main conclusion drawn from this study is that knowledge management capability may be useful to managers for predicting organizational learning and coordinating supply chain management practices between supply chain members. In addition, it could be concluded that organizational performance, in the factories under study, is affected by variables other than knowledge management capability, organizational learning and supply chain management practices.

Chiekezie, Dibua and Chineny (2016) study focused on knowledge sharing and competitiveness in selected Pharmaceutical Manufacturing Companies in Anambra state. The specific objective is to determine the relationship between staff training and customer satisfaction in pharmaceutical companies in Anambra state. A research question and hypothesis were formulated in line with the specific objective. The study was anchored on Penrose resource-based view of the firm and a descriptive survey design was adopted. Complete enumeration method was adopted due to manageable size of the population. Reliability test was conducted using cronbach alpha while Pearson Moment Correlation was used for data analyses. The finding of the research revealed that knowledge sharing through employee training was linked to improved employee performance and customer satisfaction. Based on the findings, the study concludes that shared knowledge through staff training is a basis for individual action and organizational competitiveness. It recommended that management should encourage knowledge sharing through on-the-job and off-the-job staff training and reward employees' initiatives. Experts should be employed to enhance knowledge sharing and product quality of pharmaceutical firms.

METHODOLOGY

The research utilized a quantitative and descriptive method to analyze the study. This approach allowed for a comprehensive understanding and description of the identified phenomenon, enabling the assessment and interpretation of findings that adequately reflected the examined information. The study's target population comprised all the seven (7) pharmaceutical companies listed on the floor of the Nigerian Stock Exchange. This list is as follows: Fidson Healthcare Plc, Glaxo SmithKline Consumer Nig. Plc, May & Baker Nigeria Plc, Morison Industries Plc, Neimeth International Pharmaceuticals Plc, Pharma-Deko Plc. and PZ Cussons Nigeria Plc. To determine the appropriate sample size, the formula recommended by Almalki (2016) was utilized to obtain 289 employees.

The tool used for data collection was a researcher-developed questionnaire consisting of 46 items, rated on a 5-point Likert scale. The response options ranged from "Strongly Agree" (5) to "Strongly Disagree" (1), with the following scale: strongly agree=5, agree=4, neutral=3, disagree=2, and strongly disagree=1. These items were designed to measure various aspects, including knowledge creation (10 items), knowledge sharing (10 items), knowledge storage (10 items), innovative performance (8 items) and market share (8 items).

The research variables demonstrated a sufficient level of content validity, which is typically assessed by experts in the field who provide their judgment. In this study, six experts in the field of knowledge management reviewed the initial draft of the questionnaire and reached a consensus on all 46 items. Additionally, a factor analysis was conducted, yielding a Kaiser Neyer Olkin (KMO) value of 0.89, indicating appropriate item correlations for the purpose of factor analysis.

Reliability refers to the internal consistency of the instrument. To evaluate the instrument's reliability in this

study, construct reliability was assessed by calculating Cronbach's alpha. The standard threshold for construct reliability is 0.7 or higher. The Cronbach's alpha coefficients for the questionnaire components were as follows: knowledge creation (0.78), knowledge sharing (0.75), knowledge storage (0.89), innovative performance (0.88), and market share (0.87). All the research variables exhibited Cronbach's alpha coefficients exceeding 0.7, indicating an acceptable level of reliability for the instrument used in the study. The gathered data was analyzed using both descriptive and inferential statistics. Descriptive statistics, including frequency component with aid of SPSS and in order to test the research hypotheses multiple regression was used to provide meaningful result to the hypotheses.

Data Presentation

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error
KC	267	6.00	17.00	8.8657	.21468	1.75720	1.679	.293	6.014	.578
KSh	267	8.00	19.00	12.0000	.25785	2.11058	.668	.293	1.109	.578
KSt	267	7.00	18.00	11.6567	.26439	2.16412	.903	.293	1.136	.578
IP	267	4.00	16.00	7.7015	.31972	2.61705	1.231	.293	1.051	.578
MS	267	6.00	16.00	10.0597	.24143	1.97623	.850	.293	1.319	.578
Valid N (listwise)	267									

Source: SPSS Output, (2023)

The result of the descriptive statistics revealed that the mean of each variable reflected that Knowledge Creation (KC) was 8.8657, Knowledge Sharing (KSh) was 12.0000, Knowledge Storage (KSt) was 11.6567, Innovative Performance (IP) 7.7015 and Market Share (MS) was 9.6119. The table also reflected their standard deviation for the variables were as follow 1.75720, 2.11058, 2.16412, 2.61705, 1.65103 and 1.97623 respectively. The Skewness of Knowledge Creation (KC) was 1.679, Knowledge Sharing (KSh) was 0.668, Knowledge Storage (KSt) was 0.903, Innovation Performance (IP) was 1.23 and Market Share (MS) was 1.421. The table also reflected their Kurtosis as 6.014, 1.109, 1.136, 1.051, 2.596 and 1.319. Meanwhile, the Minimum value for Knowledge Creation (KC) was 6.00, Knowledge Sharing (KSh) was 8.00, Knowledge Storage (KSt) was 7.00, Innovative Performance (IP) was 4.00, and Market Share (MS) was 7.00, Their Maximum values were 17.00, 19.00, 18.00, 16.00, 15.00 and 16.00 respectively.

Table 4.2 Independent Variables and Innovative Performance

Variables	Original Sample	Sample Mean	Standard Deviation	T-Statistics	P-Value
KC→ IP	0.346	0.325	0.113	3.061	0.002
KSh→IP	0.463	0.025	0.102	6.143	0.000
KSt→IP	0.361	0.262	0.149	3.362	0.003

Source: SPSS Output, (2023)

The table:4.2 it can be seen that Knowledge Creation (KC) → Innovative Performance had T Statistic yielding a result of (t =3.061) and P Value was (p = 0.002), Knowledge Sharing (KSh) →Innovative

Performance had T Statistic yields a result of (t =6.143) and P Value was (p = 0.000), Knowledge Storage (KSt) → Innovative Performance had T Statistic yields a result of (t =3.061) and P Value was (p = 0.000).

Table 4.3 Independent Variables and Market Share

Variables	Original Sample	Sample Mean	Standard Deviation	T statistics	P Value
KC→MS	0.339	0.341	0.213	4.318	0.000
KSh→MS	0.413	0.225	0.462	6.211	0.000
KSt→MS	0.414	0.262	0.209	4.321	0.000

Source: SPSS Output, (2023)

The table:4.3 it can see that Knowledge Creation (KC) → Market Share (MS) had T Statistic yielding a result of (t =4.318) and P Value was (p = 0.000), Knowledge Sharing (KSh) → Market Share had T Statistic yields a result of (t =6.211) and P Value was (p = 0.000), Knowledge Storage (KSt) → Market Share had T Statistic yields a result of (t =4.321) and P Value was (p = 0.000).

DISCUSSION OF FINDINGS

The finding of this study revealed that there is positive and significant effect of knowledge creation on both innovative performance and market share of pharmaceutical firms in Nigeria. The present finding is inconsistent with the study conducted by Mbah and Maduafor (2022) who found that knowledge creation was not significant factors influencing organizational performance. However, the remaining knowledge management processes, namely knowledge sharing and retention, were found to have connections with organizational performance. Contrary, another study conducted by Prunzinsky and Milhalcova (2017) concluded that knowledge creation has a significant impact on organizational performance. The differing results may be attributed to the specific context of each study. The research findings implication is that knowledge creation has a significant influence on organizational performance. The study revealed that a significant number of knowledge creation techniques had effect on organizational performance. These results support the assertion that knowledge creation plays a crucial role in determining the overall performance of an organization.

The finding of this study revealed that there is positive and significant effect of knowledge sharing on both innovative performance and market share of pharmaceutical firms in Nigeria. The findings from the present study are consistent with Saed (2016) who discovered that higher levels of knowledge sharing are associated with increased organizational performance. Furthermore, Ning and Ali (2020) discovered a positive relationship between knowledge sharing and organizational performance. This supports the findings of Mukuria, Awino, Ogollah and Njihia (2021), who established a statistically significant positive moderating effect of knowledge sharing on organizational performance. Therefore, organizations are encouraged to reassess their firm-level performance by considering factors such as organizational structure, culture, technology, management style, and human resources. This evaluation aims to enhance knowledge sharing, leading to innovation and improved performance.

The finding of this study revealed that there is positive and significant effect of knowledge storage on both innovative performance and market share of pharmaceutical firms in Nigeria. The finding is consistent with Karani (2015) who stated that knowledge storage has significant effect on organizational performance. The importance of activities such as socialization and internalization that brings about innovative performance for the pharmaceutical industry was noted as key influencers. The pharmaceutical industry should establish mechanisms to effectively preserve the knowledge content created. This may include developing knowledge repositories, implementing knowledge management systems, and ensuring that knowledge is properly

documented and organized for future use.

CONCLUSION

The findings of this study have drawn conclusions that pharmaceutical companies in Nigeria have implemented a high level of knowledge management techniques. Knowledge creation primarily occurs through participation in seminars, conferences, industry products and benchmarking. Knowledge sharing predominantly takes place through discussions aimed at disseminating new knowledge, and knowledge storage has deemed highly productive. The management demonstrates good support and motivation for enhancing knowledge management techniques. Conspicuously, there is visible evidence of improved both innovative and market Share resulting from effective knowledge management.

Furthermore, the study concluded that knowledge management techniques have a significant effect on corporate performance in several ways, such as fostering knowledgeable employees, facilitating better decision-making processes, improving service offerings to clients, reducing operational costs, and enhancing organizational competitiveness. In addition, the study highlights a positive relationship between knowledge utilization and organizational performance, emphasizing the necessity of effectively applying acquired knowledge to drive performance improvement.

RECOMMENDATIONS

The study provides several recommendations to improve knowledge management within the pharmaceutical industry:

1. Encourage functional heads to champion knowledge creation and sharing: Functional heads within the pharmaceutical industry should encourage and empowered to champion the creation of new knowledge. They can play a pivotal role in promoting knowledge creation and collaboration within their respective areas of expertise. It is also important to recognize and value the contributions of employees in the knowledge creation techniques. Creating a culture that appreciates and rewards employees for their ideas and expertise will encourage them to actively participate in knowledge creation activities. Organize knowledge-sharing seminars: The pharmaceutical industry should plan and conduct seminars or workshops to facilitate the sharing of knowledge about the current workplace. These events should provide platforms for employees to exchange information and learn from each other's experiences. And should diversify the channels used to share new knowledge, including both information technology-based platforms and manual methods. By utilizing various channels, the organization can ensure that knowledge is effectively disseminated to employees.
2. The study also recommended that the pharmaceutical industry should establish an effective mechanism for storing work procedures and ensure the availability of sufficient servers for storing digital copies of work procedures/manuals. It is recommended that the knowledge generated within the public service of Kenya should be appropriately classified in databases, and the created knowledge should be stored in multiple locations for backup purposes. Additionally, the public service of Kenya should implement a tracking system to monitor access to stored knowledge. They should also have a reliable mechanism for retrieving stored work procedures and manuals, and consider utilizing advanced systems for storing their created knowledge.

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