

Knowledge Development and Service Efficiency in the Healthcare Sector in Rivers State, Nigeria



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ABSTRACT: The purpose of this study was to examine the relationship between knowledge development and service efficiency in the healthcare sector in Rivers State, Nigeria. The study adopted the explanatory and quantitative method through the adoption of cross-sectional survey design. And conducted in some healthcare facilities in Port Harcourt, Rivers State, Nigeria. A sample size of One hundred and fifty-two (152) staff was derived from a population of two hundred and forty-eight staff of the healthcare facilities for the study using Krejcie and Morgan determination table as sampling technique. Data collection was gathered through structured closed ended questionnaire and analysed using the Pearson Product Moment Correlation Coefficient Statistics and presented with the aid of SPSS version 20.0 for interpretations. The results of analysed data showed that knowledge development significantly correlated positively with the measures of service efficiency in healthcare sector in Rivers State, Nigeria. Relying on the empirical findings, the study concluded that knowledge development has positive significant relationship with service efficiency. The study therefore recommends that knowledge enhancement of employee should be done periodically through training as it enhances employee quality service delivery and innovation.

KEYWORDS: Knowledge Development, Service Efficiency, Quality Service Delivery, Innovation

INTRODUCTION

Service efficiency is designed to satisfy customers by means of innovating service delivery and as a result stretching out firms' service range. In order to attain excellent service positioning, service firms need to deliver services and products by means of distribution techniques in new innovative ways that make use of their unique competencies like knowledge and skills. In fact, the innovative usage of delivery methods is a lot more turning into a completely new resource for differentiation and innovation for firms (Wiertz, 2004; Chen & Huang, 2009).

Service quality or efficiency is defined as the difference between customer expectation of the service delivery and the outcome of the delivery. If the service rendered by an organization meets customer expectation, the customer will consider the service to be of high-quality delivery and when the customer expectation is not met by the service rendered, then the service delivery is said to be poor. Basically, the quality of service varies from one service industry to another but Parasurman, Zeithaml and Berry (1994) believes that the key determinants of service quality are tangibility, reliability, responsiveness, assurance and empathy. How efficient a company is can be denoted by how well it uses its resources. Efficiency involves more effort when working toward a goal. It is more of a time and process-oriented strategy that focuses on how you can achieve results using minimum input. So basically, it is figuring out how to maximize performance while putting in the least amount of effort and money (Bestman & Chinyere, 2021). It is imperative to explore knowledge development if ever service efficiency is to be achieved.

Knowledge Management (KM) is the new era technological application of knowledge in critical planning, appraisal, decision making, evaluation and redesign of firm's operative systems (Kipchumba, Chepkuto, Nyaoga & Magutu, 2010). It is obvious that knowledge is slowly becoming the most important factor of production, next to labor, land and capital (Sher & Lee, 2004). Knowledge-based assets or resources such as patents provide heterogeneous capabilities that give each company its unique character and are the essence of competitive advantage (Liu & Wei, 2009). KM represents a deliberate and systematic approach to ensure full utilization of organization's knowledge base, coupled with the potential of individual skills, competences, thoughts, innovations and ideas to create a more efficient and effective organization (Dalkir, 2005).

Yusoff and Daudi (2010) used KM processes, including knowledge acquisition, knowledge conversion knowledge development and knowledge application, to manage and increase social capital, and enhance firm's performance. A firm's absorptive capacity could be enhanced through KM processes that allow acquisition, conversion and application of existing and new knowledge through addition of value to social capital while remaining competitive in the market. Moreover, Yusoff and Daudi were emphatic

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that organisations need to generate knowledge continually, facilitate sharing of knowledge within the organisation and apply knowledge so that the organisation can generate new products or services.

The purpose of this paper therefore was to examine the relationship between knowledge development and service efficiency in the healthcare sector in Rivers State, Nigeria. The specific objectives of the study included to:

- i. Examine the relationship between knowledge development and quality service delivery of the healthcare sector in Rivers State, Nigeria.
- ii. Assess the relationship between knowledge development and innovation of the healthcare sector in Rivers State, Nigeria.

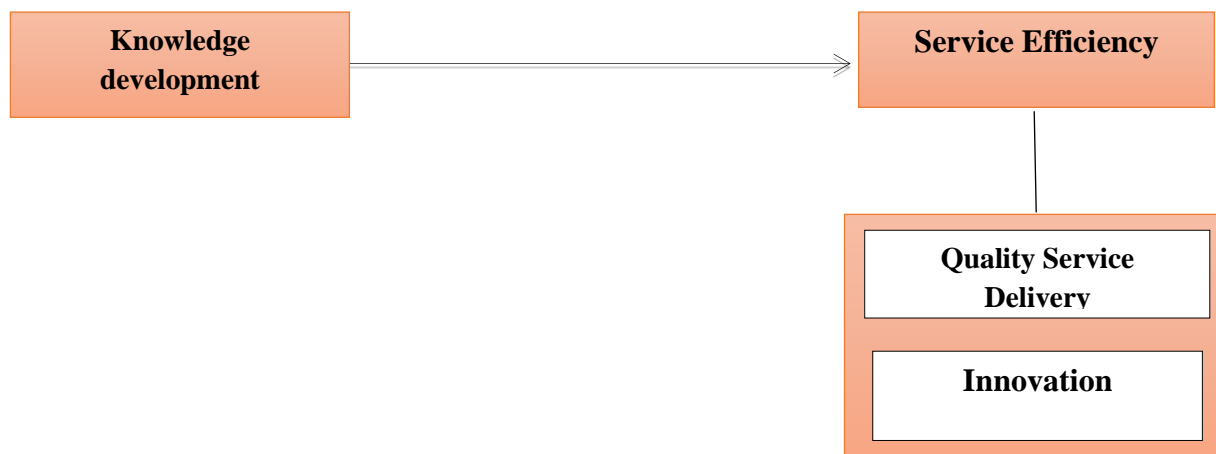


Figure 1. conceptual model for the relationship between knowledge development and service efficiency.

Source: Desk Research (2022)

LITERATURE REVIEW

Theoretical Foundation

Transactive Memory System Theory (TMS)

The transaction memory system theory was propounded by Wegner, Giuliano and Hertel1985. They defined the notion of a transactive memory system (TMS) as a group level memory system that involves the operation of the memory systems of the individuals and the processes of communication that occur within the group, (Wegner, Giuliano and Hertel, 1985). Those processes are the collaborative procedures (“transactions”) by which groups encode, store, and retrieve information that is distributed among their members. Looking at the community of practice as a group of individuals who come together to shared ideas through collaborative process and communicate the ideas with one another, a memory is created through which the individual members understand what it is shared in that group that help in the group performance.

Furthermore, a group is created when individuals come together to pursue a common goal which is to create a memory that will aid satisfactory performance of the group members through knowledge sharing. Wegner’s characterization of groups as memorysystems is based on a roughly hewn functional equivalence between individual and group processes – as he puts it, “our interest is in processes that occur when the transactive memory system is called upon to perform some function for the group – a function that the individual memory system might reasonably be called upon to perform for the person” (Wegner *et al.* 1985). It is imperative to note from the theory point of view that, as a member of community of practice, knowledge is shared through communication in the community (Transactive), and from the knowledge sharing process, a memory is created in the community in which the individual memory system of the community might be requested to perform for the person within same time or after.

Knowledge Development

Giving a precise definition of knowledge is difficult. However, it is well agreed that knowledge is a well-organized combination of ideas, rules, procedures, and information. Maraca (1999) in a sense, knowledge is a meaning made by the mind. This implies that, without meaning knowledge is inactive and static. It is only through meaning that information finds life into knowledge. The process of creating the imagery of the mind gives birth to information. It is the meaning attach to the information imagery of the mind that finds life to knowledge development.

Knowledge development is the process of knowledge creation, knowledge adoption, knowledge distribution and knowledge review and revision for societal acceptability. In the 21st century globalization and technological development have changed the world, and knowledge becomes an essential issue for the sustainable development of every organization, (Mohajan 2016). From the last two decades, knowledge has become one of the most important and valuable assets of organizations. Organizations need to develop its knowledge base in effective and efficient ways (Ipe, 2003, Faucher 2010). The knowledge assets

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of the organization reside in database, knowledge bases, filing cabinets and persons' heads and are distributed right across the organization, (Kim, 2000).

Knowledge development is a critical asset that differentiates organization from organization. The development of knowledge provides organisation a competitive advantage that is very difficult for competitors to copy. Nonaka (1991) assert that, in organizations, knowledge development is divided into two types: explicit and tacit knowledge. However, the idea of tacit knowledge is first defined by philosopher, physician and chemist Michael Polanyi as knowledge that is hard to formalize or articulate (Polanyi 1966). It consists of the hands-on skills, best practices, special know-how, heuristic, intuitions, and so on (Polanyi 1973, cited in Nonaka, 1991). Data and information encoded, stored and disseminated are known as content component of the explicit knowledge (Mahmood Qureshi, & Shahbaz, 2011). It is easily coded, transferred and shared within an organization (Nonaka 1994).

Service Efficiency

Equity is the state of being fair, hence closely related to justice (Braveman, 2003). The exorbitant cost of healthcare is considered against the principle of equity. The industrialization of healthcare offers a viable alternative that can provide better economy, greater efficiency, and better service. Being effective is about doing the right things, while being efficient is been doing the things right. Organization's efficiency according to Thanassoulis (2008) is defined as the ratio of the sum of its weighted outputs to the sum of its weighted inputs. This implies that, the efficiency of organizational service performance is determines base on the resources inputs against outputs of the services. The idea of an organization's efficiency and effectiveness was coined over hundred years ago. Service efficiency is defined as achieving given effect with least cost or with a given amount of resources achieving the greatest result. Thus, assessment of service efficiency requires measurement of resources as well as system outcomes. The service efficiency of a manufacturing firm is not same with the healthcare firm. In the former, efficiency of service is defined base on the production outputs, while in the later, service efficiency is achieve when higher treatment is provided with lower cost.

Service organizations like the healthcare sector seek to be more attention to the issue of performance efficiency, and this calls for organizations to focus on the human factor in order to achieve the goals through effective use of resources and exploitation of available opportunities and available potential capabilities. The issue of concern for organizational service efficiency and ways to improve it and achieve effectiveness and efficiency is still a constant concern of any organizations since the nineteenth century and the achievement of the goals for which it was found, and the focus has come on institutions in a way that confirms their reaching goals by raising efficiency level to ensure continuity, growth and development (Balawi, 2008; Al-Qudah, 2020).

Service efficiency is an important subject that has received ample attention in management studies in general; this is due to the importance of the factor at the organizational and individual level and the overlapping of influences that affect performance and its diversity. Jad al-Rab, (2010) indicated that access to distinguished job performance for workers is mortgaged and simultaneous with the availability of an acceptable level of services and work and from material and moral justice. Organizational performance occupies a high position in any institution, as the final extract of the outcome of activities in it, at the individual and institution level. Furthermore, organizational stability is achieved when the performance of employees is distinctive therefore the administration and its leadership pay attention to the level of performance, so the interest in workers is high by the administration. The service efficiency within organizations is not only a reflection of the motivations and capabilities of subordinates, but is also a reflection of the motivations and abilities of chiefs and leaders as well, (Sherif, 2004).

Quality Service Delivery

Quality service delivery in the healthcare as a service sector is the degree of care to which health services for individuals and populations increase the likelihood of desire health outcomes and are consistent with current professional knowledge. This definition implies that quality of care can be measured, is ultimately aimed at health improvements rather than simply increasing service inputs or refining system processes, and should reflect the desires of key stakeholders, including service users and communities.

The recipient of quality service delivery in business organization is the customers who consume the product of organization. The satisfaction of the consumer depends on expectation of the consumer and the result of consumable product. However, in the health sector which is basically service base organization, the recipient of the service is the patient. Patient quality service delivery occurs when healthcare providers exceed their expectation in the delivery of quality health services, (Ahmad, Nawaz & Uddin, 2011). This is a key determinant of quality in healthcare delivery and as an indicator which is accepted worldwide, it must continuously be part of standards for institutions and training, (Ahmad & Sirajud, 2010).

The Institute of Medicine (USA) defines healthcare quality mainly in technical terms as the extent to which health services delivered for the population and especially patients increase the health outcomes consistent with modern knowledge (Schroeder, 1991). The quality of healthcare and for that matter healthy population can be achieved if the healthcare provided is of highest standard, universal, affordable and to a larger population of the community (Duggirala, Rajendran & Anantharaman, 2008). Perceived service quality as explained by Zeithaml is based on the decisions formed by customers of the expected services of the healthcare provider (Zeithaml (1988). According to Zeithaml, Parasuraman & Berry, (1990) the actual service delivered by providers confirms the perception of its patients and this could be positive confirmation or disconfirmation. Different elements leading to

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patient expectation includes adequate service, desired service, tolerance and predicted service that falls between expected service and adequate service levels.

Furthermore, Service quality delivery can also be accessed and explained with the SERVQUAL scale, (Khan & Fasih, 2014). SERVQUAL scale measures the quality of a service before and after the consumption of a service, with five dimensions. Namely; tangibility (visible elements of a service such as buildings, sites and tools); responsiveness (how fast service providers respond to customer queries/ the willingness for service providers to assist customers and provide prompt services); reliability (the ability for a service provider to assure customers of a reliable and proper service); assurance (the level of knowledge displayed by a service provider when delivering its services and their ability to inspire trust and confidence); and empathy (ability for a service provider to pay attention to individual customer demands/ individualization of service).

Innovation

Innovation is the most talk about word in the 21st century business operations. It is something that every organization wants to get involve with. The breakthrough of information technology increases the notion of innovation in businesses and every sector of the economy. To compete favourably in the knowledge base economy depends on the innovative nature of the organization. Innovation involves doing things differently from the previous ways of doing things. It is also the process of learning and knowledge creation in which problem is identify and the new knowledge is used to proffers solution to the problem.

Sometimes, innovation in organization does not start in the entire organizational structure, but start within a unit of the organization. Innovation is different from invention because the latter refers to something entirely new product, service, technology, or process (e.g., patents). Innovation, on the other hand, can be small adoptions or changes. In addition, while reforms are typically at the national level, organizational innovations are mostly at the organizational level. On the other hand, innovation at the individual level mostly refers to an employee's creativity in his or her innovative behaviour. Some people use innovation as organizational change, but not necessarily involve innovations as many organizations change their structure or strategy without being innovative. Organizational innovation is typically adaption of new technology in the way previous activities are carryout. Organizational changes refer to larger-scale changes particularly related to changing organizational structure and design.

The environment of organization frequently changes, organizations need to be innovative to sustain and prosper. According to Damanpour (1991) argues that innovation can contribute to the performance or effectiveness of the adopting organization. Innovation is a means of changing an organization, whether as a response to changes in its internal or external environment or as a proactive action taken to influence an environment. Through innovations, organizations can fit the environment, so they can survive and prosper. For example, if today's organizational environment emphasizes empowerment and democratization of workforce, organizations will need innovative practices emphasizing democratic innovations, so organizations can prosper. This is particularly true for public organizations as the measurement of success in public organizations is typically not based on profit. Public organizations need to be legitimate in order to survive and prosper. Innovation at the public sector can also increase citizens' trust to government. While in the private sector, innovation provides organization with the opportunity to make more profit and create room for national visibility.

Knowledge Development and Service Efficiency

Haruna, Admed, Salim and Suleiman (2015) conducted research on the impact of online community of practice in knowledge and information sharing in Nigeria Universities: A case study of Federal University Dutse. The study used exploratory research methodology with a total sample size of 100 staff of the university and knowledge development as one of the study variable and concluded that effective usage of community of practice enhance knowledge development in the Nigeria universities so doing increases organizational efficient services.

From the foregoing discourse, the study hypothesized thus:

- H₀₁:** There is no significant relationship between knowledge development and quality service delivery of the healthcare sector in Rivers State, Nigeria.
- H₀₂:** There is no significant relationship between knowledge development and innovation of the healthcare sector in Rivers State, Nigeria.

METHODOLOGY

The study adopted the explanatory and quantitative method through the adoption of cross-sectional survey design. And conducted in some healthcare facilities in Port Harcourt, Rivers State, Nigeria. A sample size of One hundred and fifty-two (152) staff was derived from a population of two hundred and forty-eight staff of the healthcare facilities for the study using Krejcie and Morgan determination table as sampling technique. Data collection was gathered through structured closed ended questionnaire and analysed using the Pearson Product Moment Correlation Coefficient Statistics and presented with the aid of SPSS version 20.0 for interpretations.

DATA ANALYSIS AND RESULTS

Table 1. Correlations matrix of knowledge development and service efficiency

		Knowledge Development	Quality Service delivery	Innovation
Knowledge Development	Pearson Correlation	1	.924**	.976**
	Sig. (2-tailed)		.000	.000
	N	127	127	127
Quality Service	Pearson Correlation	.924**	1	.954**
	Sig. (2-tailed)	.000		.000
	N	127	127	127
Innovation	Pearson Correlation	.976**	.954**	1
	Sig. (2-tailed)	.000	.000	
	N	127	127	127

** . Correlation is significant at the 0.01 level (2-tailed).

Source. Field Result Data Output 2022

The table 1 showed the correlation of hypotheses one and two; the hypothesis one showed a significant correlation at $r = .924^{**}$ where $P\text{-value} = .000$ ($P < 0.001$). This implies a strong and significant relationship between both variables at 95% level of confidence. We therefore reject the null hypothesis ($H_{0:1}$), and upheld the alternate and restated, thus; there is a significance relationship between knowledge development and quality service delivery in the healthcare sector in Port Harcourt, Rivers State, Nigeria.

The hypothesis two showed a significant correlation at $r = .976^{**}$ where $P\text{-value} = .000$ ($P < 0.001$). This implies a strong and significant relationship between both variables at 95% level of confidence. We therefore reject the null hypothesis ($H_{0:2}$), and upheld the alternate and restated, thus; there is a significance relationship between knowledge development and innovation in the healthcare sector in Port Harcourt, Rivers State, Nigeria.

DISCUSSION OF FINDINGS

The analysis of the collected data of the test of first and second hypotheses showed a strong positive relationship between knowledge development and measure of service efficiency on quality service delivery and innovation of which the significant is based on $r = 0.924$; $p = 0.000 < 0.05$., and $r = 0.976$; $p = 0.000 < 0.05$., both at 95% confidence interval leading to the rejection of the null hypothesis ($H_{0:1}$) and ($H_{0:2}$), stated in the chapter one, and upheld the alternate and restated thus; there is a significant relationship between knowledge development and quality service delivery and innovation. This study findings support the empirical findings of Haruna, Admed, Salim and Suleiman (2015) who conducted research on the impact of online community of practice in knowledge and information sharing in Nigeria Universities: A case study of Federal University Dutse. The study used exploratory research methodology with a total sample size of 100 staff of the university and knowledge development as one of the study variable and concluded that effective usage of community of practice enhance knowledge development in the Nigeria universities and increases organizational service efficiency.

CONCLUSION AND RECOMMENDATION

The study concludes that there is significant relationship between knowledge development, knowledge transfer, knowledge enhancement and knowledge accessibility. The finding of this study therefore, implies that continued engaging in professional online community of practice by healthcare providers will increase employee service efficiency through quality service delivery and innovation

Therefore, the study therefore recommends that knowledge enhancement of employee should be done periodically through training as it enhances employee quality service delivery and innovation.

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