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EFFECT OF ORGANIZATIONAL LEARNING ON THE PERFORMANCE OF SELECTED INFORMATION AND TECHNOLOGY FIRMS IN NIGERIA

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Abstract

The inability of Nigerian IT firms to expand operations and gain competitive advantage, especially in the face of foreign competition, has remained a thing of concern to many stakeholders, and hence, this research, which examines the effect of organisational learning proxied by knowledge acquisition and knowledge sharing on the performance of selected IT firms in Nigeria. A structured five-point Likert scale questionnaire was used in a survey design to gather primary data from a sample of 464 IT firms selected using the census sampling technique. Multiple regression analysis was used to analyse the data. The study found that knowledge acquisition has a positive and significant effect on performance, while knowledge sharing has a negative and significant effect on performance. Therefore, the study recommends that IT firms intensify efforts to identify and collate internal and external knowledge information and ideas relevant to improving performance. Similarly, IT firms should make deliberate efforts to ensure a smooth transfer of ideas, information and relationships, especially from departing employees to existing ones. Employees should be encouraged to attend training sessions to acquire new knowledge and store their professional knowledge and experience, which will benefit the organization.

Keywords: Knowledge Acquisition, Knowledge Sharing, IT, Performance.

INTRODUCTION

The ever-increasing competition in the market today has compelled information technology firms to devise strategies to enhance their performance to gain a competitive advantage; most organizations are promoting the learning environment. Given the increasing demand for fast and seamless connectivity, IT has remained critical for many economies worldwide. As such, the performance of IT firms is imperative for developed and even developing nations such as Nigeria. For Information Technology (IT) firms operating in today's dynamic global market and seeking to maintain their competitive edge, recognizing knowledge as a prized asset is paramount. Organizational learning stimulates IT managers to acknowledge their responsibilities in fostering a culture of continuous learning; by actively integrating and utilizing various forms

of knowledge and learning, IT companies can establish a solid foundation for developing activities that ultimately enhance their organizational performance (Ashwin & Nitin, 2019).

In theory and practice, organizational learning has gained recognition as a driver of firms' performance regardless of the sector in which such firm operates. For example, in the aircraft industry, managers have observed that the idea of a learning curve has actual practice value. It is believed that if it takes one year to assemble the first aircraft, it takes much less time to assemble the second one, and the time reduces downwards to an infinitesimal level in subsequent assemblies, which implies performance improvement in all ramifications. Similarly, in the IT sector, learning is expected to reduce redundant aspects, time, and resources, thereby increasing general efficiency and enhancing overall performance and contribution to the Nigerian economy.

Organizational learning means creating, acquiring, conveying, and delivering current or fresh knowledge, which strongly impacts organizational performance (Rehman et al., 2019). Organizational learning dimensions include knowledge acquisition, knowledge sharing, teamwork, organizational culture, and organizational memory (Turulja & Bajgorić, 2018; Seyed & Mehdi, 2014). However, this paper focused only on the knowledge acquisition and knowledge-sharing dimensions of organizational learning.

Knowledge acquisition is an approach through which individual knowledge is established, using four threads of socialization, combination, instantiation and internationalization for the regular development of organizational knowledge (Shujahat et al., 2018). The knowledge acquisition process fosters a culture of organizational learning; it is integral to the performance of IT firms as it enables them to stay innovative, address technical challenges, nurture employee skills, expand globally, and foster a culture of continuous learning. Similarly, knowledge sharing is the method that the organization adopts to activate the spread of information and knowledge between organizational units at the level of the organization. Knowledge dissemination aims to create systematic procedures that help transfer knowledge smoothly and flexibly, both vertically and horizontally, to facilitate the achievement of knowledge strategy and increase sustainable organizational performance (Chebii, 2020).

Businesses worldwide must find new ways to improve performance through technological advances, ever-increasing competition, and innovation. Notably, information technology firms in Nigeria are not excluded because they must develop creative ideas and innovative products, remain open to technological developments, keep up with technological advances and place equal importance on training in innovations to improve their performance (Wujiabudula & Zehir, 2016). This backdrop forms the basis for studying the effect of organizational learning on the performance of information technology firms in Nigeria.

The technology and information sector has seen firms investing heavily in technology acquisition and information gathering to facilitate operations. However, despite these firms' level of investment in the sector, their performance has remained abysmal as they have not been able to expand their operations towards improving competitive advantage, especially when faced with foreign competition. This position was substantiated in

the aggregate report obtained from the National Bureau of Statistics (NBS) in 2023, indicates a dwindling performance as illustrated in the sector's contribution to Gross Domestic Product (GDP), which revealed a quarterly growth decrease from 3.52% recorded in the last quarter of 2022 to 2.31% by the second quarter of 2023. Earlier, the sector recorded a negative growth of -5% in the 3rd quarter of 2017, which was, however, improved upon when it recorded 14.13% in the 4th quarter of 2020. This situation is very worrisome, especially when compared with nations such as India, where the IT sector accounts for $194 billion in export revenue and $51 billion in domestic revenue; this suggests the underperformance of the IT firms in Nigeria and hence necessitates the need to understand the effect of organizational learning on the performance of IT firms in Nigeria.

The following hypotheses were tested in the study:

Ho1: Knowledge acquisition has no significant effect on the performance of Information Technology firms in Nigeria.

Ho2: Knowledge sharing does not significantly affect the performance of Information Technology firms in Nigeria.

LITERATURE REVIEW

Organizational Learning

According to Megheirkouni (2017), organizational learning is quite suitable for organizations growing in an unstable business environment to improve their overall performance. It is an essential element within organizations describing their overall performance. Wang et al. (2015) suggested that a significant commitment towards learning in the organization could compel the organization to achieve its goals more quickly. Organizations should develop mechanisms and practices that support or promote organizational knowledge creation. These mechanisms include socialization, internalization, and externalization, as well as all the management practices that establish a climate conducive to learning. These practices are the essence of the organizational learning capability, which can be seen as the set of management practices that facilitate the learning process or as a set of mechanisms that increase the organization's ability to maintain and improve its performance (Mbengue & Sané, 2013).

Knowledge Acquisition

Knowledge acquisition is the process of making better use of current knowledge while also generating new knowledge effectively via active discussion, which is then externalized and disseminated as new knowledge. Conducting an external survey, actually buying a knowledge-rich organization, sending staff members to training courses, employing an employee, procuring a data set, surveilling technological advancements, buying a new invention, and gathering knowledge through intellectual capital are just a few examples of knowledge acquisition processes (Mubuyaeta, 2016). The methods and activities of interaction, feedback, innovation, brainstorming, and benchmarking enable it. Six things contribute to respecting workers' attitudes and views, promoting up-skilling, having a well-developed financial reporting system, and being market-focused on collecting consumer and industry information. Also, they should know market developments, hire and keep many individuals with scientific, engineering, or math backgrounds, collaborate with foreign consumers, and obtain information from market surveys (Victor & Akpan, 2022).

Concept of Knowledge Sharing

Knowledge sharing is a systematic process of transmitting, distributing, and disseminating knowledge and multidimensional context from a person, organization, or company to other people or organizations that require it through varied methods and media. Communication between employees involves communication and information and knowledge exchange (Sandra et al., 2022). Similarly, knowledge sharing is a method or approach attempted by management through knowledge management that provides opportunities for its members to share knowledge. It can be interpreted as communication between employees who share knowledge, experience and abilities to solve specific problems or avoid the possibility of problems occurring. Knowledge sharing is a process in knowledge management activities involving vertical and horizontal sharing (Khaerana & Mangiwa, 2021).

Concept of Performance

According to Abubakar et al. (2023), organizational performance means realizing and accomplishing organizational objectives or goals. The organization must have or set measurable objectives in order to measure its performance level. Assessing organizational performance entails monetary benefits, profitability, and successful implementation of organizational strategies. The achievement of organizational performance relies on successfully implementing strategies that assure the accomplishment of organizational goals or objectives.

According to Khang et al. (2014), performance is determined by the extent to which an organization achieves its objectives and is efficient and effective in attaining its economic, operational, and market-oriented objectives. Therefore, it is paramount how well an organization implements its policies and programs and fulfils its strategic mission and vision. The firm's performance relates to the extent to which a company's goals are or have been achieved. Organizational performance also measures how well a company uses resources to achieve its objectives and goals.

Empirical Review

Knowledge Acquisition and Performance

Mkalla and Kising'u (2023) studied the nexus between knowledge acquisition and performance. The study adopted a descriptive survey design, and the population of interest comprised 517 employees of Kenya Ports Authority. The study adopted a simple random sampling technique to derive the sample size. The statistical formula of Yamane was used to get a sample size of 400 respondents. Data was collected using semi-structured questionnaires, whereas secondary data was collected from company annual reports. Descriptive analysis was determined using mean and standard deviation, while regression analysis was determined using model summary, ANOVA, and regression coefficients. The study findings established that knowledge acquisition has a positive significant effect on performance. The study's findings are specific to the Kenya Ports Authority and may not directly apply to other organizations or countries, hence the need for the current research. In addition to employing, another study that explored the effect of knowledge acquisition on the performance of SMEs in Mombasa County, Kenya, was carried out by Muli (2023) in the research. A quantitative approach and descriptive research design were also adopted while targeting the 209 SMEs in Mombasa County, from which 136 formed the sample size, premeditated

using the formula Mugenda and Mugenda submitted. The research employed proportionate sampling to select respondents. This research gathered data from primary sources using a closed-ended questionnaire distributed using a drop-and-pick method. The quantitative analysis method was used in this study to provide descriptive and inferential statistics. The study concludes that knowledge sharing has a positively significant influence on the organizational performance of SMEs in Mombasa County. This relatively small sample might not fully represent all SMEs in the county, which could limit the generalizability of the findings, especially in terms of IT firms.

Knowledge Sharing and Performance

Endurance et al. (2023) investigated the effect of knowledge sharing on academic staff performance at Cross River Institute of Technology and Management Ugep, Cross River State, Nigeria. This study adopted a descriptive survey research design through a questionnaire. The study population comprised all the 62 academic staff of CR-ITM. The data was analyzed using regression analysis with the statistical program for social sciences (SPSS version 25.0) at a 5% significance level. Descriptive statistics was also used to examine the relevant data. Findings revealed significant positive effects of knowledge sharing on academic staff performance in Cross River Institute of Technology and Management Ugep, Cross River State, Nigeria. The study only included 62 academic staff members, which may not represent the entire academic community. A larger sample size would have provided more robust results. Also, Orogbu et al. (2015) examined how knowledge sharing affects the performance of manufacturing firms in Anambra State. The study adopted a destructive survey design. The study was limited to six (6) manufacturing firms operating in Anambra State of Nigeria. The study population was five hundred and thirty-five (535) and consisted of workers in the selected manufacturing firms in Anambra State. Convenience sampling was used, and the sample size was determined using the Taro Yamane model. The sample size was 134. A descriptive survey design was adopted, and the questionnaire was administered to one hundred and thirty-four (134) respondents selected from each firm. Data obtained were analyzed using the Z-test statistical tool. The findings revealed no significant effect between knowledge sharing and performance. The study only covered manufacturing firms in Anambra State in Nigeria, which restricts the findings from applying to the IT sector.

Learning Organization Theory

Learning organization theory was first derived by Senge (1990). Fulmer (1998) explained a learning Organization as an entity where individuals endlessly widen their ability to derive the outcomes they need, where modern and broad patterns of thoughts are brought up, where overall expectations are set open, and where persons are endlessly understanding how to conceptualize things alongside each other (Senge, 1990). In addition, such institutions have excelled in neglecting seven learning disabilities that repeatedly lead to the failure of institutions. Such deficiencies were blame games, work personalization, rigidity, and activities that do not yield outcomes, underrating the effect of evolutionary changes, demeaning learning from prowess, and poor management decision-making processes. This study is anchored on this theory because the Learning Organization theory's principles are highly relevant to information technology firms' dynamic and fast-paced nature. This theory provides valuable insights into how these organizations can harness the power of

learning to improve their performance and competitiveness in the ever-changing technology landscape.

METHODOLOGY

This study adopted the survey design. The population comprises 464 MDs/CEOs of all the information and technology firms operating in Nigeria over the last five (5) years, duly registered with the National Information Technology Development Agency (NITDA). Given the population's small size, a census sampling technique was employed to select the entire population as a sample size; hence, the study's sample size is 464. Primary data was collected using a 5-point Likert scale questionnaire. The study adopted questionnaire items from the work of Mbah and Maduafor (2022) to measure knowledge acquisition; knowledge sharing was measured using a 5-item scale developed by Obeidat et al. (2016), while performance was measured using a 6-item scale developed by Gelmez et al. (2017). Data were analyzed using the Ordinary Least Squares (OLS) multiple regression analysis. The model is specified below:

$$PRF = \beta 0 + \beta 1KAQ + \beta 2KSH + e$$

Where: PRF = Performance, KAQ = Knowledge Acquisition, KSH = Knowledge Sharing, β0 = Intercept β1 β2 = Coefficient of Independent Variable, e = error term.

RESULTS AND DISCUSSIONS

Four hundred sixty-four copies of the questionnaire were distributed to the respondents, of which 396 were returned and valid after screening. Subsequent analyses were conducted using 396, representing an 85% response rate.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
KAQ	396	1	5	3.60	.711	-1.749	.167	1.470	.332
KSH	396	1	5	1.96	1.181	1.201	.167	.389	.332
PRF	396	1	5	2.94	1.240	.311	.167	-.973	.332
Valid N (listwise)	396								

Source: SPSS Output, 2024

One of the OLS regression model's basic assumptions is the dataset's normality and, hence, the need to carry out a descriptive statistics test. The table above indicates the behaviour of all the variables under study. The average value of knowledge acquisition (KAQ) recorded was 3.60, while the maximum and minimum values stood at 5 and 1, respectively. Also, the skewness value at -1.749 indicates that the variable is usually distributed since it is less than 1.96. Also, knowledge sharing (KSH) recorded a minimum and maximum of 1 and 5, respectively, while the mean value stood at 1.96 with a skewness value of 1.201; the variable also indicated normal distribution. Lastly, performance (PRF) had a minimum and maximum value of 1 and 5, respectively, with an average value of 2.94 and a skewness value of 0.311, signifying normal distribution.

Table 2: Correlations

		KAQ	KSH	PRF
KAQ	Pearson Correlation	1	.422**	.311**
	Sig. (2-tailed)		.000	.001
	N	396	396	396
KSH	Pearson Correlation	.422**	1	.511**
	Sig. (2-tailed)	.000		.000
	N	396	396	396
PRF	Pearson Correlation	.311**	.511**	1
	Sig. (2-tailed)	.001	.000	
	N	396	396	396

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

Source: SPSS Output, 2024

Another precondition for the OLS is the absence of multicollinearity among the independent variables, hence the need to conduct a correlation analysis. Table 2 above shows the correlation result of the variables under study. The result revealed a positive relationship between knowledge acquisition, knowledge sharing and performance. Knowledge acquisition has a positive relationship with knowledge sharing, which stood at 0.422 and a 5% significance level; this, however, falls below the 0.80 maximum benchmark for multicollinearity measurement and hence signifies the absence of multicollinearity among the independent variables (Berry & Feldman, 1985).

Table 3: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.730[a]	.532	.517	.58246	1.887

a. Predictors: (Constant), KSH, KAQ

b. Dependent Variable: PRF

Table 4: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	35.127	2	11.709	34.513	.000[b]
	Residual	30.873	393	.339		
	Total	66.000	395			

a. Dependent Variable: PRF

b. Predictors: (Constant), KSH, KAQ

Table 5: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.638	.351		1.816	.073		
	KAQ	.171	.066	.194	2.587	.011	.912	1.096
	KSH	-.489	.081	-.514	-6.003	.000	.702	1.425

a. Dependent Variable: PRF

Source: SPSS Output, 2024

Table 2 above showed an R-square value of 0.532, indicating that 53.2% of the variation in performance is explained by organisational learning. In comparison, the remainder, 46.8%, is explained by other variables not included in the study. Table 4 above showed an f-statistics value of 34.513 with a p-value of 0.000, which implies that the model is fit to measure the association between organisational learning and performance.

Knowledge acquisition positively and significantly affected performance (b= 0.171, p= 0.011); this indicates that IT firms have developed attractive capabilities, which has led to their ability to collect internal and external beneficial knowledge, thereby significantly enhancing their ability to improve performance. Based on the result, the study accepts the alternative hypothesis, which states that knowledge acquisition significantly affects the performance of Information Technology firms in Nigeria; this agrees with the findings of Mkalla and Kising'u (2023) and Muli (2023), who found that knowledge acquisition positively and significantly affects performance.

Conversely, knowledge sharing negatively and significantly affected performance (b = -0.489, p = 0.000); this indicates that the IT firms have not done enough to encourage knowledge distribution among employees within their organization, which has led to a decline in their level of performance. Based on the result, the study rejects the null hypothesis and accepts the alternative one, which states that knowledge sharing significantly affects the performance of Information Technology firms in Nigeria. This finding disagrees with Endurance et al. (2023 who found a positive effect of knowledge sharing on performance.

CONCLUSION AND RECOMMENDATIONS

The study examined the effect of organisational learning on the performance of an Information Technology firm in Nigeria and concluded that organisational learning is critical to firms' performance. Although the firms have made significant efforts in knowledge acquisition, their inability to encourage the dissemination of such knowledge has led to brain drain and negatively affected their performance. Based on the foregoing, the study recommends that.

1. IT firms should intensify efforts to identify and collate internal and external knowledge, information, and ideas relevant to improving performance. This can be achieved through regular marketing research, which will reveal customer dynamics, the business environment, legislation, and other factors that could negatively affect their performance.

2. Similarly, IT firms should make deliberate efforts to ensure the smooth transfer of ideas, information, and relationships, especially from departing employees to existing ones. Employees should be encouraged to attend training sessions to acquire new knowledge and store their professional knowledge and experience, which will benefit the organization. Additionally, mentoring and coaching should be encouraged.

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