

## KNOWLEDGE CREATION AS A SOURCE OF COMPETITIVE ADVANTAGE: EVIDENCE OF FMCG FIRMS IN NIGERIA

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### Abstract

*This study examines the nexus between knowledge creation and organization competitiveness of Fast Moving Consumer Goods (FMCGs) firms in Nigeria, with special focus on Lagos and Ogun State, Nigeria. The study employed a survey research design, through the administration of structured questionnaire to employees of some selected FMCGs. Through its empirical findings of a positive and significant relationship, the study provides evidence that knowledge creation plays an important role in organization competitiveness of FMCGs in Nigeria. Thus, it is evident that, knowledge creation is an important driver of organizational competitiveness of FMCGs firms in Nigeria. In line with the empirical findings, it is recommended that FMCGs should employ knowledge creation to enhance competitiveness of FMCGs and the entire manufacturing sub sector in Nigeria.*

**Keywords:** knowledge creation, knowledge management, organisation competitiveness.

**JEL:** D8, D83, L22, L23, M10

### 1. Introduction

The ever-evolving business environment and the intensity of unprecedented changes in the global setting have brought about the need for the Fast Moving Consumer Goods (FMCG) sub-sector to continuously improve on their performance in order to remain relevant in the industry. These changes could be experienced in management, competition, introduction of new technologies, innovation and many other aspects, which could affect the performance of FMCGs. Diverse viewpoints on organizational performance result in diverse perceptions of what outstanding performance is and the way it should appear.

Each of these viewpoints on organizational performance can be considered distinct depending on the viewpoint being considered. This is because, each organization has its own set of conditions and scenarios and performance evaluation is essentially situational. The primary objective of businesses is to provide improved value to customers and superiority in talents and resources, which demonstrates competitive advantage (Demir, Budur, Omer & Heshmati, 2021).

According to Grunert and Hildebrandt (2014), organizations may improve their performance by deploying valued resources and competencies, which are not readily available. These are assets as well as skills that are classed as requirements, for which a price adjustment may not necessarily induce customers to modify their demand. Knowledge, inventiveness, and intellectual property, in particular, have been highlighted as key drivers of value and sources of organizational competitiveness. According to the knowledge-based view (KBV), organizations need new knowledge to dominate their sectors. Organizations must innovate in order to produce new processes and products as to maintain competitive advantage. Without innovation, an organization's value proposition would ultimately be duplicated, thereby degrading performance (Gardeazabal, Lunt, Jahn, Verhulst, Hellin, & Govaerts, 2021).

Firms can acquire knowledge from outside sources, from previous product research, acquiring important insights about the item in question; excel at benchmarking with industry leaders; and depend on collaborative efforts to gather the knowledge resources necessary to operate their business (Omar, Islam, &

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Mahmoud, 2019). Customers, vendors, creditors, debtors, financial institutions, government agents, suppliers, universities, and other institutions of learning can also provide external market intelligence to organizations. Knowledge development and dissemination has become a growing component in competitiveness. Knowledge is increasingly being recognized as an important asset that is contained in goods and in the tacit knowledge of extremely adaptable personnel. Furthermore, knowledge collection, conversion, application, as well as protection are all tied to the organization's knowledge process capabilities. According to Nwankere (2017), the contribution of each resource to organizational performance is expected to differ between organizations. This distinct composition enables advantages that include competitive advantage and increased performance to be attained. Understanding the causes of an organization's performance has long been a priority inside organizations, as performance is seen as the most essential criterion in evaluating organizations as well as their environmental activities.

FMCGs have continued to exploit their knowledge assets in the creation of superior offerings that are efficient and on a larger scale in the struggle for market share, improved performance, as well as long-term viability (Malik & Malik, 2008; Demir, Budur, Omer, & Heshmati, 2021). According to the knowledge-based perspective of the company, new knowledge is what organizations need in order to thrive in a sector (Malik & Malik, 2008).

According to the huge amount of documented information, there are various aspects of knowledge that have the ability to drive performance (Demir, Budur, Omer & Heshmati, 2021; Wahab, Bahar & Radzi, 2021; Gardeazabal, Lunt, Jahn, Verhulst, Hellin & Govaerts, 2021; Lam, Nguyen, Le & Tran, 2021).

The extant literature sources (Lam, Nguyen, Le & Tran, 2021; Wahab, Bahar & Radzi, 2021; Gardeazabal, Lunt, Jahn, Verhulst, Hellin &

Govaerts, 2021) demonstrate that most researches on knowledge management as well as organizational performance use knowledge management as a broad term without taking into account its components. The use of knowledge management elements aids the research community in determining the individual effects of the elements on organizational performance. Despite a thorough assessment, the literature has not tackled the types of competitive behaviors that may arise as a result of knowledge management. This study thus employs non-financial metrics via organizational competitiveness to fill this lacuna. Hence, this study examines the nexus between knowledge creation (which is a key element of knowledge management) and FMCGs competitiveness in Nigeria. Arising from the aforementioned objective, the null hypothesis to be tested in the study is stated thus: H<sub>0</sub>: Knowledge creation has no significant relationship with organisational competitiveness in FMCGs in Nigeria. The remaining part of the study is broken down into three (3) sections. Section II, centers on the review of relevant past studies while section III is on the methodology and empirical results. Section IV concludes the study and proffers recommendations.

## 2. Review of relevant literature

Knowledge creation is the application of an interdisciplinary approach to optimizing knowledge. It involves creating, sharing, utilizing and managing the information available to the organisation. According to Nonaka et al (2014), knowledge creation involves the formation of new ideas achieved in the human mind through the interaction of tacit and explicit knowledge. Knowledge creation is pivotal to a company's creating and sustaining competitive advantage. The creation of knowledge creates new ideas and concepts and this occurs through interaction between the different levels of knowledge.

According to Bouncken, Aslam, Gantert and Kallmuenzer (2023), new ideas, concepts and innovation make an organisation to have the edge over its rivals, create value for

customers and help in meeting the organisational objectives. Explicit knowledge is created through collaborations of people and adding value to the information available while tacit knowledge is inherent in people, not easy to share and is difficult to search. Tacit knowledge is profound in public institutions, not-for profit making organizations, civil groups and large corporations where it has been noted that top management dedicate resource to knowledge management (Ngo, 2015).

Rao, Fang and Liu (2023) assert that knowledge creation starts with data collection and analysis. The creation of knowledge is not spontaneous but occurs over a period of time and it is influenced by a series of events both past and historical. The creation of knowledge does not assume that the pre-existence of information should hinder its transfer and how it should be applied but how such pre-existing information will significantly influence the decision made by the management.

Nwabali (2023) asserts that knowledge creation accommodates the varying degrees of the information quality, level and personnel involved in the process of knowledge creation. The creation of knowledge also determines the method of facilitating knowledge management. The concept of knowledge creation has been used interchangeably with knowledge building. According to Wellman (2019), these two concepts rest on the same idea. Knowledge is the outcome of deliberate act of creation which comes through the building of ideas, thought and critical reasoning.

Wellman (2019) also posits that knowledge creation is the capacity to generate new information/strategy which is vital to sustaining competitiveness in an organisation's market place through the creation of innovative product and services. Knowledge creation is associated with knowledge management because it enhances the organisation's performance in

the market place. Knowledge creation and knowledge sharing are two key concepts in knowledge management. They add value to an organisation's processes, create wealth and value added services to stakeholders. The interaction of these two concepts of knowledge management provides a driving force for organisations' performance. Knowledge creation is enhanced by the availability of relevant information that can improve the quality of decisions and provides the platform for the creation of new knowledge.

Management also plays a significant role in knowledge creation. For instance, it is the duty of management to provide the frameworks that support knowledge creation, enable the transfer of knowledge, create a conducive work environment and provide timely and relevant information to workers. In the dynamic and jet paced environment that businesses face today, information technology plays a pivotal role in knowledge creation through the organising, storing, retrieving and execution of management thought and this improves the knowledge creation processes. Managers are able to take sound decisions and provide the platforms for knowledge creation through the introduction of information technology, although; bureaucracy and rigid procedures greatly affect knowledge creation (Ali & Sagsan, 2023).

Competitive advantage is a word used to characterize the comparative achievement of competitors in a given market setting. A company is considered to have a competitive advantage if it can provide a greater economic benefit than the market's marginal rival (Peteraf & Barney, 2003). Practitioners as well as scholars have various perspectives on how to get a competitive edge. It is sometimes associated with market positioning supremacy, which is based on providing higher customer value or achieving lower relative costs. At times, it is associated with substitutability of different competency, which relies on comparative strength in resources and expertise.

Competitive advantage is considered to be founded on two attributes: the ability to identify and comprehend the competitive forces at work and how they change over time, as well as the ability to gather and handle the resources required for the selected competitive response over time (Pettigrew & Whipp 1991). The above definition is a hybrid of a market position viewpoint on competitive advantage based on an industrial organization's economic perspective and a resource-based perspective that focuses on the firm's internal features and views its own resources as a basis of competitive advantage (Hoskinsson et al., 1999). This definition, which takes into account both views, has been adopted as a foundation for organizational competitiveness.

Competitiveness is increasingly not based on tangible assets and financial capital, but rather on the effective channelling of effective expansion and longevity in firms where human capital drives organizations towards greater ability to learn (Omar, Islam, & Mahmoud, 2019). To be competitive, organizations must have a distinct and long-term collection of values that provide intangible as well as tangible assets that mirror on managerial abilities, organizational processes, and routines, which in turn become precious, rare, and difficult to replicate (Barney, 1991). This resource-based perspective on competitiveness was later re-emphasised by Drucker (2002), who recognized that competitive organizations must be able to move from tangible to value-based measures, implying that organizational performance capacities will be centred more on internal organizational resources. According to Yeh et al. (2006), a major component of competitiveness is an organization's capacity to fully utilize its intellectual capital in both tactical and strategic decision-making. Thus, competitive advantage is believed to happen as a result of the accumulation of values that result from organizational internal developments when used and sustained. This results in

practical knowledge creation, leading to learning and innovation activities centred around internal resources (Lin, 2007; Halawi, 2005). Scholars believe that there is a close relationship between the ability to create and use knowledge and what makes organizations competitive (Grant, 1996; Nonaka et al., 2014).

Thus, knowledge creation is viewed as a management goal to develop organizational knowledge, resulting into better decision-making, more innovation, and improved performance, which ultimately contributes to sustainable competitive results (Rhodes et al., 2008). Knowledge creation improves organizations' ability to create new knowledge and promote knowledge transfer, both of which improve organizational competitiveness through continuous change processes (Omar, Islam, & Mahmoud, 2019). According to Omar, Islam, and Mahmoud (2019), knowledge creation practices are highly associated to long-term competitive advantage of firms. Carneiro (2000) stated that knowledge management efforts might be a source of improved human value, leading to increased organizational skills. Other relevant studies on the relationship between knowledge management and organizational competitiveness include the work of Ali and Sagsan (2023) which examined how knowledge-oriented leadership mediates the relationship between bureaucratic culture and knowledge generation. Also, there is the work of Majuri (2022) who examined the transmission of information between firms in the context of research and development initiatives with public money in Finland. The importance of social assets in transferring knowledge was examined across several case studies. Rasul, Vesna and Mojea (2022) also investigated how organizations may improve organizational performance by producing, gathering, organizing and utilizing knowledge. In addition, the work of Ogunmuyiwa and Amida (2022) also analysed the influence of electronic payment system in knowledge creation and integration among rural

entrepreneurs in Ogun State, Nigeria. The theory underpinning this study is the resource-based view theory (RBV). RBV sees a business as a collection of resources that management translates into the firm's strengths and shortcomings. According to RBV, organizations acquire long-term competitive edge by deploying valued, inelastic resources and capabilities (Grunert & Hildebrandt, 2004). According to this viewpoint, a firm's competitive advantage is attributed to the possession of strategically important assets that are valued, scarce, costly to copy, and costly to substitute. It assumes that in order to be effective, organizations must successfully gather and manage valuable resources. Organizational effectiveness is described in the resource-based viewpoint as the organization's ability, in either absolute or relative terms, to procure limited and valuable resources as well as successfully incorporate and manage such resources (Dess, Lumkin, Eisner, Lumpkin & McNamara, 2012). Comparatively, another similar and related theory to RBV is the Knowledge Based Theory which postulates that knowledge is the most important resource in an organization. It opined that the major determinants of an organization's competitiveness and superior performance are its varied knowledge foundations and competencies among the organizations, since knowledge-based competencies are usually difficult to copy and socially complex.

### 3. Methodology

This section presents the methodology that was employed to ascertain the relationship between knowledge creation and organisational competitiveness in selected Fast Moving Consumer Goods (FMCG) industry, with particular reference to Lagos and Ogun States, Nigeria. This study employed the survey research design. Past scholars with related objectives that equally employed survey research design include: Hock-Doepgen, Clauss, Kraus and Cheng, (2020); Demir, Budur, Omer and Heshmati, (2021). This study paid particular attention

to the FMCG sub sector because of the non-seasonal nature of its products and from several companies in this FCMG category, this study focused on seven out of the nineteen FMCG organisations that are listed on the Nigeria Stock Exchange (NSE). The population of the study comprises 21,490 employees (Sourced from the websites of the seven selected organisations) namely: Cadbury Nigeria PLC, Dangote Sugar Refinery PLC, Flour Mill Nigeria PLC, Honeywell Flour Mill PLC, Nestle Nigeria PLC, PZ Cussons Nigeria PLC and Unilever Nigeria PLC. The reasons for choosing these seven FMCGs organizations are that they are topmost among the nineteen listed FMCG on the NSE and they also come tops when comparisons are made in terms of age of the companies within the FMCG industry, their market capitalisation, number of their employees and geographical spread across Lagos and Ogun States, Nigeria. All employees of the seven selected firms constituted the population of this study, while all categories of employees, namely: management staff, senior staff and junior staff constituted our elements of observation. The numbers of employees of each organisation are stated below.

Table 1. *Numbers of Employees of the Selected Firms*

S/N	Name of Company	Population of Employees	Sample
1	CADBURY NIGERIA PLC	1,797	98
2	DANGOTE SUGAR REFINERY PLC	2,460	108
3	FLOUR MILLS NIGERIA PLC	7,420	147
4	HONEYWELL FLOUR MILLS PLC	785	70
5	NESTLE NIGERIA PLC	3,300	119
6	PZ CUSSON NIGERIA PLC	4,476	128
7	UNILEVER NIGERIA PLC	1,252	89
	TOTAL	21,490	759

Source: Authors' compilation from the organisation's Human Resources Department

Table 2. Sample Size Allotted per Grade

S/N	Company Names	Levels/ Grades	Population	Calculation	Sample Size
1	Cadbury Nigeria Plc	Management Staff	239	$\frac{239 \times 98}{1797} = 13.03$	13
		Senior Staff	513	$\frac{513 \times 98}{1797} = 27.98$	28
		Junior Staff	1045	$\frac{1045 \times 98}{1797} = 56.99$	57
		Total	1797		98
2	Dangote Sugar Refineries Plc	Management Staff	300	$\frac{300 \times 108}{2460} = 13.17$	13
		Senior Staff	708	$\frac{708 \times 108}{2460} = 31.08$	31
		Junior Staff	1452	$\frac{1452 \times 108}{2460} = 63.75$	64
		Total	2460		108
3	Flour Mills Nigeria Plc	Management Staff	465	$\frac{465 \times 147}{7420} = 9.21$	9
		Senior Staff	2115	$\frac{2115 \times 147}{7420} = 41.92$	42
		Junior Staff	4840	$\frac{4840 \times 147}{7420} = 95.89$	96
4	Honeywell Flour Mills Plc	Management Staff	54	$\frac{54 \times 70}{785} = 4.82$	5
		Senior Staff	224	$\frac{224 \times 70}{785} = 20.06$	20
		Junior Staff	507	$\frac{507 \times 70}{785} = 45.21$	45
		Total	785		70
5	Nestle Nigeria Plc	Management Staff	137	$\frac{137 \times 119}{3300} = 4.94$	5
		Senior Staff	704	$\frac{704 \times 119}{3300} = 25.39$	25
		Junior Staff	2459	$\frac{2456 \times 119}{3300} = 88.67$	89
		Total	3300		119
6	PZ Cusson Nigeria Plc	Management Staff	325	$\frac{325 \times 128}{4476} = 9.29$	9
		Senior Staff	851	$\frac{851 \times 128}{4476} = 24.34$	24
		Junior Staff	3300	$\frac{3300 \times 128}{4476} = 94.37$	95
		Total	4476		128
7	Unilever Nigeria Plc	Management Staff	155	$\frac{155 \times 89}{1252} = 11.02$	11
		Senior Staff	323	$\frac{323 \times 89}{1252} = 22.96$	23
		Junior Staff	774	$\frac{774 \times 89}{1252} = 55.02$	55
		Total	1252		89
<b>Grand Total</b>			<b>21,490</b>		<b>759</b>

Source: Authors' computation

The sampling technique that was adopted for this study is multi-stage sampling technique. First, a stratified sampling technique was employed in dividing the elements according to their organisations (the population was divided into seven strata based on seven companies).

Second, a proportional sampling technique was employed for the levels/ grades within each organisation, to pick a sample that cut across all the levels/ grades in the organisations. This means the total number of employees in each organisation was divided into levels to know how many of them fall within the categories of management staff, senior staff and junior staff.

Lastly, having identified how many instruments need to be administered per level, a simple random sampling technique was applied in the administration of the questionnaire on each level.

The sample size of the study was determined using Raosoft sample size determination method, at 95% confidence level which gave a sample size of 584. A non-response rate of 30% was assumed, which increased the sample size to 759 (584+175).

The sample obtained in each firm is as stated above. Having stratified the samples according to the seven selected companies, a purposive sampling technique was employed on each firm according to the levels within as stated below:

The study employed a structured questionnaire that was adapted from Buheji (2013) and Makore (2015) using the 5-point Likert rating scale, rated as follows: 5=Strongly Agree (SA), 4=Agree (A), 3=Undecided (U), 2=Disagree (D) and 1=Strongly Disagree (DS) for the independent variable, while the dependent variable was rated as follows: 7=Very high (VH), 6=high (H), 5=Moderately High (MH); 4=Medium (M); 3=Moderately low (ML), 2=Low (L); 1=Very Low (VL).

The Likert rating scale was used because it is an ordinal scale that measures attitudes. It measures the intensity or degree of agreement or acceptance of a statement by the respondent that describes a situation or a phenomenon. However, not all the copies of the questionnaire administered were

retrieved. The useable copies were then employed for analytical purpose. This is one of the limitations encountered in the course of carrying out the study.

This study employed construct validity using the Content Validity Index (CVI) formula:  $CVI = n/N$ , where N= Total number of items in the instrument, while n= numbers of items rated as relevant.  $CVI = 116/128; = 0.90625$ . According to Oladimeji, Abosede and Ez (2019), a CVI value from 0.7 and above indicates that the instrument is valid. Thus, by implication the content and the items in the questionnaire are valid.

The test-retest method was employed in ascertaining the reliability of the research instrument. The instrument was administered on forty (40) employees of Eko Supreme Resources Nigeria Limited. The instrument was administered twice within an interval of two weeks and gave a correlate of 0.718. According to George and Mallery (2003) a minimum standard of 0.60 is adjudged reliable.

### 3.1 Model Specification

The model for this study is stated in both functional and behavioural forms as shown below:

$$OC = f(KC) \dots \dots \dots (1)$$

$$OC = \beta_0 + \beta_1 KC_i + \mu_i \dots \dots \dots (2)$$

Where: OC represents Organizational Competitiveness, KC represents Knowledge Creation.

$\beta_0$  is the constant term and  $\beta_1$  is the coefficient of the estimator and  $\mu_i$  is the error term.

In a-priori terms, it is expected that knowledge creation will be positively related to Organizational Competitiveness in FMCGs in Lagos and Ogun States, Nigeria; hence the parameter of knowledge creation should have a positive sign.

$$\beta_0 \text{ and } \beta_1 > 0 \dots \dots \dots (3)$$

## 4. Empirical Results and Findings

A total of 759 copies of structured questionnaires were administered on junior, senior and management staff of the targeted firms. However, 654 copies of the structured questionnaires were returned. It is important to state that out of the 654 returned questionnaire, 642 were found useable. This gave a response rate of 84.5%, which is considered adequate. This is one of the difficulties faced in the course of carrying out the study.

The research question of what is the effect of knowledge creation on organisational competitiveness in FMCG firms in Nigeria and the hypothesis of no significant relationship between knowledge creation and organisational competitiveness in FMCGs in Nigeria are answered and tested with the regression result below.

Table 3: Regression Results on Knowledge Creation and Organizational Competitiveness

Variable	Coefficient (Std Error)	F(T-value)	P-Value
Knowledge creation	0.521 0.049	114.803*,**,***	0.000
<b>F-Statistics = 47.475</b> Prob (F-statistics) = 0.000 R = 0.521                      R <sup>2</sup> = 0.272			

\*, \*\* and \*\*\* indicates significance at 1, 5 and 10 per cent

Source: Authors' computation, 2023.

### 4.1 Discussion of Findings

Table 3 depicts a positive and significant relationship between knowledge creation and organisational competitiveness in FMCGs in Lagos and Ogun States, Nigeria in line with the theory and the a-priori expectations ( $\beta = 0.521$ ) The t-value of 114.803 with a p-value = (0.000) indicates a significant relationship between knowledge creation and FMCGs competitiveness in Lagos and Ogun States at 1, 5 and 10 per cent respectively. The coefficient of

determination ( $R^2$ ) suggests that a 27.2% variation in the organisational competitiveness can be explained by knowledge creation, while the significance of the F-statistics at  $p = 0.000$  suggests that the model is reliable for decision and policymaking.

The findings above show that an improvement in knowledge creation through on-the-job training and seminars as well as workshops on key competitively driven elements in the organization by the practitioners of FMCGs will improve organisational competitiveness. Thus, the higher the level of enhancement of knowledge creation practices, the higher the level of organisational competitiveness recorded by FMCGs. This outcome is consistent with the study by Campanella, Derhy and Gangi (2019) who demonstrated the existence of a relationship between knowledge creation process and competitive advantage in the banking system.

## 5. Conclusion and recommendations

This study examined the nexus between knowledge creation and organisation competitiveness of FMCGs in Nigeria, with special focus on Lagos and Ogun States, Nigeria. The study, through its empirical findings, provided evidence that knowledge creation plays an important role in organisational competitiveness of FMCGs in Nigeria. Thus, it is evident that knowledge creation is an important driver of organisational competitiveness in FMCGs firms in Nigeria.

In line with the research findings, it is recommended that FMCGs should lay more emphasis on knowledge creation towards the enhancement of their competitiveness. There is also the need for FMCG sector seeking to enhance organizational competitiveness to embrace knowledge creation. This can be achieved through recurring on-the-job training of staff, staff seminars and workshops on key organizational elements particularly those that are competitively driven. Once this is

employed, it will aid the formulation of business-oriented policies that can be utilised by enterprise support agencies in providing necessary assistance to industries as well as enhancing the overall competitiveness of the nation's manufacturing sector. In spite of the immense impacts of knowledge creation on organizational competitiveness in the area under study, in what ways can the knowledge created be integrated? Also, if the knowledge created is effectively integrated into FMCGs and other sub sectors of the economy, how and in what ways can this be applied into FMCGs to improve their overall performance in Nigeria? Further researches can be used to proffer answers to these questions as well as look at the combined effect of knowledge creation, knowledge integration and knowledge application on the competitiveness and overall performance of FMCGs and other sub sectors of the Nigerian economy and other developing countries.

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