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Knowledge Integration and Organizational Performance in Selected Fast-Moving Consumer Goods Firms in Nigeria

Ferdinand Ikechukwu MUO[1]
ORCiD-ID: 0000-0001-6178-5348
e-mail: muoigbo@yahoo.com

Michael Segun OGUNMUYIWA[2,*]
ORCiD-ID: 0000-0002-5966-9345
*e-mail: msogunmuyiwa@oouagoiwoye.edu.ng

Shafi Abidemi ADEWOYIN[3]
ORCiD-ID: 0009-0006-1233-5248
e-mail: abidemi.adewoyin3@gmail.com

[1,2,3] Olabisi Onabanjo University, Department of Business Administration, Ago Iwoye, Nigeria

Abstract. In this study, we examine the nexus between integration of knowledge and organizational performance in the fast-moving consumer goods (FMCG) industry in Nigeria. A survey research design with a combination of multi-stage, stratified, and proportional sampling techniques was employed. Regression analysis was employed on a sample of 759 employees of the selected firms from a population of 21,490, and empirical findings provide evidence that knowledge integration shows a positive and significant effect on firm performance in the investigated fast-moving consumer goods firms in Nigeria. In addition, knowledge integration plays an important role in the performance of fast-moving consumer goods firms in Nigeria. The paper therefore concludes that knowledge integration is an important factor determining the organizational performance of the FMCG industry in Nigeria. Finally, the study recommended that the fast-moving consumer goods (FMCG) industry should employ knowledge integration towards enhancement in performance.

Keywords: knowledge integration, organizational performance, FMCGs

JEL Classification: D8, D83, L22, L23

1. Introduction

In Nigeria, just like other manufacturing products, commodities that are in high demand compete in a pure competition environment. There is a need for these firms to maintain their local capacities and resources for their stability, economic strength, and overall performance. The Nigerian manufacturing sector and the FMCG sub-sector in particular operate in a unique environment, and there is a need for these firms to develop new strategies, capabilities, and resources in order to improve their performance (Nwankere, 2017). There is also a need to strengthen the operations of FMCG firms in order for them to be able to outperform their rivals and stay relevant in the industry in the long run. As posited by Akpan (2016), having a bundle of opportunities is insufficient to sustain competitive edge in order to increase company performance. The FMCG business environment is dynamic, what generates a huge number of new problems that must be addressed through each specific organization's internal resources while having in mind that important resources can easily lose their importance in a constantly changing environment or that an effective routine can become obsolete overnight (Lam, Nguyen, Le, and Tran, 2021). As a result, the only efficient method for development based on dynamic skills is ongoing organizational renewal (Nwankere, 2017). Development of products, strategic thinking, product innovation ability, technical capability, top managers' competence, alliance, acquisition, strategic flexibility, and knowledge integration are some of the value-creating competencies that have arisen in strategic management.

In the knowledge era, an organization acquires knowledge, recalls, and acts in accordance with the most useful available information. To be profitable in today's competitive business climate, organizations must learn from their mistakes and avoid re-inventing the wheel – that is, not wasting important time attempting to produce an item that is already on the market or solving an issue that has already been addressed. The capacity to track down and absorb new ideas from multiple sources and then integrate this knowledge with the current knowledge base is important for knowledge integration inside an enterprise.

Knowledge is rapidly being recognized as an organization's key strategic priority. A basic paradigm regards information as a tool, and hence one must accumulate it in order to preserve an advantage (Uraarte, 2008). An organization's know-how is an important element that can enhance its efficiency and help in attaining competitive advantage. It could also be viewed as the most pivotal resource that has the capacity to bring about better performance. The quantum of knowledge possessed by an organization, if effectively and efficiently managed, could enhance productivity, promote performance, and ensure comparative advantage in a dynamic and ever-evolving business environment.

The nexus between integration of knowledge and management of knowledge in organizations has been a constant topic of discussion in organizational theory throughout the past decade, with empirical evidence indicating knowledge integration having a considerable impact on performance (Lin and Seidel, 2013).

This study's contribution to literature is that, while previous studies focused on financial performance indicators, we focus on knowledge management and organizational performance from the non-financial performance perspective. These elements include internal business processes, employee perspectives, customer perspectives, and company reputation. According to Ibrahim and Lloyd (2011), financial metrics tend to improve an organization's financial success in the future. Non-financial performance metrics, on the other hand, urge the management to take actions that will be immensely beneficial to the firm's long-term objectives.

Furthermore, empirical studies conducted by Lam, Nguyen, Le, and Tran (2021), Gardeazabal, Lunt, Jahn, Verhulst, Hellin, and Govaerts (2021), and Wahab, Bahar, and Radzi (2021) revealed that most studies so far have treated knowledge management as a general concept without considering its elements. Hence, this paper examines the influence of knowledge integration on FMCG firms' performance in Nigeria using non-financial performance measures. The hypothesis for the study in line with its objective is stated in the null form; thus: knowledge integration has no significant effect on organizational performance of fast-moving goods firms in Nigeria. The remaining sections of the study are structured as follows: Section 2 comprises literature review; Section 3 focuses on the methodology and empirical results; in Section 4, the study is concluded and recommendations are formulated.

2. Literature Review

Integration of knowledge is a pivotal phase in creating and sustaining competitive advantage, as well as organizational learning (Ngo, 2015). Hivos (2012) posited that a learning organization has skills in creating, obtaining, and sharing knowledge and is also able to make changes to the organizational behaviour to reflect new insight and knowledge. Such learning is imperative for the knowledge integration process, which makes knowledge and information possessed across the firm to create capabilities and resources difficult to replicate by competitors (Barney, 2014). The model of Garvin (2017) identifies five vital operations that a learning organization should perform. These include experimenting with new ideas and approaches, a systematic problem-solving approach, learning from personal experiences, learning from others' actions, and sharing the obtained knowledge effectively and efficiently across the firm. The last two steps in Gavin's model explain the concept of knowledge integration, which integrates valuable resources into both new and existing knowledge in the organization's operations.

Nonaka (2014) asserted that explicit and tacit knowledge cannot be ignored in the knowledge integration process. Tacit knowledge is a function of personal experience, is subjective in nature, and needs to be modified in the explicit form in order to make its transferability easier. Explicit knowledge is made up of implicit knowledge through the internalization of organizational procedures, thereby making the knowledge useable by the organization.

Guo, Chen, Usai, Wu, and Qin (2023) also proposed a model that reveals that integration of new and existing knowledge is a key factor in knowledge management. Their model carefully explains that the following steps are imperative for knowledge integration: creating new tacit and explicit knowledge, gathering and organizing existing knowledge from the environment, knowledge creation, storage, and transfer within the organization. Exploiting the integration process determines the scope of integration. The wider the scope of integration, the more advantageous it is for the organization. For instance, the capabilities of an organization are developed through the combination of knowledge experience and abilities harnessed from the various functional areas within the organization, and this becomes difficult for competitors to replicate in their own organizational strategies. These capabilities also influence the flexibility of the integration process by remodelling the existing knowledge. It is imperative for an organization to continually sustain competitiveness through innovation and the advancement of new capabilities.

The concept of performance and its measurement can be tough to grasp. The notion of organizational performance is premised on the belief that an enterprise is a voluntary association with the management of many valuable resources used in an organization. According to Robert (2018), people are donating assets and are dedicating them to the organization if they are satisfied with the value received in exchange, compared to other uses of the assets. Thus, the core of performance is value generation. The accessibility of the assets for the organization is dependent on the value generated by the utilization of the donated assets. The value is either equal to or greater than the benefit expected by those providing the assets. Even given a homogenous sample in terms of value, performance is a multidimensional construct that allows value to be generated from several dimensions (Steers, 2015).

To substantiate the knowledge integration concept, it is imperative to evaluate if its application has affected firm performance over time, and it is pivotal to have sufficient understanding of the internal and external knowledge practices of an organization. For instance, human capital policies and networks, leadership, culture, training, and processes are key organizational internal factors that enhance knowledge management (Rhodes, 2018; Wong, 2015). Gold (2011) argued that it is easier to replicate the source of an organization's external knowledge, while Chen (2002) believed that if an organization integrates its available knowledge, it will be easier to sustain a positive organizational performance through innovation. Exploiting customers' and competitors' external knowledge is pivotal, as this influences organizations by providing superior performance through innovation. This also creates better value for the organization.

Ogutu et al. (2023) posited that one needs to understand how integration of knowledge affects several organizations in order to get a clearer picture of the concept. The more a company knows how to manage and integrate its knowledge, the greater its strength to solve problems, learn and strategically plan, as well as the more efficient its decision-making capacities (Alavi and Leidner, 2001; Grover and Davenport, 2001). In addition, Lundvall and Nielsen (2007) claimed that if an organization focuses on tacit knowledge through initiatives, it will acquire stronger capacities towards developing a more competitive know-how with more efficient methods of handling challenges and coping with organizational routines.

Hock-Doepgen et al. (2021) claimed that the influence of within and outside knowledge management abilities has an impact on innovation in business models, and they also expanded on how risk taking attitude moderates these effects. The structural equation model was employed to analyse a sample of one hundred and ninety-six (196) small firms in China. They found that exogenous knowledge management capabilities specifically boost business model innovations. In addition, organizations with an elevated risk tolerance benefit from this connection. The study of Guo, Chen, Usai, Wu, and Qin (2023) examined the strategy for enhancing the toughness of international SMEs. They used a sample of transnational manufacturing SMEs operating in China's Yangtze River Delta and utilizing international digital platforms. The study discovered a link between local global enterprises' resilience and knowledge integration procedures linked to implementing global digital platforms. In addition, results also show that the horizontal and vertical knowledge integration processes of these organizations are positively associated with resilience. Vertical processes were found to effectively improve local company resilience, and horizontal processes effectively build global business resilience.

Chen, Wang, Liu, Xu, and Wu (2022) analysed the theoretical impact of a knowledge management model on a firm's performance in China from the perspective of knowledge integration and acquisition. Demir, Budur, Omer, and Heshmati (2021) also analysed the influence of managing elements of knowledge on the long-term viability of firms. One hundred and fifty-six employees of various private businesses in the Kurdistan province of Iraq were included in the study, which revealed the importance of knowledge storage for the production, sharing, and use of information. Knowledge management was also found to have a substantial impact on an organization's ability to remain sustainable.

Ogutu et al. (2023) presented a comprehensive assessment of four microeconomic theories that have influence on competitiveness as well as knowledge management. The theories were applied to the competitiveness of the tourist industry in Hungary. It was found that a company's capacity to efficiently use and distribute its unique knowledge assets across the business is what gives it a competitive advantage. Nwabali (2023) also examined organizational competitiveness in the context of knowledge management in Nigeria's Rivers State oil and gas companies, comprising five energy-related firms. A total of 133 workers of the five energy-based firms were included as sample population. Findings revealed a favourable relationship between knowledge generation and organizational competitiveness. The study further suggested that the top executives of the petroleum and natural gas firms in Rivers State, Nigeria, should work consistently to produce or create knowledge that can be easily integrated among their staff members either through supporting them to enrol for internal or to attend external trainings or by bringing someone to lead the effort.

In addition, Ogunmuyiwa, Muo, and Adewoyin (2023) investigated the relationship between creation of knowledge and firm competitiveness among fast-moving consumer goods firms in Nigeria. A survey research design was employed, and structured questionnaire was administered to employees of the selected firms. Results showed that the variables were correctly signed and a significant relationship between knowledge creation and organizational competitiveness existed. The study affirmed that organizational competitiveness of the FMCG firms in Nigeria is influenced by knowledge creation. Albeit knowledge creation is a strong determinant of organizational competitiveness of FMCG firms in Nigeria, there is a dire need for the created knowledge to be properly integrated in organizations in order to achieve greater competeviveness and improved performance – hence the need for the present study.

Knowledge creation is just a means to an end, and not an end in itself. It is a necessary but an insufficient condition for firm competitiveness and overall performance. The sufficient condition is the successful integration of the created knowledge into the organization's system. The current study has thus shown the imperativeness of knowledge integration in achieving the firm's objectives as well as improving its overall performance.

Knowledge-based theory is the theoretical underpinning for this study. No doubt, knowledge-based abilities are difficult to replicate and in a certain way complicated; they are the most germane predictors of firm competitiveness and enhanced corporate performance. Many elements, such as organizational culture and identity, rules, procedures, documents, systems, and workers, are imbued with knowledge.

3. Methodology

Survey research design is employed as the research design for this study. The study focuses on seven (7) out of the nineteen (19) quoted FMCG organizations on the stock exchange market in Nigeria because of the non-seasonal nature of its products.

The population of the study is made up of 21,490 employees (source: websites of the seven selected organizations). The population and the respective sample selected from each firm are as follows: Cadbury Nigeria PLC (1,797/98); Dangote Sugar Refinery PLC (2,460/108); Flour Mill Nigeria PLC (7,420/147); Honeywell Flour Mill PLC (785/70); Nestle Nigeria PLC (3,300/119); PZ Cussons Nigeria PLC (4,476/128), and Unilever Nigeria PLC (1,252/89). These seven (7) FMCG organizations were selected because they are ranked among the top firms based on the age of the companies within the FMCG industry, their market capitalization, number of employees, and geographical spread across the chosen area.

First, stratified sampling technique was used to divide the elements into seven strata based on the seven selected firms. Second, for the levels/grades in each organization, proportional sampling technique was employed so as to select a sample across all the levels/grades in the organizations such as junior staff, senior staff, and management staff. Then, simple random sampling was used to administer the questionnaire. The Raosoft sample size was employed to determine the sample size at 5% level of significance and 4% margin of error. This gave a sample size of 584. We assumed a non-response rate of 30%, which increased the sample size to 759 (584 + 175).

The study employed a close-ended questionnaire to obtain data for the analysis. Section B of the said questionnaire is adapted to suit the present study's requirements, while Section C was adopted unaltered. This questionnaire has also been used in similar studies (Omar, Islam, and Mahmoud, 2019; Al Ahbabi, Singh, Balasubramanian, and Gaur, 2019; Shujahat, Jose-Sousa, Hussain, Nawaz, Wang, and Umer, 2019; Chitra and Senjith, 2020). The study employed an adapted structured questionnaire using a 5-point Likert scale as follows: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (DS) with a rating of 5, 4, 3, 2, and 1, respectively, for the independent variable. The survey questions for the dependent variable were structured in the affirmative form. 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), and the survey questions were structured in the non-affirmative form.

Construct and content validity were ensured through the content validity index. Content validity index (CVI) was employed: CVI = n/N, where: N = total number of items in the instrument, n = number of items rated as relevant. Thus, CVI = 16/128 = 0.90625. The CVI value from 0.7 and above shows that the instrument is valid (Oladimeji, Abosede, and Eze 2019). The reliability of the instrument was ensured using the test–retest method. A value of 0.766 was obtained, which is above the permissible level of 0.60, as stated by George and Mallery (2003).

4. Empirical Findings and Discussions

Seven hundred and fifty-nine copies of the structured questionnaire were administered to junior, senior, and management staff of the selected firms. Out of the 759 copies, 654 were returned. From the 654 returned, only 642 were deemed as valid. Thus, a response rate of 84.5% was achieved, which is considered adequate for the study purposes.

We answered the research question of how knowledge integration affects organizational performance in FMCG firms in Nigeria. Also, we tested the hypothesis claiming no significant relationship between the knowledge integration and organizational performance of FMCG firms in Nigeria, whose regression outcomes are presented hereunder.

Table 1: *Regression results of knowledge integration and organizational performance (dependent variable: organizational performance)*

Variable	Coefficient	(Std. Error)	T-test	P-value
Constant	22.157	2.4890	8.9019	0.0000
Knowledge integration	0.654	0.040	263.377*, **, ***	0.0000
			R-Square = 0.428	

Source: authors' field survey (2023)

Results from *Table 1* show that knowledge integration with its positive sign exhibited the correct sign and is in conformity with theory and a priori expectations. This depicts the existence of a positive relationship between the knowledge integration and performance of FMCG firms in Nigeria. The beta estimate's significance is established at both 1 and 5 per cent respectively ($\beta = 0.654$; t-value = 263.377 and p-value = 0.000). This shows that advancement in knowledge integration by the practitioners of the FMCG firms will lead to an improvement in organizational performance. The implication of this outcome is that the higher the level of adoption of knowledge integration practices, the better the level of organizational performance in the FMCG firms. The coefficient of determination (R^2) suggests that a 42.8% variation in the organizational performance of FMCG firms in Nigeria is the result of the adoption of knowledge integration techniques. The implication of this is that there are some other salient factors outside this model that equally drive movements in FCMG performance outside our model.

The findings of this study are in tandem with the outcomes of the study conducted by Gardeazabal, Lunt, Jahn, Verhulst, Hellin, and Govaerts (2021) and Ogutu et al. (2023). In addition, the study of Guo, Chen, Usai, Wu, and Qin (2023), which found a relationship between local global enterprises' resilience and knowledge integration procedures linked to implementing global digital platforms, is also consistent with our outcomes.

5. Conclusions and Recommendations

The paper evaluates the connection between the knowledge integration and organizational performance of FMCG firms in Nigeria, with special focus on seven FMCG firms. Empirical results provide evidence that knowledge integration plays an important role in the performance of FMCG firms in Nigeria. This also confirms the fact that knowledge integration has a positive and significant effect on the organizational performance of the investigated FMCG firms in Nigeria. It shows, therefore, that knowledge integration is an important determinant of organizational performance in the FMCG industry in Nigeria.

To enhance competiveness of FMCG firms and to promote growth in the entire manufacturing sub-sector, FMCG firms should lay greater emphasis on knowledge integration towards the enhancement of their performance. In addition, since knowledge integration is an important driver of FMCG firms' performance, organizations within the FMCG sector hoping to improve organizational competitiveness should embrace knowledge integration. Knowledge can be integrated through recurring on-the-job training of staff, organizing staff seminars and workshops centred on key organizational elements, particularly those that are competitively driven. Once this is embraced, it will foster the formulation of organization-oriented policies that can be employed by the FMCG sector and the entire manufacturing industry to enhance the overall competitiveness of the nation's industrial sector. However, despite the immense importance of knowledge integration for FMCG performance, further studies can be conducted to cover the impacts of knowledge application and transfer on the performance of FMCG companies in Nigeria.

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