THE RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT AND ITS EFFECTS ON SUSTAINABLE ORGANIZATIONAL PERFORMANCE: A STUDY OF HRM PRACTICES WITHIN NIGERIA’S E-COMMERCE INDUSTRY.

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Abstract

The discussion in his article focuses on the measurement of the strength and reciprocity of the relationship between knowledge management and its effects on sustainable organizational performance. In theory, organizational performance can be summed up in the idea of competitive advantage or success of the company, which, in turn, is best achieved through experience in knowledge management. The problem is that the complexity of HRM practices needed to understand this relationship means that the method has to be approached and evaluated particular to the new tech industry. As such, it remains a work in progress each time, especially considering that the Nigerian e-commerce industry is still young, and the companies can still work on inventing new ways to be competitive in their environment. Using both quantitative and qualitative criteria to examine e-commerce in Nigeria, the findings show the need for non-financial measures of performance to complement conventional financial measures. The implications are that, by examining the various indicators on which the promoters-managers rely to assess their performance, the results of this article can urge the institutions to better refine and improve the specific means of assistance and evaluation of the performance of the companies.

Introduction:

The concept of performance has been the subject of many modes of operationalization by Human Resource Management (HRM) and the researchers of this topic. For a long time, the question has been reduced to a simple dimension centered on the financial dimension alone (Palmatier, Dant, Grewal, & Evans, 2006) across all industries, especially new industry entrants, such as new tech industries. However, the complex and multifaceted nature of the concept cannot be undermined, as it explains the emergence of a more complex economic environment in Africa in the period since the nineties, trying to follow some of the Western models that have led to the realization that the management of enterprises is more than just financial. This new reality aims to lead to the improvement over the one-dimensional approach of the notion of performance, in favour of a broader vision of business success.

Background

Although the concept of performance in e-commerce is already widely developed in Western literature, its knowledge is still only vaguely understood for the majority of companies - small, independent, and corporate, new,
and established - in Nigeria. Indeed, it is the lack of reliable data, applicable knowledge, and especially experience, which makes it difficult to objectively measure organizational performance in Nigerian e-commerce companies, thus giving way to inconsistent results. Apart from differences concerning the appropriate choice of measurement criteria broadly for all new tech industries, the model of knowledge and organizational management does not have the same meanings according to the type or a size of the company (Brynjolfsson & Hitt, 2000). In addition, the perception of this notion can change according to how the e-commerce industry leaders define the notion of performance, and the criteria they take into account to assess the performance of their companies. This includes the managerial, sociocultural, and subjective factors which determine the choice.

Problem statement
Despite the plurality of developments in knowledge management and organizational performance, there is still no approach to its evaluation that is suitable for all industries. This article will address how this can be done using both quantitative and qualitative criteria, examining e-commerce in Nigeria. The complexity of the HRM practices needed to understand the relationship between knowledge management and its effects on sustainable organizational performance means that the method has to be approached and evaluated in a number of ways particular to the new tech industry. Moreover, the different approaches to the measurement of the strength of this relationship at times even contradicts the criteria used (Carraher, Buckley, & Carraher, 2008), as, increasingly, questions arise about the qualitative measurement in place of the dominant quantitative approach of the concept. Thus, given the evolution of the competitive environment, there is a need for non-financial measures of performance to complement conventional financial measures (Tuan, 2014).

Objectives of study
In this article, the concept of organizational performance for e-commerce companies will firstly be defined and categorized with respect to knowledge management and sustainability, followed by a discussion of the different dimensions, as well as the factors that contribute to its realization. Namely, the interest of HR management research for the concept of organizational performance will, with time, be manifested by additional technical work and data on this subject. Apart from the clear business interest, this notion occupies a central place in the decision-making circles of HRM (Brynjolfsson & Hitt, 2000). Complex and multidimensional, the analysis is the subject of many divergent and varied developments of both quantitative and qualitative criteria. The purpose of this article was to examine the differences in perception of this concept in Nigeria, as well as the specificities of its measurement in companies in the industry.

Research questions
How is the relationship between knowledge management and organizational performance measured?
How is this relationship different for the new tech industry, specifically e-commerce in a country like Nigeria?
What are the categories and criteria for assessing the quality of the relationship and the reciprocity of the two concepts?
What are some ways of improving this relationship, how can this improvement be manifested, and how does an improvement benefit the industry in question?

Statement of hypotheses
From the sociocultural aspect, there is the opportunistic nature of making activities where the main market research reference indicator generally remains the frequency of creation, especially in young businesses such as e-commerce. The research hypothesis is that there is a tendency for HR managers in the e-commerce industry to imitate what has already been done in the more mature industries, without an exact knowledge of the reasons for the success of those they refer to. This supposes the often collective and informal nature of the decision-making process in Nigeria to generally refer to a social group minimizes the HRs’ decision-making errors (Eniola, Entebang, & Sakariyau, 2015), which in a way constitutes a guarantee of security and an opportunity to apprehend the outlines of the decisions.

The null hypothesis considers the subjective and therefore individual factors, due to the low level of general study of a small number of competitors at the same level (especially at the expert level), in addition to the lack of official HR management training, thus making the approach to a success full performance too quantitative (Karagoz & Akgun, 2015). In other words, it can be viewed as the voluntary choice not to make their management transparent, which depends on their strategy at gaining a competitive advantage.

225
Literature Review
In technical literature, performance is a concept commonly used in business, and is generally understood through the notions of effectiveness and efficiency of the organization. In relation to these two criteria of productivity and efficiency, management performance, as detailed by Kasasbeh, Harada, & Noor (2017), can be defined in three levels: execution, performance, and success. Primarily, organizational performance serves to aid in achieving the companies’ strategic goals.

There are many sources detailing each of the categories of performance independently, and in comparison to one another. Karagoz & Akgun (2015) explain that the strategic performance is the one that uses as a measurement indicator a system of excellence. The factors required to achieve performance include business growth, a well-thought-out strategy (Awa, Awara, & Lebari (2015), a dynamic corporate culture, a strong motivation of the members of the organization (Palmatier et al., 2006), the organization's ability to create value for its clients, the quality of management and product for customers (Carraher, Buckley, & Carraher, 2008), and, finally, the awareness of the environment as a sustainable measure of corporate social responsibility (Newman, Miao, Hofman, & Zhu, 2016).

Theoretical Framework
At times, it appears difficult to clearly separate the different types of performance already developed. The reason is that the different types of performance found in literature do not all fit in one way or another into the purpose and operational task of any business (Carraher, Buckley & Carraher, 2008). Even if the objectives and actions priorities differ according to the type of preferred performance, the goal generally aimed at by any company, is to make profits and ensure the financial sustainability of the company (Newman et al., 2016). Organizational performance as such can be measured by quantitative criteria - for example, market share, profit, turnover, or quality. Indeed, for organizational performance to be sustainable, the marketing of quality products need to be adapted to the context, the stimulation of demand, the offer of competitive services at competitive prices, and impartiality in referencing suppliers.

Methods:-
The methodology implemented was of a mixed, qualitative and quantitative research. It was based on semi-structured questionnaires and other insights from the data collected in existent literature and sources. The questionnaires were carried out on the basis of a constructed guide, with some variations. The research design implied a focus on three essential points: 1) the perception of HR managers on the notion of performance, 2) the criteria they tend to use to evaluate it, and 3) the reasons for choosing these criteria. At the same time, the information from the semi-structured questionnaires was supplemented with some data from existing analytical sources already available, in order to deepen the understanding of performance in the particular case of HRM, and to understand the performance criteria in the field of new tech industry.

This questionnaire was developed in order to assess the level of satisfaction of staff in Nigerian HR administrations and to identify the determinants, while providing a model that allows explain the variance of staff satisfaction (dependent variable) using a linear combination of explanatory factors (independent variables). Work on the development of this questionnaire started with a review of the above literature so as to assess satisfaction and its determinants among public sector staff. This allowed the study to retain the subjects, divided according to 6 dimensions, where 1-score concerns the conditions, the organization and the content of the work; 2-score concerns compensation, career management and regulatory knowledge; 3-score concerns information and communication; 4-score concerns training and skills, 5-score: labour relations, and 6-score relations with citizens, as service users.

| 1-score | the conditions, the organization and the content of the work |
|---------|-------------------------------------------------------------|
| 2-score | compensation, career management and regulatory knowledge    |
| 3-score | information and communication                               |
| 4-score | training and skills                                         |
| 5-score | labour relations                                            |
| 6-score | relations with citizens, as service users                   |
The sample consisted of 130 distributed questionnaires, from the network of the e-commerce industry, managers based on resourcefulness, and having occupied positions in the management or financing structures of HR activities, and their role in the management and consulting functions of companies. Of the 130 handed out, 107 were returned, and 92 were fully completed and usable, whereby, to facilitate the statement of the questions, to inform on the purpose of the research and to give explanations of some items during the distribution of this questionnaire, the respondents were assured of the anonymity and confidentiality of all the information provided.

| Questionnaires distributed | Returned questionnaires | Return rate | Completed/ usable questionnaires | Completion Rate |
|---------------------------|------------------------|------------|---------------------------------|-----------------|
| 130                       | 107                    | 82.3%      | 92                              | 86%             |

The questions focused on the understanding of the notion of performance in organizations, the indicators of its measurement, and the factors influencing it. The types of questions included required to respondents to agree/disagree on whether, linked to the competitive environment of the organization, competitive performance materializes the success that results not only from the actions of the organization, its ability to adapt, and even to appropriate the rules of the knowledge management in activities. Respondents were also asked to rate, based on the achievement of a given outcome, the nature of the competitive systems, and especially the modes of competition and the intensity of the forces involved.

A Likert-scale of 1 to 5 was chosen as the answer for items assessing staff satisfaction, with Level 1: Strongly disagree, 2: Disagree; 3: Neither disagree nor agree; 4: Agree; and 5: Strongly Agree.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly Disagree | Disagree | Neither disagree nor agree | Agree | Strongly Agree |

The objective was on the one hand to evaluate the level of performance, and on the other hand to identify the determinants of this performance while giving a model of prediction which makes it possible to explain the variance of the efficient performance of the personnel (dependent variable) using a linear combination of explanatory factors (independent variables). As such, the questions included the components that make it possible to assess this organizational efficiency, looking for responses that corroborate the level respect for the formal organizational structure, relations between the components of the organization, the quality of the flow of information, and the flexibility of the structure. As for economic and financial performance, the questions were also defined according to its ability to achieve its objectives, namely by analyzing performance as measured by quantitative indicators such as profitability of investments and sales, productivity, return on assets, and efficiency.

**Findings**

The collected data was processed and analyzed by the SPSS Version 21 software, with a calculation of the staff performance score, a descriptive statistic, and a multiple linear regression. To check that the scale is sufficiently accurate, the analysis of the qualities of this measuring instrument used item-total correlation indices whose analysis is intended to verify if an item is well constructed and if it demonstrates a high correlation with the corrected total score, without however having a strong correlation with another item of the Cronbach’s alpha coefficient. The test results show that the correlation coefficients are significant and vary between 0.331 and 0.689, with the majority of these coefficients significant at the 0.01 level, thus reflecting a better correlation between the items and the total score. The reliability of the questionnaire is evaluated by measuring the internal consistency of the different scales of satisfaction, which reflects how the items of the same scale are interrelated, using Cronbach's alpha coefficient of 0.798 based on 92 responses.

Metrological qualities of the measuring instrument were employed to check if the scale was sufficiently accurate to be used in a questionnaire, after which the analysis of the psychometric qualities of the measuring instrument were proceeded with, using item-total correlation indices whose analysis is intended to verify if an item is well constructed, and that it demonstrates a high correlation with the corrected total score. Each item was then related to the total score (overall satisfaction) of the scale to assess the degree of association between each item and the total score.
Assessment of the variability explained by the regression model:
The value of R², when multiplied by 100, indicates the percentage variability of the dependent variable explained by the model (the predictors). The results suggest that:
1. 56.8% of managers explained efficient performance by the conditions of the organization, and content of the work;
2. 71.7% of performance is explained by the combination of organization and content of work and compensation, in addition to career management and knowledge of regulations.
3. 82.6% of performance is explained by a combination of all the above conditions, in addition to information and communication;
4. 90.9% of performance is explained by a combination of all the above conditions, in addition to training and skills;
5. 94.1% of performance is explained by a combination of all the above conditions, in addition to labour relations.
6. 100.00% of performance is explained by a combination of all the above conditions, in addition to regulatory knowledge and the relations with citizens.

| score | conditions       | R    |
|-------|------------------|------|
| 1     | 1-score          | 0.568|
| 2     | 1-score, 2-score | 0.717|
| 3     | 1-score, 2-score, 3-score | 0.826|
| 4     | 1-score, 2-score, 3-score, 4-score | 0.909|
| 5     | 1-score, 2-score, 3-score, 4-score, 5-score | 0.941|
| 6     | 1-score, 2-score, 3-score, 4-score, 5-score, 6-score | 1.00 |

This resulting measure is called the raw score: it is a composite score calculated from elementary scores. When analyzing the conditions, the results lead to three essential dimensions: strategic performance, competitive performance, and socio-economic performance, all of which are at the early stages in the Nigerian industry - in comparison to the Western examples. To give significance and interpretation to the score, it must be compared to a reference value above. A calibrated score indicates the rank of a subject of conditions. Through the thematic analysis, the analysis of the frequency of appearance of the themes and the combination of conditions reveals three criteria of performance measurement at the level of the HR management in all: originality of actives in the industry, competitive advantage, and the ability to innovate.

Before determining the overall performance level, which is our primary objective by exploiting the scores of the questionnaire, the descriptive statistics as qualitative data will be examined, as follows:

| Sample        | 92    |
|---------------|-------|
| Medium        | 89    |
| Median        | 87.5  |
| Mode          | 82.0  |
| Standard Deviation | 14.7 |
| Maximum value | 130   |
| Minimum value | 66.0  |
| Percentile 25%| 71.5  |
| Percentile 50%| 88.3  |
| Percentile 75%| 89.5  |

This schematically represents a statistical distribution by integrating parameters of central tendency and dispersion, thus allowing to visualize these parameters of distribution. It is a question of ensuring that all the variables introduced contribute to significantly improving the variability explained by the final model.

Discussion of Findings
The results from the essentially qualitative methodology adopted highlight a number of essential dimensions when discussing the relationship of knowledge management and the perception of organizational performance in companies, which is the subject of the analysis. Consequently, contrary to the idea that performance is essentially
reduced in small organizations with a financial aspect, the results reveal that HR leaders in Nigeria’s e-commerce industry perceive performance in its multiple dimension, most likely proving the research hypothesis showing a tendency to imitate what has already been done in the more mature industries in the West. Even if most of the criteria mentioned by the managers are of qualitative type, they relate to several dimensions of the performance, namely strategic, competitive, and financial.

Several factors are essentially qualitative criteria. In addition to the results of the questionnaires, the existing data from Nigerian management structures across all new tech industries (Awa, Awara, & Lebari, 2015) highlight three categories of factors determining the choice of criteria identified: managerial, socio-cultural, and subjective factors. According to this combination of the scales, the financing of the performance activities of companies in their field is often linked to HRM practices (Kasasbeh, Harada, & Noor, 2017), which urges the companies to make an organizational effort in order to comply with their requirements, meet goals, or stay in line with the long-term sustainable strategy. For this reason, the data primarily shows that there can tends to be a compound effect between knowledge management and organizational performance.

In the questionnaires, it is repeatedly pointed out that organizational performance is directly related to the effectiveness of the organizational structure, and not to its possible social or economic consequences. Despite this risk of failure, all the factors mentioned above, in contrast to short-term visions, have a better prospect at ensuring long-term performance. The questionnaires showed that influence of this strategic intention of the company managers on the obtained performances tends to be prioritized by companies, as it is centred on the strong positive correlation which exists between the knowledge management as a strategic intent of organizations’ managers, and the performance.

Following this logic, the respondents emphasize that their companies can properly seize performance opportunities if they are able to clearly identify the changing characteristics of competitive systems and to anticipate changes through knowledge management that will help them prevail in the future. At the same time, they note that the key is that this must be made a long-term strategy to guarantee the sustainable performance of the company (Newman et al., 2016). It would cover organizational performance, social performance, economic and financial performance, and business performance.

To better define the relationship between knowledge management and organizational performance, the following factors - which are essentially dependent on the quality of management and, therefore, performance - can be underlined: management, production, skills, and networking. They are important for the development of the company, in particular a significant functional relationship between the degree of consideration of socio-cultural factors in business behaviour and performance (Carraher, Buckley, & Carraher, 2008).

Moreover, there are a few reasons why a significant relationship between networking and performance can be seen as a key by HRM in the organizational practices. In an environment strongly marked by technological development, the questionnaire results show that ICT positively influences the commercial performance of companies by improving their information system. The results obtained from the questionnaires have practically brought to the fore the same perceptions of the notion of performance, whereby it seemed useful to extend the research to analyze the differences in perception according to HR managers.

**Limitations of study**

In Nigeria, there is no rigorous system of evaluating the performance of companies on a quantifiable basis. Namely, when comparing questionnaire results with the existing technical data and literature on the subject, the choice of performance measurement criteria by HR managers may vary a lot, thus making it difficult to obtain quantifiable information. Initially, knowledge management can be generally characterized by a decision-making process operating according to the intuition-decision-action scheme, a simple external information system due to a relatively close and targeted market, a simple structure (Kasasbeh, Harada, & Noor, 2017). Otherwise, of the activity. Finally, the individual management of the PE with the preponderant role of the entrepreneur leads to a strong centralization of management decisions. Thus, the impossibility of relying on performance measurement accounting data does not mean that they are completely absent. Although the results of the specific qualitative indicators of performance measurement in these organizations complement the literature on performance evaluation of organizations, they are largely based on quantitative criteria (Palmatier et al., 2006).
Conclusion:
Analyzing the relationship between knowledge management and organizational performance is complex and multifaceted. The definition remains difficult to frame because of the many dimensions that characterize it, and as such, the combination of the measurement of the strengths and reciprocity remains a work in progress each time, especially considering that the Nigerian e-commerce industry is still young, and the companies can still work on inventing new ways to be competitive in their environment. It remains an element that is built in the long term strategies. In order to better manage companies in the face of this evolution of organizations, an adaptation of performance measurement systems seems obligatory (Brynjolfsson & Hitt, 2000). The results of this article can urge the institutions to better refine and improve the specific means of assistance and evaluation of the performance.

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