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KNOWLEDGE MANAGEMENT AND PERFORMANCE OF SELECTED MANUFACTURING FIRMS IN ANAMBRA STATE OF NIGERIA

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ABSTRACT

Most firms in Anambra State are not investing much on KM and this has placed them at the mercy of their competitors in the business. The main objective of this study is to examine the extent to which knowledge sharing affects competitive advantage of manufacturing firms in Anambra State. The study adopted a destructive survey design. Questionnaire was utilized for the study. Z test was used to analyze the data and the findings revealed that there is no significant difference between knowledge sharing and competitive advantage. Based on the findings the study recommends that manufacturing firms should put in place Research and Development Unit and encourage knowledge sharing within and outside the organizations to gain sustained competitive advantage in the dynamic environment.

INTRODUCTION

Firms in Anambra State of Nigeria are facing a competitive environment characterized by the globalization of markets, increasingly complex business problems, and the acceleration of change phenomena. Consequently, the traditional sources of competitive advantage, such as protected markets, and physical and financial assets, have lost importance compared to knowledge assets (Foray and Lundvall 1996; Grant, 1996; Johnson and Rolf, 1998). Knowledge management is frequently cited as an entacedent of organizational performance. If organizations implement KM practices successfully, they are able to perform intelligently to sustain their competitive advantage by developing their knowledge assets (Wiig, 1999). Thus it is essential to know how to generate knowledge, how to disseminate it in the organization and what factors facilitate these processes (Stewart, 1997; Davenport and Prusak, 1998). Most of the firms in Anambra State do not put KM programs in place because of inadequate planning and so control becomes very difficult. Some organizations in Anambra State of Nigeria are no investing much on Research and Development (R and D) and investment in research by the state government is irregular.

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Coaching and mentioning programmes, improving document and records management, facilitating skills transfer from retiring staff, and capturing staff knowledge in a documented form may not be sufficiently done (Okafor, Onyeizugbe and Orogbu, 2015). Many organizations may not have the resources to acquire advanced information technologies, such as the internets, intranets, extranets, browsers, data warehouse, data mining techniques and software agents. The presence of a well-developed technological infrastructure as well as institutions to predict intellectual property rights provides the foundation for the development of innovation capabilities and pursuit of scientific research. The objective of the study is to determine the extent to which KM affects performance of selected manufacturing firms in Anambra State. Thus, the study specifically seeks to ascertain the nature of difference between knowledge sharing and competitive advantage of the firms.

a. Research Question

1. To what extent does knowledge sharing affects competitive advantage of the manufacturing firms in Anambra State.

b. Hypothesis

H_0: There is no significant difference between knowledge sharing and competitive advantage of manufacturing firms in Anambra State.

Review of Related Literature

Conceptual Review

The fundamental concept of competitive advantage can be traced back to Chamberlin (1933), but Selznick (1957) can be attributed with linking advantage to competency. The next major development came when Hofer and Schender (1978) described competitive advantage as the unique position an organization develops vis-à-vis its competitors through its patterns of resource deployment. Day (1984) and Porter (1985) provided the next generation of conceptualization which saw competitive advantage as the objective of strategy and, thus, the dependent variable. While a competitive advantage can result either from implementing a value-creating strategy not being employed by current or prospective competitors or through the superior execution of a strategy which is also being employed by competitors (Bharadwaj, Varadarajan and Fahy 1993), it is sustained when other firms are unable to duplicate the benefits of this strategy (Barney 1991).

Competitive advantage occurs when an organization acquires or develops an attribute or combination of attributes that allows it to outperform its competitors. These attributes can include access to natural resources, such as high grade ores or inexpensive power, or access to highly trained and skilled human resources. New technologies such as robotics and information technology can provide competitive advantage, whether as a part of the product itself, as an advantage to the making of the product, or as a competitive aid in the business process (for example, better identification and understanding of customers). The term competitive advantage is the ability gained through attributes and resources to perform at a higher level than others in the same industry or market (Christensen and Fahey 1984, Kay 1994, Porter 1980 cited by Chacarbaghi and Lynch, 1999). The study of such advantage has attracted profound research interest due to contemporary issues regarding superior performance levels of firms in the present competitive market conditions. "A firm is said to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential player" (Barney 1991 cited by Clulow 2003).

Successfully implemented strategies will lift a firm to superior performance by facilitating the firm with competitive advantage to outperform current or potential players (Passemard and Calantone, 2000). To gain competitive advantage a business strategy of a firm manipulates the various resources over which it has direct control and these resources have the ability to generate competitive advantage (Reed and Fillippi 1990 cited by Rijamampianina, 2003). Superior performance outcomes and superiority in production resources reflects competitive advantage (Day and Wesley 1988 cited by Lau, 2002). Competitive advantage as the ability to stay ahead of present or potential competition, thus superior performance reached through competitive advantage will ensure market leadership. Also it provides the understanding that resources held by a firm and the business strategy will have a profound impact on generating competitive advantage. Powell (2001) views business strategy as the tool that manipulates the resources and create competitive advantage, hence, viable business strategy may not be adequate unless it possess control over unique resources that has the ability to create such a unique advantage. Summarizing the view points, competitive advantage is a key determinant of superior performance and it will ensure survival and prominent placing in the market. Superior performance being the ultimate desired goal of a firm, competitive advantage becomes the foundation highlighting the significant importance to develop same. Beijerse (2000) sees knowledge as a competing factor, an important means to reduce these complexities is using knowledge. Knowledge is the factor with which entrepreneurs can distinguish themselves from their competitors. Apart from this, knowledge is the means with which the poorly organize business environment can become well organized, with which the complex world becomes manageable and with which unclear items can be interpreted. Gupta (2013) defines Knowledge as fluid mix of contextual information, experience, values and expert insight that provides a framework for evaluating and incorporating new experiences and information. Knowledge originates and resides in the minds of people.

Knowledge can be categorized into two types, which are Explicit Knowledge (EK) and Implicit or Tacit Knowledge (TK). EK is the knowledge that can be shared with others that can be documented, separated, transmitted to others (Debowski, 2005). It includes words and numbers and is shared in the form of data, grammatical statements, mathematical expressions, scientific formula, specifications and separate manuals. Therefore, EK is captured and distributed easily due to its ability to be passed on in the form of physical materials. Once codified and stored, it can be accessed and used easily by any individual in an organization (Civi, 2000). Singh (2008) emphasizes the need to use EK as a management tool in manipulating organizational knowledge. According to Gupta (2013), EK is visible information available in the form of literature, reports etc. It can be embedded in objects, rules, systems, etc. It can be communicated through language and other forms of communication.

Knowledge implicit however is obtained by internal individual process and stored in the minds of individuals. Subjective insights, intuitions and hunches fall into this category of knowledge. Implicit or knowledge is however difficult to access since a worker's know-how is elusive (Marzanah *et al*., 2010). In organizations, workers have high levels of IK developed through their experience and learning (Debowski, 2005). For this reason, knowledge should therefore be considered as part of a valuable commodity in organizations that must be shared, applied and improved amongst workers so as to generate creative ideas to existing problems or challenges faced. Gupta, (2008) posits that IK is highly invisible and confined in the mind of a person, is mainly people-bound and difficult to formalize and transfer. It is hard to formulate and therefore, difficult to communicate to others. IK is essentially personal in nature that is mainly located in people's hearts and heads. It is difficult to explain even with the help of language. Individual skills, intuition, intelligence and knowledge constitute tacit or implicit knowledge. It is extremely difficult to organize due to these characteristics.

Gupta (2008) defines Knowledge management as the process of creating new skills, capabilities, competence and expertise, developing and improving the existing ones, and sharing use of knowledge by the members of an organization. Scarbrough and Swan (1999) define KM as any process or practice of creating, acquiring, capturing, sharing and using knowledge, wherever it resides, to enhance learning and performance in organizations. From these definitions, KM is largely regarded as a set of various processes that manage organizational knowledge to attain performance. Daveport, Long and Beers (1998) define KM as a process of collection, distribution and efficient use of the knowledge resource. O'Dell and Brayson (1998) see KM as a strategy to be developed in a firm to ensure that knowledge reaches the right people at the right time and those people share and use the information to improve the organization's functioning. Boufour (2003) defines KM as a set of procedures, infrastructure and technical and managerial tools, designed to create, share and leverage information and knowledge within and around organizations.

Knowledge Management is composed of three main processes, which are namely; Knowledge generation, knowledge transfer or sharing and knowledge codification and storage. Knowledge generation can be defined as the process by which the organization obtains knowledge either from outside the organization or generated internally (Lee and Hong, 2002; McCann and Buckner, 2004). Knowledge generation is not just about generating new contetnts, but also about replacing, validating and updating the organization is existing knowledge (Alavi and Leinder, 2001; Bhalt, 2001). Organisations can acquire knowledge externally from different sources, for example talking to external agents, collaborators and partners buying patents or taking on new employees (Mc Cann and Buckner, 2004).

Knowledge transfer or sharing refers to the process by which an organization shares knowledge among its units and members, promoting new understaning (Wiig, 1997; Alavi and Leidner, 2001). It is essential for the organization to develop an adequate design of informative interaction networks and allow individuals of diverse specialists, culture and geographic locations, not only to access the same information but also to come together through the network to undertake a particular project. The existing knowledge must be captured, codified, presented and put in stores in a structured way, so it can be reused later (Choi, Poon and Davis, 2008). Knowledge is found in different locations, in people's minds, in organizationsl processes and in the corporate culture, embedded in different artifacts and procedures and stored in different media such as print, disk and optical media (Bhalt, 2001). As elucidated by Gold (2001), knowledge process is a planned coordination for controlling knowledge in an effectively way, it is important for organizations to follow the steps of KM process more effectively. The four main platforms through which KM can be administered are (1) Knowledge creation, (2) Knowledge transfer, (3) Knowledge sharing and (4) knowledge utilization.

Theoretical Framework

This study is anchored on the theory of Resource -Based View (referred to as RBV) of a firm which states that only those resources that are valuable, rare, hard to imitate, and cannot be substituted provide sustainable competitive advantage (referred to as SCA) (Barney 1991). According to the RBV of the firm, a firm's resource, in order to hold the potential of sustainable competitive advantage must have four attributes. First, they must be valuable, in the sense that they exploit opportunities and/or neutralize threats in a firm's environment. Resources are valuable when they enable a firm to conceive of or implement strategies that improve its efficiency and effectiveness. Second, they must be rare, or if possible unique, among a firm's current and potential competition. By definition, valuable firm resources possessed by large numbers of competing or potentially competing firms cannot be sources of either a competitive advantage. In other words, as long as the number of firms that possess a particular valuable resource (or a bundle of valuable resources) is less than the number of firms needed to generate perfect competition dynamics in an industry (Hirshliefer 1980), that resource has the potential of generating a competitive advantage.

Third, they must be imperfectly imitable, in the sense that these resources and capabilities are costly to copy or hard to imitate. Firm resources can be imitable for one of three reasons or a combination of all of those reasons: (1) the ability of a firm to obtain a resource is dependent upon unique historical conditions, (2) the link between the resources possessed by a firm and firms' SCA is causally ambiguous, or (3) the resource generating a firm's advantage is socially complex. The final requirement for a resource to be a source of SCA is that the resource is non-substitutable. Substitutability can take two forms. If a competitor cannot duplicate a firm's resources exactly, but can substitute similar resources that enable it to formulate and implement identical strategies and use very different resources as strategic substitutes, then a resource cannot be a source of SCA. This theory is relevant to this study because when the manufacturing firms operating in Anambra State acquire this knowledge that is valuable, rare, hard to imitate, and cannot be substituted, they gain sustained Competitive Advantage.

Empirical Review

Lee and Choi (2003) studied the effects of seven KM enablers (both social and technical) on the organizations. They found that trust is an important enabler of knowledge creation process, and firm's innovativeness is critical for achieving better relative performance. Holsapple and Singh (2005) investigated the extent to which each of the nine KM activities in the knowledge Chain Theory is related to organizational performance, they conducted an empirical investigation whose results suggested that each KM activity in the knowledge chain can be performed in ways that contribute to organizational performance via each of the pair model's approaches, productivity, productivity, agility innovation and reputation. The study uses the perception of chief knowledge officers and other leader of KM initiatives. The question on how would you use the concept of knowledge management to improve professional development and organization performance in a contemporary business environment was investigated by Olusola (2011) in the London Academy Business School being wholly theoretical research. In his findings, he posited that successful knowledge management

implementation may not be achievable if organizations cannot eliminate organizational constraints (hierarchical bureaucracy, organizational culture of rigid regulations) that are present in an organization. Nguyen (2010) carried out an empirical research study on knowledge Management Capability and Competitive Advantage of the Vietnamese enterprises in Southern Cross University Lismore, Australia using a questionnaire survey of a cross-section of enterprises in Vietnam. In her findings, she confirmed that the KM capability of a firm is a multi-dimensional construct composed of social KM infrastructure capability, and KM process capability. Social KM capability is defined by three dimensions: organizational culture, organizational structure and people (or T-shaped skills).

KM process capability is identified by four dimensions, namely knowledge acquisition, conversation, application and processes. While social and technical KM infrastructure capabilities are strongly correlated, they are both enablers for KM process capability with social elements having a dominant influence. KM processes as dynamic capabilities, in turn, take the central role with application process as the most important contributor to firm competitiveness. As a result, the indirect effects of social and technical infrastructure capabilities in organizational competitive advantage are fully mediated through KM process capability. The study suggested that practicing managers should understand and develop a holistic approach of implementing an overall KM capability which is composed of the three perspectives of social, technical infrastructure and processes.

These correlated and complementary capabilities should not be considered in isolation but rather should be integrated and combined top leverage, exploit and sustain a competitive advantage. Kamya, Joseph, Ntayi and Ahiauzu (2010) examined the relationship between knowledge management and competitive advantage, Uganda with a particular focus on the interacting influence of market orientation in the department of Marketing and International Business, Makerere University Business School, Uganda using a simple random sampling method and came up with the findings that there is a positive correlation between knowledge management and competitive advantage ; which relationship is greatly enhanced by the interaction impact of market orientation. When market-based knowledge is appropriately responded to, it augments the development of the organization.

They suggested the need for the development of proactive market-oriented organization. The relationship between knowledge management strategies and organizational performance with ATA airlines as a case study was investigated by Dadashkarimi and Asil (2013) in the Islamic Azad University Bonab, Irah with the use of factor analysis method. Their findings indicate that organizational performance function by using subordinate variable of knowledge management strategies. It is only when management has established an enabling environment that it can leverage on the resource-based view to create a knowledge management environment for effective and efficient performance of the organizations. Ohiorenya and Eboreime (2010) conducted a study on KM practices and performance of Nigerian Universities using ANOVA.

They found that KM affects organizational performance, innovation, growth and competitive advantage. Okafor, Onyeizugbe and Orogbu (2015) carried out a study on ICT and knowledge management on Universities in South East Nigeria, multiple regression analysis was used and they found that ICT-Based KM significantly affected the research outputs of University Lecturers. Much studies have not been carried out on the manufacturing firms in the South East of Nigeria, Anambra State having a high number of these manufacturing firms, the study seeks to establish the extent to which knowledge sharing affects the competitive advantage of these firms.

MATERIALS AND METHODS

The study is limited to six (6) manufacturing firms operating in Anambra State of Nigeria. The firms are Pokobros Nigeria Limited, Life Breweries Nigeria Limited, Juhel Pharmaceutical Limited, Witchtec Nigeria Limited, Sonny Plastic Limited and Zubbis Foods Industry Limited. The population of the study is five hundred and thirty five (535) and consists of workers in the selected manufacturing firms in Anambra State.

Convenience sampling was used and sample size was determined using Taro Yamane model. The sample size is 134. Descriptive survey design was adopted involving the questionnaire were administered to one hundred and thirty four (134) respondents selected from each firm, but one hundred (100) copies f questionnaire were returned. Data obtained were analyzed using Z-test statistical tool.

ANALYSIS

Research Questions for Managers

What is the nature of relationship between knowledge sharing and competitive advantage?

SECTION	A	X	DECISION
1	The knowledge sharing helps to improve your organizations competitive Advantage	3.55	Accepted
2	Knowledge sharing improves organizational communication	3.55	Accepted
3	Knowledge sharing improves team performance	3.55	Accepted
4	Knowledge sharing in organization causes the employee to get accustomed to a certain way of doing thing.	2.95	Rejected
		13.25 / 4	3.3

SECTION A: Shows that managers agreed that these items concerning knowledge sharing. It was observed that respondents agreed with the items numbers 1,2 & 3 with the means responses of 3.55, 3.35 and 3.4 respectively, while respondents disagreed with the number 4 with the mean responses of 2.95 from the mean of means 3.3 the respondents agreed that knowledge sharing affects the growth of competitive advantage.

For Employees

SECTION B		X	DECISION
1	Sharing of knowledge in the organization helps the growth of knowledge management	2.587	Rejected
2	Effective organizational leadership enhances knowledge sharing culture	3.4	Accepted
3	Employee participation in knowledge sharing improves the organization	3.6	Accepted
4	The structure of the organization encourages effective employee participation in knowledge sharing	3.5	Accepted
5	There is understanding of knowledge sharing culture in your organization	3.4	3 Accepted 3
6	The increased in productivity rate enhances organization competitive advantage by application of knowledge sharing	2.8	Rejected
7	Knowledge sharing enhance teamwork and need for close supervision	3.0	Accepted
8	Knowledge management creates room for knowledge sharing and this enhances the competitive advantage of the organization	3.4	Accepted
9	Knowledge management enhance the exchange of data information and knowledge among units	4.2	Accepted
10	Knowledge management contribute to your organizational performance and competitive advantage	3.4	Accepted
		33.639	
		10	
		3.3	Accepted

SECTION B: Shows that employee agreed that those items concerning effective employee participation in knowledge sharing, it was observed that respondents agreed with items numbers 2,3,4,5,98,9 and 10 with the mean responses of 3.4,3.6, 3.5, 3.4, 3.4, 4.2, and 3.4 respectively, while respondents disagreed with items 1,6 &7 with the means responses of 2.5,2.8 and 3.0. From the mean of means 3.3 the respondent agreed that employee participation affect knowledge sharing.

Hypothesis Testing

Total SD = 32.6, Total Mean = 39.9

For Employees

Total SD = 18.1, Total Mean 33.6

Degree of Freedom

$df = n_1 + n_2 - 2$
$df = 10 + 90 - 2$
$df = 100 - 2$
$= 98$
:. Table 98 under 0.05
$= +$ crit $= 2.000$

$$Z\ cal = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1 + S_2}{n_1 + n_2}}}$$

$Nn = 0$

$$Nn = \frac{39.9 - 33.6}{\sqrt{\frac{32.6 + 18.1}{10 \quad 90}}} = \frac{6}{\sqrt{\frac{3.46}{1.86}}} = \frac{6}{1.86} = 3.22$$

RESULTS AND DISCUSSION

It is revealed from the finding that there is no significant difference between knowledge sharing and competitive advantage of firms since Z critical < Z Calculated, the null hypothesis is accepted. This supports the findings of Kamy Joseph, Ntayi and Ahiauzu (2010) that there is a positive correlation between KM and competitive advantage. This also supports the findings of Holsapple and Singh (2005) that KM activities in the knowledge Chain Theory are related to organizational performance.

Conclusion

The fact that a firm is performing well does not mean that it should rest on its oars but should continuously upgrade its KM infrastructure for continuous growth of its employees and competitive advantage of the firms. For these firms to survive in a dynamic environment, it must acquire thing this KM, the resources that are rare, valuable, inevitable and cannot be substituted.

Recommendations

The following recommendations are made based on the findings of this study:-

1. Since the SMEs entrepreneur has the ability to shape the culture of their organization, they should be building and imbibing knowledge friendliness which encourages knowledge sharing.
2. Organization should also imbibe a culture of appreciating the knowledge workers especially those whose ideas have one way or the other helps in solving a problem in the organization, this will invariably encourage creativity and innovation in the organization. As Toyota advert goes ``Good thinking breeds' good product`` that is benchmarking knowledge sharing breeds successful organizational performance.
3. The human resources department should take the responsibility of teaching change in the mindset required to understand what knowledge management means to the organization, this can be done by offering new updates and training.
4. The organizations should put in place R and D unit that will coordinate the activities of knowledge development.

REFERENCES

Alavi, M.L. and Leidner, P.E. 2001. Review: KM and KM System S. Conceptual Foundations and Research Issues. Mis Quarterly 25 (1): 107-136.

Beijerse, R.P., 2002. Knowledge management in small and medium sized companies: Knowledge management for entrepreneurs *Journal of Knowledge Management Kempston, Vol. (4) pg 162.*

Boun four, A. 2003. The Management of intengibles. The Organization's most valuable assets London: Poudlege.

Choi, B., Poon, S.K. and Davis, J.G. 2008. Effects of KM Strategy on Organizational Performance: A complementarity theory-based approach, Omega 36:235-251.

Dadashkarimini, V. and Amir, M.A. 2013. A study on the Relation between knowledge Management Strategies and Original Performance, Research *Journal of Environmental and Earth Sciences 5(12): 728-736.*

Daven Port, T.H. and Prusak, L. 1998. Working Knowledge. How Organizations manage what they know Boston, M.A: Hervird Business School Press.

Daven Port, T.H., De Longe, D.W. and Beers, M.C. 1998. Successful KM Projects, Sloan, Management Review, Winter, 43-57

Forey, D. and Dundvall, B.D. 1996. The knowledge based economy; from the economics of knowledge to the learning economy. In employment and growth in the knowledge based economy, ed. OECD, 11-32, Peris: DECD.

Grant, R.M. 1996. Toward knowledge based theory of a firm. Strategic Management Journal 17: 109-222.

Gupta, C.B. 2008. Business Organization and Management. (5th) India: Shivani Art Press Shahaara.

Johnson, R. and Rolf, B. 1998. Knowledge moves to Central Stage. Science Communication 20 (1): 19-105.

Kamya, M.T., Ntayi, J.M, Ahiauzu, A. 2010. Knowledge Management Orientation, African *Journal of Business Management Vol, (14) pg 297 www.academic journals, org/ A JMB.*

Lee, H.C. and Hong, S. 2002. An enterprise wise knowledge management system infrastructure, Industrial Management and Data system 102(1): 17-25.

Mccann, J.E. and Buckner, M. 2004. Strategically Integrating KM initiatives, Journal of Knowledge Management 8 (1): 47-63.

Ohiorenoya, J. O. and Eboreime, O. F. 2011. Km Practices and performance in Nigeria Universities. Journal of Business Management, Benson Idahosa University, Nigeria 3 (1): 400-416.

Okafor, G., Onuzugbe, C.U. and Orogbu, L.O. 2005. ICT as an imperative for knowledge Management. A case of selected universities in South Eastern part of Nigeria: International Review of Research in Emerging Markets and Global Economy 1 (1): 208-223.

Rasula, J., Vuskie, V.B. and Stemberger, M.I. 2012. The Impact of Knowledge Management on Organizational Performance, *Journal of Economics and Business Revieiv Volume Fourteen.*

Stah Bakhsh, B. 2013. Knowledge Management and its relationship with Organizational Performance, ijerb.webs.com.

Stewart, T.A. 1997. Intellectual Capital. The new wealth of Organizations. New York; Currency Doubleday.

Stone, J., Freeman, R. and Gilbert, D.R. Jr, 2000. Management (6thed) New Delhi: Prentice-hall of India.

Tan, C.N.L., 2010. Knowledge Management Acceptance: Success Factors amongst Small and Medium Size Enterprises, American *Journal of Economics and Business Administration* Vol. 3(1): 23-30.

Uwe, C., Kristin and Tobias, 2009. The effect of knowledge management on innovative success - an empirical analysis of German firms. *Journal on Economics studies Vol. (16) pg 1.*

Wiig, K.M. 1997. Integrating Capital and Knowledge Management. Long Range Planning 30 (3): 399-405.

Yasir, M., Zulqarnain, K., Muhammad, I. and Muhammad, A.K. 2013. The impact of knowledge management on organizational performance. Far East *Journal of Psychology and Business Vol. 11 No. 2.*

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