DESCRIPTIVE ANALYSIS OF ORGANISATIONAL KNOWLEDGE UTILIZATION IN NIGERIA'S TELECOMMUNICATION INDUSTRY: A FOCUS ON MANAGERIAL IMPLICATIONS

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ABSTRACT

The focus of this research was to examine organizational knowledge utilization in the Nigeria telecommunication industry with a view of proffering managerial implications for enhanced organizational performance. A sample of 504 managerial and administrative and technical employees in the four most active telecommunication organizations in the Nigerian GSM sub market of the telecommunication industry was determined for the research study. Descriptive analysis was used to show respondents' views of organizational knowledge utilization. Findings revealed that employees' responsiveness towards individual-tacit knowledge is low as opposed to individual-explicit knowledge. More interestingly and as expected is the fact that employees' strong inclinations, evidenced by high mean scores, towards group-tacit and group-explicit knowledge respectively, emphasize the organizations' strong culture of team work.

Keywords: Organizational Knowledge, Resource Based View, Tacit Knowledge, Explicit Knowledge, Telecommunication.

INTRODUCTION

The telecommunication industry is globally recognized to be a major contributor to national economies (Oghojafor, Ladipo, Ighomerebo & Odunewu, 2014; Sedziuviene & Vveinhardt, 2010). Nonetheless, the situation in the Nigerian telecommunication industry reveals that there is continuous decline in the industry's contribution to GDP since the third quarter of 2014 (Nigeria bureau of statistics, 2016). Moreover, the Nigerian telecommunication industry has been noted to be associated with challenges, such as poor quality of service, long waiting hours in accessing customer care representatives, high rate of porting activities, call jamming and dropping, delay in or non-delivery of text messages after charges have been deducted, echoing of speech when making calls and unsolicited deductions from services which subscribers did not register for (Alabar, Egena & Gbande, 2014; Consumer Protection Council, 2010). These challenges have, therefore, given rise to poor performance of the telecommunication industry (Adi, 2015; Onuzuruike, 2009; Sanjo & Adeniyi, 2012). The bulk of these challenges result from the over reliance of telecommunication organizations on technology based information as against organizational knowledge which reside in human expertise (Agbim, Owutuamor & Oriarewo, 2013; Sarkindaji, Hashim & Abdullateef, 2014; Olokundun, Ibidunni, Peter, Amaihian, Moses &

Iyiola, 2017). Therefore, empirical evidence on the role of individuals' and group tacit and explicit knowledge in driving performance is clearly missing in organizational knowledge literature. Accordingly, this research focuses on examining organizational knowledge utilization in the Nigeria telecommunication industry based on a combination of people and technology, with a view of proffering managerial implications for enhanced organizational performance.

LITERATURE REVIEW

The Importance of Organizational Knowledge to Nigeria's Telecommunication Industry: A Resource-based Perspective

The Resource Based View (RBV) which gained strong ground in the field of Strategic Management through Barney (1991) has evolved from a mere perspective into a powerful theoretical discuss (Barney, Ketchen & Wright, 2011). The RBV is based upon the premise that organizational competitiveness is achieved and sustained when the firm's resources and capabilities are valuable, rare, inimitable and non-substitutable (Barney, 1991; Ogbari, Ibidunni, Ogunnaike, Olokundun & Amaihian, 2018). The tenet of the RBV directs the focus of managers to the inside-out view of the firm, where firm specific assets become a source of competitive advantage and subsequently improving organizational performance. More resent arguments have proven that organizations must constantly improve on such resources and capabilities to remain competitive (Helfat & Peteraf, 2003; Wu, 2010). Therefore, management has a responsibility to strategically channel the firm's resources across its business activities and to build the future resource base required to optimize performance (Erden, Klang, Sydler & Krough, 2014). Indeed, research based on the resource based view has gone beyond the shore of Strategic Management to gain wide interconnection with other field such as distinctive competences, organizational economics and theory of industrial organization (Mahoney & Pandian, 1992).

To suppose that knowledge, being one of firms' intangible resources, is considered the most strategic of every other organizational resource implies that managers must have a more robust knowing of their firms' tangible and intangible resources (Cook & Brown, 1999). For example, branding is also an intangible organizational resource that could result in competitive advantage (Ghodeswar, 2008). However, within the scope of the knowledge based economy, managers that have deeper knowledge and skills of building unique brand models are likely to outperform those that don't (Ogunnaike, Ade-Turton & Ogbari, 2014). Firms in the telecommunication industry also understand the significance of competing based on intangible resources. Todeva & John (2001) identified some of these intangible resources to include technical and organization specific skills possessed by employees in respective telecommunication organizations, alongside network capabilities of the organizations. In addition, the capability of senior management staff to, for example, influence and harness the support of team members through effective leadership skill can help achieve greater organizational creativity and innovation which could enhance organizational performance (Ibidunni, Ibidunni, Oke, Ayeni & Olokundun, 2018). This industry is knowledge based and driven by high levels of technology and innovation. Therefore, there is an increasing demand on Telecommunications organizations to further invest in knowledge based resources and capabilities as a means of improving performance (Murmann, 2003; Sedziuviene & Vveinhardt, 2010; Dzunic, Boljanovic & Subotic, 2012; Liao & Luo, 2012). However, the market share statistics presented above indicate that there is some level of looseness in the competition that exists in the industry. An important question of research interest is: could there be something the

market leader knows and knows how to do that other competitors are not conscious about? An investigation on organizational knowledge and behavioral patterns on competition is necessary in the Nigerian Telecommunications industry.

MATERIALS AND METHODS

This research study used survey research method to examine the utilization of organizational knowledge in the Nigerian telecommunication industry. Data was gathered from employees in the firm and Customer Service Centers. In total, a sample size of five hundred and four (504) managerial and administrative and technical employees was determined for this study based on Bartlett, Kotrlik & Higgins (2001); Singh & Masuku (2014) sample size determination methods. Copies of questionnaire were administered to the respondents. The questionnaire was structured based on existing literatures that are related to the present study. Questions about organizational knowledge of the firms were developed based on a typological scaling of knowledge: individual-tacit, group-tacit, individual-explicit and group-explicit knowledge dimensions (Chilton & Bloodgood, 2007; Fei, Chen & Chen, 2009; Huang, 2014).

ANALYSIS AND DISCUSSION

Table 1
DESCRIPTIVE STATISTICS OF INDIVIDUAL-TACIT KNOWLEDGE AT THE FIRM (AND CSCS)

	N	Min	Max	Mean	Std. Deviation	Skewness	
	Stat	Stat	Stat	Statistic	Statistic	Stat	Std. Error
Explaining job steps	43(181)	1.00	5.00	1.7674(2.8066)	0.75078(1.53882)	1.125(0.181)	0.361(0.181)
Writing down the procedures	43(182)	1.00	5.00	2.0930(2.7857)	1.12998(1.39977)	1.367(0.254)	0.361(0.180)
How to go about my job	43(182)	1.00	5.00	3.9767(3.9670)	1.01156(1.03476)	-1.110(-0.871)	0.361(0.180)
Doing my job is a natural ability/skill to me	44(179)	1.00	5.00	4.0000(4.1173)	0.94006(0.79513)	-0.880(-0.824)	0.357(0.182)

Table 1 shows the descriptive statistics of individual-tacit knowledge at the firm and the Customer Service Centers. The statistics shows that respondents, both in the firm and the Customer Service Centers tend to disagree that it is difficult for them to explain the steps involved with their job (mean=1.76, std. dev.=0.75, in the firm) and (mean=2.81, std. dev.=1.53, in the customer service centers). Similar, the respondents affirmed that it is not very difficult for them to write down the procedures involved with their job tasks, both at the firm (mean=2.09, std. dev.=1.13) and at the customer service centers (mean=2.78, std. dev.=1.39). However, they suggested that they can easily go about their job tasks without thinking too long about how to execute it (mean=3.97, std. dev.=1.01; at the firm) and (mean=3.96, std. dev.=1.03, at the customer service centers). Similarly, their response suggest that executing their job is more of a

natural skill and ability showed high means at the firm (mean=4.0, std. dev.=0.94) and at the customer service centers (mean=4.11, std. dev.=0.79).

Table 2
DESCRIPTIVE STATISTICS OF INDIVIDUAL-EXPLICIT KNOWLEDGE AT THE FIRM (AND CSCS)

	N	Min	Max	Mean	Std. Deviation	Skewness	
	Stat	**Stat**	**Stat**	**Statistics**	**Statistic**	**Statistic**	**Std. Error**
Personal trainings	43(183)	1.00	5.00	3.1860(4.0656)	1.18031(0.81609)	-0.105(-1.041)	0.361(0.180)
Knowledge gained from journal and magazines	44(183)	2.00	5.00	3.8636(4.0874)	0.76526(0.79352)	-0.739(-1.025)	0.357(0.180)
Educational background to success on job	43(182)	2.00	5.00	4.1163(4.1099)	0.90526(0.85334)	-1.046(-1.130)	0.361(0.180)

Table 2 above shows that at the firm (mean=3.1, std. dev.=1.18) and the customer service centers (mean=4.06, std. dev.=0.81) respondents replied favorably to the role of personal training towards improving their performance on the job. More so, they expressed that knowledge gained from printed materials, such as magazines and journals in their field, help them with achieving organizational objectives: firm (mean=3.86, std. dev.=0.76) and customer service centers (mean=4.08, std. dev.=0.79). The role of knowledge gained from their formal education on their success in the job was also affirmed. This was evident at the firm level (mean=4.12, std. dev.=0.91) and the customer service centers (mean=4.11, std. dev.=0.85).

Table 3
DESCRIPTIVE STATISTICS OF GROUP-TACIT KNOWLEDGE IN THE FIRM (AND CSCS)

	N	Min	Max	Mean	Std. Deviation	Skewness	
	Stat	**Stat**	**Stat**	**Statistic**	**Statistic**	**Statistic**	**Std. Error**
The firm's culture	44(181)	1.00	5.00	4.2727(4.4420)	0.72701(0.70175)	-1.996(-1.449)	0.357(0.181)
Staff share experiences	43(181)	1.00	5.00	4.0000(4.4033)	0.84515(0.62164)	-1.241(-0.679)	0.361(0.181)
Shared experiences	44(181)	1.00	5.00	4.0455(4.0939)	0.77623(0.81446)	-1.330(-1.235)	0.357(0.181)
Staff share stories	41(180)	3.00	5.00	4.2195(4.1722)	0.65239(0.79686)	-.250(-0.588)	0.369(0.181)
Explain difficult work processes	42(181)	1.00	5.00	4.1429(4.3315)	0.92582(0.65875)	-1.458(-1.538)	0.365(0.181)

Table 3 shows that most respondents strongly support that the way they go about their job is largely guided by the organizational culture set in place by the management of the organization (mean=4.27, std. dev.=0.73) at the firm and (mean=4.44, std. dev.=0.70) at the

customer service centers. It was also noticed that part of the firm's culture is to strongly encourage employees to share experiences that relate to their job and work duties among themselves such that other members of staff can learn (mean=4.00, std. dev.=0.85) at the firm and (mean=4.40, std. dev.=0.62) at the customer service centers. Respondents strongly attested to the fact that most successes recorded on their job result from story sharing among one another. This applied to both the firm (mean=4.22, std. dev.=0.78) and the Customer Service Centers (mean=4.09, std. dev.=0.81). Moreover, the practice of explaining difficult work processes among colleagues, when required is also noticeable from the statistics (mean=4.14, std. dev.=0.93, at the firm) and (mean=4.33, std. dev.=0.66, at the Customer Service Centre).

Table 4
DESCRIPTIVE STATISTICS OF GROUP-EXPLICIT KNOWLEDGE AT THE FIRM (AND CSCS)

	N	Min	Max	Mean	Std. Deviation	Skewness	
	Stat	**Stat**	**Stat**	**Statistic**	**Statistic**	**Statistic**	**Std. Error**
Organizational manual	42(178)	1.00	5.00	4.1667(4.5056)	0.90841(3.13941)	-1.575(12.235)	0.365(0.182)
Firm's knowledge base	43(179)	2.00	5.00	4.0000(4.2626)	0.78680(0.69775)	-0.615(-0.912)	0.361(0.182)
Document personal experiences	43(177)	1.00	5.00	3.3953(3.8531)	0.97930(0.97170)	-0.251(-0.753)	0.361(0.183)

Table 4 shows that organizational manual is an important guide to performing job tasks at the firm (mean=4.16, std. dev.=0.91) and at the customer service centers (mean=4.51). In the same way, there was favorable reply over the usefulness of the firms' existing knowledge base for resolving problems that relate to their work at the firm level (mean=4.00, std. dev.=0.78) and the customer service centers (mean=4.26, std. dev.=0.69). The Table 4 also indicates that respondents agreed that the firm encourages employees to document their personal experiences as a way of helping colleagues learn at any point of need. This was evident at the firm (mean=3.39, std. dev.=0.97) and the customer service centers (mean=3.85, std. dev.=0.97).

CONCLUSION AND IMPLICATION TO MANAGEMENT PRACTICE

Organizational knowledge plays an important role in designing and implementation of firms' strategy. Within the firm exists, tacit and explicit knowledge which are daily utilized by individuals and groups of the firm. As employees attempt to achieve the firm's strategy through their daily work engagements, it is important that management realizes the role and forms their knowledge play and take in those daily tasks. Organizational strategy can be impeded or facilitated depending on how employees engage their knowledge either as individuals or during group assignments. In a bid to concretize and measure the utilization of knowledge resources in the firm, some organizations now have knowledge management officers. Organizational knowledge is a strategic resource of every firm and it must be managed and engaged to suit the firm's strategic direction. In using the knowledge of individuals, the firm must recognize that their tacit and explicit knowledge must suit the present strategies the firm attempts to achieve (Barney, 1991; Helfat & Peteraf, 2003; Uchegbulam, Akinyele & lbidunni, 2015). Managers must learn the art of keeping and motivating experts in their firm. The role of experts in

knowledge sharing and mentoring is an important strategy towards accomplishing organizational objectives. Experts for example are very likely to use their intuition and experience to both relate with customers and get their queries resolved (Barney, Ketchen & Wright, 2011). The only way firms can replicate this knowledge is by encouraging mentorship. Thus, it is important that firms adjust their policy to suit expert retention, as a way of increasing the ratio of expert to trainee employees in the firm. It is equally vital to identify the role of individual-explicit knowledge, such as education and training, in enhancing organizational performance. This is important because employees who had knowledge and had undergone training that are relevant to the job tasks they are presently doing were more responsive to providing answers to how their education and training enhance their job performance and their contribution to the organization's performance (Sarkindaji, Hashim & Abdullateef, 2014). Managers must ensure that group formation must also be in alignment with how members are willing to share knowledge and have like passion about the task at hand. This is especially important because groups who share like passion are better able to relate their knowledge with the job tasks assigned to them. Their interaction on the job helps them resolve seemingly difficult challenges in lesser time and efforts.

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REFERENCES

Adi, B. (2015). An evaluation of the Nigerian telecommunication industry competitiveness: Application of porter's five forces model. *World Journal of Social Sciences*, *5*(3), 15-36.

Agbim, K.C., Owutuamor, Z.B. & Oriarewo, G.O. (2013). Entrepreneurship development and tacit knowledge: Exploring the link between entrepreneurial learning and individual know-how. *Journal of Business Studies Quarterly*, *5*(2), 111-129.

Alabar, T.T., Egena, O. & Gbande, R.I. (2014). Service quality and customer satisfaction in Nigerian mobile telephony. *3rd International Conference on Business, Management and Governance, IPEDR 82*, Singapore.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99-120.

Barney, J.B., Ketchen, D.J. & Wright, M. (2011). The future of resource-based theory: Revitalization or decline? *Journal of Management*, *37*(5), 1299-1315.

Bartlett, J.E., Kotrlik, J.W. & Higgins, C.C. (2001). Organizational research: Determining appropriate sample size in survey research. *Information Technology, Learning and Performance Journal*, *19*(1), 43-50.

Chilton, M.A. & Bloodgood, J.A. (2007). The dimensions of tacit & explicit knowledge: A description and measure. *Proceedings of the 40th Hawaii International Conference on System Sciences*.

Consumer Protection Council (CPC) (2010). *The Nigerian consumer voice*.

Cook, S.D.N. & Brown, J.S. (1999). Bridging epistemologies: The generative dance between organizational knowledge and organizational knowing. *Organization Science*, *10*(4), 381-400.

Dzunic, M., Boljanovic, J.D. & Subotic, J. (2012). The importance of concepts of knowledge management and learning organization in managing the knowledge-flow in organizations. *Management, Knowledge and Learning International Conference*, Serbia.

Erden, Z., Klang, D., Sydler, R. & Krogh, G.V. (2014). Knowledge-flows and firm performance. *Journal of Business Research*, *67*(1), 2777-2785.

Fei, J., Chen, S. & Chen, S.L. (2009). Organizational knowledge base and knowledge transfer in the shipping industry. *Electronic Journal of Knowledge Management*, *7*(3), 325-340.

Ghodeswar, B.M. (2008). Building brand identity in competitive markets: A conceptual model. *Journal of Product & Brand Management*, *17*(1), 4-12.

Helfat, C.E. & Peteraf, M.A. (2003). The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal*, *24*, 997-1010.

Huang, Y. (2014). Measuring individual and organizational knowledge activities in academic libraries with multilevel analysis. *The Journal of Academic Librarianship*, *40*(5), 436-446.

Ibidunni, A.S., Ibidunni, O.M., Oke, A.O., Ayeni, A.W. & Olokundun, M.A. (2018). Examining the relationship between tacit knowledge of individuals and customer satisfaction. *Academy of Entrepreneurship Journal*, *24*(1).

Liao, K. & Luo, J. (2012). Knowledge management in collaborative product design-an activity theory perspective. *Journal of Software*, *7*(1), 17-24.

Mahoney, J.T. & Pandian, R. (1992). The resource-based view within the conversation of strategic management. *Strategic Management Journal*, *13*, 363-380.

Murmann, J.P. (2003). *Knowledge and competitive advantage: The coevolution of firms, technology and national institutions*. Cambridge University Press.

National bureau of statistics (2016). *Nigerian telecommunications (services) sector report: Q1 2016*.

Ogbari, M.E., Ibidunni, A.S., Ogunnaike, O.O., Olokundun, M.A. & Amaihian, A.B. (2018). Comparative analysis of small business strategic orientation: Implications for performance. *Academy of Strategic Management Journal*, *17*(1).

Oghojafor, A.B.E., Ladipo, P.K.A., Ighomerebo, S.O. & Odunewu, V.A. (2014). Determinants of customer satisfaction and loyalty in the Nigerian telecommunications industry. *British Journal of Marketing Studies*, *2*(5), 67-83.

Ogunnaike, O.O., Ade-Turton, D. & Ogbari, M.E. (2014). Higher education marketing: Does corporate quality really matter? *Proceedings of the 23rd International Business Information Management Association Conference*, 2846-2861.

Olokundun, M.A., Ibidunni, A.S., Peter, F., Amaihian, A.B., Moses, C.L. & Iyiola, O.O. (2017). Experiential pedagogy and shared vision: A focus on identification of business opportunities by Nigerian students. *Journal of Entrepreneurship Education*, *20*(2), 1-12.

Onuzuruike, E. (2009). *Telecom infrastructure sharing as a strategy for cost optimization and revenue generation: A case study of MTN Nigeria/Zain Nigeria collocation*. Unpublished MBA Dissertation of Blekinge Institute of Technology.

Sanjo, O.M. & Adeniyi, A.W. (2012). Determinants of organizational effectiveness in the Nigerian communication sector. *European Journal of Business and Management*, *4*(13), 68-77.

Sarkindaji, B.D., Hashim, N.A.B. & Abdullateef, A.O. (2014). Knowledge management and organizational performance of mobile service firms in Nigeria: A proposed framework. *Information and Knowledge Management*, *4*(11), 88-95.

Sedziuviene, N. & Vveinhardt, J. (2010). Competitiveness and innovations: Role of knowledge management at a knowledge organization. *Inzinerine Ekonomika-Engineering Economics*, *21*(5), 525-536.

Singh, A.S. & Masuku, M.B. (2014). Sampling techniques & determination of sample size in applied statistics research: An overview. *International Journal of Economics, Commerce and Management*, *2*(11), 1-22.

Todeva, E. & John, R. (2001). Shaping the competition and building competitive advantage in the global telecommunication industry: The case of British telecommunications Plc. *Proceedings of the EAM 9th International Conference on Firm Behavior, Competitive Advantage and Sustainable Development: Linkages, Parallels and Contradictions,* Costa Rica.

Tsai, W. (2001). Knowledge transfers in intra-organizational networks. *Academy of Management Journal*, *44*(5), 996-1004.

Uchegbulam, P., Akinyele, S. & lbidunni, A. (2015). Competitive strategy and performance of selected SMEs in Nigeria. *International Conference on African Development Issues (CU-ICADI)*, 326-333.

Wernerfelt, B. (1995). The resource-based view of the firm: Ten years after. *Strategic Management Journal*, *16*(3), 171-174.

Wu, L.Y. (2010). Applicability of the resource-based and dynamic-capability views under environmental volatility. *Journal of Business Research*, *63*(1), 27-31.