



Influence of Knowledge Assimilation on Organizational Dynamic Capabilities of Telecommunication Firms in South-South, Nigeria

¹Bayo, Princewill Lekara & ²H. Ejo-Orusa (PhD)

¹Department of Management,
Faculty of Management Sciences,
Rivers State University, Port Harcourt, Nigeria
ndaabari1968@gmail.com, bayo.princewill@ust.edu.ng

²Department of Management,
Faculty of Management Sciences
Rivers State University, Port Harcourt, Nigeria
ejoorusa@yahoo.com

ABSTRACT

This study examined the influence of knowledge assimilation on organizational dynamic capabilities of telecommunication firms. A sample of 136 respondents was drawn through proportional sampling technique from the population of 210 managers and supervisors of four Nigerian Communication Commission recognized and authorized Global System Mobile telecommunication firms in the South-South of Nigeria. The research design is a cross-sectional survey and its method is quantitative. Data sourced using the structured questionnaire. The instrument used for data collection was validated by experts and reliable with a reliability coefficient of 0.70. The Spearman's, rank order correlation was used to test the relationship between knowledge assimilation and the measures of organizational dynamic capabilities (sensing, learning and reconfiguring capabilities). The findings revealed that knowledge assimilation positively influences organizational dynamic capabilities of telecommunication firms in the South-South, Nigeria. The study recommends that knowledge assimilation should begin with the identification of knowledge that share or contain features that serve the purpose and goals of the organization and as such, are well appreciated based on their relevance and applicability within the organization. Functions and expertise which the organization should therefore match knowledge development expectations and bridge the gap between the organization's knowledge processing as well as utilization capacity and its expected knowledge application outcomes.

Keywords: Knowledge, Assimilation, Organizational, Dynamic-Capabilities, Telecommunication

INTRODUCTION

Dynamic capabilities are two key words that are gaining attention in strategic management and related research. First, the word "dynamic" refers to a process or system characterised by constant change, activity or progress, hence, could be refer to as the ability to renew capabilities so that they would reach congruence with the changing operational environment. Teece, Pisano and Shuen, (1997) defined dynamic capabilities as the ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments. Certain innovative actions are required when markets face changes (A good example is the rapid technological or competition changes). Second, "capabilities" refer to the key roles of strategic management in adaptation, integration and recreating organisation's inner and outer skills, resources and competition factors, so that they better fit the requirements of a changing environment (Sapienza, H., Autio, E., George, G.& Zahra, S. (2006); Ambrosini & Bowman, 2009).

Previous studies (Winter, 2003; Teece 2007) argue that if a firm possesses capacity but lacks dynamic capabilities, it has a chance to make a competitive return but cannot maintain higher competitive returns for the long term except by chance. This position is further re-enforced by Teece (2007) who said that dynamically competitive organizations do not just build defences to competition; they help shape competition and marketplace outcomes through entrepreneurship, innovation and semi-continuous asset orchestration and business reconfiguration. The benefits from dynamic capabilities depend on the efficacy of the underlying organisational and managerial processes that are invoked (Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece, & Winter, 2007). Hence, it is essential to understand the organizational processes of acquiring, assimilating and utilizing the unique and rare information or expertise in order to appreciate the manifestation of dynamic capabilities. Dynamic capabilities can be seen as outcomes themselves (Eisenhardt & Martin 2000), and it is suggested that dynamic capabilities are not processes as such but can be considered as being embedded in processes (Zott, 2003). It is difficult to observe an organization's dynamic capability unless it is put into use and through organizational processes. For example, the processes of knowledge assimilation as feature of absorptive capacity are the mechanisms that make it happen (Helfat *et al.* 2007).

Absorptive capacity can be understood as those sets of actions that call for learning, knowledge processing and application over time and allow managers to accomplish some business tasks (Bingham, Eisenhardt, & Furr, 2007). Absorptive capacity research brings a ready-made empirical base to the topic of dynamic capabilities that also sheds light on its nature. In applying the methods and approaches of absorptive capacity research to the questions raised by dynamic capabilities, further progress in research on dynamic capabilities can be made (Eisenhardt & Martin 2000). There are different views concerning the meaning of the term "absorptive". According to Van de Ven (1992), strategy research has used the term in three ways. These are: 1) absorption as a logic that explains an exchange relationships, 2) absorption as a concept referring to actions and 3) absorption as a sequence of events describing incremental changes over time. Pettigrew (1992) states that of these three approaches, only the third explicitly and directly follow absorption in action and therefore is able to describe and account for how some entities or issues develop and change over time. Building on the resource-based view, previous studies have argued that the concept of absorptive capacity is capable of explaining the nature and behaviour of organizations (Kogut & Zander, 1996; Nahapiet & Ghoshal, 1998).

Some studies have relied on the identification and analysis of single construct relationships between absorptive capacity and dynamic capability (Cohen & Levinthal, 1990; Nahapiet & Ghoshal, 1998). Unfortunately, these approaches are not able and are mostly not intended to create the whole complex picture of the nature of the relationship between the variables. According to (Techtalkafrican, 2013), during high promotion periods, those who switch lines so as to participate in promotion offers often abandon it after the promotional period either because another operator is giving some promotional offers or in search of a quality offering. This event has resulted in many Nigerian possessing multiple handsets. This problem stems primarily from the poor services accredited to these telecommunication firms and as such a high rate of customer attrition. These challenges or shortcomings impact negatively on the competitiveness of the firms; therefore, there is a need for telecommunication firms to initiate measures that will inform the adequate integration and utilization of their knowledge resources to adapt favourably to their changing competitive environment. Thus, the goal of this study is to investigate the relationship between absorptive capacity and organizational dynamic capabilities of telecommunication firms in South-South, Nigeria.

Similarly, it is worthy to note that the growing uncertainty of higher customer expectations, the dilution of borders between competitive environments and the move towards global competition, has pushed forward the need for effective knowledge integration and application through the evidence of absorptive capacity as a means of enhancing organizational sensing and reconfiguring behaviour. As the level of changes in the business environment increases, the developments of strategies that will differentiate the organization from its competitors become the key success factor. Dynamic capabilities are expected to be valuable for organizations dealing with environmental turbulences, and early identification of threats or opportunities to creates better opportunities for the organization. The act of learning to respond to early signals of environmental changes constitutes the development of dynamic capabilities for environmental

adaptation. Changes emerging from the business environment may make an organization's capabilities become less valuable or even redundant. Nonetheless, a strong manifestation of absorptive capacity has the tendency of boosting the learning, sensing and reconfiguring capabilities of the organization in a way that propels the organization into success. Zahra & George, (2002) noted that absorptive capacity drives the organizations ability to sustain operations within highly uncertain and unpredictable environment.

The information and knowledge gathered from the individual or business environment must be converted into a transferable form and distributed internally through the internalization process that requires dissemination and assimilation. The second part of absorptive capacity, i.e., dissemination, involves the communication of the generated knowledge to all relevant departments and individuals (Liao, Welsch, & Stoica, 2003). The dissemination of knowledge does not always happen spontaneously. This event is true for people with a technical background who are often regarded as highly individualistic and do not disseminate knowledge naturally (Van der Bij *et al.*, 2003). Therefore, knowledge dissemination must be fostered by the organization. The organization must be well structured so that both formal and informal networks are maximized to transfer knowledge in the organization and across different functional departments. The best ways to disseminate knowledge are through interdepartmental meetings, cooperation and a primary system or network to store all the lessons learned (know-how) and others. In the context of knowledge creation and transfer, R&D personnel are the main users of knowledge, since they are the most knowledge-intensive and professional group in an organisation.

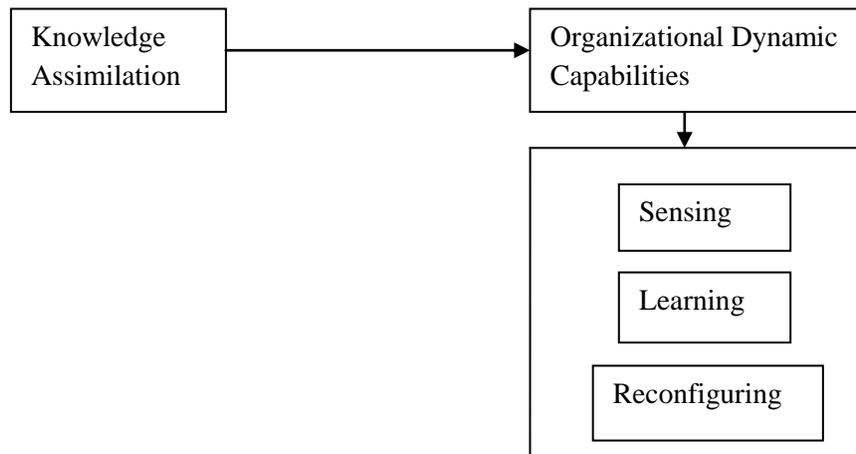
R&D teamwork can be regarded as a cooperative human problem-solving process, whose knowledge and expertise are vital to new product or service development and their capability is the major determinant of product development strategy. Interventions to encourage a healthy environment for transfer include the need to establish favourable times and locations for knowledge exchange. Achieving an environment within the firm that favours innovation depends to a large extent on the willingness of knowledge users to share and assimilate knowledge, and on the existence of formal mechanisms such as coordination and communication, conditions that enable the organisation to become more involved in the innovation process. These aspects define the context in which technological innovation activities are developed and, specifically, the organisation's attitude towards innovation, and therefore condition the process by which resources are transformed into innovation output.

Knowledge creation and innovation must be understood as a process by which the knowledge individuals possess is extended and internalised as part of the organisational knowledge. If an organisation's internal knowledge is not shared with other people and groups in the organisation, it will remain at the individual level and will have little or no impact on the firm's innovation output or capacity. The knowledge users' capacity to assimilate new knowledge and their willingness to share their individual knowledge is therefore crucial in the creation of new knowledge. In the context of internal knowledge transfer, it is important to see assimilation capacity as the set of routines and processes that allow knowledge users to analyse, interpret and understand new knowledge (Zahra & George, 2002). This capacity includes the knowledge users' ability to learn new knowledge, and must be accompanied by a willingness on the part of organisational members to share their knowledge so that new knowledge can be transferred.

Assimilation and transformation consist of processes through which newly acquired knowledge is combined with the already existing prior knowledge and how it is distributed to different parts of the organization. Camison and Fores (2010) describe assimilation as processes and routines, which allow the new external information and knowledge to be analysed, processed, interpreted, understood, internalized and classified. They also describe transformation as organizational capacity through which routines to combine previous knowledge and assimilated new knowledge are developed. Todorova and Durisin (2007) on the other hand describe assimilation and transformation processes as alternative processes to each other. Effective assimilation of knowledge requires effective communication, and effective communication requires shared knowledge, which refers to any kind of knowledge which is shared within the group. On the other hand, a high level of shared knowledge may lead to "not-invented-here syndrome" because the knowledge structures of the people are too similar. Diversity of background, however allows linkages between different knowledge and increases the likelihood that absorbed knowledge is related to pre-existing knowledge (Cohen & Levinthal, 1990).

In order to communicate effectively in the organization, the organization has to arrange arenas for social engagement to occur. These arenas are called social integration mechanisms which facilitate information sharing within the organization (Zahra & George 2002; Kallio & Bergenholtz, 2011). Similarly, knowledge acquisition, assimilation and transformation may occur on practical level; in informal or formal, online and offline channels where employees are able to interact. Also, coordination, systems and socialization capabilities affect the transformative learning in the organization, because they are capabilities which have effect on the abilities and motivation of the individuals (Martinkenaite & Breunig 2016). Knowledge assimilation serves to align the organizations activities and systems with the expectations and variance in its environment. However, there exists a paucity of research that has addressed the relationship knowledge assimilation capacity and organizational dynamic capabilities, which is relatively new as conceptualized in this study.

Conceptual framework of the influence of knowledge assimilation on organizational dynamic capabilities



Source: Researcher Desk

This study examines the influence of knowledge assimilation on organizational dynamic capabilities within the telecommunication firms in South–South, Nigeria. Based on the conceptual framework above as a guide to this investigation, there is need to answer this pertinent question:

To what extent does knowledge assimilation influence the organizational dynamic capabilities of telecommunication firms in South-South, Nigeria?

It is also important that we interrogate the following hypotheses:

H₀₁: There is no significant relationship between knowledge assimilation and sensing capability of telecommunication firms in South-South, Nigeria

H₀₂: There is no significant relationship between knowledge assimilation and learning capability of telecommunication firms in South-South, Nigeria

H₀₃: There is no significant relationship between knowledge assimilation and reconfiguring capability of telecommunication firms in South-South, Nigeria.

METHODOLOGY

The cross-sectional survey design as adopted in this study was projected to serve as the procedural plan which guides the study and answers its related questions objectively, accurately, and economically and with validity. Hoy (2009) stated that a traditional research design is a blueprint or detailed plan of how a research study is to be completed; the operating variables for measurement, selecting a sample, collecting data and analysing the results of interest to the study, and testing the hypotheses. In the most elementary sense, the design is the logical sequence that connects the empirical data, research questions and conclusions (Hoy, 2009). Gibbons (1992) stressed that research design should provide the overall

structure and orientation of an investigation as well as a framework within which data can be collected and analysed. Gibbons (1992) further opined that the main purpose of the research design is to help avoid a situation in which the evidence does not address the initial research questions.

The population for this study consisted of 210 regional management staff (managers and supervisors) from the four registered and identified GSM mobile telecommunication firms in South-South, Nigeria. A sample size of 136 respondents drawn through proportional stratified sampling technique was used for the study. This study utilized both primary data and secondary materials for its analysis. Primary data for this study was sourced using the structured questionnaire that were distributed personally to the four main regional branches of the GSM mobile telecommunication firms in South-South, Nigeria. While the publications on NCC websites which address the activities that relates to absorptive capacity and the dynamic capabilities of the target GSM mobile telecommunication firms within the year 2018 and 2019, were used and analysed as a way of enhancing insight on the sensing, learning and reconfiguring capabilities of the firms and also their wellbeing and functionality within the Nigerian telecommunication industry.

The instrument used for the study was validated by experts and was adjudged valid while measure of internal consistency of 0.70 coefficient obtained through Cronbach Alpha indicates the extent to which data distributions are consistent across the cases.

Table 1: Result for reliability test

Constructs	Dimensions/Measures	Indicators	Alpha value.
Absorptive Capacity	Knowledge Assimilation	5	0.820
Organizational Capabilities	Dynamic Sensing Capability	5	0.892
	Learning Capability	5	0.910
	Reconfiguring Capability	5	0.797

Bivariate Results

The result on the relationship between the knowledge assimilation and organizational dynamic capabilities is presented in this section. Tests are carried out at a 0.05 level of significance given the adopted 95% confidence interval for the hypothetical statements of the study. The Spearman's, rank order correlation coefficient aided by the statistical package for the social sciences (SPSS) version 22 was adopted as the statistical tool for the test of the hypotheses of the study. This choice is premised on the flexible features of the tool to accommodate both parametric and non-parametric data distributions and also applies in the test for both monotonic and linear relationships.

Decision rule: The decision of acceptance or rejection of hypothetical statements in this study is based on the outcome of the probability value (Pv) in regard to the level of significance adopted (0.05). Therefore, where $Pv < 0.05$, indicating significant relationship between variables, the null hypothesis is rejected; and where $Pv > 0.05$, indicating insignificant relationship between the variables, the null hypothesis is accepted.

Table 2: Knowledge assimilation and organizational dynamic capabilities

		Assimilate	Sense	Learn	Reconf
Spearman's rho	Correlation Coefficient	1.000	.691**	.422**	.419**
	Assimilate				
	Sig. (2-tailed)	.	.000	.000	.000
	N	129	129	129	129
	Correlation Coefficient	.691**	1.000	.375**	.486**
	Sense				
	Sig. (2-tailed)	.000	.	.000	.000
	N	129	129	129	129
	Correlation Coefficient	.422**	.375**	1.000	.723**
	Learn				
	Sig. (2-tailed)	.000	.000	.	.000
	N	129	129	129	129
Correlation Coefficient	.419**	.486**	.723**	1.000	
Reconf					
Sig. (2-tailed)	.000	.000	.000	.	
N	129	129	129	129	

** . Correlation is significant at the 0.01 level (2-tailed).

The outcome on the relationship between knowledge assimilation and organizational dynamic capabilities is reflected in the detailed influence knowledge assimilation has on measures such as the sensing, learning, and reconfiguring capabilities of the organization. The result from the test on the hypotheses reveals that knowledge assimilation significantly contributes towards organizational dynamic capabilities as it impacts on sensing capability (where rho = 0.691 at a P = 0.000); learning capability (where rho = 0.422 at a P = 0.000); and reconfiguring capability (where rho = 0.419 at a P = 0.000).

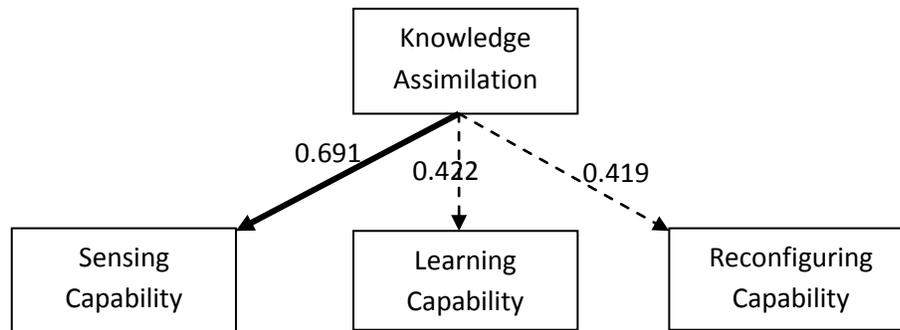


Figure 1. Heuristic model of knowledge assimilation and organizational dynamic capabilities

Generally, in view of the outcome of the analysis and test for the bivariate relationship between knowledge assimilation and measures of organizational dynamic capabilities, the following results are stated:

- i. There is a moderately significant relationship between knowledge assimilation and sensing capability of telecommunication firms in South-South, Nigeria
- ii. There is a moderate significant relationship between knowledge assimilation and learning capability of telecommunication firms in South-South, Nigeria
- iii. There is a moderate significant relationship between knowledge assimilation and reconfiguring capability of telecommunication firms in South-South, Nigeria.

The findings signify that knowledge assimilation positively influences the organizational dynamic capabilities of telecommunication firms in South-South, Nigeria as it plays a major role in the actualization of organizational dynamic capabilities. This event agrees with the position of previous

studies (Zahra & George 2002; Cohen & Levinthal, 1990; Fosfuri & Tribo, 2006) and models on the development of organizational capabilities and competencies, especially such that requires the internalizing of knowledge, its application and utility in the transformation of the organization.

DISCUSSION OF FINDINGS

The findings of this study agree with those of the previous studies on the effect of knowledge assimilation on organizational outcomes. The access to external knowledge is one of organisational problems including rejection of external knowledge within the firm or difficulties in applying external knowledge to the firm's operations. In the literature review of this study, effort was made to shed some light on the possible mechanisms which enable firms to overcome the problems they face in using external knowledge as an input in the knowledge assimilation process. Based on the findings of this study, it is noted that knowledge assimilation is imperative for the sensing, learning and reconfiguring of the organization.

Our results demonstrate that knowledge assimilation intensifies the outcome of dynamic capabilities expressed by the organization. In addition, based on the evidence presented it was suggested that in order for acquired knowledge to become integrated into the organisation's knowledge base, the organization must be sensitive to new information that are rare and unique and should be able to assimilate such knowledge. Employees in the R&D department of organizations have an important role in this process, since they can enhance the firm's competitive advantage through the effective generation, use, transfer and integration of knowledge. Knowledge acquisition, as observed from the tests of analysis, does not guarantee that the knowledge will be exploited internally, or that it will be accepted within the organisation. It is suggested therefore that the capacity to assimilate knowledge internally is essential for the integration of external knowledge. Thus, internal knowledge assimilation enables inter-organisational knowledge flows to become more efficient, so the organisation can exploit knowledge in the same way as it exploits any other resource (Szulanski, 1996). Pioneering studies on knowledge assimilation (Szulanski, 1996; Minbaeva, Pedersen, Björkman, Fey. & Park, 2003). Argote, (2011) state that knowledge assimilation can be understood as a process in which different elements (knowledge users and the transfer context) play a part. This understanding of knowledge assimilation allows one to make a diagnosis of the effect that each element has on the result of the firm's processes, which can be used to design organisational mechanisms that favour organisational outcomes.

The findings of the study also suggest that a context for assimilation that promotes coordination and communication among members of the firm encourages the integration of external knowledge and the acquisition of new knowledge. An internal context in which interaction among employees is encouraged facilitates problem solving and experimentation. Therefore, a greater number of direct channels among members of the organisation not only provides potential access to individual and organisational knowledge resources, but also increases the ease and scope of knowledge transfer (Brown & Eisenhardt, 1995). These findings are in line with results of other studies that show how the ability of members of the organisation to exchange and combine knowledge, together with a context of favourable relationships, contribute to improving the dynamic capabilities of the organization (Brown & Eisenhardt, 1995). More specifically, Ambrosini and Bowman (2009) point out certain initiatives that favour knowledge assimilation capacity such as fostering employee flexibility and learning as a way of overcoming the lack of assimilation capacity among knowledge users. With regard to willingness to share knowledge, Ambrosini and Bowman (2009) recommend building relationships of trust between parties, removing the negative effect of hierarchy, trying to be more tolerant of others' mistakes and rewarding collaboration.

Recent studies also highlight the importance of knowledge assimilation to positive organizational outcomes (For example, Seidler-de Alwis and Hartmann (2008) find that organisations in which knowledge assimilation processes are promoted enjoy greater innovation success. Brachos *et al.*, (2007) also reports that competitiveness improves when the factors needed to motivate individuals to share and transfer knowledge are present. Hence, assimilating and sharing knowledge are processes that enable individual knowledge and group knowledge to be transferred to the organisational level where it can be applied to develop new products, services and processes. This process therefore enables individuals to contribute to the organisation's knowledge set as a whole, and not only leads to the improved use of

existing knowledge, but also creates new knowledge (Huang *et al.*, 2008). Future research might explore in greater depth the organisational mechanisms that can encourage internal knowledge assimilation. Previous studies which share the position of this study include Minbaeva *et al.* (2003), who propose that certain human resource and organisational practices favour the assimilation and creation of knowledge. For example, the proposition of a series of mechanisms such as appointing a work team leader or coordinator, creating a system of incentives linked to knowledge transfer, teamwork training and firm social events. These mechanisms help to encourage a shared organisational context that facilitates the assimilation and creation of knowledge within work teams.

CONCLUSION

In conclusion, it is established that the features and manifestations of knowledge assimilation is being fundamental and imperative for outcomes such as sensing, learning and reconfiguring capabilities of the organization. This is evidence to support the position of information technology which has recently formed the basis for organisational operation. This study concludes that the organizations' engagement in the assimilation of new knowledge offers substantial benefits and advantages to the organization in a manner that enhances its capabilities to sense, learn and also reconfigure itself effectively within its environment.

RECOMMENDATION

It was recommended that: knowledge assimilation should begin with the identification of knowledge that shares or contains features that serve the purpose and goals of the organization and as such, are well appreciated based on their relevance and applicability within the organization functions and expertise which the organization should therefore match knowledge development expectations and bridge the gap between the organization's knowledge processing as well as utilization capacity and its expected knowledge application outcomes.

REFERENCES

- Ambrosini V. & Bowman, C.(2009). What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews*, 11(1), 29-49.
- Argote, L. (2011) Organizational learning research: Past, present and future. *Management Learning*, 42(4), 439-446.
- Bingham, C., Eisenhardt, K. & Furr, N.(2007). What makes a process a capability? Heuristics, strategy and effective capture of opportunities. *Strategic Entrepreneurship Journal*, 1, 27-47.
- Brown, S.L., & Eisenhardt, K.M., (1998). *Competing on the edge: Strategy as structured Chaos*, Boston
- Camison, C. & Fores, B.(2010). Knowledge absorptive capacity: New insight for its conceptualization and measurement. *Journal of Business Research*. 63, 707-715.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35 (1), 128-152.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21 (11), 1105-1121
- Fosfuri, A. & Tribó, J. A. (2008). Exploring the antecedents of potential absorptive capacity and its impact on innovation performance. *The International Journal of Management Science*. 36 (2), 173-187
- Gibbons, J. (1992). *Nonparametric statistics: An introduction (quantitative applications in the social science)*. Newbury Park, CA: Sage
- Hoy, W. (2009). *Quantitative research in education: A primer*. London: Sage.
- Helfat, C.E., Finkelstein, S., Mitchell, W., Peteraf, M.A., Singh, H., Teece, D.J., & Winter, S.G. (2007). *Dynamic capabilities: Understanding Strategic Change in Organizations*. Blackwell Publishing.
- Kallio, A. & Bergenholtz, C. (2011). Generating innovation opportunities: How to explore and absorb customer knowledge. *International Journal of Technology Management*. 56(2/3/4), 172-187

- Kogut, B., & Zander, U. (1996). What firms do? Coordination, identity, and learning. *Organization Science*, 7(5), 502-518
- Liao, J., Welsch, H., & Stoica, M. (2003). Organizational absorptive capacity and responsiveness: An empirical investigation of growth-oriented SMEs Entrepreneurship: *Theory & Practice*, 28(1), 63-85.
- Martinkenaite, I. & Breunig, K. J. (2016). The emergence of absorptive capacity through micro-macro level interactions. *Journal of Business Research* 69(2), 700-708.
- Minbaeva, D., Pedersen, T., Björkman, I., Fey, C. F. & Park, H. J. (2003). MNC knowledge transfer, subsidiary absorptive capacity, and HRM. *Journal of International Business Studies*. 34, 586-599
- Nahapiet, J. & Ghoshal, S. (1998) Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23 (2), 242–266.
- Pettigrew, A.M. (1992). The character and significance of strategy process research. *Strategic Management Journal*, 13, 5–16.
- Sapienza, H., Autio, E., George, G. & Zahra, S. (2006). A capabilities perspective on the effects of early internationalisation on firm survival and growth. *Academy of Management Review*, 31 (4), 914–933.
- Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal*.17, 27-43.
- Techtalkafrican (2013). Telecommunication companies in Nigeria retrieved: 2/10/2013 from <http://techtalk Africa.com/telecommunication- companies in-Nig. Html>
- Teece, D.J. (2007) Explicating dynamic capabilities: The nature and micro-foundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28, 1319–1350.
- Teece, D.J., Pisano, G., Shuen, A. (1997). Dynamic capabilities and strategic management, *Strategic Management Journal*, 18(7), 509-533.
- Todorova, G. & Durisin, B. (2007). Absorptive capacity: Valuing a reconceptualization. *Academy of Management Review*. 32(2), 774-786.
- Van de Ven, A.H. (1992) Suggestions for studying strategy process research. *Strategic Management Journal*, 13 (6), 169–191.
- Van der Bij, H., Michael, S. X. & Weggeman, M. (2003). An empirical investigation into the antecedents of knowledge dissemination at the strategic business unit level. *Journal of Product Innovation Management*, 20(2), 163-179.
- Winter, S.G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, 24 (10), 991–995.
- Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization and extension. *Academy of Management Review*, 27(2), 185-203.
- Zott, C. (2003). Dynamic capabilities and the emergence of intra-industry differential firm performance: Insights from a simulation study. *Strategic Management Journal*, 24, 97– 125.