

Relational Capital and Dynamic Capabilities in indigenous Oil and Gas Producing Companies in Nigeria

Obufiya Cool Minaye

Department of Management, Rivers State University

harrvanga85@gmail.com

Abstract

This study investigated the relationship between relational capital and dynamic capabilities of indigenous oil and gas producing firms in Nigeria. The objectives of the study specifically detailed on ascertaining the relationship between relational capital and the measures of dynamic capabilities such as sensing, seizing and reconfiguring capabilities. The study was designed as a cross-sectional survey with the instrument (questionnaire) utilized in the generation of quantitative data. 173 participants were drawn from an estimated population of 33 indigenous oil and gas producing firms in Nigeria. The hypotheses of the study were tested using the Spearman's rank order correlation coefficient. The results showed that relational capital significantly contribute towards outcomes of dynamic capabilities. It was concluded that relational capital positions the organization within a network of opportunities and partnerships that substantially contribute towards the sensing, seizing and reconfiguring capabilities of indigenous oil and gas producing firms in Nigeria. It was recommended that the development of the relational capital of the organization can be advanced through the adoption of practices and work forms that are shared and validated within the industry.

Keywords: *Dynamic capabilities, relational capital, sensing capabilities, seizing capabilities, reconfiguring capabilities*

Introduction

The Oil and Gas Industry is the main foreign exchange earner, accounting for over 90 percent of foreign exchange earnings for Nigeria. The country is the highest producers and exporters of oil and gas products in Africa with petroleum exports value in 2017 exceeding \$38 billion. In 2013 after rebasing her Gross Domestic Product (GDP) Nigeria became the biggest economy in Africa and the 26th largest economy in the world with a nominal GDP of about US\$405 billion as of 2016 (KPMG Nigeria, 2019).

However, indigenous participation in the industry has been poor for an industry that is the heartbeat of the nation. Prior to the enactment of the Nigerian Oil and Gas Industry Content Development Act of 2010 and the implementation of marginal field operation regulation of 2005, over 90 percent of the equipment and personnel used in the industry are imported. The prevalence of globalization on a developing economy like Nigeria tends to promote or favour business entities with superior technology or know-how and strong financial muscle, most of which are multinational corporations. The Nigerian Government in its wisdom recognized the need for ensuring that businesses in Nigeria remain competitive. For local businesses to survive and become outstanding the government had to put a mechanism in place that will propel and empower local companies to exploit local opportunities while staying competitive globally (Fred-Young & Evans, 2018).

To this extent, the need for technology transfer which is founded on the development of strategic industry relevant capabilities is an imperative if the indigenous oil and gas companies must take their rightful place in the running of the oil and gas industry in Nigeria by developing assets, providing services, produce by-products and marketing them; so as to generate employment for the teeming youth population; to eliminate criminality and insecurity prompted by unemployment and grow the economy by reducing capital flight (Garuba, 2006).

Odularu (2008) observed that most indigenous firms lacked the required expertise and competence in dealing with the technological advancements and changes within their environment. Odularu (2008) further observed that most of these problems stem from the poor knowledge development of these organizations about the industry and their placements within such. It is pertinent to state that some these issues are due to 'man-know-man' social capital syndrome prevalent in the Nigerian public sector space, where oil mining lease are issued to friends and family members.

Garuba (2006) also opined that one of the major barriers mitigating against the success of indigenous oil and gas producing firms in Nigeria is the evident lack of trust multinationals hold and the unwillingness of these multinationals to share knowledge and expertise which could go a long way in the development of the capacities of these indigenous firms. Garuba (2006) further observed that while a dominant number of these indigenous firms are empowered through contracts with regards to servicing and logistics, capacity needs such as technical knowledge, support, and technology in terms of software and hardware required for actual production and gas exploration, are hoarded. This according to Garuba (2006) stems from the belief that given such empowerment or opportunity for participation in the sector, these firms may turn out strong competitors and may invariably grow more dominant within the sector.

Moynihan (2005) opined that organizations relational capital – which emphasizes perceived trustworthiness within networks and contexts, offers the organization opportunities and benefits that range from learning, knowledge transfer and improved functional capacities to effective leadership structures, resource fluidity and strategic positioning within the market – implying benefits or advantages that are both short-term and long-term in nature. It is as such expected that relational capital could advance the learning and functional capacities of indigenous oil and gas firms in a way that enhances their dynamic capabilities. Thus, the goal of this paper is to investigate the relationship between relational capital and dynamic capabilities of indigenous oil and gas producing firms in Nigeria.

Conceptual Framework

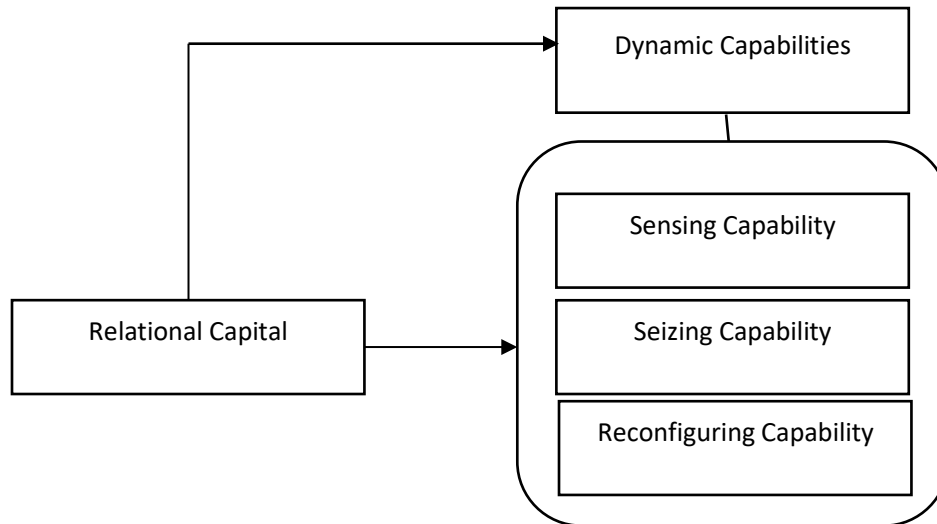


Figure 1: Conceptual framework for the relationship between relational capital and dynamic capabilities
Source: Researcher's desk (2020) with measures adapted from Eisenhardt and Martin (2000).

Purpose and Objectives of the Study

The purpose of this study is to identify the relationship between relational capital and dynamic capabilities of oil and gas producing firms in Nigeria. The specific objectives are thus to:

- i. Examine the relationship between relational capital and sensing capability of indigenous oil and gas producing firms in Nigeria
- ii. Examine the relationship between relational capital and seizing capability of indigenous oil and gas producing firms in Nigeria
- iii. Examine the relationship between relational capital and reconfiguring capability of indigenous oil and gas producing firms in Nigeria

Research Questions

The following research questions are put forward in line with the goal of the study:

- i. What is the relationship between relational capital and sensing capability of indigenous oil and gas producing firms in Nigeria?
- ii. What is the relationship between relational capital and seizing capability of indigenous oil and gas producing firms in Nigeria?
- iii. What is the relationship between relational capital and reconfiguring capability of indigenous oil and gas producing firms in Nigeria?

Literature Review

Theoretical Foundation (Organizational ecology theory)

The organizational ecology theory describes and provides explanations with regards to the forces that shape the structures of organizations over long-time spans such as their relationships and the factors that pervade their contexts of operations or functionality (Hannan & Freeman 1993). According to Baum and Amburgey (2002), the theory of organizational ecology describes the context-based features that shape the environment of the organization and by that impose on the behaviour, decisions and choices of the organization. The theory in a way is focused on explaining the diverse forms of organizations and how their relationships can be leveraged. This provides a strong basis in the assessment of relational capital and its implications for dynamic capabilities.

Relational capital

Relational capital describes the advantages and benefits accruable from the organizations relationships and networking with other organizations or stakeholders within its particular context (Chow & Chan, 2008). Relational capital is driven by trust and depends to a large extent on the validation of the organization by significant others within its context – thus according to its acceptability, inclusion, support and partnership (Ellinger *et al*, 2013; Dirks & Ferrin, 2001). Relational capital is also reflected in the trust and confidence other parties or organizations invest in the organization. This is as Putnam (2000) described trust as the glue and bonding factor between organizations when it comes to relational capital (Putnam, 2000; Chow & Chan, 2008).

Dynamic Capabilities

Dynamic Capabilities refers to the organizations capacity in terms of sustained functionality despite change occurrences or events within the context of the organization (Rather, this variation can be explained by firm-specific differences due to different strategic capabilities, as the firms deploy resources and competences (Johnson, Johnson & Smith, 2014). Dynamic capabilities draw on the organizations capacity for change and its adjustment to the emerging changes in the environment of the organization (McGahn & Porter, 1997). Dynamic capabilities are imperative for the organizations survival and capacity for long-term operations - this is as dynamic capabilities facilitate a sense of placement within the context of the organization. Dynamic capabilities are therefore critical to the wellbeing and survival of the organization.

Sensing capabilities

This describes the organizations capacity for identifying particular knowledge forms that are rare and as such imitable and as such advancing the competitiveness of the organization (Eisenhardt & Martin, 2000). The sensing capabilities of the organization are such that build on the organizations learning and ability to understand the features and attributes of its market or environment (Eisenhardt & Martin, 2000).

Seizing capabilities

This refers to the organizations capacity for taking advantage of emerging opportunities. The ability of the organization to seize and take advantage of the resources and opportunities that is prevalent or latent within its environment or context of the organization. The organization can seize or acquire resources through recruitment and the sharing or transfer of knowledge through collaborative efforts or actions such as reflected in partnership (Eisenhardt & Martin, 2000).

Reconfiguring capabilities

The reconfiguration of the organization describes the organizations capacity for change in terms of structure, technology, competence and functionality (Eisenhardt & Martin, 2000). Reconfiguring capability reflects the organizations ability to align its behavior and functions with the demands and changes in its environment – thereby facilitating its effectiveness and the continuity of its operations (Eisenhardt & Martin, 2000).

Relational capital and dynamic capabilities

Relational capital refers to the nature and quality of the relationships that has overtime advanced and shaped the organizations functionality and behaviour within a particular social framework (Andrews, 2011) and plays out in behavioral attributes such as trustworthiness, shared group norms, obligations and identification (Putnam, 2000). Relational capital is considered imperative for the performance and competitiveness of organizations as it demonstrates their level of interaction and the depth of their validity by other organizations within their network (Putnam, 2000). Kroll (2013) argued that relational capital emphasizes more on trust as a basis for inclusion and access to the benefits or opportunities emergent from the network (Behn, 2002). This is as one of the main facets of relational capital is associability, which is the willingness to subordinate individual goals to collective or group goals (Andrews, 2011).

Researchers have found that high levels of trust are related improved partnership, support and collaboration. Putnam (2000) argued that relational capital contributes towards enhancing organizational effectiveness and improving productivity. Boix and Posner (1998) noted that relational capital is important for sustained collaboration and support, and it functions the same for both private and public organizations. These studies offer substantial evidence on the features and benefits of relationships for driving dynamic capabilities – especially in terms of learning and relational rent; nonetheless, there is hardly any evidence within the context of the Nigerian oil and gas industry that advances or supports the link between relational capital and dynamic capabilities; in view of this position, the following hypotheses are stated:

H₀₁: There is no significant relationship between relational capital and sensing capabilities of indigenous oil and gas producing firms in Nigeria

H₀₂: There is no significant relationship between relational capital and seizing capabilities of indigenous oil and gas producing firms in Nigeria

H₀₃: There is no significant relationship between relational capital and reconfiguring capabilities of indigenous oil and gas producing firms in Nigeria

Methodology

The research design for this study is the cross-sectional survey. The accessible population is 183 managers from all 33 registered indigenous oil and gas firms in Nigeria listed with the Department of Petroleum Resources is captured in this study. Only the headquarters or main branch of these firms were captured wherever within the 36 States and Federal capital territory (FTC). Furthermore, given the accessible nature of the population and the classification of the population as being small (where $n < 500$; Neuman, 2006; Bryman & Bell, 2003), this study was conducted as a census. Data collection was carried out by personal

administration of the questionnaire instrument. The questionnaire is divided into two main sections – (i) the demographic part which captured data on the demographic characteristics of the study, and (ii) the constructs section which addressed data on the observed properties of the constructs of the study. Instrumentation for the variables is based and adapted from those of prior studies (Putnam, 2000; Eisenhardt & Martin, 2000). A standard and consistent 5 – point Likert scale was utilized in the measurement of all instruments in the study. This is stated with the following ranking 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, and 5 = strongly agree.

Table 1: Reliability Result

Variables	No of items	Alpha Coefficients
Relational Capital	5	0.792
Sensing Capabilities	5	0.881
Seizing Capabilities	5	0.808
Reconfiguring Capabilities	5	0.816

Source: Research survey, 2020

The test for the reliability of the study is presented in table 3 above. Evidence shows that all instruments reflect consistency and reliability

Data Result

This section of the paper addressed the result for the summary distribution and test for the hypotheses on the relationship between relational capital and dynamic capabilities. Out of 183 questionnaire copies distributed, only 179 were successfully retrieved and utilized in the study.

Table 2: Descriptive summaries for the variables

	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Std. Error
Relational Capital	173	2.8578	.67541	-.902	.185
Sensing Capability	173	2.9295	.61936	-.922	.185
Seizing Capability	173	2.8358	1.05956	-.086	.185
Reconfiguring Capability	173	2.5006	.45933	-.846	.185
Valid N (listwise)	173				

Source: Research survey, 2020

Presented in table 2 above is the distribution for the descriptive summaries for the variables of the study. Evidence from the study demonstrates that all variables are substantially manifested within the context of the oil and gas firms examined herein where relational capital $x = 2.8578$, sensing capability $x = 2.9295$, seizing capability $x = 2.8358$, reconfiguring $x = 2.5006$. Results demonstrate the substantiality of these variables within the context of interest.

Hypotheses Testing

Table 3: Hypothesis for relational capital and sensing capability

			Relational Capital	Sensing Capability
Spearman's rho	Relational Capital	Correlation Coefficient	1.000	.464**
		Sig. (2-tailed)	.	.000
		N	173	173
	Sensing Capability	Correlation Coefficient	.464**	1.000
		Sig. (2-tailed)	.000	.
		N	173	173

Source: Research survey, 2020

There is a significant relationship between relational capital and sensing capability of indigenous oil and gas producing firms in Nigeria (where $\rho = 0.464$ and $P_v < 0.05$). The outcome of the test demonstrates the role of relational capital in the actualization of sensing capability as moderate and as such indicates that while it is significant and positive; its impact is not as strong. Nonetheless, in view of the evidence indicating significance, the null hypothesis is rejected.

Table 4: Hypothesis for relational capital and seizing capability

			Relational Capital	Seizing Capability
Spearman's rho	Relational Capital	Correlation Coefficient	1.000	.340**
		Sig. (2-tailed)	.	.000
		N	173	173
	Seizing Capability	Correlation Coefficient	.340**	1.000
		Sig. (2-tailed)	.000	.
		N	173	173

Source: Research survey, 2020

There is a significant relationship between relational capital and seizing capability of indigenous oil and gas producing firms in Nigeria (where $\rho = 0.340$ and $P_v < 0.05$). The result shows that the relationship is also positive suggesting that the advancement of relational capital of the organization would significantly enhance outcomes of the seizing capability of the organization. This also addressed the research question by demonstrating that the relationship, although significant, is yet weak and not as substantial. However, in view of the outcome of statistical significance, the null hypothesis in this case is rejected.

Table 5: Hypothesis for relational capital and reconfiguring capability

		Relational Capital	Reconfiguring Capability
Spearman's rho	Relational Capital	Correlation Coefficient	1.000
		Sig. (2-tailed)	.523**
		N	173
	Reconfiguring Capability	Correlation Coefficient	.523**
		Sig. (2-tailed)	.000
		N	173

Source: Research survey, 2020

There is a significant relationship between relational capital and reconfiguring capability of indigenous oil and gas producing firms in Nigeria (where $\rho = 0.523$ and $P_v < 0.05$). The result indicates that the relationship is also positive suggesting that the development of the relational capital of the organization would significantly enhance outcomes of the reconfiguring capability of the organization. The results also show that the relationship between relational capital and reconfiguring capability is moderate; suggesting that relational capital enhances outcomes of reconfiguring capability at a moderate rate. In view of the evidence presented, the null hypothesis in this case is rejected.

Discussion of the Findings

The findings show that relational capital contributes significantly towards outcomes of the dynamic capabilities of indigenous oil and gas producing firms in Nigeria. The evidence from the analysis demonstrates that the activities geared towards driving partnerships and integrating the firm within the context of its business environment advances benefits for the organization in terms of its capacity for sensing, seizing and reconfiguring the organization's capabilities. The findings are in line with the observations of previous studies (Ariani, 2012) which identify relationships as a conduit through which organizations are able access information, resources and opportunities necessary for their effective functionality or operations.

According to Putnam (2000) the focus and emphasis on relationships is premised on the fact that they serve to primarily drive and position the organization strategically within its context. Schaik (2002) argued that basic argument and base to the notion of relational capital is that organizations, through their relationships are able to access information and other resources which aid in their own development and effectiveness. This is as Fu (2004) observed that the actions of organizations are shaped by the environment, and to survive and thrive, organizations must align with the overarching principles and features that shape such an environment – especially in terms of relationships and operational frameworks.

Conclusion

The facts generated herein identify relational capital as significantly contributing towards dynamic capabilities; thus this paper concludes that relational capital positions the organization within a network of opportunities and partnerships that substantially contribute towards the sensing, seizing and reconfiguring capabilities of indigenous oil and gas producing firms in Nigeria.

Recommendation

The development of the relational capital of the organization can be advanced through the adoption of practices and work forms that are shared and validated within the industry. Such adoption and reference to the norms and overriding values of the industry could help in the validation of the organization and in enhancing outcomes of trustworthiness and boosting the confidence of others in engaging the organization in partnerships and collaborative ventures

REFERENCES

- Andrews, R. (2011). Exploring the impact of community and organizational social capital on government performance: Evidence from England. *Political Research Quarterly*, 64(4), 938–949.
- Ariani, D. W. (2012). The Relationship Between Social Capital, Organizational Citizenship Behaviors, and Individual Performance: An Empirical Study from Banking Industry in Indonesia. *Journal of Management Research*. 4 (2), 226-241.
- Baum, J. A. C. & Amburgey, T. L. (2002). Organizational ecology. In J. A. C. Baum (Ed.), *The Blackwell Companion to Organizations* (pp. 304-326). Oxford; Malden, MA: Blackwell Publishing.
- Behn, R. D. (2002). The psychological barriers to performance management: Or why isn't everyone jumping on the performance-management bandwagon? *Public Performance & Management Review*, 26(1), 5–25.
- Boix, C. & Posner, D. (1998). Social capital: Explaining its origin and effects on government performance. *British Journal of Political Science*, 28(4), 686-695.
- Bryman, A. & Bell, E. (2003). *Business research methods*, Oxford University Press, Oxford.
- Dirks K. T., & Ferrin, D.L. (2001). The role of trust in organizational settings. *Organization Science*, 12(4), 450–467.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(11), 1105-1121.
- Ellinger, A. E., Elmadağ B., Ellinger, A. D, Wang, Y, L. & Bachrach, D. (2013). Measurement of organizational investments in social capital: The service employee perspective. *Journal of Business Research*, 64, 572–578.
- Fred-Young & Evans (2018). Local content participation in Nigeria. <http://www.mondaq.com/Nigeria/x/676844/Inward+Foreign+Investment/Local+Content+Participation+in+Nigeria> (Retrieved 28th of January 2020).
- Fu, Q. (2004). Trust, social capital, and organizational effectiveness. The Faculty of the Virginia Polytechnic Institute and State University. Available from: <http://www.ipg.vt.edu/papers/qhfumajorpper.pdf>
- Garuba, D.S. (2006). Survival at the margins: Economic crisis and coping mechanisms in rural Nigeria, *Local Environment*, 11 (1), 17-36.
- Hannan, M. T. & Freeman, J. (1993). Organizational ecology. Cambridge: Harvard University Press.
- Johnson, D. W., Johnson, R. T. & Smith K. A. (2014). Cooperative learning: Improving university instruction by basing practice on validated authority. *Journal on Excellence in College Teaching*, 25, 85-118.
- KPMG (2014, 2019). Nigeria's Oil and Gas Industry Brief. Nigeria: KPMG Advisory Services. <http://www.blog.kpmgafrica.com/wp-content/uploads/2016/10/Nigerias-oil-and-gas-Industry-brief.pdf> (Retrieved on 5th May 2019).
- Kroll, A. (2013). The other type of performance information: Non-routine feedback, its relevance and use. *Public Administration Review*, 32(2), 265–276.

McGahn, A. M. & Porter, M. E. (1997). How much does industry matter, really? *Strategic Management Journal*, 18: 15-30.

Moynihan, D.P. (2005). Goal-based learning and the future of performance management. *Public Administration Review*, 65(2), 203–16.

Neuman, W. L. (2006). *Social research methods: Qualitative and quantitative approaches*. Boston, Pearson Education.

Odularu, G. O. (2008). *Crude oil and the Nigerian economic performance. Oil and Gas Business*. World Trade Organization Centre, William Rappard, Geneva.

Putnam, R. D. (2000). *Bowling alone. The collapse and revival of American community*. New York: Touchstone.

Schaik, T. (2002). Social capital in the European values study surveys. paper prepared for the OECD-ONS International Conference on Social Capital Measurement. London.