



---

## ORGANIZATIONAL LEARNING CAPABILITY AND FIRM INNOVATIVENESS OF MANUFACTURING FIRMS IN THE SOUTH-SOUTH OF NIGERIA

Agadah Mienipre<sup>1</sup> and Omoankhanlen Joseph Akhigbe (PhD)<sup>2</sup>

<sup>1</sup>*Doctoral Candidate, Department of Management, University of Port Harcourt, Nigeria*

<sup>2</sup>*Department of Management, University of Port Harcourt, Nigeria*

### Abstract

*The purpose of this study was to investigate the relationship between Organizational learning capability and firm innovativeness of manufacturing firms in the south-south of Nigeria. The study offers an empirical assessment of the relationship as based on its model – 4 null hypothetical statements are put forward. The research design adopted was the cross-sectional survey and data for this study was generated from managers and key personnel of the target organizations using structured questionnaire. The study adopted the Spearman's rank order correlation in its assessment for the bivariate correlations between dimensions of organizational learning capability (managerial commitment and system orientation) and measures of firm innovativeness (propensity to create new products and propensity to create new processes). The findings reveal significant relationships between dimensions of organizational learning capability and the measures of firm innovativeness. In conclusion, it was stated that organizational learning capability, through dimensions such as managerial commitment and system orientation, offers the necessary support, orientation and knowledge control for enhancing firm innovativeness.*

**Keywords:** Managerial Commitment, Propensity to create new products, Propensity to create processes, System Orientation

## Introduction

Vanhaverbeke & Peeters (2005) suggested that innovativeness is very important in industry, whether large corporations or small and medium-sized enterprises (SMEs). For large companies, new creative business growth and their firms' 'training/education' on innovation is essential to the strategic competency of their organizations. It could lead to more discussions on the company (Alfirevic, Krneta & Pavicic, 2011). Innovation is also vital for small and medium-sized enterprises, since it is a factor for them to be competitive in the existing market, especially for new start-ups (Alfirevic, Krneta & Pavicic, 2011). In any business environment, the focus of both big firms and SMEs is on creating new quality products or processes (Herzog, 2011). Continuous innovativeness is therefore necessary in order to achieve consistent success in making improvements over time. Strategic innovations (Transformation Changes) are needed in a company to achieve competitive advantage and sustainable competitive advantage is a long-term benefit for the company (Davey & Sanders, 2012; Hamel, 2006).

Innovativeness is a key factor in a company's survival and progress in today's business environments (Jesus & Miha, 2009). Innovation may be a new product or service, a new manufacturing process, a new operating method or a new management technique for companies (Liao, Fei, & Liu, 2008). Innovativeness has always been vital for the long-term survival and growth of a firm. Currently, innovations play a more crucial role in companies' future following the rapid pace of market evolution (Santos, & Alvarez, 2007). In addition, a genuinely innovative company needs to be rooted in a strong community that promotes interaction with innovative behaviour.

The innovation of a company is the overall innovative ability of a company to introduce new products and services to the market or to open up new markets by combining strategic orientation with innovative behavior and processes (Wang & Ahmed, 2004).

Marketing academics find creativity to be one of the main assets of a company with great potential to create brand value (Rubela, Kirca, Agorwal, Alegre & Chaplin, 2012; Tajeddini, Altinary & Ratten, 2017). Business innovativeness represents the ability of an organization to implement new concepts (Mengue & Auh, 2006; Yuon, Guo & Fang, 2014) or to seek creative or novel approaches or problems (Knight, 1997) that promote the creation and launch of new products (Hurley & Hult, 1998) and ultimately boost firm efficiency (Tsai & Yang, 2013). In today's volatile and uncertain climate companies should be more open to new ideas, as such a climate demands a higher level of decision-making to compensate for diverse environmental communities (Ratten & Tajeddini, 2017; Smart & Vertinsky, 1984).

The driving force behind economic growth and development is creativity (Nelson & Nelson 2002). Spreading innovation culture among local businesses is one of the major challenges facing developing country policy makers (Ernst, 2002). Each company's product and brand managers are the first target if a company is designed to build an innovative culture. Organizations that accept more innovative ideas from their product and brand managers will be more successful in reacting to changes in the environment and expanding new capacity (Subramaniam & Youndt, 2005).

Tudd, Bessant & Paviit (2005) noted that the development of new or substantially enhanced products is product innovation. It involves improvement of technical specifications, components and materials, ease of use and incorporation of software and other functional characteristics with respect to the characteristics of goods. Product innovation tackles the root of transition, creating a competitive advantage.

According to Jeff (2018), firms wanting to be innovative in manufacturing must, on the one hand, transform their operations through a culture of innovation so that they can build a new factory – growth. In this way, manufacturers will increase their productivity (operational + resource) dramatically, and remain in continuous improvement. In the future, the smart companies would have to use their talent acquisition and management strategies to leverage all of their capital and at the same time rethinking their business models to capture the interest residing in resource ownership.

A few examples of companies that have been innovative in the past are like the Dangote group, which started as a micro-trading company in 1977, has earned its reputation as Nigeria's most valuable brand through years of hard work, perseverance and belief in Nigeria's market potential. The micro trading firm has grown into a multi-billion-dollar conglomerate that delivers quality products and delivers excellent business services. This company has been considered one of the most creative business conglomerates in Nigeria, the group's sector includes food production, cement manufacturing and distribution, sugar and salt manufacturing, refining and distribution, and the manufacture and distribution of pasta. The company is also building and exporting ultra-modern crude oil refining and petrochemical processing plants where they intend to manufacture and sell fertilizers. Currently, the largest revenue for the Dangote Group comes from its cement manufacturing and distribution chain, with Dangote cement being the largest cement producer in Nigeria with three plants in the country.

Another example is the Dufil Prima Foods Plc. makers of Indomie Africa's most chosen noodle brand in Kanta World panels Brand Food print ranking for 2016. Indomie has achieved first place in the category of Fast-Moving Consumer Products (FMCG) across Africa. Quick Moving Consumer Goods are the everyday used goods with a high volume of sales at a fairly low price, such as soft drinks, bread, pasta, toiletries, batteries, milk and a host of other food items. Indomie, which belongs to the pasta group, obtained the highest number of Customer Reach Points (CRPs) results, a metric measuring brand penetration and frequency purchase, based on one billion FMCG consumer decisions for the year 2016 (Adaku, 2017).

The Ekulo Group of Companies is also an innovative company that began as a trading company in Lagos in 1984, and is now widely known for incorporating and manufacturing fast-moving consumer goods, with presence in major cities across Nigeria nationwide. The Group continues to grow and diversify its portfolio across different sectors (Ekulo, 2019).

The kraft food has received a 2009 supply chain innovation award at distribution centers for its innovativeness. Kraft recognized a Passive Radio Frequency Identification (RFID) system as the best approach to providing real-time visibility, along with trailers on its premises more efficiently spot and track. To achieve advantages while minimizing running costs, they mounted passive tags, and trucks were fitted with GPS-enabled RFID readers instead of placing battery-powered RFID devices on the company's trailers. This creative approach to krafts has therefore

resulted in versatility and cost effectiveness. An additional gift for kraft through adopting this new innovation is that the management of krafts can monitor key performance indicators in the yard operations. Kraft and its providers are also not wasting time processing faxes and telephone calls (Daugherty, Chen, & Ferrin, 2011).

Goh & Richards (1997), noted that innovativeness is a cycle of individual and collective learning that seeks to find new ways to solve problems. The changing market climate has prompted managers and researchers to try new ways to develop the organizational capacity to anticipate the need for change and the ability to adapt continuously. Organizational learning helps organizations to constantly adapt and develop. There the ingenuity of management trying to represent the present dynamic operational environment has been controlled by organizational learning.

Alegra and Chiva (2008) also noted that innovation appears to be based on the ability of firms to learn which new knowledge is being developed, distributed and used. The global economy is increasingly focused on information, and is subject to rapid change. One significant reason some firms do better than other firms is to apply superior expertise and respond to evolving circumstances more effectively. That means they really are better at what is known as "organizational thinking." The term "organizational learning" is seen as the mechanism by which people who belong to, or work for, firms build their understanding and attitudes, which then are institutionalized into a result – an organizational "knowledge asset" (Boisot, 1998). It takes a cognitive type, such as consciously taking new ideas, cultural norms and thought. It can also take a type of behaviour, such as new or updated procedures, processes, habits and structures (Vera, Crossan & Apaydin, 2011). The words "organizational learning," and the development of organizational knowledge can be used synonymously for practical purposes.

Therefore, organizational learning refers to either the process of gaining or producing new information, and its outcome. It includes both information acquisition as a "intangible" asset, and the ability to leverage that asset (Boisot, 2000). Consequently, the learning outcome is the development of a new ability. This can contribute to the opportunity to apply new information to enhance the efficiency of an already-existing operation or mission. It can also help a firm plan for new circumstances and thus promote continual and evolving change (Myers et Wiggins, 2012). Managers are looking in today's organizations for ways to enhance the capacity of their organizations to produce useful information. So, the willingness to know gives a company a competitive edge and also makes it a successful and productive service provider for a public business.

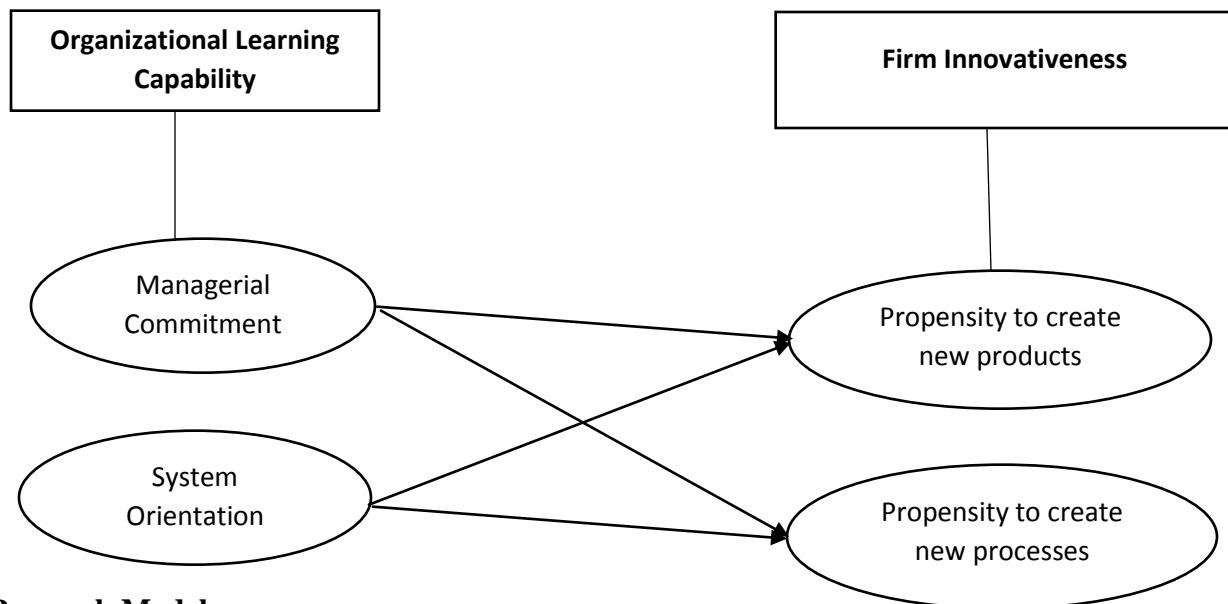
Many years ago, the dominant view among economists and strategy theorists was that superior output can be explained in terms of markets, structural features and barriers to competition. Another view that has received a lot of attention, however, is that company – unique skills and expertise (learned processes and activities), plays an important role in enabling organizations to achieve superior market efficiency (Edmonson & Moigeon, 1996). Above all, the aim is the ability to synergistically and creatively combine intangible assets of a company to boost its competitive strength – to build "dynamic capacities" (Teece, 2007). The company's resource-based view emphasizes the contribution of expertise from companies and their implementation as a foundation for competitive success. It has been argued that expertise and the potential to learn

more quickly than others are a sure source of enduring competitive advantage in contemporary situations.

Training organization was popularized by Senge (1990), who claimed that the speed of change in today's world is so rapid that training how to adapt is clearly inadequate (Senge, 2002). Adaptive learning will provide a way for a more proactive form of learning that he calls "generational learning." Organizations may therefore be constructive, rather than reactive. We will uncover latent consumer needs to create new markets, explore the implementation of emerging technology to meet those needs, and stay ahead of the competition to ensure long-term sustainability in this way.

According to Abdu and Jibir (2018), most business firms in less-developed countries such as Nigeria are small and medium-sized and face various challenges, including limited human and financial capacity, poor infrastructure base, and unfavorable government policies that weaken their innovation activities. Kuznet (1966) thought that the greatest obstacle in understanding the role of innovation in economic growth and development was the lack of sufficient data to evaluate the factors that affect innovation. We are to examine the extent to which organizational learning capacity is related to company innovativeness in South-South Nigeria manufacturing firms.

The dimensions of organizational learning ability, according to Hsiu Fen Lin (2008), comprise managerial commitment, and system orientation. Knowles, Hansen and Shook (2008) suggested ways of being innovative as a propensity to create new products and a propensity to create new processes. The aim of this study is to empirically study the relationship between the dimensions of organizational learning capacity and firm innovativeness measures on manufacturing firms in South-South Nigeria as shown in the study variables conceptualized below.



**Research Model**

## **Aim and Objectives of the Study**

The aim of the study is to determine the relationship between organizational learning capability and firm innovativeness. Thus, the following specific objectives are stated as:

- To examine the relationship between managerial commitment and propensity to create new products in manufacturing firms in South-South, Nigeria.
- To investigate the relationship between managerial commitment and propensity to create new processes in manufacturing firms in South-South, Nigeria.
- To evaluate the relationship between system orientation and propensity to create new products in manufacturing firms in South-South, Nigeria
- To determine the relationship between system orientation and propensity to create new processes

## **Research Hypotheses**

**H<sub>01</sub>:** There is no significant relationship between managerial commitment and propensity to create new products in manufacturing firms in South-South, Nigeria.

**H<sub>02</sub>:** There is no significant relationship between managerial commitment and propensity to create new processes in manufacturing firms in South-South, Nigeria.

**H<sub>03</sub>:** There is no significant relationship between system orientation and propensity to create new products

**H<sub>04</sub>:** There is no significant relationship between system orientation and propensity to create new processes

## **Concept of Organizational Learning Capability**

Traditionally, the importance of the factors promoting Organizational Learning (OL) has been linked to the literature of the Learning Organization (LO), which focuses primarily on the creation of normative models for developing a learning organization (Rebelo and Gomes, 2011). The idea of learning organization was introduced in 1900, when Taylor discovered the beneficial effect of knowledge transfer on the factory's efficiency and increased productivity. Nevertheless, Cyert and March (1992) were the first scholars to bring together learning and organization and establish organizational learning phrase in the literature of organizations. The body of organizational learning research presents a perspective that learning is not just an individual's ability; learning can also occur at community level and is encouraged by an organizational environment that provides learning conditions and incentives (Nemeth, 1997). Training has made a crucial distinction between organizations since 1990, and then it became an important subject, and soon the phenomenon of organizational learning became a source of the interest among researchers and practitioners (Jyothibabu & Farooq, 2010).

Chiva & Alegria (2009) suggested a new and integrative conceptualization of organizational learning ability following and a comprehensive study of all the theoretical perspectives and literatures involved in promoting organizational learning factors. Five stimulating factors for

organizational learning have been identified: innovation, dialogue, risk-taking, decision-making participation, and environmental engagement.

### **Concept of Managerial Commitment**

Managerial engagement refers to information creation and organizational culture as an underlying practice, since organizational learning is the key to achieving long-term results in the organization. Management will ensure that workers understand the definition and provide the basis for the elimination of attitudes that are detrimental to organizational learning (Garcia-Morales, Lorens Montes & Verdu – Jover, 2007). Managerial commitment is therefore to acknowledge the importance of learning, and to build a culture that encourages knowledge acquisition, development, and transition as fundamental values (Yaprak, Emdem & Cavusgil, 2005).

Managerial commitment takes many forms, ranging from capital investment to hiring decisions to public statements, but each commitment exerts both immediate and enduring influence on an organization's overtime and in combination, the commitment of a manager shapes the identity of the business, defines its strengths and weaknesses, establishes its opportunities and limitations, and sets its direction.

Commitments are incredibly important, a reality that executives can all too easily lose sight of managers frequently take acts that place permanent restrictions on their activities and organizations, though helpful in the near term. As market dynamics or competitive conditions shift, they may find themselves unable to respond effectively, even if they can clearly see a danger and realize they must act. They find themselves caught up in a web of responsibilities spun by them (or their predecessors).

### **Concept of System Orientation**

The orientation of systems is characterized as the degree to which different individuals, divisions and areas of a business have a clear view of the organizational goals and understand how they can aid in their growth (Hult & Ferrell, 1997; Lei *et al.*, 1999). The orientation of the program, requires a specific framework orientation for all staff towards organizational objectives which are articulated as the key to organizational goals growth. The company can be seen as a network consisting of various industries to work together in partnership. Organizational attitude as a framework indirectly caused to recognize the contact within an organization that leads to the creation of a mutual mental model, since organizational learning requires information, understanding and common principles (Garcia-Morales, Montes & VerduLiorens – Jover, 2007). In the open environment new ideas are typically given in intra-organizational and extra-organizational. The orientation of structures is a critical dimension to creative learning. The orientation of the group includes putting together the members of the company around a shared ideology (Emden, Yaprak & Cavusgil, 2005).

### **Concept of Firm Innovativeness**

The word “innovate” was derived from a Latin word “Innovore” meaning “to renew something, to make something new and change something” (Durna, 2002). The term invention derived from the Latin word, Innovore, which means "to create something new," according to Lin (2006).

There are various concepts in literature of firm inventions (Garcia & Calantone, 2002). In this study, firm innovativeness is characterized as the tendency of firms to produce and/or implement new products, production processes, and business systems. Therefore, the focus is on new to a firm but not inherently new to the industry goods, processes, and business systems. Corporate creativity includes both acceptance and more revolutionary creativity. Product innovation involves the production of new products, changes to existing products and product acceptance, and is generally accepted as a significant factor for manufacturing firms (Cooper, 1999; Cormican & Sullian, 2004; Chorda et al., 2002; Wheelwright & Clark, 1992). Innovative processes are characterized as the activity that leads to process innovation and as the process itself (i.e., technology and changes used in production) that constitutes innovation (Tatikonda & Weiss, 2001). In order to be innovative, the process must be new, improved or newly adopted. Innovativeness of the business system can apply to every aspect of the company that is needed to magnetize structure, operate and manage the business and its internal and external environment. Business method innovation involves organizational developments (defined as the development or implementation of new ideas or behaviours) and the use of new managerial and working principles and practices (Damanpour, 1987, 1996; Demanpour & Evan, 1984).

### **Concept of Propensity to create new products**

Booz, Allen, and Hamilton (1982) established a new product classification focused on its innovativeness. This categorizes new products into two dimensions of novelty: novelty for the emerging business, and novelty for the consumer. New-to-world innovations are new for the company and market alike. Product updates replace existing goods with only slight changes and are not unique to any businesses or consumers. Among those two extremes are line extensions (new to the consumer but not to the business) and me-too goods (new to the industry but not to the consumer). While Booz, Allen & Hamilton's system offers an elegant and commonly used way to define new goods, it does not sufficiently capture the company's viewpoint, because it considers the company's innovation to be unidimensional.

The Ansoff (1965) Growth Vector Components is a second concept often used in product innovation. Ansoff categorized opportunities for development in terms of whether new technologies and new or existing Missions were involved. Other scholars have sometimes mistakenly duplicated the latter dimension as markets, although the original text defines a mission as the needs of the customer a company is trying to satisfy. Ansoff classified growth opportunities as market penetration (present product / present mission), market development (present product / new mission), based on these two dimensions; Development of products (new product / actual mission) and diversification (new product / new mission). Notice that only the latter two forms of growth require the production of new products, and that Ansoff therefore only identifies new products as to whether they serve existing or current consumer needs. While the Ansoff typology lacks the technical aspect of the production of new goods. New products may meet the same consumer needs (this, according to Ansoff, would be described as non-innovative), but they may integrate innovations not previously used by the company.

### **Concept of Propensity to create new processes**

Process innovation is a type of process development, which is the development of the manufacturing processes of a company (Frishammar, et al., 2013), and has been described as the creation and implementation of new concepts and methods in manufacturing companies (Parida *et*



*al.*, 2016). It includes a variety of heterogeneous operations, such as equipment deployment, new business methods, and production process improvements (Reichstein & Salter, 2006). Carrying out a larger scale process transformation also requires both operational and technical improvements (Reichstein & Salter, 2006). Lager (2000) emphasizes the high importance of providing a systematic system of work to accomplish such a task.

The organization clearly begins by having a process concept while implementing process innovativeness. It is usually accompanied by pure project implementation in which the concept is applied in the current processes. Sometimes, this implementation also triggers supporting construction projects (Frishammar *et al.*, 2013). The willingness of companies to attain process creativity depends upon a number of parameters. For example, what overall approach or strategy the organization goals are, their cost emphasis and the degree to which management is involved in the process of innovativeness (Reichstein & Salter, 2006). An increasing production strategy is sustainability-related, which has been shown to be more closely linked to plant visibility than historically competitive strategic objectives such as cost, quality and flexibility. Plant exposure requires greater foreign ownership or strength of labor and is more sensitive to expectations and pressure from stakeholders. It helps managers to develop a policy that goes beyond consumers and vendors and fosters productive activities and outcomes in the workplace (Galeazzo & Klassen, 2015).

## **Theoretical framework**

### **The Resource – Based View (RBV)**

The RBV's origins can be traced to Penrose (1959), who suggested that the organization's possessed, deployed and utilized resources are truly more important than the structure of the industry. Wernerfelt (1984), who regarded the firm (Wernerfelt, 1984), coined the word 'resource-based view' much later. Prahalad & Hamel (1990) developed the notion of core competencies, focusing attention on a critical resource category – the capabilities of a firm. Barney (1991) further argued that a firm's resources are its primary source of competitive advantage. According to the bibliometric review of the Strategic Management Journal by Ramos-Rodriguez and Ruiz-Navarro (2004) over the years 1980 – 2000, the resource-based interpretation of strategy was the most influential contribution to the discipline of strategic management.

The company's Resource – Based View (RBV) or internal view of competitive advantage resulted from a deviation since the early 1980s into recognizing internal resources and skills as the primary source of competitiveness. Barney (1991) and Wernerfelt (1984) developed the resource-based theory around the company's internal competencies and turned the strategic management interest toward the company's inside. According to RBV competitive advantage is rooted in valuable and inimitable assets of a company. This perspective expects companies to compete on the basis of their unique or distinctive internal capabilities, skills and resource capabilities (Hoskisson *et al.*, 1999).

## **Empirical review**

A research centered on Oregon and Alaska, concentrating on small businesses and using qualitative approaches, found that creativity and innovation are words that continue to be used interchangeably. Interviewees' innovation responses can be categorized into 7 different aspects: (1) uniqueness, (2) thinking, (3) marketing, (4) customer orientation, (5) process, (6) product orientation and (7) business systems. In the end, the authors conclude that 1 – 4 will logically fit within 5 – 7 and thus imply that the industry sees three major types of innovation: product, process and business processes (Hovgaard & Harson, 2014). Managers from bigger companies (including those from Europe and Oceania) suggest a similar form of creativity (Hansen, Juslin & Knowles, 2007). One definition of innovation, as illustrated in the next section, is that of an individual company, an innovation can be something developed by that company, or the implementation of a new product, method or business system for that company. New-to-the-world innovations are included in product innovation, as are the more traditional and familiar product enhancements and modifications (Hovgaard & Hansen, 2004). This type of innovation is the traditional strength of companies in the forest sector, driven by high relative input costs of raw materials and a commodity or production mentality. Eventually, creativity in the business processes reflects a multitude of sales and marketing strategy practices that a organization can use (Hovgaard & Hansen, 2004). An example of an advancement in business systems is the introduction of a new framework for customer relationship management in a company's operating system for managing enterprise resources.

Many of the Construct's actions were ad hoc measures that did not conform to systematic scale development procedures. In addition, a range of scales have taken on a certain viewpoint, such as product innovation (Danneels & Kleinschmidt, 2001; Sethi, Smith, & Park, 2001) rather than overall creative capacity. Various calculation methods were employed such as those focused on the company's existing technologies, self-assessment, R&D support, number of new products and intellectual property (Knowles, 2007). These diversities led to confusion in research into innovation, making it difficult to compare findings across studies or to draw biased conclusions (Cooper, 1998; Subramanian & Nilakanta, 1996; Tushman & Anderson, 1986; Zaltman, Duncan, & Holbek, 1973). Additionally, all measurements were in the initial development stage, and further work was required. The explanations mentioned above explain why literature regarding organizational innovativeness still fails to achieve consensus on many topics. A valid and reliable measure is a precondition for carrying out any valid action.

## **Methodology**

### **Research Design**

This study adopted the cross-sectional survey as its research design for this study. Cooper and Schlinder (2001) argued that the researcher needs to plan and connect the exam when answering research questions. The cross-sectional survey approach, which is a type of quasi-experimental design, provides a more substantive premise and structure for balancing the characteristics of quantitative and qualitative methods and, in the same vein, effectively links the empirical characteristics of a given study to the subject and questions of a priori research.

### Population of the Study

The research was limited to all licensed manufacturing companies operating from the south-south in four states. There are thirty (30) registered manufacturing firms operating in Rivers / Bayelsa State, according to the "Manufacturers Association of Nigeria" (MAN), while thirty-five (35) registered manufacturing firms operating in Edo / Delta State constitute the target population. Nonetheless, because of the difficulty of performing a successful population survey, the researcher restricted the survey to a population consisting of all registered chemicals and pharmaceutical manufacturing companies in Rivers, Bayelsa, Edo and Delta State. Data available from Rivers, Bayelsa, Edo and Delta State Manufacturers Association revealed a total of nine (9) registered chemicals and pharmaceutical manufacturing companies registered with it. Of the nine (9) selected firms (Air Liquid Nig. Plc., Notore Chemicals Industries, Indorama Eleme Petrochemical, Cledop Chemical Manuf. Co. Ltd., Far East Paint Lustre Industry, Service Pharmaceutical Ind. Ltd., Nomagbon Services Ltd., Esehi Pharmaceutical Ind. Ltd., Pharmaceuticals Nig. Ltd., there are a total of one hundred and twenty (120) managers from Head of Departments to Managing Directors. In this study the sample size was determined using mathematical formula represented as follows:

$$n = \frac{N}{1+N (0.05)^2} \quad (\text{Taro Yamane Formular})$$

Where  $n$  = Sample size sought  
 $e$  = Level of significance  
 $N$  = Target population size

$$\frac{120}{1+120 (0.05)^2}$$

$$\frac{120}{1 + 120 (0.0025)^2}$$

$$\frac{120}{1+0.3}$$

$$\frac{120}{1.3}$$

$$n = \underline{\underline{92}}$$

## Method of Data Analysis

Demographic data were analyzed using descriptive statistics. Inferential statistics used the Spearman rank order correlation coefficient in evaluating the significance of the bivariate relationships at 0.05 level of significance.

## Result and Discussions

Survey activities involving the distribution of 92 copies of the questionnaire to the members of the target organizations. For most cases, Questionnaire administration was conducted directly including organizations close to the researcher as well as the use of research assistants to manage organizations far away from the researcher. A total of 92 copies of the questionnaire were distributed, and only 89 copies were recovered successfully.

**Table 1: Demographic (Descriptive) Data Analysis**

<b>Gender</b>	<b>Percentage (%)</b>
Male	80
Female	20
<b>Total</b>	<b>100%</b>
<b>Age of the Respondents</b>	<b>Percentage (%)</b>
Below 35 years	10
36 – 40 years	25
41-45 years	41
46 – 50 years	16
51 years and above	8
<b>Total</b>	<b>100%</b>
<b>Educational Qualification</b>	<b>Percentage (%)</b>
OND/NCE Equivalent	26
M.Sc/M.Ed/MBA/MA	25
B.A/B.Sc/B.Ed/HND	49
<b>Total</b>	<b>100%</b>
<b>Tenure Distribution for Participants</b>	<b>Percentage (%)</b>
1-3 years	7
4-7 years	30
8-11 years	45
12- 15years	9
16 years and above	9
<b>Total</b>	<b>100%</b>

The result on table 1 showed that 80% of the respondents indicated as male, while 20% were female. From the age of respondents, 10% were between below 35 years, 25% were between 36-40 years, 41% were between 41-45 years, 16% were between 46-50 years and only 8% were 51 years and above. The evidence of the result indicates that majority were 41-45 years

From table 1, 26% were OND/NCE Equivalent, 25% were M.Sc/M.Ed/MBA/MA certificate holders; while, 49% were B.A/B.Sc/B.Ed/HND degree holders. Thus, from the result, high percentages were Degree/HND educational qualifications.

The result on table 1 with respect to respondent's tenure distribution for participants shows that 7% were between 1-3 years; 30% were between 4-7 years; 45% were between 8-11 years and 9% were for 12-15 years and 16 years and above. This result shows that huge respondents indicated between 8-11 years

**Table 2: Relationship between Managerial Commitment and Firm Innovativeness**

			Management	Products	Process
Spearman's rho	Management	Correlation Coefficient	1.000	.234*	.274**
		Sig. (2-tailed)	.	.027	.009
		N	89	89	89
	Products	Correlation Coefficient	.234*	1.000	.581**
		Sig. (2-tailed)	.027	.	.000
		N	89	89	89
	Process	Correlation Coefficient	.274**	.581**	1.000
		Sig. (2-tailed)	.009	.000	.
		N	89	89	89

Source: Research survey, 2021

The result from the tests reveal as follows:

H0<sub>1</sub>: The relationship between managerial commitment and the propensity to create new product is significant where  $\rho = 0.234$  and  $P < 0.05$ . The result suggests that managerial commitment has a positive impact on outcomes of propensity to create new product

H0<sub>2</sub>: The relationship between managerial commitment and the propensity to create new process is significant where  $\rho = 0.274$  and  $P < 0.05$ . The result suggests that managerial commitment has a positive impact on outcomes of propensity to create new manufacturing processes.

It is evident in this vein that managerial commitment advances features that significantly contribute to firm innovation and facilitate outcomes such as the propensity to create new product and the propensity to create new manufacturing processes. On this note, all preceding null hypotheses are rejected as the result shows:

- i. There is a significant relationship between managerial commitment and propensity to create new products in manufacturing firms.
- ii. There is a significant relationship between managerial commitment and propensity to create new manufacturing processes in manufacturing firms.

The next set of hypotheses discussed the essence of the device orientation relationship with firm invention, thereby resolving the second research problem and operationalizing the relationship in the following set of hypotheses:

Ho<sub>3</sub>: There is no significant relationship between system orientation and propensity to create new products in manufacturing firms.

Ho<sub>4</sub>: There is no significant relationship between system orientation and propensity to create new business systems in manufacturing firms.

**Table 3: Relationship between System Orientation and Firm Innovativeness**

			System	Products	Processes
Spearman's rho	System	Correlation Coefficient	1.000	.535**	.392**
		Sig. (2-tailed)	.	.000	.000
		N	89	89	89
	Products	Correlation Coefficient	.535**	1.000	.581**
		Sig. (2-tailed)	.000	.	.000
		N	89	89	89
Manufacturing	Correlation Coefficient	.392**	.581**	1.000	
	Sig. (2-tailed)	.000	.000	.	
	N	89	89	89	

Source: Research survey, 2021

The result from the tests reveal as follows:

- i. The relationship between system orientation and the propensity to create new product is significant where  $\rho = 0.535$  and  $P < 0.05$ . The result suggests that system orientation has a positive impact on outcomes of propensity to create new product
- ii. The relationship between system orientation and the propensity to create new processes is significant where  $\rho = 0.392$  and  $P < 0.05$ . The result suggests that system orientation has a positive impact on outcomes of propensity to create new manufacturing processes.

Moving through the above-mentioned outcome on the relationship between variables, evidence identifies system orientation as substantially contributing to firm creativity and promoting outcomes such as the propensity to create new goods and the propensity to create new production processes. On this note, all preceding null hypotheses are rejected as the result shows:

- i. There is a significant relationship between system orientation and propensity to create new products in manufacturing firms.
- ii. There is a significant relationship between system orientation and propensity to create new manufacturing processes in manufacturing firms.

## Management commitment and firm innovativeness

The empirical evidence points to an essential relationship between management engagement and firm innovativeness. The findings show the vital role of management involvement in the realization of outcomes such as the propensity to create new goods, the propensity to create new business structures, and the propensity to create new production processes. This is because Senge (2009) also indicates that dedication to management as a means of organizational learning is the secret to organizational success. And even the most successful companies are faced with low rates of engagement from their leadership, they cannot benefit from all of their strengths in the ever-changing environments of today.

Therefore, only those organizations that are able to harness the full capacities and learning potentials of all individuals at various levels of the organization will be effective in the near future. In other words, environmental improvements would boost much of the organizational learning capacities (Bahadori *et al.*, 2012). As Buchle and Probest (1997) stated, this is organizational learning as follows: an organization as a whole's ability to identify and correct mistakes, as well as improving the organization's knowledge and values so that new problem-solving skills and new work capability can be developed. Rahimi *et al.* (2012) also noted that organizational learning is about acquiring and applying information, skills, principles, beliefs, and attitudes of change to sustain, expand, and evolve the organization (Rahimi *et al.*, 2012).

Therefore, the organization's leadership and management must recognize the importance of learning and provide the organization with the culture that stresses that knowledge development, formation and transition are fundamental values within the organization. Management should convey the strategic value of learning clearly as organizational learning is a powerful resource for achieving long-term outcomes. Operational measures of managerial commitment to organizational learning include: endorsing the leaning and training request of employees, supplying the Manager with learning opportunities for employees and managers, Using the expertise of individuals in decision-making, treating members equally and fairly regardless of their rank, assisting each other in the learning process, paying reimbursement for learning, establishing an effective culture of learning for the development, production and transfer of information, provide guidelines for carrying out research for the organization's climate and engage in scientific circles (Aghdasi & Khakzar, 2009).

Top management is the organization 's main decision-maker. They are responsible for achieving targets by and with other leaders as the top officials or managers in the organization (Wheelen and Hunger, 2006). The top management role is multidimensional and geared towards achieving overall organizational success that is generated from the organization's mission, objectives and strategies, and business processes. Hence, top management needs to have the skills to effectively manage the strategic planning process (Wheelen & Hunger, 2006). They occupy a decisive position on the organization's success or failure. On the basis of the above description, it can be concluded that management commitment, in particular the organization's top management, is one key to organizational innovation (Robbins, 2007).

## System Orientation and Firm Innovativeness

The findings further define as important the essence of the relationship between device orientation and firm innovativeness steps. The evidence indicates that the manifestations and emphasis on device orientation have a direct effect on the company's innovativeness and as such drives for outcomes such as the ability to produce new products; the tendency to develop new business structures and the ability to build new development processes. Different individuals, sectors, and organization areas should have a clear view of the goals of the organization and know how to develop those goals.

Operational indicators of system orientation include: developing employee skills in line with organizational goals, having a clear vision of the organization's goals, encouraging employees to find solutions to problems, recognizing the importance of learning for all employees in the organization, having a systematic thinking (employees understand not only their work but also their connection to other organizational jobs), plans for learning and growth related to organizational objectives and purpose, and the implementation of effective and organized learning processes (Aghdasi & Khakzar, 2009).

Additionally, Gnyawali and Stewart (2003) also argued that the cognitive perspective has been widely recognized in organizational learning models, but little research has used this approach to examine organizational learning. Therefore, this study provides a necessary focus shift in its assessment of the impact of system orientation on firm innovativeness. This is because the findings support the role of Gnyawali and Stewart (2003), who followed the contingency approach in proposing an integrative model of organizational learning, stressing how environmental factors influence organizational learning processes and contributing to different learning forms.

Organizational learning antecedents are the understanding of one's external circumstances, which include experience of ambiguity and equivocality. This antecedent of organizational learning, outer environment awareness, is analogous to the conceptual dimension of Lipshitz, Popper, and Friedman (2002), which focuses on exogenous variables, such as environmental uncertainty. Gnyawali and Stewart (2003) proposed that the external environment features, complexity, and equivocality, interfere with the way an entity learns. In other words, how leaders of the company view the outside world affects organizational learning.

In addition, the contingency perspective of Gnyawali and Stewart (2003) explains how one's mental model towards environmental change and the knowledge processing of the organization are key concepts established in the early organizational literature on learning, such as Daft and Weick (1984). Many early approaches to organizational learning have treated an organization as a method for understanding the environment. Daft and Weick (1984) suggested that organizations, as open structures, depend on the definition developed by organizations and individuals, in particular the organization's management. The interpretation of the organization is analogous to that of an individual. Overall understanding of an entity acts as the three-stage information retrieval system: searching, decoding, and learning.

Studies have proposed that how individuals perceive the external world affects their organizational performance, which in effect contribute to their ability to adjust or alter according



to the characteristics of their world (Daft & Weick, 1984; Gnyawali & Stewart, 2003; García-Morales, Llorens-Montes, & Verdú-Jover, 2006). However, such conceptual proposals as to how members within an organization perceive the external environment, and their influence on organizational learning has not been empirically investigated. As such this research offers insight into the organization's systemic and mutual perceptions or orientation toward the world and goals. Therefore, organizational creativity is created when the external world is viewed as an unpredictable and complex structure

## **Conclusion**

Based on the evidence generated by its review of the relationship between organizational learning capabilities and firm innovation, this study affirms that the organization's conduct and actions reflecting management engagement, program alignment and information management have a substantial and positive effect on firm innovation. It is also noted as organizational technology contributes as a gateway to the relationship between organizational thinking skills and firm innovativeness. Through this way, it draws the following conclusions:

- i. Management engagement fuels the determination, encouragement and resolve of the organization's leadership and, as such, positively impacts on firm innovation outcomes such as the propensity to create new goods, the propensity to create new business structures and the propensity to create new processes
- ii. Process orientation promotes the need for common principles and process alignment with organizational goals, thus contributing positively to firm innovation outcomes such as a propensity to create new goods, a propensity to create new business structures and a propensity to create new processes

## **Theoretical implications and Recommendations**

This study's position on the relationship between organizational learning capabilities and firm innovativeness advances the imperatives of developing learning capabilities and features as a way of improving and enhancing innovative features and attributes for organizations. The study provides a core view of the manifestations and utility of skills such as management commitment and system orientation in shaping the organization's processes and innovative features. In this way, the research provided leads to insight and a deeper understanding of the organization's patterns of learning and how it can be patterned to meet the organization's creative goals and behaviour.

This study recommends as follows: In line with the role and established relation between organizational learning capabilities and firm innovation.

- i. Management will concentrate on building and maintaining stronger ties and relationships between its leadership and its subordinates so that the requisite support, investment and dedication for improved levels of firm innovation is given for change or learning initiatives.
- ii. Organizational efforts should be directed towards the alignment and reconfiguration of systems, processes and functions in such a way that they flow and correspond with the changes and developments that pervade the business environment, while enhancing its capacity to develop features that reflect its innovativeness

## References

- Alfirevic, N. P., Krneta, M. P., & Pavicic, J. P. (2011). *Innovation capacity as a competitive advantage of small firms in Croatia: An Empirical Analysis*. Split.
- Alegre, J., & Chiva, R. (2008). Assessing the impact of organizational learning capability on product innovation performance: An empirical test. *Technovation*, 28(6), 315-26.
- Ansoff, H. Igor (1965). *Corporate Strategy. An Analytic Approach to Business Policy for Growth and Expansion*. New York: McGraw-Hill.
- Barney, J. B. (2011). *Gaining and sustaining competitive advantage* (4th ed.). Upper Saddle River, NJ: Pearson Education, Inc.
- Booz, Allen, & Hamilton Inc. (1982), *New Product Management for the 1980s*. New York: Booz, Allen, & Hamilton Inc.
- Chiva R., & Alegre, J., (2008). Organizational Learning Capability and Job Satisfaction: An Empirical Assessment in the Ceramic Tile Industry. *British Journal Management*.20(3): 323-340
- Cooper, J. R. (1998). A multidimensional approach to the adoption of innovation. *Management Decision*, 36(8), 493-502.
- Cyert R., & March J.G. (1992). *A Behavioral theory of the firm* (2<sup>nd</sup> edtn), Wiley-V Blackwell, USA.
- Danneels, E., & Kleinschmidt, E. J. (2001). Product innovativeness from the firm's perspective: its dimensions and their relation with project selection and performance. *Journal of Product Innovation Management*, 18(6), 357-373.
- Daugherty, P. J., Chen, FL, & Ferrin, B. G. (2011). Organizational structure and logistics service innovation. *International Journal of Logistics Management*, 22(1), 26-51.
- Davey, K. S, & Sanders, T.J. (2012). Serial strategic innovation and sustainable competitive advantage: A longitudinal case study. *Journal of Case Research in Business and Economics*,4, 1-19.
- Durna, U. (2002), *Yenilik Yonetimi*, Nobel Yayin Dagitim, Ankara.
- Ekulo, (2019). Ekulo group of companies. Retrieved from <http://www.ekulogroup.com/about.us/air-history>
- Emden, Z., Yaprak, A., & Cavusgil, S. T. (2005). Learning from experience in international alliances: Antecedents and firm performance implications. *Journal of Business Research*, 58(7): 883-892.
- Frishammar, J. J., Lichtenthaler, U., & Richtner, A., (2013). Managing process development: key issues and dimensions in the front end. *R & D Management*, 43(3), 213 – 226.

- Galeazzo, A. & Klassen, R., (2015). Organizational context and the implementation of environmental and social practices: what are the linkages to manufacturing strategy? *Journal of Cleaner Production*, Volume 108, 158 – 168.
- Goh, S. & Richards, G. (1997), “Benchmarking the learning capability of organizations”, *European Management Journal*, 15(5): 575-583.
- Hansen, E., Juslin, H., & Knowles, C. (2007). Innovativeness in the global forest products industry: exploring new insights. *Can. J. For. Res.* 37: 1324-1335.
- Hoskisson, R.E., Hitt, M.A., Wan, W.P., & Yiu, D. (1999). ‘Theory and research in strategic management: swings of a pendulum’, *Journal of Management*, 25(3), 417 – 456.
- Hovgaard, A. & Hansen, E. (2004). Innovativeness in the forest products industry. *Forest Products Journal*. 54(1): 26-33.
- Hult, G.T.M & Ferrell, O.C. (1997). “Global organizational learning capacity in purchasing: construct and measurement”, *Journal of Business Research*, 40(2): 97-111.
- Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *The Journal of Marketing*, 62, 42-54.
- Jyothibabu, C. & Farooq, A. (2010), "An integrated scale for measuring an organizational learning system", *The Learning Organization*, Vol. 1.7 No. 4, pp. 303-27.
- Knowles, C., E. Hansen, & S. Shook. (2008). Assessing Innovativeness in North American Softwood Sawmilling Industry.
- Knowles, C. D. (2007). Measuring innovativeness in the North American softwood sawmilling industry. (3252161 Ph.D.), Oregon State University, United States. Retrieved from <http://search.proquest.com/docview/304821918?accountid=28431> ProQuest Dissertations & Theses Full Text database.
- Lager, T., (2000). A new conceptual model for the development of process technology in process industry. *International Journal of Innovation Management*, 4(3), 319 – 346.
- Myers, P., Hulks, S. & Wiggins, L. (2012). *Organizational Change: Perspectives on Theory and Practice*, Oxford, Oxford University Press.
- Nemeth, L. (1997), “Measuring organizational learning”, Master's dissertation, University of Western Ontario, London.
- Parida, V., Patel, P.C. Frishammar, J. & Wincent, J., (2016). Managing the front-end phase of process innovation under conditions of high uncertainty. *Quality & Quality*, 51(219), 1 – 18.
- Penrose, E.T. (1959). *The Theory of Growth of the Firm*, Blackwell, Oxford.
- Prahalad, C.K. & Hamel, G. (1990). ‘The core competence of the corporation’, *Harvard Business Review*, 68(3), 79 – 91.

- Rahimli, A. (2012). Knowledge management and competitive management. *Information and Knowledge Management*, 2(7), 37-43.
- Rubera, G., Kirca, A.H., Agarwal, R., Ale-gre, J., Chaplin, H. et al. (2012). Firm innovativeness and its performance outcomes: A meta-analytic review and theoretical integration. *Journal of Marketing*, 76: 130-147
- Rebelo, T.M. and Gomes, A.D. (2011), "Conditioning factors of an organizational learning culture", *Journal of Workplace learning*, Vol. 23 No. 3, pp. 173-94.
- Reichstein, T. & Salter, A., (2006). Investigating the sources of process innovation among UK manufacturing firms. *Industrial and Corporate Change*, 15(4), 653 – 682.
- Santos, M.L., Alvarez, L.I. (2007). Innovativeness and organizational innovation in total quality-oriented firms: the moderating role of market turbulence. *Technovation* 27, 514 – 532.
- Senge, P. (2003). Taking personal change seriously: the impact of organizational learning on management practice. *Academy of Management Executive* 17: 47-50.
- Senge, P.M. (1990). *The fifth discipline: Art and practice of the learning organization*. New York: Doubleday.
- Sethi, R., Smith, D. C, & Park, C. W. (2001). Cross-functional product development teams, creativity, and the innovativeness of new consumer products. *Journal of Marketing Research*, 73 –85.
- Subramanian, A., & Nilakanta, S. (1996). Organizational innovativeness: exploring the relationship between organizational determinants of innovation, types of innovations, and measures of organizational performance. *Omega*, 24(6), 631-647.
- Tajeddini, K., Altinay, L., & Ratten, V. (2017). Service innovativeness and the structuring of organizations: the moderating roles of learning orientation and inter-functional coordination. *International Journal of Hospitality Management*, 65: 100-114.
- Tatikonda, M. & M. Montoya-Weiss (2001). Integrating operations and marketing perspectives of product innovation: the influence of organizational process factors and capabilities on development performance. *Journal of Product Innovation Management*, 47(1), 151-172.
- Teece, D.J. (2007). Explicating dynamic capabilities. The nature and micro foundations of (sustainable) enterprise performance, *Strategic Management Journal*, 28(13), 1319 – 1350.
- Tsai, K. H. & S. Y. Yang (2013). "Firm Innovativeness and Business Performance: The Joint Moderating Effects of Market Turbulence and Competition". *Industrial Marketing Management*, 6(1).
- Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, 439-465.

- Vera, D., Crossan, M., & Apaydin, M. (2011). A framework for integrating organizational learning, knowledge, capabilities, and absorptive capacity. *Handbook of Organizational Learning and Knowledge Management*, Chichester, Wiley.
- Wang, C.L. & Ahmed P.K. (2004). The development and validation of the organizational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management*, 7(4): 303-313.
- Wernerfelt, B. (1984). 'A resource-based view of the firm', *Strategic Management Journal*, 5(2), 171 – 180.
- Wheelwright, S.C., & Clark, K.B. (1992). *Revolutionizing Product Development Quantum Leaps in Speed, Efficiency and Quality*. The Free Press, New York.
- Yuan, X., Guo, Z. & Fang, E. (Er). (2014). An examination of how and when the top management team matters for firm innovativeness: the effects of Tmt functional backgrounds. *Innovation: Organizational and Management*, 16(3): 323-342.
- Zaltan, G., Duncan, R., & Holbek, J. (1973). *Innovations and organizations*: Wiley New York.