

INNOVATION AND ORGANIZATIONAL RESILIENCE OF MARITIME SECTOR IN NIGERIA

By

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Abstract

This study examined the relationship between innovation and organizational resilience of maritime sector in Nigeria. The survey design was adopted in the study. A total population of two hundred and thirty-eight (238) employees from fifteen (15) maritime firms were covered. However, a sample size of one hundred and forty-eight (148) respondents was drawn from the population. Copies of questionnaire were used in gathering relevant data for the study. The simple random sampling technique was utilised. From the total number of copies of questionnaire distributed, only one hundred and nine (109) were well filled and used for the analysis. The Pearson product moment correlation was used in analysing the retrieved data so as to ascertain the relationship between the dimensions of innovation (process innovation and market innovation) with the measures of organizational resilience (dynamic capability and agility). From the analysis, it was observed that a significant and positive relationship exists between the dimensions of innovation and the measures of organizational resilience. Based on the findings, it was concluded that innovation of the maritime firms is vital in boosting their resilience capability. The study recommended amongst others that the management of the maritime firms should ensure consistent variation of marketing methods which differs from that of competitors, as such will help enhance their agility in the sector.

Key Words: Agility, Dynamic Capability, Innovation, Market Innovation, Organizational Resilience, Process Innovation.

1.0 Introduction

The continuous liquidation of companies has led many organizations to come to the awareness of the reality that organizations that survive the tumultuous time are not the fittest but those that exhibit high resilience capacity (Akhigbe & Onuoha, 2019). Organizational resilience is essential in this age that is ever defined by high dynamism in order to survive and compete favourably in the business. Organizations in this age, work in a climate defined by unprecedented difficulties originating from competitive pressures as well as other variables inside the business sector (Amah & Onwughalu, 2017). Hence, the continuation of the company is reliant on the resilience capacity of the organization.

In line with the preceding statement, Annarelli and Nonino (2016) argued that the lack of organizational resilience makes it extremely difficult for corporate entities to function successfully when confronted with high degree of competitive force and uncertainties in the industry. Organizational resilience is a firm's capacity to continuously function and succeed in its operations despite the difficulties it encounters inside the complicated business environment. The resilience capacity of a company is also essential since it enables the firm to endure shock and stay nimble even in an adverse situation. It is important of noting that the size of a company and its acceptable financial position at any one moment may not be able to prevent the organization from liquidating when confronted with difficult trying conditions. Some organizations have survived for centuries based on their resilient capacity to endure any turbulence throughout the years. Furthermore, resilience ability of businesses also allows the company to bounce back after facing adverse conditions. Akhigbe and Onuoha (2019) stated that organizational resilience capacity prepares establishments for transitions and assist recover vitality after shocks. The constant innovation in organization allows companies to cope up with different problems in the environment which may therefore improve their resilience capability. Innovation refers to the development or acceptance of an idea or conduct unique to the company (Damanpour, 1996).

Innovative ability is currently and generally regarded as significant part of resource-intensive operations. This show that firm's innovativeness has grown to be a vital strategic resource to succeed and stay successful in the business sector. Organizations who are unable to follow the creative trend in the market are most likely to fade out of business within a short period of time. Furthermore, Wang and Ahmed (2004) noted that innovation has various dimensions which comprise of market innovativeness, process, product, strategic, and behavioural innovativeness. The necessity to improve the resilience of organizations has prompted numerous scholars to look for methods to boost the resilience capacity of organizations utilizing different structures. Akhigbe and Onuoha (2019) investigated how the resilience of food and beverages companies may be improved from the stand point of strategic agility. They found that strategic agility improves firm's resilience. Amah and Onwughalu (2017) investigated into how ambidexterity connects with resilience of telecommunication companies in Port Harcourt, Rivers State. Although various research have been carried out on organizational resilience, there exist a lack of academic works on how innovation interacts with organizational resilience in the maritime industry. This research tries to address this gap by studying the connection between innovation and organizational resilience of maritime industry in Nigeria.

Statement of Problem

The maritime sector throughout the years has encountered some degree of difficulties in recent years and this has impacted their performance and has harmed their survival in the business. The issue of inadequate organizational resilience among certain companies in the maritime industry has impacted their resilience capability. Inefficient ports infrastructure and deficiency in maritime infrastructure are just some of the problems confronting the maritime industry in Nigeria. Obed, Buhari, Okeke and Samuel (2017) said that the maritime sector lacks the knowledge-base and intellectual abilities to meet with the ever-growing demanding responsibilities in the industry. According to the authors, some of the issues that have exacerbated the maritime sector's business climate include insufficient berthing space, sea piracy difficulties, vessel delay challenges, insufficiently performing plants, operational and procedural delays, and outdated equipment and plants. Apart from the competitive pressures in the maritime sector, which have harmed certain companies' survival, the unanticipated economic crisis has altered existing business and maritime sector narratives, harmed company survival, and elevated corporate resilience to a key quality for today's firms. The maritime sector's lack of resilience has shown itself in a lack of adaptive capacity, low profitability, a lack of competitive advantage, a lack of agility, and finally in the liquidation of the company. Poor organisational agility leads to incapacity to keep abreast and adjust to adverse circumstances. Low organisational resilience may potentially impact the performance and competitiveness of the maritime businesses. The issue of poor resilience of the maritime businesses continues to exist despite efforts to solve the problems. It is on this assumption that this research investigated the connection between innovation and organizational resilience of maritime industry in Nigeria.

Objectives of the Study

The objectives of this study are to examine the relationship between;

- i. Process innovation and adaptive capability of maritime sector in Nigeria.
- ii. Process innovation and agility of maritime sector in Nigeria.
- iii. Market innovation and adaptive capability of maritime sector in Nigeria.
- iv. Market innovation and agility of maritime sector in Nigeria.

Research Hypotheses

The following null hypotheses served as a tentative answer to the research questions;

HO₁: There is no significant relationship between process innovation and adaptive capability of maritime sector in Nigeria.

HO₂: There is no significant relationship between process innovation and agility of maritime sector in Nigeria.

HO₃: There is no significant relationship between market innovation and adaptive capability of maritime sector in Nigeria.

HO₄: There is no significant relationship between market innovation and agility of maritime sector in Nigeria.

2.0 Review of Related Literature

This work is based on the Contingency Theory. The term 'contingency theory' was coined by Lawrence and Lorsch (1967). As demonstrated in the article by Scott (2003), businesses that are operating in different settings confront unique difficulties. They claim that unpredictable market conditions and quickly altering technology offer different difficulties (constraints as well as opportunities) for businesses, as compared to consistent settings (Scott, 2003). Contingency theory argues that in order to be effective, innovation must be consistent with other features of the organization and/or the external environment. Contingency theory argues that innovation has a direct effect on organizational success. However, contingency theory is more concerned with the way things interact than with their linear effects. According to contingency theory, we shouldn't adopt a one-size-fits all approach, because the effectiveness of innovation is dependent on the context in which it is applied.

Lawrence and Lorsch (1967) conducted empirical investigations of a range of organizations to examine the connection between different degrees of uncertainty and internal organizational characteristics, such as the kinds of settings utilized (varying from high to low uncertainty) and the internal organizational characteristics of each organization type. As previously stated, contingency theory is predicated on three fundamental assumptions: (i) no one organizational structure is preferred; (ii) the optimal organizational structure is context-dependent; and (iii) the optimal organizational structure is environment-dependent (Scott, 2003). In Donaldson (2001), it was proposed that the shape of the organization is created by the conditions. Thus, it becomes extremely important for businesses to use innovative and creative ways to be more resilient as the business environment is changing, and decisions must be made to compete effectively. It is clear that the specific environmental conditions in which the organization finds itself will have a significant influence on the business.

Operational Framework

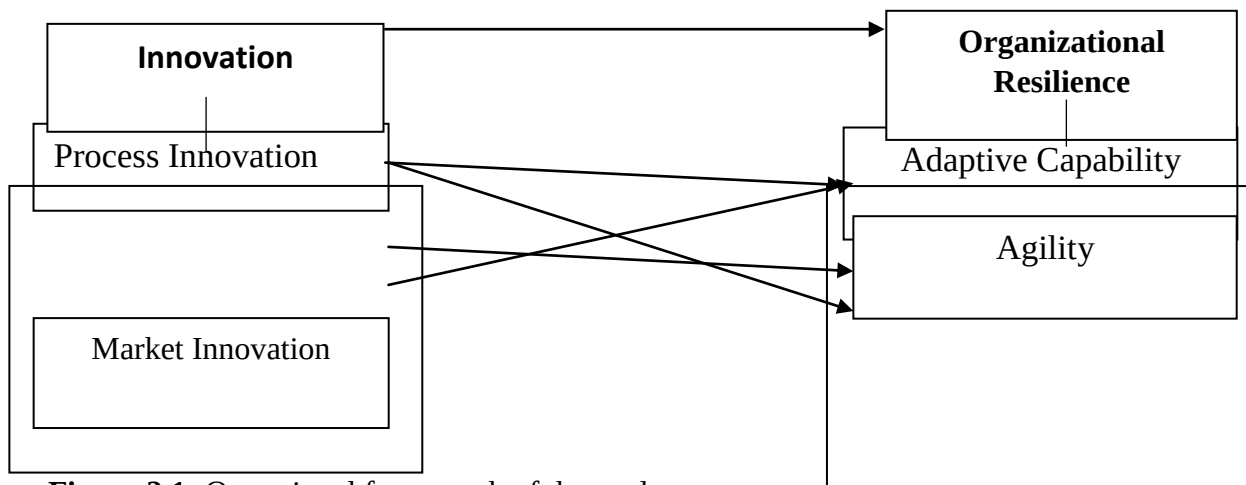


Figure 2.1: Operational framework of the study.

Source: Adapted from Wang and Ahmed (2004), Annareui, Battistella and Nonino (2020);

Concept of Innovation

Tidd, Bessant, Pavitt, and Wiley (1998) defined innovation as the process of turning an opportunity into new ideas that are widely adopted in practice. Schumpeter described innovation as a 'historical and irreversible change in the way things are done,' as well as 'creative destruction' (Schumpeter 1943). The simplest basic definition of innovation is "doing something new." Innovation is a frequently used word in business, and for companies, it typically relates to something dangerous, costly, and time demanding (Costello & Prohaska, 2013). Additionally, innovation may be described as a unique idea, product, technique, or novelty. It is a state of mind, a way of thinking that goes beyond the present instant and into the future. Innovation is important for companies, and when done effectively, it may act as a process, strategy, and management technique (Kuczmarksi, 2003).

According to Katz (2003), innovation is generally described as the introduction of a novel product or method. It is the embodiment, merging, or synthesis of information into new goods, processes, or services that are distinctive, relevant, and useful (Katz, 2003). Bentz (1997) described innovation as the process of creating a new or improved method, service, or product for marketing. According to Afuah (1998), innovation is the application of new technical and administrative knowledge to the supply of a new product or service to customers. Innovation includes all organizational activities that are new, including equipment, products, services, processes, regulations, and projects (Lin, 2007). Khazanchi, Lewis, and Boyer (2007) further stated that innovation is important for companies because it may create additional revenue through new products or services, as well as help firms save money or improve the quality of existing operations.

At its most basic level, innovation may be described as the act of generating and integrating ideas in order to create a link between present achievements and previous experiences in order to solve a future problem. This is frequently linked with technological advances and has a major impact in the global economy (Baskaran & Mehta, 2016). Innovation is important in the business sector because it allows companies to create value and stay competitive. According to Baregheh, Rowley, and Sambrook (2009), innovation is a multi-stage process by which businesses transform ideas into new or improved products, services, or processes in order to successfully grow, compete, and differentiate themselves in their marketplace. To be innovative is to address issues imaginatively, to search for new resources or to make better use of existing ones. Being a problem solver by nature frequently leads in innovation and new ideas (Huebner & Fitchel, 2015).

Process Innovation

Process innovation may and should occur at many levels within an organization, because no business can depend solely on one degree of innovation. Successful companies have an innovation process that spans across all organizational levels. According to Hamel and Prahalad (2003), innovation has become a mantra: "Innovate or die." A company cannot outgrow its competitors unless it surpasses them in terms of innovation. Surely everyone knows that genuine business growth — not just agglomeration — comes from innovation. Process innovation is the application or introduction of a new technology or method for completing a job that allows a company to remain competitive and satisfy customer requirements. Process innovation happens when a firm solves an existing problem or executes an existing business process in a fundamentally innovative way that benefits those who execute the process, those who rely on the process, or both (Pratt, 2021). Process

innovation involves creating a new or better method of production or delivery, which may include changes to operational procedures, processes, and equipment or software. Marketing innovation is the act of creating a new marketing strategy that results in changes to the way a product is designed or packaged, as well as other price or promotion options.

Typically, process innovation includes both technological and organizational aspects (Reichstein & Salter, 2006). The distinction between these subcategories comes from the fact that process innovation may include technological elements or might be confined to human resource or other organizational system coordination (Edquist et al., 2001). Typically, technical process innovation takes the shape of improvements to operating procedures (Damanpour, 1991), which include both improved manufacturing operations and enhanced service operations (Reichstein & Salter, 2006).

Market Innovation

Market innovation is the process of improving the desired market mix and the way in which these markets are supplied. It refers to new markets and distribution channels in both foreign and local markets. Market innovation refers to intentional actions performed by market players that result in a fundamentally new or changed kind of market (Sprong et al., 2021). It is the emergence and institutionalization of new solutions (that is, the temporal persistence of novel integrative, normative, and representational practices) (Vargo et al., 2015). Additionally, it suggests a broader definition of market innovation than the development of new markets, including the change of existing market structure, the introduction of new market devices, the modification of market behavior, and the reconstitution of market players. By and large, market innovation involves changing the way business is done (Kjellberg et al., 2015).

Concept of Organizational Resilience

By assessing both the before and after impacts of a significant disruption or stress, resilience refers to an organization's ability to fulfill its duties and return to a stable state (Hearnshaw and Wilson 2013). A resilient organization should be able to absorb disturbances or stresses via resistance or adaptation; maintain critical services during a disruption; and 'bounce back' after a disruption (Van Oosterhout et al 2006).

Resilience is about more than rebuilding; it is also about transformation, which needs both innovation and creativity (Maguire and Cartwright 2008). Resilience, in this view, implies a rejection of the status quo; returning to the pre-event condition would leave the organization equally vulnerable to the next disturbance. The transformational view on resilience focuses on topics such as renewal, regeneration, and restructuring (Folke 2006). According to Hamel and Prahalad (2003), resilience refers to an organization's ability to dynamically reinvent business models and strategies in response to changing circumstances.

Due to the fact that all businesses face unique risk landscapes, resilience is regarded as both a consequence and a key component of an organization's governance. Thus, an organization's resilience is composed of the contributions of a wide range of different principles. Additionally, organizational resilience is not a one-time program or management system that can be established and then evaluated on an annual or as-needed basis. Not only does resilience increase an organization's awareness of its operational environment, it also enables an organization to react to risks and challenges and strive for a better future (McManus, 2008).

Langvardt (2007) argues that resilient organizations are capable of creating a framework that offers security and stability during periods of change. In a context characterized by rapid technological development and an economic equation that demands change mobilization, there is a need for structural flexibility and adaptability to changing economic, social, cultural, technical, and political conditions (Barlach, Limongi-France & Malvezzi, 2008). Pellissier (2011) corroborates this discussion by saying that in order to retain a competitive advantage and seek innovation, a company must possess the skills and capacities to create and reconstruct an efficient structure as well as manage the consequences of continuous change. According to Whitehorn (2011), companies must show certain behaviors and methods, including agility, integrative capacity, leadership, the ability to foresee changes, and the adoption of clear and well-structured communication. These methods ensure that the company is organized properly to meet market problems. According to Woods (2006), resilience changes our thinking, expanding our knowledge of risk, linked systems, adaptation, and tolerance. Scheffran, Marmer, and Sow (2012) support this perspective by saying that an organization's adaptation is the process by which systems are changed in response to actual or expected effects that may block access to good possibilities.

Adaptive Capability

Adaptive capacity is a latent characteristic of a person, community, or social ecological system that is activated in response to a crisis or opportunity (Engle 2011). High adaptive capacity endows a person, community, or social-ecological system with resilience, improving their probability of sustaining a desired state or negotiating a positive transition when the current state is unsustainable or undesirable (Folke 2006). Gupta et al. (2010) defined adaptive capacity from a sociocultural viewpoint as the characteristics of institutions that allow social actors to respond to short- and long-term consequences either through planned measures or by enabling and encouraging creative social responses ex ante and ex post. Our goal is to offer a formal evaluation of adaptable capacity as viewed by society.

Adaptive capacity is defined as a business's skill to recognize and capitalize on emerging market opportunities (Helfat 2003). Chakravarthy (1982) differentiates adaptive capacity from adaptation, in which a firm's adaptability status allows the environment to survive. Following that, in Staber and Sydow (2002), the business defines an ideal aim of survival, whereas adaptiveness depends on a successful exploration and exploitation strategy. In a volatile environment, companies will create a strategy for this problem. Companies functioning in highly competitive settings, on the other hand, depend on more adaptable techniques (Rindova & Kotha, 2001) to improve their competitive position and make the company and its surrounds more efficient (Ganesh, Madanmohan, Jose & Seshadri, 2004).

The adaptive capability of a system is a characteristic of the system. The strategic capacity of an organization involves changing, restructuring, or linking resources, skills, and competence in order to retain the company's competitive edge. It also involves expanding the amount of possible choices or strategic responses in order for the business to rapidly respond to deterministic and environmental change. The adaptive capacity of a system is its ability to change its characteristics or behaviour in response to changing external conditions in the face of existing variability. In practical terms, adaptive capacity refers to the competence to design and execute effective adaptation plans or to respond to changing risks and pressures in order to decrease the probability of occurrence and/or magnitude of negative effects connected with climate-related catastrophes. Adaptation includes the ability to learn from previous experiences in process to cope with the current environment and to utilize these lessons,

particularly unexpected ones, in order to deal with the future environment. Seah et al. (2014) put a priority on fitness or alignment, stating that adaptive capacity involves changing its components in response to environmental changes.

Agility

Worley, William and Lawler (2014) define agility as the capacity for companies to change rapidly, efficiently, and sustainably; a repeatable organizational resource (Worley, Williams & Lawler, 2014). Similarly, we describe agility as an organization's capacity to efficiently and effectively redeploy/redirect its resources to value-creating and value-protecting (and capturing) activities as internal and external circumstances demand. Along with managing Stigler's demand shocks, agile companies must manage supply-side uncertainty and make necessary and desirable strategy changes. Agility refers to the diversity of methods utilized to achieve success. Flexibility means an active capacity and a desire to recognize new options, overcome inertia, and adjust to unstructured circumstances, rather than being confined to a few predetermined choices (e.g., unexpected change) (e.g., unanticipated change).

Agility needs a strong sense of direction, speed, lightness, and nimbleness, as well as originality and innovation (Gilaninia, Rezvani, Mousavian & Asli, 2011). Agility is described as the ability to fantasize about new products and ways of conducting business (Shams & et al, 2007). Agility is a result of being aware of change, both internal and external, and having the required abilities in the use of resources to react to these changes in a timely and flexible way so the company is able to operate effectively (Braunscheidel & Suresh, 2009). Although organizational agility is described as the effective application of competitive norms such as speed, flexibility, innovation, and quality via resource integration and the reorganization of best practices in a technological knowledge context, as well as the supply of services or products that satisfy consumer preferences in a constantly changing environment (Yusuf et al., 1999). Agility is an organization's ability to function comfortably in a quickly changing and fragmented global market environment by providing high-quality and effective performance (Tsourveloudis & Valavanis, 2002).

Not only is organizational agility "flexible" to handle expected changes, but it is also capable of quickly reacting to and adapting to unforeseen events (Oosterhout et al., 2006). Agility may be described as the state of an organization's performance in terms of adaptability and flexibility, which is achieved through the organization's activities. Specifically, from a process perspective, OA is a set of processes that allow a business to identify changes and respond quickly and effectively in a timely and cost-effective manner to both internal and external contexts. Organizational agility refers to an organization's capacity to identify and react effectively to market opportunities and hazards in a timely manner (Overby et al., 2006). Organizational agility is a proactive management approach that focuses on conserving an organization's resources and fulfilling customer expectations on a timely manner (Hitt et al., 2007).

Empirical Review

Several studies exist on how different factors connect with resilience of businesses. Carvalho et al. (2016) used EBITDA, ROE, and ROA measures to investigate the relationship between innovation and resilience. They studied 10 businesses, five of which were ranked among Brazil's 50 most innovative, and five of which were not. After computing the indexes for four fiscal years - 2011, 2012, 2013, and 2014 - they compared the indices for the two groups of

businesses for the four defined periods. The results indicate that creative companies may sustain better financial performance than non-innovative enterprises.

Buliga, Scheiner, and Voigt (2016) developed a conceptual framework that integrates both theoretical streams of literature. The study's findings suggest that business model innovation is an essential component of organizational responsiveness and connects to adaptation as an element of resilience.

Mafabi, Munene, and Ntayi (2012) examined the mediated impact of innovation on the link between knowledge management and organizational resilience. The study used a cross-sectional design to collect data from not more than 51 of 62 organizations contacted for the aim of performing mediation analysis. This resulted in an 82.3 percent response rate for the targeted sample. Innovation contributed to an organization's resiliency. Knowledge management had no direct impact on organizational resilience, even when innovation was completely mediated. This demonstrates that parastatal organizations may be unable to increase their degree of resilience in the absence of organizational innovation.

In 2017, Williams, Eke, and Anyanwu investigated the effect of innovation on organizational resilience in the food and beverage industry. We utilized a cross-sectional survey method. The data were gathered from 108 managers representing a total of 385 management employees at seven selected beverage companies in Port Harcourt. The questionnaire was used to collect data. We collected and evaluated a total of 78 surveys. The hypotheses were examined using the Spearman's Rank correlation coefficient tool. The results showed that flexibility and vulnerability are strongly linked with product innovation. We concluded from these data that organizational innovation has a significant effect on resilience. Product innovation improves an organization's agility and makes it less vulnerable. They suggested that companies create an enabling environment that promotes employee creativity and innovation, which are important components of organizational resilience.

3.0 Methodology

This study adopted the survey design. A total population of two hundred and thirty-eight (238) employees from fifteen (15) maritime firms were covered. The Krejcie and Morgan (1970) table was used to arrive at a sample size of one hundred and forty-eight (148) employees. Copies of questionnaires were administered to respondents in order to gather relevant data. The simple random sampling technique was adopted in this study. Furthermore, the predictor variable (innovation) was operationalized using process innovation and market innovation. 5 items were used in measuring process innovation (e.g. the processes in my organization is very innovative) and market innovation was measured using 7 items (e.g. In comparison with our competitors, our products' most recent marketing program is revolutionary in the market). Conversely, the criterion variable (organizational resilience) was measured using dynamic capability and agility. 5 items were used in measuring dynamic capability (e.g. My organization is optimistic, even when things are difficult) and 5 items were used in measuring market agility (e.g. My organization rapidly takes actions). The Pearson product moment correlation was used in analysing the retrieved data so as to ascertain the relationship between innovation and organizational resilience.

4.0 Results

A total of one hundred and forty-eight (148) copies of questionnaire were distributed to respondents. However, only 109 copies which represented 73.6% of issued copies of questionnaires were successfully retrieved and used for the analysis. The hypotheses were tested at (95%) confidence level.

Hypotheses Testing

HO₁: There is no significant relationship between process innovation and adaptive capability of maritime sector in Nigeria.

Table 1: Process Innovation and Adaptive Capability
Correlations

		Process Innovation	Adaptive Capability
Process Innovation	Pearson Correlation	1	.559**
	Sig. (2-tailed)		.000
	N	109	109
Adaptive Capability	Pearson Correlation	.559**	1
	Sig. (2-tailed)	.000	
	N	109	109

** . Correlation is significant at the 0.05 level (2-tailed).

SPSS output, Version 21– Field Survey, 2021

The outcome in table 1 shows a positive relationship between process innovation and adaptive capability with P-values of 0.000 and correlational value of 0.559. Thus, the null hypothesis was rejected and the alternate was accepted.

HO₂: There is no significant relationship between process innovation and agility of maritime sector in Nigeria.

Table 2: Process Innovation and Agility
Correlations

		Process Innovation	Agility
Process Innovation	Pearson Correlation	1	.218**
	Sig. (2-tailed)		.010
	N	109	109
Agility	Pearson Correlation	.218**	1
	Sig. (2-tailed)	.010	
	N	109	109

** . Correlation is significant at the 0.05 level (2-tailed).

SPSS output, Version 21– Field Survey, 2021

From the result of the analysis in table 2, it shows that a significant and positive relationship exist between process innovation and agility with P-values of 0.010 and correlational value of 0.218. Thus, the null hypothesis was rejected and the alternate was accepted.

HO₃: There is no significant relationship between market innovation and adaptive capability of maritime sector in Nigeria.

Table 3: Market Innovation and Adaptive Capability
Correlations

		Market Innovation	Adaptive Capability
Market Innovation	Pearson Correlation	1	.463**
	Sig. (2-tailed)		.001
	N	109	109
Adaptive Capability	Pearson Correlation	.463**	1
	Sig. (2-tailed)	.001	
	N	109	109

** . Correlation is significant at the 0.05 level (2-tailed).

SPSS output, Version 21– Field Survey, 2021

Based on the outcome in table 1, it is observed that there is a significant positive relationship between market innovation and adaptive capability with P-values of 0.001 and correlational value of 0.463. Thus, the null hypothesis was rejected and the alternate was accepted.

HO₄: There is no significant relationship between market innovation and agility of maritime sector in Nigeria.

Table 4: Market Innovation and Agility

		Market Innovation	Agility
Market Innovation	Pearson Correlation	1	.631**
	Sig. (2-tailed)		.000
	N	109	109
Agility	Pearson Correlation	.631**	1
	Sig. (2-tailed)	.000	
	N	109	109

** . Correlation is significant at the 0.05 level (2-tailed).

SPSS output, Version 21– Field Survey, 2021

The outcome of the analysis in table 4 shows that a significant and positive relationship exists between market innovation and agility with P-values of 0.000 and correlational value of 0.631. Thus, the null hypothesis was rejected and the alternate was accepted.

5.0 Discussion of Findings

Resilience of organizations is important in order to improve the businesses continuity and wellness in the industry. Process innovation in the maritime industry is important in improving the adaptive capacity of the sector. This is based on the result in table one which showed that a substantial and positive connection exist between process innovation and adaptable capacity with P-value of 0.000 less than 0.05 threshold of significance. This indicates that the greater process innovation, the better the adaptive capacity of the maritime companies. The r-value of 0.559 shows that a significant positive connection exists between process innovation and adaptable capacity. Furthermore, process innovation is favorably associated with agility of the maritime companies. This is due to the positive and substantial connection that was found among the variable. The results indicated that process innovation

is important in improving the agility of organization. Therefore, the null hypothesis was rejected and the alternative hypothesis was accepted. Drawing from the result in table three, it was also found that market innovation favorably and substantially connects with adaptive capacity of maritime companies in Nigeria. It was noticed that the P-value of 0.001 was less than the threshold of significance of 0.05. This indicates that a linear connection exists between the variables. The correlational value of 0.463 indicates that a modest and substantial connection exists between market innovation and adaptable capacity. This indicates that an increase in market innovation will result in a modest improvement in the adaptive capacity of the maritime businesses. Furthermore, the agility of the business in the maritime industry, is a consequence of their market innovation. Increasing market innovation will ultimately results in an increase in the agility of the business. Conversely, decreasing market innovation will also result in a reduction in the agility level of the companies. These results agree with those of Carvalho et al. (2016) whose findings revealed that innovation do favorably connects with organizational resilience. Again, Buliga, Scheiner, and Voigt (2016) developed a conceptual framework that integrates both theoretical streams of literature. The study's findings suggest that business model innovation is an essential component of organizational responsiveness and connects to adaptation as an element of resilience. Furthermore, the results coincide with those of Mafabi, Munene, and Ntayi (2012) which found that Innovation contributed to an organization's resilience.

6.0 Conclusion and Recommendations

The maritime industry has been a very important sector to the Nigeria economy because of its potential in improving the fortune of the whole nation. Innovation plays a key part in guaranteeing the continuing resilience of the businesses in the maritime industry. Continuous innovation to offer better services are essential if a company must retain resilient and thrive in this ever-dynamic commercial sector. Organizations in the maritime industry that ignore the advantage of innovation are most likely to fade out of business. Operating in an outdated manner of doing things in this contemporary age is hazardous to the resilience capacity of the whole company. Process innovation assists in increasing the adaptive capacity of the maritime business. When the process innovation is improved, both the adaptive capacity and agility of the companies improve. Thus, companies wanting to enhance their resilience, must pay attention to their innovation. Furthermore, growing market innovation will offer the company an edge against rivals and therefore guarantee greater resilience ability of the organization. Conclusively, innovation in the maritime industry is important in improving the resilience of the businesses in the sector. Based on the results and conclusion, the following suggestions are given;

- i. The maritime companies should create a revolutionary marketing campaign as such would assist improve their adaptive capacity in the industry.
- ii. The management of the maritime companies should guarantee continuous variety of marketing techniques which vary from those of rivals, as such would assist improve their agility in the sector.
- iii. The management of the maritime companies should guarantee process innovation in their operations as such would go a long way to improving the firms' resilience.
- iv. The management of the maritime companies should guarantee that good culture is emphasized among the workers as such would assist improve the firms' resilience capacity.

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