

Response Strategy, Adaptive Resilience Factors
and Performance of Aquaculture
Enterprises in Lagos State, Nigeria

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Administration

Certification

This is to certify that this thesis was carried out by Lawal Ojo, JIM-SAIKI with Matriculation number
LCU/PG/001580, in the Department of Management & Accounting under my thorough supervision in the Faculty
of Management and Social Sciences, Lead City University, Ibadan, Nigeria and that this work had not been
previously submitted.

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Dedication

This thesis is dedicated to God Almighty for His Grace and guidance throughout this programme.

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Abstract

Royalties and other fishing revenue generated by the aquaculture fisheries industry are a significant source of revenue for State economies. Moreover, they serve as a vital source of employment while helping to provide for the nutritional needs of low-income populations. The global performance of aquaculture showed that the industry experienced significant growth in demand for fish as a primary source of protein. However, the productivity of the aquaculture industry in Nigeria experienced a significant decline caused by profitability issues, weak new product development and weak competitive position, which is suggestive of challenges associated with response strategy and adaptive resilience factors. Likewise, the study argued in favour of the value relevance that possessing an entrepreneurial mindset can afford aquaculture firms to navigate the harsh business environment in Nigeria and identify business opportunities that can enhance their performance.Hence, on the strength of the ADKAR theory, dynamic capability theory and contingency theory,this study assessed the interaction of response strategy,adaptive resilience and organisational performance of aquaculture firms in Lagos State, Nigeria. A cross-sectional survey research design was adopted. The population was 4,012 employees of selected aquaculture firms in Lagos State.A sample size of 420 staff was determined through the Krejcie and Morgan formula for a finite population, and a stratified random sampling technique was used to select the employees at the three management levels within the selected aquaculture firms. A validated questionnaire was used to collect data. The Cronbach's alpha reliability coefficients for the constructs ranged from 0.80to 0.95. The response rate of 94.5% was achieved. Data were analysed using descriptive and inferential statistics.Findings revealed that response strategy and adaptive resilience had positive and significant effect on organisational performance (Adj. 0.000). Response strategy had a positive and significant effect on profitability(Adj.0.075,F(3,393)=).Response strategy had a positive and significant effect on new product development (Adj..Adaptive resilience had a positive and significant effect on competitiveness (Adj.The entrepreneurial mindset had a significant moderating effect on the interactions between response strategy,adaptive resilience and organisational performance of aquaculture firms in Lagos State, Nigeria (4)0.000). This study concluded that response strategy and adaptive resilience affect the performance of aquaculture firms in Lagos State,Nigeria. The outcome of this study offered additional support for the ADKAR theory, dynamic capability theory and the contingency theory, which provided the theoretical underpinnings for this study.The study recommended that aquaculture firms in Lagos State should engage a strategic management consultant to undergo training on internal organisation competencies to enhance the deployment of response strategy and adaptive resilience factors and take advantage of developing and deploying an entrepreneurial mindset. This is because entrepreneurial mindset act as a significant moderator which enhance the interaction between response strategy,adaptive resilience and performance of aquaculture firms in Lagos State. As a significant moderator, aquaculture firms examined can take advantage of it value relevance.

Keywords: Aquaculture Industry, Adaptive Resilience, Entrepreneurial Mindset, Organisational Performance

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Chapter One

Introduction

1.1 Background to the Study

Royalties and other fishing agreements generated by the aquaculture fisheries industry are a significant source of revenue for State economies. Further, they serve as a vital source of employment while also helping to provide for the nutritional needs of low-income populations. As such, it is imperative for the aquaculture enterprise to consistently improve corporate performance, especially at a time the world battles with the attendant consequences of COVID-19 pandemic, Russia-Ukraine war and heightened level of insecurity in several local economies. Given the high cost and risk associated with aquaculture fisheries operations at this challenging time, it is imperative that they deploy timely strategies that will meet the needs of their stakeholders and guaranty its profitable going-concern status'.

Globally, there has been growing demand for fish which rose from 130 million metric tons (mt) in 2011 to 151 million mt in 2016 as more seafood is consumed than any other meat or animal protein. Fish has more excellent nutritional profile than other animal sources of protein'. According to the survey, China currently holds roughly three-fourths of the global aquaculture market in terms of volume and value. We anticipate that China will grow at a compound annual rate of 3.99 percent from 2017 through 2022. After China, Indonesia, Chile, Norway, Japan, South Korea, the United States, and the United Kingdom, India is the second largest market for aquaculture products. The highest compound annual growth rate (CAGR) among these countries will be 17.24 percent in Indonesia through 2022; the second highest will be 14.77 percent in South Korea; and the remaining countries will witness CAGRs between 4% and 9%, according to the analysis². It is predicted that the aquaculture industry in the United States will increase at a rate of 4.10 percent annually³. However, in 2018, Africa contributed a paltry 2.67

percent, or 2.196 million tons, to worldwide aquaculture production- this was mostly due to the continent's preponderance in the production of freshwater finfish³.

When it comes to fishery resources, Nigeria leads the pack in west Africa with 1,169,480 tons, followed by Senegal with 485,560 tons, Ghana with 393,800 tons, and Sierra Leone with 202,190 tons⁴. In 2018, the leading three countries produced 1,323,233.5 tons of fish, or 75% of the total for all of West Africa⁴. The output of continental countries is negligible in comparison to that of coastal nations. In reality, Mali, Burkina Faso, and Niger's combined output is less than 10% of regional output⁴. Senegal is the top exporter in ECOWAS, accounting for 74% of regional exports, which have reached 447,000 tons in recent years and a close second is Nigeria (3%), then Sierra Leone (4%)⁵. Poor governance in the management of fish stocks; threats to the marine environment made worse by poor fishing practices; the significance of illegal, unreported, and unregulated fishing; a lack of promotion of fisheries products; a lack of coordination and cooperation between regional institutions; these are just some of the problems that plague fisheries and aquaculture in West Africa, according to the results of a sector assessment⁵.

The Nigerian aquaculture fish production recorded increases from 200,535mt in 2010 until it peaked at 316,727mt in 2015⁶. But by 2019, total production dropped to 289,543mt⁶. Also, in Lagos State the sector recorded 14.911mt in 2010 and rose to 45,500mt in 2014 but like the national productivity, it began to drop and recorded 36,634mt in 2019⁶. The implication of this includes loss of jobs with its consequences on loss of incomes and poor provision of animal protein for Nigeria's increasing population.

The United Nations Food and Agricultural Organisation identified some of the challenges to include rising operational costs and poor management techniques. On operational costs, fish feeds rose from an average of N2,500 per bag of 15kg in 2010 to N11,200 in 2019 and N24,499

in 2022; indicating a growth of more than 748% within the period⁷. This is traceable to the huge reliance on imported (Coppens) fish feeds as local ones were considered inefficient. Further, fish diseases constitute major challenges to fish farmers. A diseased fish in a pond could infect several others in the same pond within very short period if not quickly identified and sorted out. This has often led to high mortality rates and huge management/operational costs to farmers. Like feeds, fish diseases have been an area of immense challenge to

researchers in the course of identifying the types of diseases, already diseased fish as well as developing suitable vaccines and establishing/developing appropriate drugs and treatment courses. Also, the cost of power supply to fish farms have been rising as prices of fuels for powering standby generators have been soaring under the circumstance of increasingly failing supply from national power generating companies⁸.

Again, huge revenue is lost by fish farmers as there are no standards for fish pricing as well as established marketing strategies. They perpetually remain price-takers as may be dictated by the wholesaler/distributor, who also dictates the price of fish to retailers. The situation impacts negatively on the re-investment capability of the farmer and the potentials for expansion become more miserable. Access to formal credits has been a mirage to fish farmers as banks require security in order to issue loans. The security item(s) must be verifiable and measurable. But this is not the case in fishing especially aquaculture where most of the cultured fish feed on themselves and are not readily visible to the banker for enumeration. This has over the years, been a major setback for fish farmers including the prospective ones.

To some extent, aquaculture poses some threats to the environment as different fish species exhibit peculiar characteristics in their habitats. These determine the type of breeding system, feeds and medication to be adopted by the farmer and if not properly managed, they either individually or collectively impact on the environment and become nuance to the immediate populations or communities by way of air pollution (discharge of awful odour) or water

pollution. The feeds and waste from the fish could build up nutrients which could deplete water oxygen, create algae blooms and dead zones. However, the environmental effect is dependent upon the species being farmed, the intensity of production and farm location⁹.

Just as global culturable fish species abound, consumers' preferences vary. The most common culturable fish species in Nigeria include *Clarias* species (catfish), *Tilapia* species (*Tilapia*) and *Cyprinus carpio* (common carp). African catfish species (*Clarias gariepinus* or *lazera*) are the most resistant, widely accepted and highly valued. This limits consumers' choice especially in international trade and consumption by tourists who are availed of the

opportunity to consume other species in other countries. The consequence is obvious, lower patronage, thus dwindling revenues for fish farmers 10.

Changing times call for organisation to take bold actions to transform, make the most of evolving technologies, stay ahead of new competitors and meet customer demands. To achieve this, it is imperative for aquaculture enterprises to develop and execute appropriate response strategies¹⁰. In other words, companies need to develop and implement strategies to deal with the reality of the business world if they want to achieve significant corporate performance in an environment marked by uncertainty and fierce competition.

Management literature has placed significant relevance for response strategies and adaptive resilience as preconditions for sustaining profitable going-concern status, develop new product and staying competitive for firms operating in a challenging environment^{10,11,12,13}. Such response strategies include the ability of an enterprise to strategically plan for the future, evolve and implement context-specific marketing competences, and innovate its process and product. Similarly, the adaptive resilience success factors as articulated by scholars involve deploying agile social media, internal external collaboration, and leadership^{14,15,16}. All these aforementioned internal organisational capacities hold potentials in enhancing organisational performance.

In addition to the potential relevance of response strategy and adaptive resilience, entrepreneurship literature has made consistent advocacy for business owner-managers on the need to have entrepreneurial mindset; this is largely due to the fact that it may provide insight on many aspects of what it means to be an entrepreneur, including the identification of opportunities, the pursuit of those opportunities, the creation of new ventures, and the success of those ventures. The ability to think like an entrepreneur can aid in the discovery, evaluation, and exploitation of opportunities in the aquaculture industry, as well as equipping business owners to make practical decisions in the face of risk. In light of these considerations, this research investigates the role that response strategy and adaptive resilience characteristics have in the success of aquaculture businesses in Lagos State, Nigeria.

1.2 Statement of the Problem

The Nigerian aquaculture fish production recorded increases from 200,535 metric tons (mt) in 2010 until it peaked at 316,727mt in 2015; however, by 2019, total production dropped to 289,543mt¹⁷. Also in Lagos State, the sector

recorded 14.911mt in 2010 and rose to 45,500 mt in 2014¹⁷. Nonetheless like the national productivity, it began to fall and recorded 36.634mt in 2019¹⁷. The implications of these include loss of jobs with its consequences of loss of income and poor provision of animal protein for Nigeria's increasing population. Also, there is little/no concerted effort for initiating and sustaining a strategic management and marketing for aquaculture enterprises in Lagos State and these cause fish farmers huge financial losses?.

The demand for fish is growing, yet supply is generally lagging behind. Prospective consumers are also limited to certain specie (catfish) of farmed fish which may not be preferred, thus, reducing the demand and consumption rates of the products to customers with interesting appetite for varieties¹⁰. This issue point to the weak ability of fish farms to introduce new product in fish varieties to compliment the several customers erratic demand¹⁰. Also, fish

diseases and funding especially credit facilities have constituted teething problems to fish farmers in Lagos state and often affect their competitiveness, because it discourages investment and re-investment in the sector. While some fish farmers in Nigeria sell their products directly to consumers or restaurants, others' profit margins are inflated by traders, middlemen, agents, wholesalers, and retailers who "cash on" the opportunity⁸. This creates organizational challenges in the aquaculture value chain in Nigeria.

Organizations need appropriate response strategies (strategic planning, marketing capability, innovation capability) to deal with the uncertainties and intense complexities of today's business environment if they are to achieve significant performance. In addition, strategic management scholars have reemphasized the importance of firms having adaptive resilience capability in light of the societal and economic disruption caused by the corona virus pandemic and the Russia-Ukraine war. This capability has the potential to guarantee achieving superior firm performance via flexible social media, leadership, and collaborative engagement ⁴.

This study argues that an entrepreneurial mindset is a crucial success factor for aquaculture fish farmers in Lagos State, Nigeria, above and beyond the potential relevance of response strategy and adaptive resilience. This is due

to the fact that having an entrepreneurial frame of mind can help you gain valuable insights into a wide range of contexts, illuminating issues like opportunity recognition, entrepreneurial action, new venture formation, and business performance 5. Therefore, an entrepreneurial mindset has the potential to aid aquaculture farmers in spotting, assessing, and capitalizing on opportunities, and it equips business owners to make practical decisions in the face of uncertainty. On the strength of this narrative that this study proposes that if aquaculture farmers in Lagos State, exhibit high level of entrepreneurial-mindset it can enhance the possible outcome of the interaction between response strategy, adaptive resilience, and their organisational performance.

Despite the conceptual relevance of response strategy and adaptive resilience to business success, yet scholarly literature has provided little empirical support of how response strategy and adaptive resilience within aquaculture industry in developing economy context enhance or explain their firm performance. In addition, of the few studies examined, submission about the combining relevance of response strategy and adaptive resilience to business success remained unclear^{10,11,16}. Moreover, empirical discussion and submission on the potential outcome of how entrepreneurial-mindset interacts with response strategy, adaptive resilience, and business success remain unknown. The multiplicity of gaps in literature on these issues suggests nothing concrete is known and consequently limit the understanding of the relevance of response strategy, adaptive resilience, and organisational performance linkage within empiricism. It is in view of these industry-specific problems and gaps in literature, that the study assessed the influence of adaptive resilience and response strategy on performance of aquaculture enterprises in Lagos State, Nigeria.

1.3 Aim and Objectives of the Study

The aim of this study is to investigate the effect of response strategy (strategic planning, marketing sensing capability, & exploitative innovation capability) and adaptive resilience factors (social media agility, collaborative engagement, and Omoluabi leadership) on performance measures (firm profitability, firm competitiveness, and new product performance) of aquaculture enterprises in Lagos State, Nigeria. The specific objectives are to:

- i. examine the effect of response strategy (strategic planning, marketing sensing capability,& exploitative innovation capability) on profitability of aquaculture enterprises in Lagos State,Nigeria.
- ii. assess the effect of response strategy (strategic planning, marketing sensing capability,&exploitative innovation capability) on new product development/performance of aquaculture enterprises in Lagos State, Nigeria.
- iii. determine the effect of adaptive resilience factors (social media agility, collaborative engagement, and Omoluabi leadership) on firm competitiveness of aquaculture enterprises in Lagos State,Nigeria.
- iv. investigate the effect of response strategy and adaptive resilience factors on performance of aquaculture enterprises in Lagos State, Nigeria.
- v. determine the moderating effect of entrepreneurial-mindset on the association between enterprise response and adaptive resilience factors on performance of aquaculture enterprises in Lagos State, Nigeria.

1.4 Research Questions

The study raised the following research questions

- i. What is the effect of response strategy dimensions on profitability of aquaculture enterprises in Lagos State,Nigeria?
- ii. In what way does a response strategy dimension affect new product performance of aquaculture enterprises in Lagos State, Nigeria?
- iii. How does adaptive resilience factors affect firm competitiveness of aquaculture enterprises in Lagos State, Nigeria?
- iv. What is the joint effect of response strategy and adaptive resilience on performance of aquaculture enterprises in Lagos State,Nigeria?
- v. What is the moderating effect of entrepreneurial-set on the association between response strategy and adaptive resilience factors on performance of aquaculture enterprises in Lagos State,Nigeria?

1.5 Hypotheses

The following null hypotheses were tested in this study:

Hol: The effect of response strategy dimensions on profitability of aquaculture enterprises in Lagos State, Nigeria, is not significant.

Ho2: The interaction between response strategy dimensions and new product performance of aquaculture enterprises in Lagos State, Nigeria is not significant

Ho3: Adaptive resilience factor has no significant effect on firm competitiveness of aquaculture enterprises in Lagos State, Nigeria.

Ho4: There is no joint significant effect of response strategy and adaptive resilience factors on performance of aquaculture enterprises in Lagos State, Nigeria.

Ho5: Entrepreneurial-mindset has no significant moderating effect on the association between adaptive resilience factors and response strategy on performance of aquaculture enterprises in Lagos State, Nigeria.

1.6 Significance of the Study

This research is significant to the various stakeholders (management of selected aquaculture enterprises, government, body of academia and the society) in the following ways:

It provides strategic information to the selected aquaculture enterprises in Lagos State on relevance of response strategy and adaptive resilience factors needed to drive various firm performance measures such as firm profitability, new product performance, and firm competitiveness. Moreover, given the critical nature of the government policies on trade and investment, this study will provide government with a piece of empirical information to substantiate the effect; response strategy and adaptive resilience has on performance of the aquaculture industry in the country with the hope that policies that will favour the polity would be formulated and implemented.

Furthermore, to the body of Academia, this study addressed some gaps in the existing literature on response strategy and adaptive resilience. More specifically, it will test the conceptual model that evaluates the performance effect of response strategy and adaptive resilience within aquaculture industry context in Nigeria, thereby contributing to recent research in this regard and scant empirical literature on the performance-effect of response strategy and adaptive resilience among strategic management scholars in Nigeria. It also serves as

reference material for students to learn and creates the platform for further studies in the field of strategic management hence, pushing forward the frontier of knowledge. In all, this study is beneficial to the society at large, considering that when the aquaculture enterprises achieve superior performance, the ripple effect of expansion, opportunity for job and income generation can be achieved.

1.7 Scope of the Study

This study examined the effect of response strategy and adaptive resilience factors on performance of aquaculture enterprises in Lagos State, Nigeria. More specifically, the study investigated how response strategy dimensions such as strategic planning, marketing capability, and innovation, and how adaptive resilience factors such as social media agility, collaborative engagement, and Omoluabi leadership affects performance measures such as firm profitability, new product performance, and firm competitiveness of aquaculture enterprises in Lagos State, Nigeria.

The study covered 4012 employees of the five aquaculture enterprises in Lagos State, Nigeria across the three levels of management in Lagos State, Nigeria. The justification for the selected aquaculture enterprises is because they are registered operators and together accounted for

nearly 90% of the market size of the aquaculture industry in Lagos State, Nigeria and that the issues under investigate is identified with them. The choice of conducting this research in Lagos State is because all the registered aquaculture enterprises have their headquarters in the State. More, Lagos State is considered the economic hub of Nigeria with costal area with serves a source of inflow of aquaculture in Nigeria.

1.8 Limitation of the Study

There are cautions to this study that need to be recognized in order to open opportunities for new research. More specifically, aquaculture firms examined are aquaculture fish farms. Therefore, the scope of this research is restricted to the aquaculture fish farmers Lagos State in Nigeria. Due to the study's cross-sectional research design nature, it is impossible to draw any conclusions about the long-term effects of response strategy and adaptive resilience on performance of aquaculture firms. In spite of this limitation, the study is nonetheless valid because its

aim was to analyze how response strategy and adaptive resilience affect performance, requires a one-time cross-sectional data; hence, playing to the strength of the research design.

The questionnaire employed has some limitations as instrument of data collection. The low response rate, the fact that some people filled out the questionnaire without reading it, and the presumption that the data they provided will be utilized negatively are all weaknesses. The researcher makes sure that the questionnaire items were written in clear, unambiguous English to combat these issues and boost response rates. The researcher also ensures the respondents' anonymity and confidentiality, and obtains approval from respective managers of the fish farms to conduct the study, all of which increased the researcher's accessibility to the respondents. Finally, the statistical assumptions, sample size requirements, and other issues related to inferential statistics were major concerns for testing study hypotheses. However, these

obstacles were overcome by adapting the data treatments and increasing the sample size of the study. Despite these limitations, this research does present important conceptual, empirical, theoretical, and practical implications for management of the aquaculture firms in Nigeria.

1.9 Operationalisation of Variables

The variables in this study are classified into three - dependent, independent, and moderating variables. The first independent variable response strategy (X) is measured by; strategy planning, marketing sensing capability, and exploitative innovation capability. The second independent variable adaptive resilience (K) is measured by; collaborative engagement, social media agility, and Omoluabi leadership.

The dependent variable aquaculture firm performance (Y) is measured by firm profitability, new product performance, and firm competitiveness. The moderating variables (Z) is entrepreneurial-mindset. The functional operational model carrying these variables are displayed in the mathematical model below:

=Dependent variable: Aquaculture Enterprise Performance (AEP)

Independent variables: X=Response strategy (ESR) K= Adaptive Resilience (AR)

derating variables:=Entrepreneurial Mindset

The first independent variable- Response strategy (SR) is measured as:

Strategic Planning (SP),

Marketing Sensing Capability(MC),

=Exploitative Innovation capability (EIC)

The second independent variable-Adaptive Resilience (AR) is measured as:

al Media Agility(SMA),

=Omoluabi Leadership(OML),

=Collaborative Engagement(CE)

The dependent variable-Organisational performance (OP) Y is measured as:

Firm profitability (FP),

2= New Product Development (NPD)

y3=Firm Competitiveness (FC)

This study incorporates on Moderating variables (Z)-Omoluabi lead Entrepreneurial Mindset is considered

Z=Entrepreneurial Mindset (EM)

By substituting the acronyms of each variable in the regression model, the researcher presents the following:

Hypothesis One

(i)

Hypothesis Two

(i)

Hypothesis Three

(ii)

Hypothesis Four

(iv)

Hypothesis Five

(v)

Where:

is the intercept or constant of the equation

the coefficients or parameters to be estimated

=error or stochastic term

1.10 Operational Definition of Terms

Adaptive Resilience Factors: These are critical internal-firm factors that enable an entity or a system to recover from the negative effects of external shocks.

Collaborative Engagement: This approach to engagement is perceived from internal and external collaborative effort aimed at enhancing intra-firm alignment of persons and obtaining critical external knowledge to achieve competitive advantage.

Entrepreneurial-Mindset: This offers potential insights to numerous situations in understanding entrepreneurship in terms of opportunity recognition, entrepreneurial action, new venture formation, business performance.

Exploitative Innovation Capability: This is a capability that enables a firm to deploy resources to create new value through the reconfiguration of internal and external competencies.

Firm Competitiveness: This shows the ability of a firm to sustainably fulfil its double purpose: meeting customer requirements at profit.

Firm Performance: This is a general term referring to an assessment of the overall success or health of the organization.

Firm Profitability: This is the capability to generate sustainable financial rewards through efficient utilisation of firm resources by a well-coordinated management process and effective decision making over a given period.

Marketing Sensing Capability: This capability as to do with how well a firm can use the organization's resources to meet market needs through sensing capability.

New Product Development: This is the process initiated by an organisation with the sole aim of coming up with a new product.

Omoluabi Leadership: This is a positive form of leadership used to develop the trust and positive working environment to foster the employee for higher self-organisational performance

Response Strategy: These are actions taken to align current strategy of a firm to environment changes so as to gain competitive advantage.

Social Media Agility: It measures how quickly a firm can obtain information from customer in the virtual space and create products to fulfill such need.

Strategic Planning: This systematic process involves predicting the desired future and interpreting this vision into broadly defined goals and sequenced steps to achieve them.

Endnotes

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Chapter Two

Literature Review

This chapter comprises the reviews of relevant literature in line with the research topic. In other words, all the variables in the conceptual framework which include conceptual, theoretical and empirical were reviewed under the following subheadings:

2.1 Conceptual Review

This section explains in details major variables that are related to the subject matter of the study which include adaptive resilience, response strategy and aquaculture enterprise. The conceptual review emphasis shall be on the concepts of adaptive resilience factors (collaborative engagement, social media agility, and Omoluabi leadership), response strategy (strategic planning, marketing capability and exploitative innovation capability) and aquaculture enterprise performance/organisational performance (firm competitiveness, firm profitability, and new product development) as well as entrepreneurial mindset as moderating variable.

2.1.1 Organisational Performance

Organizational performance can be defined as the comparison of an organization's output to its target or inputs in order to achieve its goals'. This suggests that a company's organizational performance is a comprehensive view of the company's operational activities over a given period of time. When it comes to organizational performance, a researcher defined it as "the total effort to achieve a particular goal"². An assessment of an organization's overall success or health is referred to as "organizational performance"³. Organizational performance is defined as the ability of an organization to successfully transform its inbound logistics into meaningful outputs in order to achieve a specific goal⁴. The ability of a firm to produce desirable outcomes was defined by some researchers⁵. In terms of

profit level, sales turnover growth, and an organization's investment value, a researcher stated that OP is a measure of a company's financial capability⁶. Defining and measuring business performance can be done in a variety of ways, and it is a multidimensional concept⁷.

An organization's ability to meet stakeholder needs while also meeting its own needs for success and survival is a key component of organizational performance (OP)⁸. Because of this, performance cannot be equated with high market share, a specific profit margin, or the best products, although these things may result from achieving an entirely accurate description of performance. OP's performance is influenced by a variety of factors that can both enhance and detract from the overall experience. OP is defined in terms of customer outcomes, people outcomes and operational outcomes⁹. Comparing anticipated and actual outcomes, OP looks into deviations from plans, assesses individual performance, and assesses progress towards achieving specific goals¹⁰.

Organizational performance has become the subject of continuous discussion, according to a study¹¹. Financial measures were emphasized by certain authors, whereas other scholars recommended non-financial measures^{11,12}. The adoption of a balanced scorecard method, which integrates both indicators to explain OP, is becoming increasingly unpopular. Scholars back the balanced scorecard strategy^{13,14}. Scholars have opined that financial or non-financial metrics could be used to gauge an organization's performance¹⁵. Profitability, return on capital employed, sales growth, employee satisfaction and customer satisfaction, market share and business survival are only few of the OP indicators discovered by the researchers in no particular order.

A company's success or failure can be gauged by its ability to meet goals and objectives¹⁴. Stewardship reporting on the financial resources allocated to an organization and the achievement of financial goals set at the beginning of each business year is made possible by the organization's performance⁵. There is a downside, though, to this strategy: The short-term

focus of organizational performance (especially profit) may make it difficult to determine long-term results, such as staff creativity or customer satisfaction, for example. While some researchers define OP as an organization's ability

to achieve its goals and objectives, the researchers tie OP definitions to an organization's drive to achieve its goals^{2,16}. Organizational Performance (OP) is defined by a researcher as completing a purpose in which personnel carry out the necessary activities¹⁷. There are several ways to measure sustainability: macroeconomic system, quality, and the balanced scorecard sustainability are all examples of how it's done.

One way to measure profitability is to examine a company's financial performance⁸. There have been some researchers who have criticized short-term, market-oriented financial performance for being uneven and lacking in competition. The criticisms spawned the idea of non-financial performance measures¹⁹. Banks, despite the importance of learning and exposure to international business perspectives, rarely implement these practices¹⁹. The idea of using non-financial metrics to address Organizational Performance (OP) is based on its capacity to measure a wide range of organizational performance factors⁹. Similarly, some researchers found that non-financial performance was favorably and strongly influenced by leadership, market competitiveness, and the management accounting system. For further support, a number of research studies on OP have incorporated financial metrics in their analysis^{19,20}. The importance of both financial and non-financial factors in measuring OP has been highlighted by recent research^{19,9}. This study operationalizes OP in terms of financial and non-financial performance based on the discussed considerations. As a result, the study defined organizational performance as an outcome concept that describes how well an entity fulfills set objectives that assure its long-term viability. Within the context of this study, aquaculture organisational performance include; profitability, competitiveness, and new product development.

2.1.1.1 Firm Profitability

Firm profitability (FP) is defined as the profits that a company is able to generate from the use of its resources over a period of time. In a similar vein, academics have theorized that FP demonstrates an organization's potential to earn income from the utilization of its assets over a predetermined time period^{21,22,23}. The position of Abbas and Abu, which is postponed from past definitions, is that FP is a relative term that refers to how efficiently the company's operations are run. This is because Abbas and Abu regard FP to be a relative term²⁴. The researchers

emphasized that financial performance (FP) is the capability of an organization to make earnings on sales, attain the targeted return on investment, and have human resources used in the management of the business operations.

FP is a crucial feature that should be used to evaluate how well and effectively a company manages its commercial operation. Nwosu emphasized once more that FP demonstrates the capability to effectively function despite the presence of a dynamic environment²⁵. Profitability is defined as the ability of a company to generate earnings; it is an assessment of how successfully an organization utilizes its assets from its principal form of operation to spawn income²⁶. Some researchers came to the conclusion that FP is the indices that are used to gauge the degree to which businesses offer new products that result in a competitive advantage. Overall, financial performance (FP) reflects the management's skill in converting firm-level capabilities into profits over time^{27,23}.

Having the ability to ascertain whether or not an organization is still operational is one of the characteristics shared by all forms of FP. In accordance with this narrative, he held the opinion that FP is a prerequisite for a company to survive and flourish in the economic operations of a company for a prolonged period of time²². Some authors state that a 'income statement' is used to determine how profitable a business is. This is mostly a listing of the total income for the entire company, less the total expenses for a given period of time. Because it demonstrates how

successful management decisions were, FP is frequently included as a required component of a company's financial report^{28,22}. Profitability can be understood as a measurement of income and expenses. FP has the capability of luring potential investors to make an investment in a particular area of business²⁹.

Profitability can be understood as a measurement of the extent to which a company's earnings are related to its sales, average capital, and own average capital³⁰. FP guarantees survival for profit-oriented firms. As a result, achieving increasing profitability is imperative for firms to own resources, competency, and develop strategies that can be used to adapt and take advantage of changing market conditions in an unstable environment³¹. When the management of organizations makes sufficient profits, the stakeholders and other investors are ecstatic and

content, and the company is in a better position to meet the petition of other interest groups. This is because the company is in a better position to make money³².

Profitability is vital for cost absorption, reinvestment, obtaining further capital, maintaining public trust, and inspiring expansion, which ensures a noble position for the firm. However, a lack of profitability or an organization's failure to run a business in a lucrative manner is cause for concern. Profitability, in and of itself, is not a negative sign of performance, similar to other performance metrics. One of the arguments that researchers back up is that FP is an evaluation of past occurrences; this suggests that contemporary FP is especially about the successes or failures of prior business operations²⁹. Additionally, some researchers said that profitability has significant benefits because it ensures the sustainability of the company and improves the company's position in the market. According to the findings of this study, financial performance (FP) is defined as the ability to generate sustainable financial rewards or earnings through the effective utilization of firm resources by a well-coordinated management process and sound decision-making over the course of a specific time period³⁴.

2.1.1.2 Firm Competitiveness

The concept of competitiveness can take on a number of different forms, depending on the line of thought and the depth of the investigation being undertaken. On the other hand, the vast majority of researchers are of the opinion that it is a complicated and nebulous notion that comprises a great many facets. As a result, the evaluation of competitiveness ought to be carried out based on a number of different components. A company's ability to fulfill its dual aim of satisfying customers while also turning a profit contributes to its level of competitiveness in the marketplace³⁵. This capability is achieved by supplying on the market goods and services that customers value more highly than those offered by competitors that are in the same market. To achieve this level of competitiveness, the business must first be able to recognize and respond appropriately to shifting conditions both external to and internal to the organization. This must be accomplished by continuously achieving the standards established by the competitive market.

Porter's explanation of competitiveness is known as the "industrial organization view of competitive advantage," and it is grounded in the earlier works of some researchers in the field of industrial organization economics^{36,37}.

Both of these authors contributed to the field of industrial organization economics. According to Porter's theory, a company gains a competitive advantage as a result of the competitive strategy it implements in order to ward off potential dangers and capitalize on available possibilities in the market³⁸. Competitiveness is merely another way of referring to productivity, which takes into account the pace of growth of one firm in comparison to that of other businesses. In the context of the corporate world, dynamic capabilities, flexibility, agility, speed, and adaptation are evolving into more crucial sources of competitive advantage^{39,40}.

According to studies, there are many different factors that contribute to a company's level of competitiveness. Some of these factors include people (human resources), organizational culture and structure, processes and practices, products and intellectual property, capital and natural resources, and technology⁴¹. Some researchers came to the same conclusion, which is that research conducted in the field of organizational learning has shown that businesses that gather knowledge over the course of their existence can use this knowledge to their advantage in the marketplace^{42,43}. In addition, in a study, some researchers found that corporate social responsibility may be more than just a cost or a constraint; it can also be a source of opportunity, innovation, and a competitive advantage for a business⁴⁴.

The protected market position of the company as well as the firm's unique resources and competencies are two other sources of competitive advantage⁴⁵. It has been established through research that there are a number of components that play a significant role in the production of a competitive advantage. For instance, some researchers postulated that the majority of the antecedents of competitive advantage are internal factors⁴⁶. They classified these antecedents as follows: physical and financial resources on the first part (tangible resources), and human, structural, and customer capital on the second part (intangible resources). Although a number of these empirical studies came to the conclusion that resources play a significant role in a company's ability to achieve a competitive advantage, others of these studies came to the conclusion that only intangible resources play a significant role in the achievement of a competitive advantage^{47,48}.

Some researchers, who were studying the characteristics of market-driven firms and the antecedents to sustained competitive advantage, came to the conclusion that the entrepreneurial intensity of a firm, which acts as a link

between entrepreneurship and organizational capabilities, must be significant for such a firm to be able to pursue innovation-based strategy,

which will enable it to build specific capabilities that will eventually differentiate that firm from its rivals. This conclusion was reached while the researchers were exploring the characteristics of market-Secord, the authors hypothesized tat the capability of learning with an eye toward the market is essential for entrepreneurial companies that are following a competitive strategy⁴⁹. In a study, market-focused learning refers to a company's ability to learn from its markets and the marketplace as a whole by maintaining a vigilant lookout for fresh chances to better serve its clientele⁵⁰.

Some researchers considered lean thinking and operational agility as antecedents to and strategic drivers of the achievement of competitive advantage. Despite the fact that their research was conducted in the field of healthcare and healthcare organizations, these concepts were taken into consideration. They argued that dynamic capabilities, such as lean thinking (which focuses process improvements on customer value) and operational agility(which focuses process improvements on responsiveness and adaptability to customer needs),are necessary antecedents to the achievement of organizational performance.Lean thinking focuses on customer value, while operational agility focuses on responsiveness and adaptability to customer needs⁵¹.

A researcher also maintained that a key characteristic of organizational capabilities is that they are firm-specific, and in contrast to resources, they cannot be traded or acquired by firms.Furthermore, strategic agility is a dynamic capability "that prepares an organization to embrace relentless change by generating a range of resource and capability alternatives, develop skills at aligning, realigning, and mobilizing resources, and take resolute action", so he concluded that because of these two factors,it is impossible for firms to acquire⁵².

2.1.1.3 New Product Development

If a company wants to stay competitive in its industry, one of the most important things it can do is to continually innovate and introduce new items to consumers. More important is the fact that these innovative new items find

commercial success. It is absolutely necessary for a company that is working toward achieving a competitive advantage to acquire a new product development performance⁵³. It is likely that such a company will adjust successfully to the shifting conditions of the market. One of the characteristics of a dynamic market state is erratic consumer behavior, which results in the desire to consume new items and changes in consumer taste. This desire can be attributed to the fact that consumers' tastes are always evolving. In a study, according to the scholars, who provide evidence in support of this position, the potential of NPP to positively influence company growth and long-term success causes it to become a prime worry for academics as well as business owners. In a similar vein, some researchers established a connection between NPD, NPP, and the notion of a competitive advantage⁵⁴. According to these academics, natural product differentiation (NPD) is a strategic source of attaining a competitive advantage; as a result, understanding the characteristics that promote NPD is regarded as having relevant managerial consequences⁵⁵.

Definitions of NPP have been developed by a number of different academics in order to better facilitate its comprehension. According to the opinion of some researchers, a new product is considered successful (performing) if it is adopted by the target consumers, if it satisfies a demand, if it can be sold successfully, and if it can maintain its presence in the market⁵⁶. In the same vein, a researcher pointed out that NPP is the operational effectiveness of a company's NPD operations. This is similar to what was discussed earlier (quality, timeliness, and customer responsiveness)⁵⁷. The NPP evaluated the level to which customers accept a product and the degree to which the product lives up to the standards set by those same consumers. Additionally, some researchers proposed that NPP is the end result of NPD skills being successfully improved⁵⁸. While these definitions demonstrated that NPP is a product of firm-

specific activities, they emphasized its measures based only on customer outcomes⁵⁹. Despite the fact that NPP is an outcome of firm-specific activities, these definitions emphasized customer outcomes. However, the calculation of NPP takes into account a number of internal criteria, such as the date on which the product was last consumed for lunch.

Also, academics have defined NPP as the consequence of new products entering the market, which is dependent on the design to specifications and the capability of translating customer wants into product specifications. This definition of NPP is equal to the other definitions of NPP⁶⁰. These researchers incorporate two indicators of NPP, namely design to specification and addressing the wants of customers; nevertheless, the purpose of NPP to contribute to the organization's continued viability is not addressed in their view of NPP. In a similar vein, some researchers supported the notion that the performance of a new product can be gleaned from the degree to which it is successful in meeting the requirements outlined by its target market⁶¹. Additionally, some researchers emphasized that NPP is a viable measure of marketing performance due to the fact that the majority of new items that are brought to the markets do not return their cost of investment, which results in the waste of economic resources⁶².

NPP was defined in this study as the outcome of well-managed firm-specific capabilities that result in a new product that satisfies the following criteria: customer expectation, design-specification, functionality, pay-back investment, zero call-backs, improved firm market share, increased profitability, and enhanced competitive advantage. These criteria were derived from the definitions presented above.

Researchers have utilized a variety of criteria in order to quantify NPP, but the three primary characteristics of NPP that are most frequently referenced by existing NPD literature are its financial (profitability), market (market share), and technical (functionality) objectives^{63,64,65}. On the other hand, some researchers proposed utilizing a variety of criteria (such as time, quality, and cost) to evaluate the NPP. The time factor considers the total amount of time that must pass between the generation of an idea and the launch of the product. The quality of the product is evaluated based on whether or not it lives up to the anticipation of the buyer, and the cost considers the financial implications of manufacturing a new product^{66,67}.

NPP is beneficial to organizations due to the fact that successful NPD operations indicate that the product is enjoying increased patronage, delighting customers, raising market share, enhancing profitability, and positioning the firm in a competitively advantageous position. NPP ensure the expansion of a company's business as well as its

continued prosperity over the long term for companies that have the capability to carry out NPD activities successfully. In a dynamic business environment, companies are able to thrive by capitalizing on their NPP because, as the market condition changes and consumers' behavior becomes erratic, the opportunity to develop new products to satisfy the changing consumer taste arises.

These new products can help companies continue to meet the needs of their customers⁶⁸. The drive to design new products, develop those items, and bring them to market in order to continue one's company's growth has been emphasized heavily throughout the NPP literature⁶⁹. The literature that is now available provides evidence that NPP has a role in the profitability of businesses, the continuation of commercial operations, economic growth, technical progress, an improvement in the level of living, and employment^{71,72}. Because successful new goods are essential to a company's ability to continue existing, achieving success in the process of developing and introducing new products in a market that is both complex and constantly changing is a competence that is highly sought after by businesses.

Because it offers a positive outcome that helps the firm assess if their investment in NPD activities results in a desirable economic gain or a waste of economic resources, the drawback of NPP is ambiguous. This is due to the fact that NPP suggests a favorable outcome.

Even though the company might be able to influence the NPP by engaging in outside-in marketing activities, this does not automatically guarantee the success of new products because other external factors such as brand equity, competing products, economic wellbeing, technological advancement, government legislation, and customer purchasing-power have a significant influence on what new products are successful²³. To bolster this point, I would like to point out that in recent years, the financial fortunes of companies such as Kodak and Nokia have been on the decline. This unfavorable trend is not the result of these companies' inability to launch a new product; in fact, this is the furthest thing from the case. However, the new product has not been able to match the requirements of the external variables that were discussed before, which is the primary reason why they are unable to recoup their investment costs⁷³.

2.1.2 Response Strategy

It is imperative for companies to be able to conduct effective environmental analysis and, as a result, deploy appropriate competencies in order to copy and survive the changing business landscape. This is especially important during periods of unprecedented disruptions and challenges to the global business environment^{74,75}. If we are to believe this story, then the capacity for strategic response becomes a vital success factor during times of changing and challenging conditions. In the literature on strategic management, strategic responses are frequently viewed as significant drivers in addressing environmental difficulties and adjusting to unpredictable client requirements^{48,77,78}. This narrative provides evidence that supports the findings of some researchers, who investigated the relevance of strategic response capability for businesses. The researchers hypothesized that businesses who utilized strategic response capability were better able to capitalize on their core capabilities, and as a result, offered value-

adding products and services at prices that were more affordable than those offered by their rivals.

Additionally, a researcher emphasized the significance of strategic reactions, which he defined as "activities done to match the existing strategy of an organization to changes in the environment in order to obtain a competitive edge." According to the researcher, this is the case because strategic reaction ensures that an organization survives in an environment that is always changing, which in turn improves the organization's overall performance⁷⁹. The submission made by Michell is supported, in part, by a researcher⁸⁰. The expert emphasized that with strategic response capabilities, businesses are in a better position to boost their relevance in an environment that is changing by remaining consistent with their operations. The implication of this narrative suggests that under conditions of intense change in the business environment, companies need to be conscious of the possible association between their actions and the outcomes as a result of those actions.

This is especially important for them to keep in mind when making strategic decisions. Therefore, companies that want to continue being a going concern, particularly in an unstable environment caused by the coronavirus pandemic, will need to evaluate the macro environment, look inward for competencies, and respond with an appropriate strategy. This is especially true in an environment that has been induced by the pandemic to be

unstable. In this particular investigation, the corporate strategic response capabilities comprise strategy planning, exploratory innovation capability, and marketing sensing capability. Given the issues discussed in the first chapter of this research, these metrics are very dependent on the environment in which they are applied (See sub-section 1.2).

2.1.2.1 Strategic Planning

Strategic planning is a process that involves systematically determining the company's direction and goals, analyzing the external and internal environment, selecting the appropriate strategy, developing an implementation plan, establishing a monitoring system, and evaluating the company's achievements⁸¹. In a study, strategic planning is a management tool that is used to help the organization focus its energy, ensure that the members of the organization are working towards the same goals, and assess and adjust the organization's direction in response to a changing environment⁸². The process of generating and maintaining consistency between an organization's goals and assets and the organization's changing prospects is what we mean when we talk about strategic planning⁸³. The process of strategic planning is going through a series of predetermined processes, such as articulating a mission and goals, conducting an environmental inquiry, formulating a strategy, putting it into action, and monitoring its effectiveness⁸⁴. Furthermore, strategic planning makes use of systematic criteria and in-depth investigation in order to design, implement, and control strategy as well as adequately document organization expectations.

Planning strategically is a methodical process that entails forecasting the desired future and translating this vision into a set of broadly outlined objectives and a logical order of actions to accomplish these objectives⁸⁵. According to some researchers, speculation, strategic planning (SP) is a collection of planning activities carried out by companies in order to devise strategies that may assist in improving the performance of the companies^{86,87}. The process of determining the goals and objectives of an organization, the formulation of actions, and the allocation of resources that will be used to achieve the goals and objectives that have been determined are all part of the strategic planning process⁸⁸.

Planning strategically involves validating and defining a direction for corporate activities by analyzing both current and future goals. This is accomplished through a process known as strategic planning⁸⁹. The process by which an organization defines its vision and strategies, as well as the decisions regarding how its human capital and other resources are to be allocated in order to support this strategy, is known as strategic planning⁹⁰. In general, the process of strategic planning includes the formulation of company objectives, the formulation of a vision, and the development of a basic design to realize the idea and meet the objectives¹. The planning of strategies for the future is futuristic². There are important facets to consider when conducting strategic planning, including functional coverage, centralization, and time range, in addition to planning formality and internal and external orientation⁹³.

Several research articles have discussed the benefits and drawbacks of strategic planning. Improve coordination by integrating the strategies of all individual business units into a single overarching company strategy^{94,95,96,97}. A researcher emphasized the significance of strategic planning as one of the most important aspects that have an effect on performance. One of the toolkits available to modern managers, it can be utilized to deal with uncertain situations and to stimulate performance⁸⁸. Disregarding strategic planning in organizations can lead to poor performance, which in turn reduces the odds of the organization surviving in the market⁹⁸. Strategic planning can play a role in improving innovation, motivation, increasing internal communication, stimulating new ideas, generating information, evaluating the environment of the organization, and ensuring careful consideration of all appropriate options⁹⁴. Some researchers suggested that strategic planning is pointless until it is put into action, and some researchers provided support for this assertion⁹⁸.

It is commonly considered that strategic planning could result in new and distinct positions, business models, business processes, and positioning in relation to competitors in light of improved performance brought about by investments in human resources⁹. Through careful strategic planning, the company may either be able to increase its performance as a result of its adoption of a new strategy or see a decline in that performance¹⁰⁰. Therefore, in order for a company to beat its competitors in the face of global change it must utilize proper tactics to keep ahead of and survive in an environment that is always changing¹⁰¹. If

a firm is going to respond effectively to the difficulties that emerge from the external environment through adjustments to its strategy and direction, strategic planning in today's rapidly shifting business climate needs to have adaptive features in order for it to be effective. According to the findings of the study, strategic planning is an activity that takes place at the corporate level and involves the creation of a strategic route that leads to the achievement of an organization's short-term and long-term vision and goal.

2.1.2.2 Exploitative Innovation Capability

Extant literature acknowledges the significance of innovation in enhancing productive activities for all different types of businesses and its ripple effect in boosting business growth and economic wellbeing. This recognition suggests that there is an increasing research interest in this area^{102,103}. When discussing innovation, a number of academics frequently refer to the Oslo Manual from 2005 as a useful reference framework. The handbook described innovation as the acts of an organization that result in a new or significantly modified market offering, procedures, marketing tactics, or company entity. Innovation might also be characterized as the introduction of novel ideas. In the same spirit, a researcher proposes that innovation is the process that is utilized to generate new ideas and innovations that boost the manufacturing of new items and services to be offered on the market ¹⁰⁴.

Innovation is a collection of many processes that are designed to transform industrial activities and procedures in order to acquire and build upon distinctive technological competence. In a similar vein, innovation can be thought of as a collection of activities with the overarching goal of producing new information, goods, and services by making use of previously gained or newly acquired information^{105,106}. Taking into account how each of these academics has defined innovation, it would not be incorrect to argue that innovation is a firm-level capability that helps organizations in their ability to deploy resources and in their capacity to create new value^{107,108}.

Therefore, some researchers defined exploitative innovation capability (IC) as the ability to frequently accomplish creative results. This definition did not establish the method by which exploitative innovation capability develops into an inventive outcome¹⁰⁹. According to a study innovation capability (IC) is comprised of the factors that drive successful innovation or the factors that influence the capacity of an organization to manage innovation ¹⁰. In the same way as a researcher did, another researcher did not provide a definition that clearly stated the activities that are included in innovation capability, and they overlooked the purpose of innovation capability within the context of the goal of the organization".

However, some researchers defined IC differently. The authors considered integrated capability as a dynamic capability, which enables an organization to integrate, grow, and reconfigure both internal and external capabilities in order to respond effectively to surroundings that are undergoing rapid change¹². This definition improved upon the deficiencies that were present in the definition that was offered by some researchers. First, it describes the actions of the IC, and second, it identifies one of the fundamentals of innovation, which is the capacity to adjust one's behavior in response to shifting conditions ¹³.

On the other hand, the IC is capable of much more than just adapting to a shifting environment. According to the hypothesis presented by some researchers, the intellectual capital of a company is based on both the company's knowledge and its ability to put that information to use. The authors appeared to be preoccupied with determining what is necessary to accomplish IC, and as a result, they neglected to discuss what IC is and what it is capable of accomplishing¹¹⁴. Innovation was defined capability as the internal driving energy that is used to generate and explore radical new ideas and concepts, to experiment with solutions for potential opportunity patterns detected in the market's "whitespace," and to develop these ideas into marketable and compelling innovations by leveraging both internal and external resources and competencies¹¹⁵.

In another piece of research, some researchers defined IC as "the ability to absorb, adapt, and transform a given technology into specific operational, managerial, and transactional routines that can lead a firm to Schumpeterian profits, and suggesting how a firm can perpetuate itself over time"¹¹⁶. In other words, IC refers to an organization's capacity to transform. Robust definitions were provided by some researchers ^{112,117}. While these definitions addressed the flaws that were present in earlier definitions, they did not take into account the many types of IC. Exploitative innovation capability (IC) is defined as the capacity to constantly turn knowledge and ideas into new products, processes, and systems for the benefit of the organization and its stakeholders¹¹⁸.

In addition, a researcher postulated that IC can be understood as both the company's technological learning process, which was translated into the technological and operational capabilities, as well as the company's managerial and transactional routines, which were represented by the managerial and transactional capabilities. In other words, IC can be understood as both the firm's technological learning process and the firm's managerial and transactional routines. When compared to the definition given by researchers, one is more comprehensive^{119,120}. Although it introduced the various characteristics of IC, it neglected to emphasize the purpose of IC in relation to the organizational objective.

IC is a dynamic skill that companies utilize in order to recognize prospects, actions, and procedures; readily share information; foster dialogue; and execute new ideas that result in new goods, techniques, and organizational forms. This description does a good job of addressing the overarching purpose of IC, which is to guarantee that organization goals are met¹²¹. Some researchers considered IC to be a multifaceted construct, referring to the ability for continuous transformation of intellectual asset and ideas into new market offerings, systems, and procedures that create additional value for the organization's stakeholders¹²². This was done to make up for the weakness in the definition provided by a researcher¹²³. This statement is accurate; nevertheless, the goals of IC might extend beyond only generating additional value for the stakeholders.

IC possesses the capability of developing new products that satisfy the needs of the market; the capability of applying appropriate process technologies to produce these new products; the capability of developing and

adopting new products and processing technologies to satisfy future needs; and the capability of responding to the accidental technological activities and unexpected opportunities created by competitors. Despite the fact that this definition addresses all of the shortcomings of the prior definitions and places an emphasis on product and market innovation, it does not place an emphasis on the organizational IC elements. In light of the definitions presented above, this research defines innovation capability (IC) as a multidimensional concept that requires an effort across departments, resources, competencies, and management commitment to improve and reconfigure products, processes, markets, and static management orientation in order to evolve with a turbulent environment and achieve a competitive advantage¹²⁴.

In spite of the multiple definitions that are used in order to explain IC, the majority of the research on innovation has come to the conclusion that IC can take on a variety of different shapes ^{125,126,127}. For the purpose of providing support for this viewpoint, some researchers said that IC is comprised of four dimensions, namely the following: Product innovation is the process by which goods and services are given the status of being "new." Improvements in previously established practices or the technological infrastructure that make it possible to produce new goods are examples of what are referred to as process innovations.

Organizational innovation entails changes in a variety of areas, including but not limited to marketing, purchasing, sales, administration, management, and personnel policy. The term "market innovation" refers to the process of penetrating new market segments within already existing markets as well as the exploitation of new geographical markets¹²⁸. Ukko and colleagues' findings provide credence to this school of thought²⁹. The researchers hypothesized that IC would contain four complementing firm-level competencies, which are as follows: transactional competence, managerial competence, technological competence, and operational competence. Before any company entity can be recognized to have IC, the four complimentary capabilities need to be aligned in a suitable manner.

It is imperative that the interdependence of IC with the other capabilities of the organization be emphasized. These other capabilities can be broken down into the categories of structural capability, personnel capability, and operational capability (SPO model), with operational capability serving as the primary dimension. The technology capacity and the support capacity are both important factors in determining the operational capability. The competence of the personnel is dependent on the individual's knowledge capacity, the ability to locate opportunities in the business environment, and the ability to generate ideas, which is based on the inventiveness of the human resources. The capabilities of an organization's internal processes, such as its management capacity, cultural capacity, communicative capacity, and organizational knowledge capacity, are what determine the organisation's structural competence¹³⁰.

The importance of the IC was emphasized in Olsson, Wadell, Odenrick, and Bergendahl's research. According to the findings presented by the Scholars, IC is a critical factor in the achievement of a competitive advantage in a variety of different ways. First, IC helps market performance and NPD activities, and new goods help maintain market shares and boost profitability. Second, IC helps maintain market shares. Second, IC can help to replace goods that are becoming obsolete (shortening product lifecycles). Last but not least, it can assist in reducing the amount of time needed for production, which in turn accelerates the amount of time needed for the company to bring a new product to market in comparison to its competitors. According to a study, businesses that have IC get benefits such as an improvement in the efficiency of their processes, a rise in their income, and the enjoyment of cost minimization ¹³¹. According to the hypothesis presented by a researcher, IC is a necessary instrument for companies that want to achieve exceptional performance. In addition, having IC is an absolutely necessary prerequisite for every company that has the goal of thriving despite operating in an unstable environment. In addition to this, academics have regarded IC as an essential factor in the achievement of long-term success in an unstable environment^{132,133}

It is difficult to propose that IC has bad repercussions for businesses that possess it; this is because the benefit has been demonstrated in both theoretical and empirical discussions. This makes it tough to suggest that IC has negative effects for businesses that possess it. On the other hand, the enormous initial financial cost implications of setting up frameworks for IC, the consistent management efforts, and the commitment to developing organizational structures and culture to achieve IC may be the drawback that prevents many businesses from being able to develop this dynamic capability. This may be the case because of the fact that IC requires consistent management efforts. Also, following the part of the theoretical justification of the performance-effect of IC, businesses that do not possess this capability would be unable to survive in a dynamic environment, let alone achieve competitive advantage. This is because the performance-effect of IC is a part of the justification for the performance-effect of IC.

2.1.2.3 Marketing Capability (Sensing)

In keeping with the concepts of the resource-based view, the ability of a company to succeed resides in its capacity to concentrate on managing its resources in order to provide a distinctive value proposition¹³⁴. One competence that falls under this category is marketing competencies. The need to know the fundamentals and the knock-on consequences of Marketing Capability (MC) has resulted in the conduct of a number of empirical research in marketing strategy ^{134,135}. In order to have a better understanding of the idea, this study looked at several different definitions of MC, all of which were given by previous studies.

According to the research of several academics, the capability of a company to accomplish significant market performance by combining product, price, place, and marketing is referred to as MC¹³⁶. This definition of marketing arts combat is very restrictive because it restricts MC to only a few types of activity. In a similar fashion, it did not specify the sorts of capabilities and the sources of capabilities required to deal with the marketing mix dimension. Some researchers suggested that market creation (MC) is an inter-organizational capability with the sole aim of creating a need, offering a variety of products to meet the needs, and achieving a superior brand image³⁷. This was done in an effort to address the deficiencies in the definition provided by¹³⁸. Morgan et al. In a similar vein, marketing academics have emphasized that marketing communications (MC) is a firm-level activity that utilizes

resources to establish a value proposition for customers in a distinctive manner, with the ultimate goal of achieving considerable brand loyalty and image¹³⁹.

However, it failed to emphasize that MC is a multi-departmental responsibility, and it did not reveal the importance of outside-in sources of information to enhance marketing activities. Although these authors' definition of MC is in agreement and covers all bases, it failed to emphasize that MC is a multi-departmental responsibility. According to the hypothesis presented by some researchers, MC serves as a channel for companies to deliver value to their clientele. Despite the fact that this definition is accurate, it conceals all of the actions and procedures that are involved in the process of adding value for the client¹⁴⁰.

A researcher defines market competency as "the use of market resources in the most efficient inventive manner to fulfill market need and produce significant value to the organization." Market competency refers to the use of market resources in the most efficient innovative manner¹⁴¹. When compared to a research study, the definition appears to be superior because it emphasizes innovation, which is necessary for responding to shifting market trends ¹⁴². Nevertheless, neither definition places sufficient emphasis on the various components that make up MC. MC was defined as a set of activities that are interconnected, allocate resources toward satisfying market demands, and enable value addition to the organization. This definition is taken from their own work¹⁴³. This suggests that companies who have MC have a better chance at gaining a competitive edge than other companies that do not have MC. The perspective of the researchers on MC included all of the essential aspects of marketing and even demonstrated that it is a cross-departmental activity. However, they did not adequately connect the aim of MC to the organization's larger mission, which was a significant omission¹⁴³.

Additionally, another researcher described MC as an inter-departmental process that improves the procurement of marketing resources and the transformation of those resources into unique value propositions for the target audiences¹³⁸. This definition addressed the deficiency in prior

definitions provided by researchers; nevertheless, in the same way as some researchers did, it was unable to establish the purpose of MC in relation to the overall objective of the organization¹⁴³.

In addition, a researcher proposed that an activity that is performed repeatedly with the goal of obtaining new consumers and keeping existing ones is regarded as MC. In light of the fact that there are more endpoints for this company-specific capability, regarding MC as merely a collection of activities aimed at pleasing and maintaining a client is an overly restrictive way to think about it ⁴⁴. However, MC goes beyond simply adapting to the dynamics of the market, as some authors have stated that from an inside-out perspective, MC can be a proactive strategy used to shape the market conditions and dictates the level of competitive intensity ¹⁴⁵. Researchers suggest that MC is used as a market adaptation (reactive) strategy, and this is correct ⁴⁰. In a similar vein, researchers described MC as an intricately coordinated pattern of capacities that companies deploy in order to develop value propositions. This definition covered one of the goals of MC, which is to aid in generating a market offering; however, it did not enumerate any of the other goals, such as increasing product awareness ¹⁴⁵.

In their study, some scholars incorporated several MC characteristics, including sales, price, market strategy, and execution. These aspects are not presented in a straightforward manner at all. In light of these definitions, this research classifies multicriteria as a multidimensional term that takes into account resources at the company level (KSA). It integrates cross-functional activities within the organization in order to compete with market demands and trends through outside-in capabilities and take advantage of market opportunities through inside-out capabilities. This results in the creation of a unique value proposition that can improve an organization's capacity to be both competitive and profitable as it continues operations ¹⁴⁶.

MC researchers proposed that there are three aspects of MC, which they referred to as "outside-in, inside-out, and spanning capacities." A marketing attitude that aims to address marketing challenges by seeking information from the market (outside the organization) on what it requires, how it requires it, and when it requires it to be delivered is conceptualized as having an outside-in marketing competence. The skill of marketing from the outside in is called reactive because the company responds to what the market mandates. The sub-dimensions of "outside-in marketing capability" include "market-sensing" capabilities, "partner-linking" capabilities, "market communication" capabilities, "pricing" capabilities, "selling" capabilities, "market planning" capabilities, and "implementation" capabilities ¹⁴³. The capability of operating from the inside out is diametrically opposed to outside-in operation. Inside-out capability, as defined by a researcher, enables a company to make use of the capabilities that are

already there within the company and then inquire as to what the market can do for the company. It is more like selling a product that the market has never asked for and hoping that it would sell when it is provided to them¹⁴⁴.

This was a conventional approach of conducting business. However, as soon as the idea that the customer is the "King" was brought up, it became vital for businesses to react to the demand of customers. This is due to the fact that a company's ability to adapt to fundamentally shifting market conditions is hindered by their inside-out skills^{138,144}. Technology development and integrated logistics are two examples of capabilities that extend from the inside out. The final dimension of marketing capabilities is called "spanning capabilities," and it refers to activities that are deemed relevant organizational market-driven activities. These activities span both outside-in and inside-out capabilities of an organization. These include but are not limited to operations such as fulfilling customer orders, providing customer support, developing new products, and maintaining good customer relations. Researchers' subdivision of MC, which the Scholar termed specialized MC (including marketing communications, personal selling, pricing, and product development), and architectural MC (planning and coordination mechanism), appears to be different from the views of researchers; however, unveiling from other researchers' dimensions of MC share resemblance with existing classifications^{144,145}. Researchers' subdivision of MC which in addition, proposed that MC is comprised of activities like as planning and implementation, as well as market-sensing, relational, and innovative capabilities ¹³⁷. Some researchers conducted a study in which they proposed that the dimensions of marketing communication should include eight activities. These activities are as follows: pricing, marketing communication, sales, product development, distribution channel, marketing planning, marketing implementation, and management of marketing information³³. The study was conducted after other researchers work was reviewed¹⁴⁶. Regardless of the methods that academics use to quantify the activities that are a part of MC, the idea will always be a company-specific construct that demonstrates the degree to which a company is able to utilize its resources to generate a competitive advantage¹⁴⁷.

The literature on MC has placed a strong emphasis on the economic gains that are the direct result of it^{138,143}. MC made it possible for a company to be dynamic in such a way that it could continually adjust product characteristics. This improved resource utilization and satisfied the expectations of customers. Also, academics

believed that MC was the most important factor in determining a company's level of competitive advantage^{147,148}. Shareholders are able to make an investment decision on which company to invest in by using MC to do so. This is due to the fact that MC of a company gives them the opportunity to assess the capabilities of the company and, as a result, the company's performance in the market ⁴⁹. According to researchers, MC enables businesses to improve the quality of their products by engaging in proactive customer service and NPD activities. As a result, MC enables businesses to construct substantial brand equity, which ultimately results in superior organizational performance. Scholars have also established that the success of a company's manufacturing process is primarily related with the competency of the company in the marketing activities that it engages in ¹⁴³.

A firm's ability to build and maintain strong relationships with its trade contacts, differentiate its products from those of its competitors, respond to and influence market conditions, anticipate customer-specific and latent needs, and make use of other firm-level capabilities for value creation are all made possible through the use of MC¹⁴⁴. MC from both "outside-in and inside-out" perspective has been related with improved organizational performance¹³⁷. Because of this, these competencies can be turned into business strategies in order to drive the success of an organization. However, the MC conditions have to be satisfied in order to obtain the benefits that were discussed earlier. Even if MC cannot be faulted in and of itself due to the obligation it has to promote the attainment of organization objectives, organizations that do not possess this skill could potentially suffer as a result of their absence of it. The market conditions are always shifting, and in order for an organization to thrive in such an uncertain environment, it is necessary for that organization to have market competency (MC)^{148,149,150}.

2.1.3 Adaptive Resilience Factors

The Latin term "resilire," from which we get the English word "resilience," literally means "to rebound" or "to recoil"¹⁵¹. The concept of resilience was first investigated in ecology, where it was applied to socio-ecological systems and described as the "magnitude of disturbance the system can bear and persist" in that context⁵². The phrase does not have a single definition that is universally recognized and is frequently utilized as a metaphor¹⁵³.

The concept of resilience has emerged as a central topic of inquiry across a variety of academic fields, including social and developmental psychology, social and economic geography, environmental economics, business, and entrepreneurship, among others¹⁵⁰. Why are there certain organizations that are better able to deal with challenging environmental situations than others? What kinds of activities ultimately result in the development and implementation of novel approaches to work? Resilience addresses these questions¹⁵⁴.

An early submission on the idea of resilience was interpreted to represent a system's capacity to continue performing and meeting its objectives in spite of the difficulties that it is confronted with¹⁵⁵. The meaning of the word has evolved over time to more accurately reflect its applicability than simply "bouncing back" from socioeconomic upheaval. In a research published in 2006 that investigated the origins of the idea of resilience, Folke proposed that resilience might be defined as the capacity of a system to absorb disruptions while simultaneously learning from those disturbances and reconstructing itself. Later researchers, in their opinion, came to the conclusion that machine-like perspective of resilience supports a straightforward cause and effect link. When applied to an organization, however, it should be thought as the ability of an organization to absorb, adapt, and transform in response to the difficulties it faces¹⁵². The argument that some researchers present is predicated on the perspective that systems are both complicated and able to adapt¹⁵⁶.

Researchers' definition of organizational resilience is consistent with an earlier definition provided by Vogus and Sutcliffe. This earlier definition suggests that organizational resilience is the maintenance of positive adjustment under challenging conditions such that the organization emerges from those conditions strengthened and more resourceful. A resilient company is one that is able to leverage its resources and capabilities in order to capitalize on unforeseen difficulties and changes. In addition, McManus, Seville, Vargo, and Brunsdon postulated that resilience is a function of a company's overall situation awareness, management of vulnerabilities, and adaptive capacity in a complex, dynamic, and interconnected

environment⁵⁷. This theory was cited in a study, which stated that the theory was developed in 2008.

According to the findings of a researcher, resilience can be broken down into two distinct categories (planned and adaptive). Utilizing planning and skills that have already been established is an example of planned resilience, also known as first-order capacity. This is most commonly seen in pre-disaster operations such as risk management and business continuity planning¹⁵⁸. On the other hand, adaptive resilience, also known as second-order resilience, manifests itself during the post-disaster stages as organizations acquire new capacities by dynamically reacting to unforeseen conditions that are not accounted for in their plans, some researchers in their study, claimed that resilience has been regarded from at least three different perspectives, namely engineering, ecological, and adaptive^{143,152}. This is in contrast to the classification of resilience that was provided in a study¹⁵⁷.

In earlier research on "engineering resilience," the emphasis was placed on the stability of a system that was operating in a manner that was relatively close to equilibrium or a steady state. The ability of a system to "absorb disturbance and reorganize while changing to preserve fundamentally still the same function, structure, identity, and feedbacks" is what is meant by the term "ecological resilience." A more modern meaning of the notion has been given in relation to a region's ability to rearrange economic systems in order to absorb the effect of a destabilizing shock. This interpretation of the concept is referred to as "adaptive resilience"¹⁵⁸.

Given that we are now in a post-coronavirus pandemic period, the focus of this study is on the adaptive resilience that individuals possess. Researchers pointed out that adaptive resilience is a complex dynamic that is constituted by a constellation of tangible and intangible resources. They then used a grounded theory method to identify its core components after making this discovery. Adaptive resilience is considered to be second-order resilience. In agreement with the viewpoint expressed by researchers emphasized that adaptive resilience is made up of both tangible resources (internal resources) and intangible resources (good leadership, quick decision making, and critical information and knowledge). This shows that adaptive resilience is an internal resource that helps organizations adapt to external crises and opportunities, thereby increasing the business performance of enterprises. Adaptive resilience helps organizations adapt to external crises and opportunities ^{151,159}.

Adaptive resilience is associated with measures or strategies that enable a person, country, or system to withstand or recover from the adverse effects of external shocks¹⁶⁰. Some researchers also state that adaptive resilience is associated with the ability of a person, country, or system to learn from its When applied to the realm of business, the phrase takes on three distinct meanings: the first of these is the capacity to recover rapidly; this is related to the flexibility of the organization, which enables it to rebound from the negative consequences of a shock. Flexibility drives resilience. The second type of resilience is the capacity to withstand shocks; this type of resilience is achieved when the company has mechanisms in place to react to unpleasant shocks endogenously and, as a result, lessen the consequences of the shocks; in other words, when the organization has absorptive capacity. Last but not least, the capability of avoiding shocks is an example of a sort of resilience that is thought to be innate and maybe understood as the opposite of a company's vulnerability¹⁶¹.

On what determined organizational resilience, some researchers align themselves with the established notion that organizational resilience is achieved by a combination of absorbing the challenges faced and changing by adapting and transforming to continue to thrive in the face of challenges^{162,163}. This notion has been around for quite some time. Firm adaptive resilience is increasingly being applied in social innovation. This social innovation focuses on the long-term growth through continuous self-renewal, rather than the recovery from a specific disruption, and it involves individuals, organizations, communities, regions, and other This type of adaptive resilience, among other things, requires proper internal-external engagement (employee-customer engagement), a crisis management-ethic leadership that can only be found in authentic leadership, and organization unlearning of obsolete processes and renewing knowledge in order to survive and thrive after turbulent times^{161,162,164}.

A researcher emphasized that the relevance of adaptive resilience to professionals and academics stems from the need to pay attention to the increasingly volatile business environment, which disrupts socio-economic activities. This is because of the necessity to pay attention to the increasingly turbulent business environment⁶⁵. Tremendously disruptive environmental changes such as technological discontinuities, regulatory

upheavals, geopolitical shocks, industry disintermediation, abrupt shifts in consumer preferences, and emergences of non-traditional competitors all work to undermine the advantages that incumbents enjoy and increase the likelihood that they will fail as a business. Therefore, businesses need to develop their adaptive resilience in order to realize their long-term survival and growth. Adaptive resilience can be defined as the ability to successfully cope with the influence of environmental changes on an organization's earning potential¹⁶⁶.

A researcher, citing similarities with another researcher on the significance of adaptive resilience, emphasized that in order to overcome the consequences of major incidents, business resilience enables organizations to adapt to the environment and new circumstances after the incident¹⁶⁷. This is similar to what another researcher stated about the significance of adaptive resilience. When it comes to the organization's benefits, adaptive resilience in and of itself does not suggest anything unfavorable. However, given that adaptive resilience has been established to offer the opportunity for a company to continue its operation in the face of intense disruptions, organizations that do not possess adaptive resilience mechanisms or its attribute may not survive the difficult environment. This is because adaptive resilience has been established to offer the opportunity for a company to continue its operation in the face of intense disruptions^{161,168}.

Engagement, authentic leadership, and unlearning are going to be three of the adaptive resilience success characteristics that are going to be examined in this research. This mechanism is an adaption of the research note written by a researcher on conceptualizing adaptive resilience using grounded theory¹⁶⁹. To develop and maintain adaptive resilience, the researchers emphasized the need of engagement (internal and external collaboration), leadership, and unlearning (organizational learning). The markers of adaptive resilience that will be investigated in this study span factors such as social media agility, new product creation, and engagement.

2.1.3.1 Social Media Agility

The ability to thrive in an environment that is always evolving has become a defining characteristic of successful businesses. Agility is one of the most important success factors that guarantees continued survival. That is to say, agile organizations are able to swiftly sense, adapt, and reinvent their business processes in response to the presence of unpredictability, allowing them to capitalize on the expansion opportunities presented by a volatile environment¹⁷⁰. On the other side, the term "social media" refers to a company's capacity to reach out to its clients and do business through utilizing social networking platforms that are powered by technology. The social media has evolved from its humble beginnings of enhancing social interactions among families and friends in close proximity regardless of geographical boundary differentials, into a strategic tool that drives multiple business models, operations, and has become a source of competitive advantage¹⁷¹.

In addition, the combination of agility and social media results in the creation of a new concept known as social media agility. According to researchers, having social media accounts is a positive thing; but, social media agility has become a significantly more valuable capability that improves business performance¹⁶¹. Being a relatively new notion, social media agility requires providing quick replies, generating unique content, and optimizing costs. It assesses how rapidly a company can get information from customers and develop products to meet their demands, researchers pointed out that social media agility implies the use of social-media application to enhance the operational flexibility of business organization ^{163,171,172}. This interpretation is in contrast to a researcher explanation of what social media agility entails. More importantly, it provides businesses with unprecedented visibility to a very diverse range of customers¹⁷³.

By way of application, a researcher hypothesized that social media agility would make it possible for a company to carry out market research, assess market dynamics, and comprehend the requirements of potential clients. The professor emphasized that the benefit of social media agility is made feasible and with speed thanks to the usage of information technical infrastructure¹⁷⁴. In addition to this, a company that wants to see a growth in consumer traffic will need to make its social media platforms more flexible in order to both meet the requirements of its clientele and adjust to changes in the way the market operates ¹⁷⁵. Additionally, social media agility is seen as a multi-dimensional concept that comprises the capability to respond both internally and externally to shifting client

expectations. This is done in order to meet the needs of the customer base¹⁷⁶. Social media agility, as a leading digital technical interface, is helping to revolutionize the mode of operation of organizations, providing a new world of potential and how it relates to the market¹⁷⁷.

According to the researchers, social media agility is defined as the practice of using an ICT interface within an organization to engage with clients, hence removing time and geographical boundaries¹⁷³. The structure of social interactions between customers and commercial organizations has been fundamentally altered as a result of the agility brought about by social

media. Because social media agility is based on information and networking, it is essential for businesses to have an understanding of how to obtain the necessary information and how to make efficient use of it in order to construct networks that are to the organization's advantage. The emergence of social media platforms such as LinkedIn, WhatsApp, Facebook, Telegram, Twitter, and YouTube has created a one-of-a-kind channel through which businesses can connect with a wide variety of stakeholders, obtain external information to drive innovative activities, satisfy the requirements of those stakeholders, and gain a competitive advantage^{178,179,180}.

2.1.3.2 Omoluabi Leadership

There have been numerous attempts made to define leadership, which appears to be a complicated phenomenon, and its definition is dependent on the person's vision as well as their experience. This lack of agreement on a universal definition of leadership may be due to the large number of different researchers who have endeavored to comprehend it¹⁸¹. According to a study, "those who research leadership disagree more than you might expect on what leadership is," which is a statement that is in agreement with what a researcher stated¹⁸². The process of directing and having an impact on the work-related actions of one's followers is what we mean when we talk about leadership. The process of influencing and deciding on organizational goals, encouraging followers' conduct to attain those goals, and having an effect on their groups and cultures is what we mean when we talk about leadership¹⁷¹.

Leadership has a key and substantial role in the success of all companies across the globe, and this function varies from country to country. However, leadership is essential to the success of all organizations¹⁸⁴. Leadership is described as the ability to influence others, and he states that "a leader is exceptional because of his or her ability to inspire others." Leadership requires the ability to encourage, inspire, and assist in the development of the group in order to accomplish

the objectives that have been set. In addition to this, it requires a leader to shape the group into a forceful unit that is capable of achieving the objectives set forth ¹⁸⁵

The Yoruba are an ethnic group in Nigeria, and the concept of Omoluabi describes the personality attribute of a person or leader that encapsulates the culture of hard work, transparency, accountability, respect for employees, possession of sound character, and wisdom in judgement, one equipped to handle problems both inside and outside of the organization. Omoluabi was conceived from a Yoruba worldview¹⁷¹. In addition to this, the individual regularly uses language that is socially acceptable while addressing other employees, has an outstanding knowledge of the company, and is able to communicate effectively while maintaining the capacity to keep everyone's attention within the organization ^{85,186}. From a "Yoruba" point of view, an individual who possesses these characteristics is regarded as having a unique capability, which is one that the society cherishes. In addition to this, a researcher found that such a person will have the ability to positively affect the outcomes that occur within the community. Therefore, a leader who has these Omoluabi personality traits has a far better chance of achieving a considerable improvement in the operational efficiency of the firm, motivating the employees, and ultimately improving the quality of the services provided by the local government¹⁸⁷.

The importance of leadership to institutional success as a first-order or second-order condition has been demonstrated in research that has focused on a variety of contexts, such as small businesses, health science, libraries, and service institutions^{74,75,76,77}. This research has been focused on a variety of settings such as small

businesses, health science, libraries, and service institutions. Good leadership is essential for the management of a successful institution, particularly in a challenging environment. This type of leadership has a positive influence on the environment and structure of the institution. A suitable philosophy of leadership is essential in order to achieve such success⁷⁸.

Contextualizing leadership as Omoluabi leadership emerged from the study conducted by Onamusi in 2020 when the scholar examined Omoluabi leadership as a contingent factor that enhances the ability of firms operating in a turbulent environment to achieve a higher level of firm competitiveness with paint industry in Nigeria. Omoluabi leadership shares certain characteristics with transformative leadership, but it also has some unique features of its own¹⁷¹. These attributes include idealistic influence, motivation that inspires and stimulates the mind, and individual consideration, according to scholars who have come before us. A leader's "idealized influence" is defined as the amount to which he/she actively promotes the trust and loyalty of his/her followers.

The extent to which a leader provides a vision to motivate followers is characterized as inspirational motivation. Thirdly, intellectual stimulation is the amount to which a leader encourages his or her subordinates to be innovative and to challenge themselves intellectually. Finally, the amount to which the leader cares about the specific requirements of his or her subordinates is characterized by individual concern. Omoluabi leader can influence members' behavior and encourage them to go above and beyond expectations by using the four methods outlined above (idealized influence, inspiring motivation, intellectual stimulation, and individualized attention)¹⁸⁸.

2.1.3.3 Collaborative Engagement

As an offshoot of the relationship management perspective, the term "engagement" is used in management literature in two different contexts: first, when dealing with customers and second, when dealing with employees^{171,182,189}. This method of engagement is conceived as the result of an internal and external collaborative effort aimed at enhancing intra-firm alignment of person, task, and the organization, which has the potential of affecting employee-wellbeing; and by obtaining critical external knowledge

from customers, so that the organization can respond appropriately to shifting market demands¹⁷¹. According to the hypothesis of a researcher regarding adaptive resilience in the post-disruptions period, the two strategies are regarded as important success features of adaptive resilience¹⁹⁰.

Employee engagement is a concept that was first proposed by Kahn from the internal organizational perspective. He defined it as the harnessing of organization members' selves to their work roles; self-employment and self-expression of people physically, cognitively, and emotionally in their work lives. Since Kahn first suggested this idea, numerous academics have come up with a variety of definitions for it, each of which reflects a distinct perspective on the topic¹⁹¹. Employee engagement was defined in a study by a researcher as the degree to which an employee is committed to and involved with their organization and the ideals it upholds. In addition, the researchers emphasized that an engaged worker is aware of the context of the business and collaborates with coworkers to improve performance within the job for the benefit of the organization. Practitioners in organizational behavior and human resources are of the strong opinion that the challenge of employee engagement is strongly connected with how an employee feels about their work experience and the treatment they receive in the organization. This is the consensus among the practitioners. In the same vein, the fact that it deals with emotions, which are intrinsically tied to driving success in terms of a company's bottom line¹⁹².

In addition, the word "employee engagement" refers to a situation in which maximum job contribution and maximum job enjoyment are brought into sync. The means or strategy by which a company strives to develop a relationship between the organization and its employees is known as employee engagement. This partnership is one that ultimately results in the

employee demonstrating the citizenship behavior that is required to achieve greater performance. Employee engagement was not defined by researchers differently; the researchers outline an underlying precondition through which genuine employee engagement might be accomplished^{161,172,192,193}. Employee engagement takes place when workers believe that they are needed, valued, and respected at their place of employment and are given the resources that will assist them in achieving their goals.

In addition, engaged workers believe that they are provided with the resources that will assist them in achieving their goals. Some researchers highlight the fact that engaging employees can potentially result in increased individual or group performance in addition to providing a solid foundation upon which organizational sustainability can take place¹⁹⁴.

There are a few characteristics that define a truly engaged employee. A fully engaged employee is one who is intellectually and emotionally bound with the organization, gives 100 percent of his commitment, feels passionately about the organization's goals, and is committed to living by the organization's values. Those are the characteristics of a fully engaged employee¹⁸⁴. Engaged employees work harder for longer periods of time; take action proactively to budding threats and challenges; expand their roles at work; and adapt more readily to change. As a result, engaged employees have a high chance of positively contributing by attracting and retaining new clients, as well as infecting their colleagues with their positive attitude ¹⁹⁵. Disengaged personnel, on the other hand, are not only unhappy in their jobs but also actively demonstrate their discontent through their behavior. Therefore, leaders have the option of either motivating their followers through money benefits or inspiring them to strive for a purpose that is greater than themselves¹⁹⁶.

It was thought that the term "employee engagement" encompassed a broad scope, including many different types of engagement (such as psychological state engagement, behavioral engagement, and traits engagement), and that each of these required a unique concept, such as "proactive personality" (which refers to traits engagement), "involvement" (which refers to psychological state engagement), and "organizational citizenship behavior" (which refers to behavioral engagement). Furthermore, some researchers were of the opinion that employee engagement is comprised of five factors: pleasant harmony, dedication, organizational identity, vigor, and absorption⁹⁷. This was the conclusion reached by some of the researchers.

A researcher established a model of employee engagement, which consists of three components: positive affect, activation, and work-role concentration. The model was developed by some researchers who said that employee engagement was a conception with five dimensions, in contrast to the components that were described by researchers¹⁹⁸. These five dimensions are initiative, loyalty, effectiveness, identification, and commitment.

Overall, a researcher came to the conclusion that highly "engaged workers make a significant contribution to their agency and should envision success for the business"¹⁹⁹.

The notion of customer engagement (CE) originated in fields like as psychology, and it has since made its way into studies of organizational behavior²⁰⁰. This is an example of an outside-in perspective of engagement. Its scope has been enlarged by contemporary scholars to include CE behaviors such as transactional behavior (procurement) and non-transactional behavior in the context of consumer electronics (recommendation and swaying). In order to conceptually progress the field of CE, researchers come up with a variety of definitions that capture the core of the field. Pansari and Kumar, for example, defined customer engagement (CE) as "the mechanics of a customer's value addition to the firm, either through direct or indirect contribution"²⁰¹. Their definition did not include what CE involves; however, in an earlier study that was conducted in 2015, Kumar and Pansari claimed that CE contained buyer buying behavior, buyer referral behavior, buyer swaying behavior, and buyer awareness behavior²⁰².

This definition, on the other hand, is more of a description of the characteristics of CE because it does not explain how CE is generated, nor does it specify the benefits that can be derived from it in a clear and concise manner. A researcher in his study viewed CE as a mental state that arises from customer interaction and co-creation experience with a business. This was done in an effort to remedy a flaw in Kumar and Pansari's definition, which was published in 2015. In a similar vein, customer engagement (CE) is considered to be a multilevel activity because it stems from a customer's feelings of having a pleasant experience with a brand, which ultimately results in the customer achieving a personal goal²⁰². Additionally, some researchers defined customer engagement (CE) as the degree to which a customer is involved in and associated with the production operations of a company's products^{203,204}.

On the other hand, some researchers proposed that CE is a state that demonstrates a customer's attitude towards an organization's engagement effort. This attitude is communicated through emotional, intellectual, and social interaction that extends beyond purchase activities. There have been a number of academic discussions on how CE comes into being; nevertheless, the writers of these papers did not discuss the potential advantages of CE²⁰⁵. In a further study, some researchers came to the conclusion that customer engagement (CE) is the behavioral

manifestation of a consumer toward a company that goes beyond purchase activities and is the result of a company-induced motivating activity²⁰⁶. Bowden, was yet another academic who emphasized the benefits of CE that can be attributed to companies. According to Bowden, customer engagement (CE) is an emotional process that leads to the formation of client loyalty for both new and existing customers²⁰⁷.

Customer engagement (CE) is a situation in which a consumer voluntarily contributes to a company's marketing responsibilities in addition to patronage. However, viewing CE as a firm-initiated resource is essential because organizations typically take the initiative to engage the customer, and firms should proactively manage the CE experience²⁰⁸. This definition suggested that the customer is responsible for the organization in driving CE. CE is "the firm's deliberate effort to motivate, empower, and measure a customer's voluntary contribution to its marketing functions, beyond a core, economic transaction." This viewpoint is supported by the statement that CE is "the firm's deliberate effort to motivate, empower, and measure a customer's voluntary contribution to its marketing functions"²⁰⁹.

In a study, a researcher provided a definition of customer engagement (or involvement) as a firm's internally-initiated activities designed to form a platform; one that allows customers to engage in a direct and voluntary collaboration with the organization in the manufacturing activities (value co-creation) and distribution process^{171,203}. The purpose of this collaboration is to create a sense of brand identity and brand loyalty while building strong marketing capability toward the overall success of the business. When customer engagement was defined in this manner, the emphasis was placed on the value-creation potentials, which can encourage consumers' buying behavior, which in turn can boost the organization's patronage.

Some researchers have echoed the submission of Hirschman. They believed that emphasizing CE activities provides the organization with a more cost-effective means of promoting its products and increasing customer base. In addition, they believed that CE activities have a positive impact on the environment. For instance, a consumer is more likely to consider the advice of a fellow customer while making a purchase decision than they are to consider the advice of a sales representative from a firm or an advertisement campaign^{204,205,208,209}. In addition, the concept that the formation and deepening of a customer's relationship and loyalty with an organization occurs

when the client is engaged in activities outside the responsibility of purchasing^{210,211,212}. This is due to the fact that customers are actively involved in these interactions, during which they form opinions about the company, and for the company, it is a learning process in which they get to understand how their customers are thinking, which ultimately leads to the formulation of a strategic response that is in line with the expectations of the customers²¹³. Scholars have stated that customer experience has become a crucial driver of consumer pleasure and loyalty for businesses, in addition to the value-creation opportunities it presents^{214,215}.

Literature has positioned the benefits of CE for organizations that are able to implement it, but the majority of people avoid discussing its drawbacks. This is understandable given that the concept suggested a positive disposition to an organization; consequently, not having the ability to adequately engage customers would certainly mean negative consequences to such an organization. One of the most major difficulties associated with co-creation is having less control over a company's strategic management and planning. This is one of the obstacles that co-creation presents²¹⁶.

The ability to innovate is an essential part of effective management and has a significant bearing on how well a company does overall. A researcher provided evidence that supported the claims made by another researcher and suggested that there is a possibility of losing the firm's inherent innovative tendencies because the organization will be working from a reactive standpoint, which can be very limiting²¹⁷. This evidence corroborated the claims made by another researcher in his study²¹⁸. Therefore, it is detrimental to a company's efforts to engage in strategic planning to give consumers more say in the innovation processes that take place within the company and the results of those activities²¹⁹.

In addition to this, a researcher mentioned that customers frequently behave in an unpredictable manner. Because of this, their requirements are always evolving, which suggests that businesses would not be able to keep up with the demands of customers following engagement activities. If organizations fail to provide as promised during CE activities, it might cause customers to reject their products. Last but not least, despite the fact that CE can help reduce

costs associated with selling and other aspects of product support, CE activities are not inexpensive. This is because it takes a concerted effort on the part of management to set up the platform, which includes hiring personnel, designing its mode of operation, and determining what it hopes to accomplish. Even though academics have emphasized the positive impact CE has on organizational performance, contrary submissions found in empirical studies, a researcher suggest a different outcome. This has become a source of apprehension regarding the appropriate planning and implementation of CE for the organization that the researcher investigated²²⁰.

2.1.4 Entrepreneurial Mind-Set

A person with an entrepreneur's mindst "captures the benefits of uncertainty in how they approach company and the opportunity it presents"²²¹. The ability to think creatively and independently is at the heart of an entrepreneurial mindset. It is crucial to instill an entrepreneurial mindset in order to sustain the aggressiveness of economic ties and the socioeconomic lifestyle of entrepreneurs through value creation and employment. An entrepreneurial mindset is a manner of doing business that exploits risk and rewards novelty. When you begin to routinely think and act like an entrepreneur, you will know you have fully embraced the entrepreneurial mindset, according to academics.

One study found that those with an entrepreneurial mindset were better able to see opportunities, take risks, create innovative products, and increase their companies' bottom line. A person with an entrepreneurial mindset is motivated to seek out, analyze, and seize new chances. The ability to make practical choices in the midst of uncertainty is a hallmark of the entrepreneurial mindset, which emphasizes creativity, invention, and the pursuit of opportunity as means to building a prosperous business. Since fresh ideas and techniques are vital to fostering an entrepreneurial culture, creativity is a key factor in releasing this potential in individuals, entrepreneurs, and businesses²²⁵.

An entrepreneur is forward-thinking and seizes opportunities before others see them. An entrepreneur is someone who recognizes unmet needs and gaps in the market as potential sources of revenue or value. The evolution of society and economic growth are both aided by the efforts of prosperous business owners²²⁶. You can't be

effective at strategic entrepreneurship without having an entrepreneurial mindset. To think and act entrepreneurially is crucial not only for solopreneurs, but also for managers and staff at large corporations²²⁷. One definition of an entrepreneurial mindset is "a growth-oriented perspective through which individuals encourage organizational flexibility, creativity, constant innovation, and renewal"^{228,229,230}. If you develop and apply an entrepreneurial mindset, you can turn uncertainty into an advantage. As a result, both starting out and revitalizing current firms call for an entrepreneurial mindset²³¹.

The ability to think creatively, persuasively, autonomously, persistently, inquisitively, nimbly, and independently, and with a high degree of flexibility and ownership are all hallmarks of an entrepreneurial mindset. Some scholars have gone on to identify five traits shared by habitual entrepreneurs: a hunger for new opportunities, a dedication to pursuing them with enormous discipline, a reluctance to exhaust themselves and their organizations by pursuing every possible course of action, a laser focus on execution-and more specifically, adaptive execution-, and the ability to rally the resources of everyone within their domain²³².

A lack of an entrepreneurial mindset was shown to be a contributing factor in the high proportion of SMEs failing in South Africa. The author stressed the importance of learning about issues that are intrinsic to an entrepreneurial mindset. These include learning on the job, openness to change, originality, drive, and a willingness to take risks. Entrepreneurship is a way of thinking. It's about looking at the world and current events critically, attempting to figure out where an individual's actions fit into the grand scheme of things, and how they might contribute to the building and improving of the economic and social system. The next step is to turn your plans into reality and put your thoughts into motion.

Having an entrepreneurial spirit is a plus for any company. Taking on a more entrepreneurial frame of mind is a great way to unleash your imagination. People put their faith in those who appear competent. In contrast, an entrepreneur's outlook tends to limit their ability to determine their own schedule. In addition, the first year (or more) of a venture's inception will not yield significant earnings for its founders.

The goal of the field of entrepreneurship studies is to arm students with the information, training, and inspiration they need to be successful as entrepreneurs in a wide range of fields and industries. The ability to identify or create a window of opportunity and take decisive steps toward developing an innovative knowledge practice or product is what we mean when we talk about entrepreneurial knowledge²³⁶. One who has "entrepreneurial knowledge" understands the ideas, abilities, and mindset of an entrepreneur. Some academics have argued that regular participation in entrepreneurial activities is the best way to learn and grow one's entrepreneurial skills. In order to be innovative, small and medium-sized businesses require an understanding of entrepreneurship. In order to expand, SME owners need entrepreneurial expertise in areas like communication, problem solving, and innovation. There are numerous routes to acquiring entrepreneurship expertise, but academics have identified four primary methods of instruction. They suggest that teachers can approach their subjects from three different perspectives: "about," "for," and "through." The majority of entrepreneurship courses are of the "about" variety, which uses a more traditional pedagogy and does not involve students in hands-on projects or activities.

The focus of entrepreneurship education is on equipping workers and employees with the drive and motivation to start their own businesses and see them through to maturity. It aims to equip small and medium-sized enterprises (SMEs) with the information, training, and inspiration necessary to succeed as entrepreneurs in a wide range of contexts²³⁷. The goal of the study of entrepreneurship is to provide students with the background they will need to successfully launch a new firm. In doing so, you'll be better able to spot potentially dangerous situations and steer clear of them. The time and money spent on training in entrepreneurial expertise may seem like a waste at first, but it would be greatly valued in the long run²³⁸.

Self-improvement, originality, independence, initiative, and a can-do attitude are all hallmarks of an entrepreneurial mind-set. The benefits of entrepreneurship education include the development of creative and unusual abilities. It also boosts economic activity, confidence, social fairness, and equal opportunity. On the other hand, there is a considerable degree of risk involved in becoming an entrepreneur and gaining the expertise necessary to succeed at it²³⁹.

Small and medium-sized businesses need entrepreneurial expertise to successfully obtain finance and develop a sustainable company plan. SME leadership should be well-versed in customer service best practices. Small and medium-sized enterprises (SMEs) that possess entrepreneurial acumen will be better equipped to assess the value of their offerings and communicate those values to current and prospective consumers. With addition, they should be well-versed in the requirements of potential buyers²⁴¹.

The degree to which a company is innovative is measured by its willingness to try out and implement novel ideas, approaches, technologies, and processes that have the potential to improve existing ones²⁴². Like the previous definition, this one describes innovativeness as "the inclination of a corporation to experiment with new ideas in order to activate a process that results in new products, services, or technological development"¹⁸². Creativity encouragement,

research and development funding, process innovation, product and service introduction, and technology leadership are all examples of innovativeness in this environment. To be innovative is to actively seek out and promote originality, creativity, and the development of novel ideas through experimentation. Entrepreneurship can be summed up in the phrase "the pursuit of new chances," and this includes the risk-taking and creative problem-solving that yields brand-new products and services or improved technical characteristics for established ones²⁴³.

To be truly innovative, SMEs must abandon tried-and-true methods in favor of exploring uncharted territory. There are numerous types of innovation, but here are the three most common: Research and development in the engineering and scientific fields that leads to the introduction of novel goods and services is what we call technological innovation. Advertising and promotion innovations; market research on products; new product development; Innovation in administration, also known as Process Innovation, involves the introduction of novel management strategies, monitoring methods, and organizational structures. Business process reengineering is at the heart of this type of innovation, which also necessitates putting in place internal mechanisms and resources.

Companies that are feeling the heat from competitors know full well the value of process innovation and how it can boost productivity,so this type of innovation is widely encouraged²⁴⁴.

Three perspectives-on the product, the process,and the marketing-are used to examine innovation's aspects or features. When we talk about product innovation, we're talking about the launch of new products or services, or the introduction of major improvements to already existing items. A product must be either wholly new or greatly improved in terms of its features,intended application, software, user-friendliness, components, or materials to be considered innovative²⁴⁵.

Technologies, new products, and new processes are all examples of innovation. Businesses'innovations can be broken down into two broad categories: product market innovation and technological innovation. The desire to attempt new inventions all the way to a genuine dedication to innovation fall on a continuum that we call "innovation." Speculative in nature,with returns that cannot be predicted in advance, innovators run the risk of squandered resources if investments do not produce the desired results, but research shows that highly innovative companies grow faster than their less creative peers. When an innovation takes off,there's a chance that others will try to copy it²⁴⁶.

Small and medium-sized enterprises (SMEs) in today's highly competitive environment must innovate new products in response to market demand. To gain new consumers' interest is the ultimate goal of product innovation. In response to market feedback, SMEs either create brand-new products or improve upon existing ones. Because of the shorter product life cycle,SMEs are under constant pressure to introduce new innovations. Small and medium-sized enterprises (SMEs) compete in the market by introducing novel products. When a new product is introduced, there is usually very little competition, and that's why it can bring in so much money.Researchers have found that SMEs compete with one another by introducing new products to the market. Small and medium-sized businesses (SMEs) bring new products to the market that customers love. The functional performance of a product is a reflection of its innovative nature²⁴⁷.

Improvements in purchasing, accounting, maintenance, and computing are all examples of back-end processes that can benefit greatly from process innovation. The author's findings define the effects of different types of innovation on small and medium-sized enterprises (SMEs). To innovate a performance process means to put into action a new or significantly improved method of production or distribution. Modifying the production or distribution

process by significantly bettering its machinery, software, and other supporting infrastructure is an example of process innovation²⁴¹.

When a product's packaging, design, placement, promotion, or pricing strategy undergo radical transformations as a result of marketing innovation, consumers are more likely to take notice. The goals of marketing innovation include expanding existing markets and raising sales and market share. In contrast to other forms of innovation, marketing innovations are characterized by the introduction of a previously untested approach of marketing to the small or medium-sized enterprise. It's important to note that marketing innovation can also refer to a product's design, even if that design simply affects the product's visual appeal and not its functions or operation. All innovations in marketing are non-technological. Small and medium-sized enterprises (SMEs) improve their marketing strategies through innovation, which in turn boosts their productivity²⁴⁸.

The benefits of these cutting-edge methods include cheaper prices, quicker turnaround times, more efficient distribution, higher product quality, and more attentive service to customers²⁴³.

Innovation in the product market places a premium on product design, market analysis, and promotional efforts. Product/process innovation, engineering, research and development, technical competence, and industry knowledge are also key components of technological innovation. As it was shown that inventive propensity affects the persistence of aberrant profit outcomes over time, more innovation leads to higher profits²⁴⁴. Many things influence innovation, including innovative behavior, the workplace, a focus on learning, and the method by which an organization learns²³⁹.

Among the benefits of innovation are increases in efficiency and savings. Reducing unit costs, improving quality, expanding product offerings, and creating greater value are common drivers of process innovation. The process of invention, while potentially rewarding, can be time-

consuming and expensive. Too much investment and a slow time to market for items might leave a company bankrupt. A failure in marketability is one way in which innovation can lead to wasted investment. Companies are unable to mass produce new products at an affordable enough price, hence there is no assurance of a profit²⁴⁴.

To be aware in business, one must take a proactive posture based on a variety of cognitive capacities and processes, including one's memory, ability to recognize patterns, process information, and communicate with others²¹⁴. Entrepreneurship requires more than just being on the lookout for opportunities; it also requires the ability to make sound decisions and take calculated risks. In addition, the study authors emphasized the importance of taking action based on the belief that an opportunity exists.

Business vigilance has been identified as a critical factor in the three-pronged process of identifying profitable opportunities-recognition, development, and evaluation. One's "business vigilance," defined as "the ability to detect opportunities," is dependent on the individual's capacity for knowledge and information conversion and transformation. In addition, business vigilance is used to cultivate common sense by gathering, processing, and selecting data from the environment for the purpose of opportunity identification²⁴⁷.

Business savvy is not a rare trait, but rather one that anyone can cultivate via exposure to a variety of conceptual frameworks taught in entrepreneurship courses. While some academics stress the importance of opportunity finders' (entrepreneurs') relative appraisal of the market event or scenario, others argue that it is only coincidental. That is to say, company owners have an advantage over the general population because they possess a different kind of human capital-a heightened sense of awareness-that allows them to analyze data and spot potentially lucrative opportunities. Being awake is a key component of an entrepreneurial mindset and helps one spot opportunities²⁴⁸.

Business savvy is not a rare trait possessed by only a select few, but rather the product of the evolution and application of mental models. So, the intuitive part of the mind, achieved through schema, can define an entrepreneur's mentality, which is a big step toward comprehending the creative process. Thus, corporate vigilance is also used to cultivate common sense by gathering, processing, and selecting data from the environment for use in spotting opportunities²⁴⁷.

The ability to scan and seek for new information, make connections between different pieces of data, and assess whether or not the data offers an opportunity are all hallmarks of an attentive businessperson. A scholar formalizes the concept of alertness in the context of entrepreneurship, arguing that it is comprised of three distinct behaviors: the readiness to scan and search for new information, the facility to connect seemingly unrelated pieces of data, and the disposition to judge whether or not a new piece of data represents an opportunity²⁴⁹.

Some scholars have characterized risk-taking as the propensity of an organization to undertake high-risk projects, supported by the preferences of managerial decision-makers who opt for more daring means of accomplishing the organization's goal. On the other hand, other academics stress the need of remembering that the term "risk" can be used in a number of different ways, depending on the specific circumstances. Risk-averse businesses, it is said, would see their market share decline and their status in the industry erode in the face of increasingly assertive rivals^{250,251}. Taking risks in business involves venturing into uncharted territory or allocating substantial resources to projects where the outcome is uncertain²⁴⁸.

A willingness to accept calculated risks is what is meant by "risk-taking" in the context of entrepreneurship. Small and medium-sized enterprises (SMEs) often have to forsake tried-and-true processes and goods in favor of more daring ventures. To some academics, taking risks means putting one's money where one's mouth is by investing in ventures that could potentially fail spectacularly, financially speaking. The author expands on this by noting that the stakes

extend beyond monetary prosperity to prospects in one's line of work, one's personal and family life, and one's health. Risk management is an essential part of strategic management and entrepreneurship in the modern, fast-paced company environment^{243,251}.

It takes courage to allocate significant resources to venture capital in an uncertain market. Entrepreneurship is commonly associated with risk-taking because of this perception. According to one study, business owners' willingness to take chances directly correlates to the size of their investments in people and capital. The ability to "perceive risk at its origin and identify routes to lessen, transfer, or share the risk" is one definition of risk taking. To take measured and planned commercial opportunities in the marketplace despite the uncertainty of their outcomes is another definition of risk-taking^{252,253}.

Small and Medium-Sized Enterprises (SMEs) that take advantage of market openings by investing heavily in resources and taking on substantial debt in order to reap huge financial rewards. Furthermore, they back ventures with questionable profitability and chase chances with high downside risk. When compared to other types of businesses, entrepreneurial ones were more proactive in their pursuit of new business possibilities and their handling of risks. When a small or medium-sized enterprise (SME) takes risks, it means that it is committing a sizeable portion of its assets to an endeavor whose outcome is uncertain, taking on large amounts of debt, expanding into uncharted markets, etc²⁴⁶

When it comes to running a business, a willingness to take risks means being open to new opportunities despite the fact that there is no guarantee of success. To do so requires taking risks without fully comprehending the potential outcomes. It's when a company consciously chooses to invest in risky endeavors that could yield high returns, but also have a higher failure rate. Business risks, such as those associated with entering new markets or supporting unproven technologies; financial risks, such as those associated with the financial exposure needed and the risk/return profile of the new venture, were identified by the researcher as the three main types of risks that businesses face when engaging in entrepreneurial activities. Personal Risks can refer to the reputational effects of the business's success or failure and can include things like heavy borrowing or committing a large portion of their

resources. A company's success or failure can have a significant impact on the entrepreneur's ability to steer the company's destiny²⁵⁵.

There are many positive outcomes that can result from stepping outside of comfort zones, such as the chance to actively pursue achievement, the stimulation of creativity, the development of emotional resilience, and the discovery of previously unrealized potential. But if your gamble doesn't pay off, you might lose a lot of money²⁵⁶.

To be autonomous means to have complete discretion over one's own actions and to be free to pursue one's own goals without interference from above or below^{242,247,256}. To act autonomously means to act freely and make one's own decisions, to have a clear and unencumbered vision, and to see that vision through to fruition. Being autonomous means that an entity is self-governing, self-sustaining, and legally bound only by its own statutes and regulations. To put it another way, autonomy is a structural feature of a company or group. This has to do with the fact that some decisions must be made at the regional level while others must be made at a higher level by a more distant entity. The term "job autonomy" is used to describe an employee's level of discretion, independence, and freedom in making decisions about their work schedule, tasks, and other factors.

The term "autonomy" refers to the extent to which an employee is given discretion over his or her work schedule and methods of accomplishing assigned duties. To be more precise, it's the ability to do a variety of things within the context of one profession. When given more freedom to make decisions and carry out projects, employees tend to perform better because they feel more in control and confident in their abilities²⁴⁷.

Control and autonomy are two different concepts that are sometimes mistaken with one another. Autonomy entails making independent decisions based on continuous observation and interaction with the supervisor, whereas control entails molding projects and tasks, methods of work, and working conditions. To put it another way, autonomy means having one's activities approved by a higher authority. Employees that feel a great deal of control over their workday face fewer external constraints as a result²⁵⁰.

One researcher has proposed that employee autonomy is a key component of job satisfaction. Some academics define autonomy as "how far the work has given substantial freedom, independence, and wisdom in work scheduling and deciding the procedure used in practice." According to a scholar, when workers are given autonomy in the workplace, they are better able to make decisions about their work environment and the types of jobs they want to do. This, in turn, boosts workers' accountability for the outcomes of their efforts and their level of intrinsic motivation, which in turn boosts the organization's bottom line. How much control an employee has over the pace, sequence, and technique by which he completes his task, as well as the handling of work exceptions, is what is meant by "work autonomy"²⁵¹.

Working in a highly independent role, one has considerable leeway in determining the what, how, and when of one's work. The study's findings demonstrated how high levels of job autonomy might increase workers' willingness and drive to grow and plan for the future by providing them with more time, energy, and freedom to pursue particular actions. According to the self-determination idea, people are more likely to put in extra effort at work when they believe their efforts have meaning or when they have some leeway in how they go about accomplishing their work. More freedom and responsibility leads to higher levels of satisfaction and interest²⁴⁹. Everyone takes responsibility for their actions and strives to do the best they can. In turn, this boosts morale, productivity, and a positive work environment by encouraging employees to develop professionally. But independence is one of the traits that can be easily lost. The moment you give in to your own free will and allow an addictive substance into your life, you no longer have any control over your own life. When people have a lot of freedom, they may start fighting with each other and start abusing their authority²⁵².

2.2 Theoretical Review

This section discusses various theories applicable to explain the effect of adaptive resilience factors, strategic response and performance of aquaculture enterprise in Lagos State, Nigeria. ADKAR theory, Dynamic capability theory, and Contingency theory (CT) are among the theories discussed in this section. Also discussed are

the theories' proponent(s), assumptions(s), and the main issue(s) addressed by each theory, critics and supporters of the theory, and the theory's relevance to the study.

2.2.1 ADKAR Change Theory

The ADKAR model of Prosci was developed by Jeff Hiatt. It was introduced as a useful tool by Prosci, a well-known change management consultancy and learning facility²⁶⁴. Awareness, Desire, Knowledge, Ability, and Reinforcement are all referred to as ADKAR. A well-known goal-oriented change management strategy that supports organizational change from a person's perspective is the ADKAR model. In order to aid subordinates in navigating organizational change, the ADKAR model is primarily designed to be a coaching and change management tool. The key tenet of the ADKAR theory is the presumption that people-change is a result of organizational change²⁶⁶. Organizations don't change; instead, the individuals who make up an organization do. When organizational change is accomplished, individual change has matched the organizational change stage. As a result, ADKAR explains the objectives or results of successful change at the individual level. It is a practical tool for organizing change management tasks, spotting weaknesses, coming up with solutions, and supporting managers and supervisors²⁶⁷. The model is broken down into five sections or stages: recognition of the need for change, willingness to take part in and support the change, understanding of how to change, aptitude for implementing necessary skills and behaviors, and reinforcement to maintain the change. According to Prosci's research, those steps indicate the turning points that a person must pass through in order for change to be effective. The paradigm was born out of a movement to match project objectives or goals with conventional change management practices. Because of this, the Prosci ADKAR Model was initially used to assess whether specific change management practices (such training and communication) had the intended organizational change outcomes. The concept thus establishes a link between individual performance, organizational change management, and business outcomes^{267,268}.

Nonetheless, despite the ADKAR model's relevance, scholars have criticized its assumptions regarding change management. For example, a researcher emphasized that the model has limitations because it ignores the role of leadership and program management principles in providing clarity and direction to change. Furthermore, the

ADKAR model is said to have failed to distinguish between "incremental change" and "radical change," as well as the roles and functions of leadership and management. Similarly, it overlooks the need for leadership to address the emotional dimension and fails to see the big picture of program management.

The ADKAR model has been widely adopted in the existing literature to explain factors that management must consider during change implementation, and numerous scholars have supported these frameworks^{267,268,269}.

The majority of these researchers based their theoretical frameworks for their studies on ADKAR and then presented findings that supported the

ADKAR model. For example, a researcher believes that the ADKAR model is a useful tool for planning change activities, diagnosing gaps, developing corrective action, and assisting managers and supervisors²⁷⁰. Furthermore, some researchers investigated the role of leadership in strategy implementation with Kenya's civil aviation industry, providing additional support for the ADKAR model's framework. A researcher emphasized the importance of the five ADKAR model factors in explaining why a company should use the ADKAR change model^{269,271}.

Overall, given the research objectives to be addressed in this study and the criticisms of the ADKAR model, the ADKAR model is used in this study. This is because the performance effect of adaptive resilience factors and response strategy, which is the source of contention in this study, are potential result of management change activity²⁶⁰. More specifically, the processes involved in deploying adaptive resilience to the eventual response strategy require each individual within the organization and at all levels to be aware of the need for change; desire to participate in and support the change; knowledge on how to change; ability to implement required skills and behaviors; and reinforcement to sustain the change. As a result, the ADKAR change management theory is used to explain the interaction and the possible outcome of the interaction between adaptive resilience factors, response strategy and aquaculture enterprise performance in Lagos State, Nigeria.

2.2.2 Dynamic Capability Theory

David Teece, Gary Pisano, and Amy Shuen developed the Dynamic Capability Theory. The resource-based view (RBV) of the firm was extended by the theory of dynamic capabilities (also known as dynamic capabilities theory or DCT). However, while RBV and dynamic capabilities make use of similar assumptions, we can better understand how a firm's resources change over time and how this impacts its performance. It is assumed that firms with greater dynamic capabilities will outperform those with lower dynamic capabilities. The concept has also been criticized for its difficulty in empirically measuring dynamic capabilities^{272,273}.

In order to have dynamic capabilities, resources must be created, renewed, and the resources mix altered. Some researchers use the RBV theory to suggest that firms can be conceptualized as collections of heterogeneously distributed resources, but they fail to explain why some firms have a competitive advantage and outperform others in rapidly changing environments²⁷⁴. Research into dynamic capabilities is at the fore because it offers a means of gaining a strategic advantage. Strategic management is a normative field that aims to guide the business aspects that have a direct impact on a company's success and survival. Managers can use the dynamic capabilities approach to help them create unique, hard-to-copy advantages and avoid losing customers to the competition. The term dynamic capability was coined by a researcher to emphasize the firm's ability to utilize internal and external firm-specific competencies to respond to a dynamic environment. The ability of firms to integrate, build, and reconfigure their internal and external resources and competencies in response to rapidly shifting environments is the source of sustained firm performance²⁷⁵.

Dynamic capabilities emphasize the importance of both dynamics and capability in developing new competitive advantages. As a strategic management tool, KSA is a means of dealing with changes in the external environment and internal organizational adaptations that may be required by the organization. The dynamic capabilities of an organization enable it to respond instinctively to changes in the business landscape both within its industry and the broader economy²⁷⁶.

Adaptive, absorptive, and innovative capabilities are all considered essential at the industry level by Teece when developing the DCT^{272,273,274}. Rapid coordination and reconfiguration of resources in response to sudden environmental changes is known as adaptive capability while maintaining the firm's previous level of performance. To put it another way, it has to do with a company's ability to spot and seize market opportunities. Absorptive capability is defined as a company's ability to recognize, acquire, and utilize outside knowledge for its own benefit^{275,276,277}.

When a company has the ability to transfer its existing knowledge into its products and processes, it is known as absorption. Absorptiveness depicts the integration of external information into the firm's knowledge base. This is premised on the acquisition of knowledge, transformation and assimilation. The ability of a company to introduce new products and services or enter new markets by aligning its strategic orientation with its organizational processes is referred to as its innovative capability²⁷⁸. It indicates the ability of a company to demonstrate innovative behavior while constantly converting knowledge into new products and processes²⁷⁹.

The dynamic capability framework has emerged as the new standard in strategic management because it better explains competitive advantages than the RBV²⁸⁰. Because of these capabilities, organizations can meet environmental dynamism's challenges instead of being left behind. This theory suggests that an organization must simultaneously increase its ability to exploit new resources and renew its existing capabilities and resources. This will enable an organization to adapt to changing market conditions, resulting in a competitive advantage²⁸¹.

No strong empirical evidence exists to support claims that a company's dynamic capabilities contribute positively to firm performance, even though researchers have suggested that this could be the case. As pointed out by some researchers, dynamic capabilities have a number of drawbacks. Failure to incorporate dynamic capabilities into the internal processes of a company is one of these. In addition, the complexity of dynamic capabilities and the need for extensive large-scale management may lead to unnecessary changes. According to other scholars, the role of dynamic capabilities is limited and indirect because they do not exhibit the characteristics of heterogeneity^{282,283,284}.

In spite of these limitations and criticisms of the DCT, some scholars believe that dynamic capabilities are the keys to competitive advantage, especially in a constantly changing environment²⁸⁵. According to a researcher who conducted a meta-analysis of the literature on dynamic capability, despite its origins in strategy, the underlying assumptions of the dynamic capability have become a vital theoretical foundation for several scholarly works in other fields like entrepreneurship, technology and innovation management (T&IM), and so on²⁸⁶. Dynamic capability was also important because it demonstrated the accumulation of skills within a company and was directly linked to financial performance.

Despite the criticisms and limitations of DCT, recent empirical literature in a variety of fields has shown a result, its relevance to this study stemmed from its ability to explain how aquaculture enterprises can successfully respond to changing environment and maintains superior performance. According to DCT theory, it is necessary to constantly consider external conditions and deploy appropriate knowledge, skill, and ability to achieve significant adaptive resilience-performance outcomes. Finally, a company's ability to adapt consistently, sense, and innovate its internal resources is critical in a rapidly changing environment in order to survive and thrive^{287,288,289}.

2.2.3 Contingency Theory

Fiedler put forth the contingency hypothesis in 1964. (CT). CT was established on the concept that some outside influences affect how well an organization performs. This suggests that an organization will produce better results when it can align itself with external elements (such as culture, strategy, technology, structure, and environment).

Every organization is an open system that may both impact and be influenced by the outside world, according to the central tenet of CT. As a result, the various organizational planning strategies are highlighted. The bottom line is that an organization's ability to meet its contingencies determines its success. Due to the dynamic nature of the business environment, the entire organizational-contingency-fit is a series of processes that is always changing.

On the other hand, academics have disputed CT's premises. First, achieving internal and external alignment is still an elusive aim, especially for companies working in environments where there are many competing demands, internal-organization trade-offs, and high-performance goals. Therefore, it was stated that it would be highly

challenging to conceptualize a theoretical solution in this circumstance. There was also a Configuration theorist in the room. Because the factors themselves continue to change when a firm modifies its structure to match the contingent factors, they felt that firms could not entirely align with their contingencies. The question of fit does not ultimately come up. They continued by claiming that because CT organizes what managers may do when faced with particular circumstances, it is reactive rather than proactive. CT does not, however, detail in detail what these managers have to do in each of these situations. As a result, it is insufficient to merely say that "a managerial decision relies on the situation" (290, 291).

Numerous academics have supported the basics of contingency theory, which has been frequently used in the literature to explain how specific contingencies influence business performance. The majority of these researchers used contingency theory (and RBV) as the theoretical foundation for their studies, and they then produced results that validated the CT. For instance, performance would be enhanced if internal and external organizational aspects were properly aligned (292, 293).

The researchers supported the CT in a study by offering empirical proof of how organizational performance is impacted by structure. According to the research, a structure's suitability affects operational effectiveness, and the absence of a suitable structure denotes subpar organizational performance. A researcher looked into how strategic management for the CT affected performance. The contingency perspective's claim that there is no one ideal way to manage an organization was backed by their research. Particularly, managerial and strategic decisions depend on the setting. In order to give a more solid theoretical foundation for their findings in 2018, Titus and Anderson used CT to support the Attention-based approach. One study, for instance, examined "the past, present, and future of CT." According to the scholar, the fundamental tenets of many scholarly works on contingent factors served as the foundation for CT. When an organization can align itself with contingent variables, this alignment is a requirement for improving performance. But if a misfit is employed, the company should prepare for a run of bad luck (292, 293, 294).

Despite the drawbacks of CT, the CT is often used in this study given the research aims to be addressed. Because it contributed in the creation of a theoretical rationale for the moderators: an entrepreneurial mind-set as

contingency variables that may affect the degree of interactions between strategy response, adaptive resilience, and performance of an aquaculture firm in Lagos State, Nigeria.

The presumptions of CT have been questioned by academics. First, a researcher asserted that the desire to achieve internal and external alignment continues to be a vague goal, particularly for businesses operating in a setting with multiple conflicting demands as well as for businesses that are struggling with internal organization trade-offs and high-performance targets²⁸⁴.

When compared to the ADKAR theory, CT has limited explanatory power to discuss the functional relationship between adaptive resilience factors, strategic response, and performance. However, within the context of this study, CT explained the interactions of the moderating variable (entrepreneurial mindset) as they affect the interaction between adaptive resilience factors, strategic response, and performance of aquaculture enterprise in Lagos State, Nigeria. An explanation of the interconnections between the adaptive resilience factor, response strategy, and performance is provided by the ADKAR theory, a change management framework. Given that strategic response is a management change activity, the framework to ensure successful change was offered.

Despite the literature's support for the importance of the ADKAR model in advancing organizational transformation and, in turn, enhancing organizational performance, the model has some drawbacks. The researcher emphasized that the model overlooked the need of leadership and program management principles in providing direction for change and clarity. Additionally, it is said that the ADKAR model failed to distinguish between the roles and responsibilities of management and leadership, as well as between "incremental change" and "step change." It fails to understand the macro level of program management and disregards the requirement for leadership to address the emotional component. Finally, it focuses on internal organizational elements rather than taking into account external influences that could sabotage the internal organizational reform process. Businesses function in a dynamic, intricate, and expansive external environment rather than in isolation²⁸⁵.

As a result, it was decided that the Dynamic Capability Theory should be used in conjunction with the ADKAR Theory to describe how to successfully achieve adaptive resilience and strategic reaction in a dynamic environment. In order to adapt to the rapidly changing environment, an entity must be able to integrate, develop, and reconfigure its internal and external skills. Overall, the DCT offered complementary evidence and a theoretical explanation for the connection between adaptive resilience elements, strategic response, and organizational performance, considering how static the ADKAR theory is²⁹⁵.

The ADKAR theory and the dynamic capability theory emphasized that organizational change (adaptive resilience and strategic response) must take into account internal organizational

k1=Social Media Agility (SMA),

= Omoluabi Leadership (OML),

= Collaborative engagement (BE)

The second independent variable- Response strategy (ERS) is measured as:

=Strategic planning (SP),

Marketing Capability (MC

= Exploitative innovation capability (EIC)

The dependent variable- Performance (PE) Y is measured as:

Firm profitability (FF

New Product Development (NPD)

y3= Firm competitiveness (FC

This study incorporates on Moderating variables (Z)-Omoluabi leadership is

Z=Entrepreneurial Mindset (EM)

2.3 Review of Empirical Studies

2.3.1 Adaptive Resilience on Firm Competitiveness

Why do some businesses deal with challenging environmental factors better than others? What procedures result in the development and implementation of novel working methods? Resilience answers these inquiries²⁹⁶. Some

scholars provide a more detailed response by arguing that businesses with adaptive resilience mechanisms are more likely to succeed than those without them. One researcher's assertion that resilience is an essential quality of a strategic company with the capacity to succeed in times of environmental disruption was supported by another researcher^{297,298}

Some scholars discovered importance for resilience capability in supply chain literature. The study asserts that supply chain performance is improved by external resilience. According to the researcher's proposal, organizations must develop resilience capabilities with their supply chain partners to assure steady material supply as well as continuous product and service delivery in order to meet end consumers' expectations and boost their ability to compete. Studies did in the past support this finding. For instance, some scholars stressed that firm resilience helps firms behave as complex dynamic systems that operate within dynamic systems of SC partners contributing to firms' survival and sustainability^{299,300}.

Researchers discovered in a study that resilience has a good and significant impact on the success of businesses. Some findings supported the idea put out by another researcher that adaptive resilience significantly affects corporate performance. According to studies, planned resilience significantly and favorably affected adaptive resilience. Adaptive resilience showed a positive and statistically significant influence on financial performance despite having a smaller effect than planned resilience, which had no statistically significant impact. Some researchers contend that employee-level resilience affects performance favorably when the entrepreneur has a significant predisposition toward personal resilience in a related study with a different outcome in terms of the unit of analysis^{298,301,302,303}

Some researchers' findings suggested that the owner's resilience has a favorable effect on the owner's CSE and firm innovation, respectively, and that there is a direct correlation between the owner's CSE and firm innovation. Another researcher's findings corroborated these predictions. The level of resilience of the owner or manager does not directly correlate with the firm's performance, contrary to the claims of another researcher who hypothesized that resilience has a direct positive impact on firm performance. However, a closer look at the findings showed that resilience influences performance indirectly through the mediating factors of CSE and creativity. According to

studies, the garment industry's supply-chain resilience qualities, such as re-engineering, agility, and collaboration, are positively impacted by the supply-chain risk-management culture^{299,303,304}.

Contrary results were seen despite submissions from multiple resilience scholars about its applicability and importance in relation to company performance in various contexts. The performance of firms was not directly and significantly impacted by adaptive resilience, according to a study. Furthermore, the tenacity of the company owner manager did not translate into improved firm performance. However, further investigation showed that resilience served as the constraint via which creativity, innovation, and self-efficacy affected company performance, highlighting the fact that resilience is more of a second-order construct with an indirect impact on performance than a first order construct. Building creative skills and a willingness to look for innovative solutions in business are positively associated to being able to deal with difficult situations and adversity, as well as having self-belief in problem-solving. These, in turn, become essential drivers of corporate competitiveness^{305,306}.

It is crucial for businesses to obtain consumer intelligence that would improve their capacity to respond to market needs more successfully in the event of unexpected market dynamics, where customers display erratic behavior and competition becomes aggressive^{302,304,305,306}. In any other case, a company's failure to adapt to these competitive market dynamics shows that it is not interested in remaining competitive or surviving the challenging business environment. Using social media channels, as recommended by academics, is one technique to swiftly connect with customers^{305,306}. Social media can be used as a tool for connecting with customers remotely so that they can exchange information and provide feedback that will help the company provide better products and services. By enhancing customer equity, customer trust, and brand connection, this promotes customer relations³⁰⁷.

Although this story may be true, using social media and not responding quickly to customer feedback may prevent the good ripple effect that was previously mentioned. This is because a lack of agile social media means that a company cannot rapidly and proactively anticipate shifting market demands related to irregular client feedback and respond effectively by giving

term. Social media agility is important for customer co-creation, knowledge acquisition, supply-chain management, and customer equity, which suggests it can improve a company's capacity to respond to shifting market demands^{309,310}.

2.3.2 Response Strategy and Firm Profitability

To be regarded as a successful going concern, aquaculture businesses in Lagos State must regularly make a sizable profit year over year. While many elements have been proposed as enhancers of business profitability in the existing research, this study views the use of an appropriate response strategy, such as strategic planning, marketing expertise, and exploitative innovation capability, as a viable driver. One of the few who took into account the aforementioned goal found that commercial banks listed on the Kenyan stock exchange that had made significant investments in strategy planning and implementation recorded high levels of performance and, as a result, achieved a significant increase in profitability year over year from 2011 to 2016^{304,307}.

Researchers discovered a positive and significant correlation between strategy planning, implementation, and company profitability among SMMEs in Buffalo City Municipality in a related study. Although the results of the two studies were different, one concentrated on the impact of strategy execution on financial performance while the other looked at the connection between strategy execution and financial performance. Despite these differences, it is possible to infer that strategic execution has a bearing on business performance. The results are also consistent with similar investigations. A researcher's study yielded findings that demonstrated a favorable correlation between company success and plan implementation. These results agreed with earlier studies, as well. The accomplishment of strategic goals and the profitability of the actions were also discovered by certain researches to be positively and significantly correlated. This hints at the rationale behind the strategic goals' inclusion as a benchmark for organizational performance^{305,306,309,310}.

Additionally, several academic streams compared the execution of a strategy to the unfolding of a strategy. For instance, according to some scholars, strategic planning is a management technique that may be used to assist an organization focus its efforts, guarantee that all of its members are working toward the same objectives, and evaluate and modify its course in response to a changing environment. The researchers demonstrated a positive correlation between the SMMEs sampled and the strategy unfolding processes and financial performance in SMMEs. The results on how strategy development and organizational performance are related are in line with previous studies. Additionally, this study's conclusions indicating the strategy unfolding process has a favorable impact on financial performance are similar to those revealed in other studies^{311,312,313}.

Aver that strategy execution is a key determinant of performance in any business to support the connection between strategy execution and organizational performance. Another related study that supported certain authors' findings. The development and implementation of strategy is a crucial component that accounts for a sizable variation in organizational performance, as the pharmaceutical business in Thailand demonstrated. Strategic unfolding, high-performance work systems, management communication, monitoring and evaluation, and organizational structure were among the strategy execution aspects taken into account in this study that have all been shown to significantly impact organizational performance^{305,306,314}.

The study used a sample of 361 business owners in Kano state to examine the impact of marketing capability on firm performance in Nigeria. According to statistical analysis, marketing capability has a substantial impact on both financial and non-financial firm performance, thus a firm's marketing capability must be effective for it to attain performance³¹⁵.

The results are consistent with those of earlier investigations. A sample of 212 SMEs from Kano state, in the north-western region of Nigeria, was used by some researchers to evaluate the relationship between market orientation and SMEs' business performance. According to the study's findings, market orientation and the success of SMEs in Nigeria are positively and significantly correlated^{315,316,317}.

Furthermore, this discovery is consistent with some earlier discoveries made by other researchers. Some researchers used a sample of 127 manufacturing companies registered in Lagos to examine the effects of marketing expertise and diversification strategy on performance. The findings proved that diversification has a

major impact on an organization's success and that there is a significant association between marketing capability and organizational performance (sales growth, customer patronage). Therefore, it is advocated that businesses spend a lot of money on marketing their goods to their target market. This will raise sales, which would subsequently boost earnings and enhance the organization's performance^{318,319}.

Using PLS-SEM on survey data collected from 568 Japanese manufacturers over a three-year period (2009-2011), the researcher looked at how industry forces, market orientation, and marketing capabilities affected business performance. The empirical findings, which were based on survey data from three years, showed that industry forces, specifically competitive rivalry and supplier power, market orientation, and marketing capabilities, have the greatest positive effects on business performance (as measured by market performance, sale growth, and profitability). The relative impact of various elements on performance can be seen to follow this noticeable pattern.

893 US and Chinese businesses were studied in terms of marketing aptitude, organizational flexibility, and new product development performance. The findings indicated a positive relationship between marketing skill and NPD performance. As long as the company connects organizational structure variables with the necessity of marketing capability for exploitation and exploration in product innovation, marketing capability is crucial for the firm to respond to external changes.

The potential of strategic marketers to mobilize technology resources for new product advantage was investigated. Data was collected from 209 Korean companies, and the results suggested that only through the two types of technological resources—dynamic technological resources and embedded technological resources—could strategic marketing capability play a significant leading role in creating both differentiation and cost advantages of new products³²⁰.

Using manufacturing companies registered in Lagos, some researchers examined the effects of marketing capability and diversification strategy on performance. The findings demonstrate that diversification has a major positive impact on an organization's performance and that there is a significant association between marketing competency and organizational performance (sales growth, customer patronage). Therefore, it is advisable for

businesses to devote a lot of resources to marketing their goods in order to connect with their target market and grow sales, which will afterwards raise earnings and enhance performance³²¹.

A researcher looked at the performance of 376 US companies' outside-in marketing capabilities. According to the study, inside-out marketing capability and strategic flexibility are both impacted by outside-in marketing capability, which results in better business performance. The researcher looked at 376 US companies' firm performance and outside-in marketing capability. The study found that outside-in marketing capability influences inside-out marketing capability and strategic flexibility, which in turn affects company performance (as assessed by profitability, market share, and customer happiness). In order to compete in a marketing environment that is rapidly changing, managers must comprehend that outside in

marketing skill is needed to detect gaps in inside-out marketing capabilities. Development of inside-out marketing capabilities must be in line with indications from partner linkage, consumer engagement, and market sensing. Results also imply that managers should strategically deploy firm resources for both current productivity and future competitiveness using outside-in marketing capabilities as a guide. Building outside-in marketing capability must therefore be given top priority by businesses because doing so fosters inside-out capability and strategic flexibility, both of which improve company performance^{315,316,322}.

Some investigations looked into the function that sales force innovation and creativity had as a mediator between market orientation and self-efficacy impacts on sales force performance demonstrated that the three aspects of sales market orientation, customer orientation, and inter-functional coordination all significantly and favorably affect the creativity of the sales force. Additionally, sales force self-efficacy significantly affects sales force performance, whereas sales force innovation implementation modulates the association between sales force creativity and performance³²³.

A sample of 361 business owners in Kano state were used in studies to examine the impact of marketing capability on firm performance in Nigeria. Based on statistical analysis, marketing capability and firm performance (both financial and non-financial) are substantially correlated. As a result, for a firm to perform, its marketing capability

must be effective. Their findings concur with those of earlier investigations^{323,324}. A sample of 212 SMEs from Kano state, in the north-western part of Nigeria, were used in the study to explore the relationship between market orientation and SMEs' business performance. According to the study's findings, market orientation and the success of Nigeria's SMEs are positively and significantly correlated. Furthermore, this discovery is consistent with certain researchers' earlier discoveries^{222,324,325,326}

Studies were conducted to look into the relationship between innovation capability and firm performance among Nigerian small and medium-sized businesses across all industries. A self-administered structured questionnaire was used to collect data from 280 SME's in northern Nigeria. Partial Least Squares Structural Equation Modeling (PLSSEM) was used to analyze the data. The results showed a significant positive link between innovation capability and company performance. Additionally, the results demonstrated that innovation capability is a crucial component of SMEs' success, underscoring the significance of companies' innovation capability in enhancing SMEs' performance. The results also support the claim made by certain academics that innovation capability can affect business performance. Well-designed, created, and executed innovations play a crucial role in bringing new ideas, improving, lowering manufacturing costs, and raising performance, which are essential conditions for boosting a company's success^{327,328,329}.

To assess inventive skills, company performance, and foreign ownership, a researcher used data collected from 264 big and medium-sized Croatian companies with more than 100 employees. The findings demonstrated that while large and medium-sized businesses do not differ in their innovative capabilities, those with more developed capabilities succeed at greater levels. Medium-sized businesses, on the other hand, have slightly greater rates of sales growth and market share growth. Additionally, businesses with foreign ownership are better at creating new goods and production techniques, and they have greater rates of revenue growth, market share, and market share growth³³⁰.

Radical and incremental innovations had a mediating effect on these correlations when a researcher looked at the relationships between various forms of innovation and business performance. In Kano state, 334 SME

manufacturing businesses provided survey information. The study discovered strong and favorable links between administrative, process, and product

innovation and business success (profitability, sales growth, market share, satisfaction and firm competitiveness). The results of Abiodun's study are in line with other studies^{271,289,330,331}

Effective sense-and-respond methods were investigated, along with the mediating roles of exploratory and exploitative innovation, among 150 businesses in the manufacturing and service industries of Vietnam argued that the key modi-operandi via which the effects of technology-sensing and market-sensing skills affect company financial performance is through exploratory and exploitative innovations³³². In their research, some academics look at the relationship between new product innovation and performance: maximizing the contribution of individual innovation and detail-orientedness with 150 Indian manufacturing companies in Tech & Chemicals. According to a study, employees who want to have an impact on how their companies pursue new product innovation as a contributor to financial performance must engage at high levels of creativity and attention to detail³³³.

In a study on the relationship between innovation capability and customer experience, the researcher concluded that both technical and non-technical innovation capability can change the impact of complicated demographics on loyalty and reputation. The study collected data from 606 retail customers. Researches on innovation and commercial success include: the conciliation function of consumer involvement. By separating the linkages between innovation capability, customer participation, service quality, and company performance, this study's primary goal is to enhance marketing literature (Sales, market share & profitability). Results indicate that customer involvement has no discernible impact on business performance. This conclusion is consistent with a theoretical claim that customer involvement may have opposing impacts on speed to market. Because involving customers in cooperation activities may decrease efficiency and lengthen turnaround times, client participation activities specifically have no or even adverse effects on business performance^{315,316,334}.

Researchers looked at the synergistic benefits of innovation on 856 organizations' performance. The findings showed that the exploration and exploitation orientations had favorable effects on product and process innovation,

respectively, which favorably affect the performance of the firm. Product differentiation: a tool for gaining a competitive edge and achieving the best organizational results (a study of Unilever Nigeria Plc). Using a straightforward random selection technique, Ogun state was chosen for data collection from 323 respondents who were based in Ota. The results show a strong correlation between an organization's new product innovation and customer happiness. Similarly, show that there is a strong correlation between an organization's distinctive product features and its customers' pleasure. A stronger connection exists between improved product quality and an organization's rise in sales^{335,336}.

The relationship between innovation capability and firm performance was explored by some researchers in their study, which included 280 owners and managers of SMEs in the northwest region of Nigeria. The structural model's findings indicate a strong correlation between innovation capability and business performance (market share, profit, sales growth, customer acquisition). In their study, several researchers looked at the impact of innovation on the performance of businesses listed on the Nigerian Stock Exchange. Examining the link between innovativeness and company performance in Nigeria was the main goal of the article. Out of a targeted population of 176 companies registered on the Nigerian Stock Exchange with positive financial results as of August 2014, 60 companies were purposefully chosen. It was discovered that innovation and both returns on assets and returns on equity have negative connections. This finding implies that while innovation has been widely adopted and applied in Nigeria, similar to Kenya, it has not yet had a favorable impact on returns on assets and returns on equity in Nigeria^{337,338}.

According to certain studies' results, customer involvement influences innovative capabilities, which in turn affect service quality. This new understanding suggests that businesses should take part in consumer involvement activities when they focus their efforts on utilizing their knowledge and abilities to undertake innovation activities. This result supports Bendapudi and Leone's advice that, from a strategic perspective, businesses may seek to encourage customers who have a good relationship with the company to participate in production. The results of this study further demonstrate that consumer involvement raises the

standard of services. These findings support the idea that customer participation, as a firm-customer linking asset, is a contingency variable that businesses can use to manage innovation activities³³⁹. The potential value of innovation capabilities is achieved through efficient customer participation, and innovation capabilities in particular are a required but insufficient prerequisite for superiority in performance.

A study of 350 Small and Medium Enterprises in Nigeria looked at how organizational learning, inventiveness, and financial performance interacted shown that there is no connection between organizational innovation and financial performance. An investigation was conducted into the connection between innovation and business performance using data from the 240 automotive suppliers in Turkey. Only product and process innovation, out of the four forms of innovation, has been found to favorably and significantly improve firm performance³⁴⁰.

Researchers looked at how 153 sales managers' creativity, innovation implementation, and sales effectiveness was affected by sales force market orientation. Results showed that innovation implementation, which can be supported by an innovative organizational culture, entirely mediates the influence of sales force creativity on performance. Effective sense-and-respond strategies: Mediating roles of exploratory and exploitative innovation were the subject of another study. 150 CEOs and General Managers of B2B companies in Vietnam, both in the Manufacturing and Service sectors, were studied. A key modus operandi via which the effects of technology-sensing and market-sensing skills affect company performance is revealed by the results to be exploratory and exploitative innovations³⁴¹.

Researchers looked at how innovation affected the performance of manufacturing SMEs in Nigeria. In total, 305 SMEs in the Southwestern Nigerian subsectors of domestic/industrial plastic and rubber, wood/furniture and woodworks, and textile/leather/apparel and footwear were sampled for the study. The results of the hierarchical regression analysis showed that organizational and process innovation greatly improves business performance. Product and market innovation, however, did not significantly affect business performance (Sales revenue). The researchers' analysis found that marketing innovation had a negligible beneficial influence on performance which is consistent with prior research findings^{342,343}.

2.3.3 Response Strategy on New Product Development

In order to achieve superior firm performance in a changing environment marked by unpredictable consumer behavior, fierce local and global competition, inconsistent governmental policies, disruptive innovations, and low purchasing power, strategic management scholars emphasize the need for firms to have strategic response capability^{271,299}. The story in the research findings revealed that businesses might accomplish a lot by owning and utilizing strategic response capability³⁴⁵.

Focusing on a strategic response would help an organization achieve an absolute response to the changing external environment, according to some researchers, who suggested that this is a suitable strategy for organizational survival and profitability. Response agility, in general, improves businesses' capacity to grow market share, appease capricious consumer taste, speed up the development of new products, and reduce operational costs associated with environmental surprises. It was proposed that strategic response capability explained a favorable and significant association with SMEs' performance in export business within the setting of manufacturing in Kenya. Findings in a similar vein showed that strategic response capability in adaptive and sensing capacities significantly enhances corporate operations and, as a result, enhances Malaysia's SME performance^{335,336}.

A researcher found that strategic response capability has a positive and significant association with firm performance in the context of local oil marketing enterprises in Kenya, giving these companies the chance to compete effectively in Kenya's market environment. According to research results, managerial techniques, strategic reactions, and customer loyalty are all significantly correlated. The basic reasoning behind the discovery is that companies that acquire customer loyalty status would benefit from repeat business, which subsequently enhances company success. In spite of research settings in the oil and gas business, banking industry, textile industry, agrochemical industry, manufacturing industry, and in-service industry, several empirical studies on strategic reaction capabilities explained favorable and significant contributions to company performance. The relevance of strategic reaction capability for business performance is supported by all of these studies^{345,346,347}.

Additionally, the preliminary findings demonstrated a high and positive correlation between marketing skill and NPP. Further investigation found that firms with ambidextrous competency are required for a firm's MC to

contribute significantly to variation in NPP. The company in question is equipped to combine the extreme product innovation operations of exploitation and exploration. The findings suggest that technological innovation capability has a significant positive relationship with various performance measures such as NPP, profitability, market share, and customer satisfaction. In contrast to Mu, who looked at US and Chinese tech firms, Azubuike concentrated on manufacturing companies in Nigeria. The findings of Azubuike and Mu, notwithstanding the differences in the research contexts, confirm the claim made by RBV proponents that organizational capabilities (firm-specific competence) drive performance³⁴⁸.

With few exceptions, a study's findings were consistent with previous findings. The author looked at the performance impact of foreign enterprises' innovation capabilities, and it was found that regardless of the size of the business, firms with innovative proficiency perform better. Further investigation revealed that foreign companies were better able to create new items, which led to higher NPP. Some researchers' findings revealed that NPP is related to organizational learning flexibility and innovation exploration capacity in NPD in an effort to support how distinct internal organizational variables affect. A scholar attempted to create a link between two firm-specific capabilities—marketing expertise and technology asset—that drive NPP of Korean enterprises, in contrast to a research. who concentrated on learning and innovation. According to the study, technology resources (a proximate measure of innovation capability) improve marketing's potential to affect NPP. Specifically, the existence of technological resources like dynamic and embedded technology assets was used to explain the favorable correlation between MC and NPP^{335,336,344}.

Additionally, several researchers choose to demonstrate the impact of innovation on collaboration on the organizational performance of Korean enterprises. The outcome supported the notion that innovation capabilities factors like product and process have an impact on firm performance through exploitation and exploration behavior. These results corroborate academic research on the important performance-effect of innovative capability. By implication, a researcher urges companies that are committed to innovation to embrace utilizing their current market in an effort to enter the market, improve on initially offered items, and explore the prospects of introducing a completely new product to the market. If this is done, the innovative efforts will ensure a superior market and financial performance, claims the study^{345,346}.

In order to better understand what NPD feature drives NPP, a researcher focused on another firm-specific capacity variable from a different angle. The results showed that NPP is driven by NPD characteristics like originality and quality. In a study, the scholars were more interested in what NPD activities could affect NPP but not the NPD features. The researcher discovered that customer participation in NPD activities (co-creation activities) is important for NPP. The study found a strong and favorable relationship between NPP and customer involvement management. This emphasized that by involving customers in the co-creation activities to create a new product, their expectations for the features and quality of the product are captured, lowering the possibility of NPD failures^{347,348}.

According to studies, customers that participate in co-creation activities have a favorable brand experience, which raises customer satisfaction and, as a result, increases NPP. A number of academics have supported this point of view with studies in various study contexts, such as the automobile, retail, banking, hospitality, and airline industries^{347,348,349,350}.

Some researches concentrated on the consumer participation aspect of marketing capability from an outside-in perspective; however, another researcher took into account all aspects of marketing capability to position its significance to organizational performance. The study found that superior performance as assessed by profitability, market share, and customer happiness is ensured by competency in market sensing, partner-linking, customer engagement, selling, communication, and market implementation (dimensions of outside-in marketing capabilities). It would also be appropriate to state that Outside-in marketing capability largely explains the performance of a new product since all the performance indicators employed by a scholar are the benchmark measure for NPP^{345,346}.

The customer-focus-driven perspective, which emphasizes the need to incorporate customer/market realities into productive activities needed for the market, lends support to this finding by highlighting the need to do so. Doing so will help prevent the failure of NPD activities and the massive waste of resources. As a result, it is crucial for businesses to obtain

information from other sources. Literature currently in print demonstrates that informal,unregistered businesses, businesses with a high level of competition, relationships with suppliers, customers, markets, and local communities, as well as businesses with the ability to influence government, can all be sources of this external knowledge. In order for a company to achieve great performance, it must emphasize acquiring expertise from the outside in 347.

Contrarily, it is challenging to question the value of firm-specific competencies like strategic planning, marketing, and innovation, particularly in light of their contribution to NPP. This is due to the fact that some authors, as was previously mentioned, discovered that these talents considerably increase NPP; nevertheless, some academics have stated a different opinion. In a similar spirit, other researchers asserted that not all NPD benefits from customer interaction implying that customer involvement is mostly beneficial to incremental new products and their performance, but ineffectual for radical new products. Additionally, a study that concentrated on innovation capabilities discovered no connection between financial performance and the innovativeness of a corporation. Another study supported the researcher's findings. Researchers discovered a negative correlation between innovation and financial performance of listed companies on the Nigeria Stock Exchange 348,349.

2.3.4 Entrepreneurial-Set:Response Strategy and Adaptive Resilience on Organisational Performance

Strategic reaction capabilityis crucial for businesses to achieve superior firm performance in a dynamic environment characterized by unpredictable customer behavior,fierce local and worldwide competition, inconsistent governmental policies, disruptive inventions, and low purchasing power 271,298. According to the statement by academics, businesses can accomplish a lot by having and utilizing strategic response capability 345.

A researcher claims that emphasizing strategic response is an effective strategy for firms to thrive since it enables them to attain an absolute response to the altering external environment.In general, response agility enhances a company's capacity to grow market share, appease capricious consumer demands, hasten the development of newproducts, and lower operational expenses related to environmental surprises. Some researches hypothesized that strategic reaction capability accounted for a favorable and substantial association between

SMEs' performances in export business in the context of manufacturing in Kenya. Similar findings were made by a researcher who found that strategic response capability in adaptive and sensing capabilities enhances business operations and, consequently, the performance of Malaysian SMEs. In the context of local oil marketing companies in Kenya, the researcher discovered that strategic reaction capability has a positive and significant link with firm performance, enabling local oil marketing firms to contend with fierce competition in Kenya's market environment^{345,346}

A study found that resilient leaders, especially at the group level, are necessary for resilient organizations and that resilient individuals have an impact on group resilience. Researchers have found that the lack of resilience among today's workers has a detrimental effect on their productivity. Being resilient benefits employee performance and well-being while mitigating the negative effects of precarious and unstable work environments, such as the threat of losing one's job on a personal level and the potential organizational failure of a company³⁴⁷.

When facing the difficulties of unfavorable work events, a researcher recognized resilience as a coping technique and discovered that being resilient mattered more at the individual level. Shared leadership and organizational resilience have been linked, according to a study. Employee resilience may boost internal motivation and initiative, as well as serve as a powerful catalyst for employee innovation and creativity, all while supporting the strategic goals of the company³⁴⁸. According to several studies, self-efficacy and intellectual stimulation are positively connected with organizational resilience. According to some academics, an organization may endure hardship, recover from shocks to a balanced condition, and even acquire new skills and experience breakthrough growth. By enhancing their capacity to withstand and adapt to external shocks, organizations with more organizational resilience can help businesses last longer³⁴⁹.

Resilience, according to a researcher, is a strategic goal meant to support an organization's survival and growth. An organization that is highly resilient is also more adaptable, competitive, agile, and robust than an organization that is less resilient. According to several academics, an entrepreneur's resilience is positively connected with the expansion of their business. The study discovered that resilience has predictive validity and that business owners

who exhibit traits of resilience are likely to manage successful companies that expand over time. Researchers have looked at the links between organizational performance and resilience, specifically the mediating effects of resilient leadership and organizational culture. Their research showed that organizational resilience and performance were positively correlated³⁵⁰.

The empirical research described thus far only addressed the performance impact of response strategy and adaptive resilience in the context of the stated target. The relationship between reaction strategy, adaptive resilience, and organizational performance is still not well understood, nor is the potential impact of an entrepreneurial mindset on organization performance. The need for business organizations, regardless of size, to have an entrepreneurial mindset has been highlighted in the body of literature on the relationship between entrepreneurship development and performance. This is because it has the potential to support business owners in using knowledge, creativity, autonomy, and an understanding of how to engage risk to increase organisational competitiveness and superior performance³⁵¹.

For instance, some study discovered that having an entrepreneurial mindset helps young people see self-employment and entrepreneurship as viable career options and as something that can be acquired and developed. The findings also showed that having an entrepreneurial mindset had a favorable impact on young people's intentions to launch a firm. Similar to this, a scholar study's on fostering an entrepreneurial mindset in students in Sweden revealed notable improvements (enhancements) in the students' ability to see opportunities and their own entrepreneurial orientation, which sparked a desire in starting their own businesses. The results of the investigation showed that SMEs in Nigeria can succeed with the right entrepreneurial mindset^{345,346,349,351,352}.

According to studies, the success of SMEs is significantly and positively impacted by an entrepreneurial mindset. The results of the analysis show that SMEs can succeed with the right entrepreneurial mindset. Similar to this, other researchers observed a substantial correlation between both factors in their study of organizational success and entrepreneurial mindset in SMEs in Rivers State (entrepreneurial mind-set and organizational success). Similarly, other researchers found that the success of SMEs in Benue State, Nigeria, is highly influenced by entrepreneurial knowledge. According to research findings, a researcher investigated the entrepreneurial mindset and performance of small and medium-sized businesses in the Makurdi metropolis, Benue State, Nigeria, and

discovered that risk-taking, inventiveness, and business awareness were significant factors influencing the success of SMEs in the state^{351,352,353,354}.

Additionally, some studies looked at mindset and entrepreneurial activities in Rwanda and discovered that a business will fail if it has an entrepreneurial mindset, which is a crucial component of performance and sustainability in Rwanda. Similar to this, a researcher found that adopting an entrepreneurial mindset can help businesses perform better and succeed. A critical element that greatly influenced an entrepreneur's business growth in South-East Nigeria

was their experience, according to some academics that assessed the impact of entrepreneurial mindset on the sustainability of Nigerian SMEs. The researchers also found a strong link between taking calculated risks and firm profitability. Similarly, another researcher discovered that personality traits have a significant impact on an entrepreneur's performance and have crucial ramifications for entrepreneurs and for those looking to help them launch new businesses^{355,356,357}.

Studies that looked at the impact of autonomy on small and medium-sized business performance discovered a beneficial relationship between the entrepreneurial mindset and the productivity of SMEs. The productivity of new venture performance is also linked to increases in entrepreneurial alertness, according to certain academics. In a similar line, a study found that while risk-taking and competitiveness were not significantly connected with tourism, firm productivity and performance, being inventive, proactive, and autonomous was. Despite the geographical disparity between the research, the explanation of the majority of the empirical studies examined earlier revealed that aspects of the entrepreneurial mind-set have a considerable impact on productivity, which is contrary to the study's hypothesis^{358,359}.

Some scholars investigated the impact of external ties in the organizational creativity in conjunction with the prior encouraging findings. According to the study, organizational innovation has a higher propensity to lower administrative transaction costs and raise workplace satisfaction. In a similar line, additional researchers looked at the connection between organizational innovation and financial performance in the Turkish automotive supplier

industry. They discovered a positive significant relationship. Despite the geographical disparity between the research, the explanation of the majority of empirical studies previously evaluated showed that entrepreneurial mind-set traits have a significant impact on SME success, which is contrary to the study's hypothesis^{360,361,362}.

According to studies, both student entrepreneurial intention and business success depend greatly on having an entrepreneurial mindset. The relationship between an entrepreneurial mindset and the success of small and micro businesses in Nigeria, however, has not been sufficiently explored by literature^{363,364}. If government policies are supportive of SMEs in terms of regulatory frameworks, taxation, and business registration costs, their vital role can be achieved.

Given the rarity of prior empirical submission on this goal, the study adopted a theoretical approach to logically present the potential outcomes in order to address the moderating effect on entrepreneurial mind-set on the interaction between response strategy, adaptive resilience, and organizational performance. The success of a corporation is dependent on its strategic fit with the environment, or, to use the interactionist viewpoint's contingency theory of fit as a moderator. In particular, the CT of fit as a moderator suggests that a moderating-effect has occurred when the interaction between the independent variable and the dependent variable is strengthened by the addition of a third variable. Inferentially, the dependent variable should be significantly influenced by the independent variable's fit to the third variable. Given this narrative, this study contends that if aquaculture fish farms in Lagos State demonstrate a higher level of entrepreneurial orientation/mindset, the relationship between adaptive resilience, strategic responsiveness, and performance would be enhanced³⁶⁵.

2.4 Conceptual Model

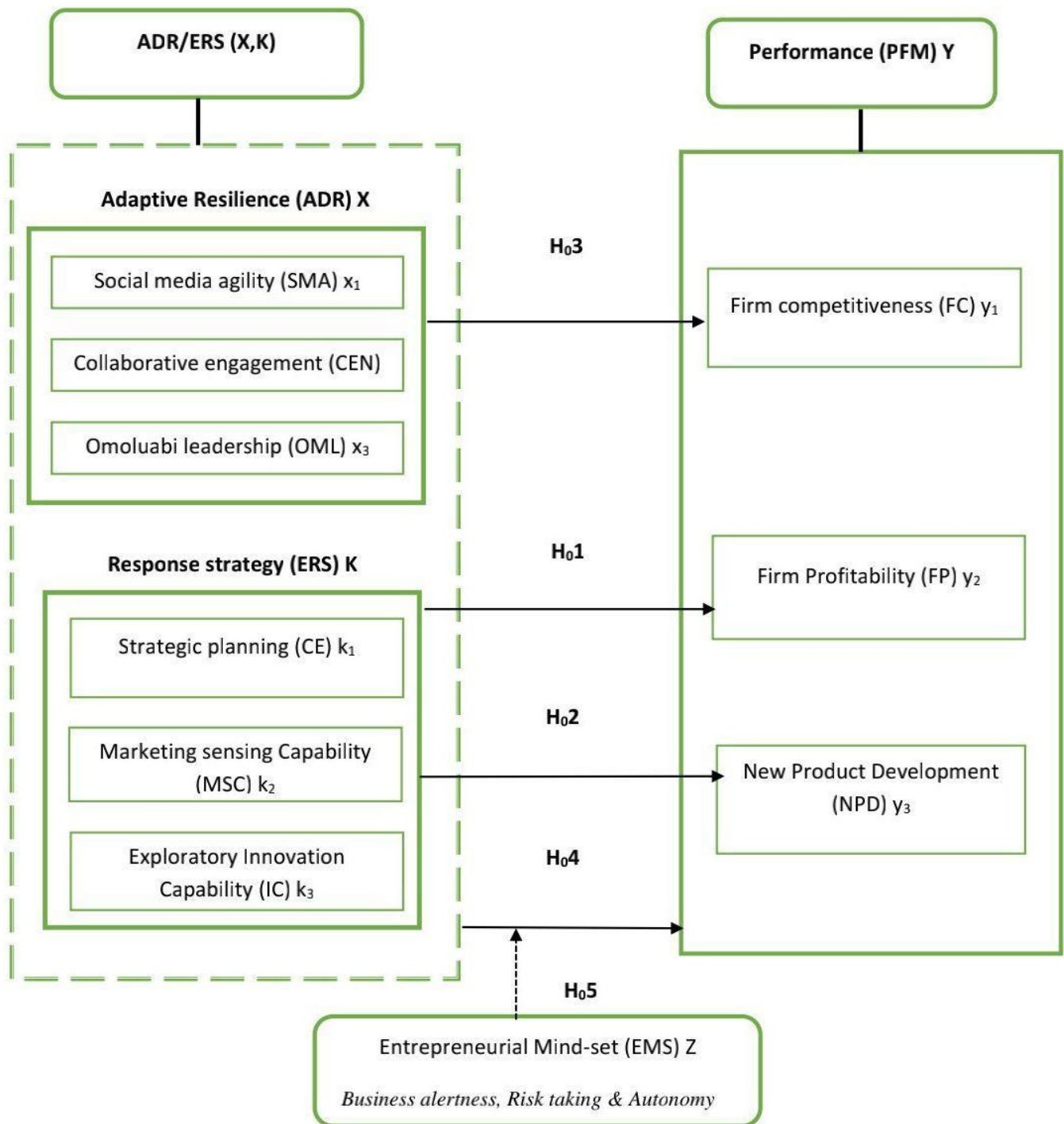


Figure 2.1 Research Conceptual Model

Source: Researcher's Conceptual Model, 2022

The conceptual model of this study is developed based on DCT and ADKAR. The two theories explain the interactions between adaptive resilience, response strategy and performance of aquaculture enterprise and the potential outcomes of the interactions. The strength of the DCT provided the link between the aquaculture enterprise and the macro-environment in which they operate and the ADKAR emphasizes

that activities that make up the dimension of response strategy and adaptive resilience factors are change activities that holds potential for enhancing the performance of aquaculture enterprise in Lagos State.

The conceptual model thus summarizes the study; adaptive resilience and response strategy of aquaculture enterprise in Lagos State, Nigeria. Adaptive resilience is measured by; social media agility, collaborative engagement, and Omoluabi leadership and Response Strategy is measured by; strategic planning, marketing capability, and exploratory innovation capability are the independent variables, Aquaculture performance is measured by firm competitiveness firm profitability, and new product performance is the dependent variable, and the moderating variable is entrepreneurial mind-set. Therefore, the four null hypotheses will be linked as follows: ADR dimensions and FC; ERS dimensions and FP; ERS dimensions and FC; ADR,EMS dimensions and PFM. Overall, these formulated null hypotheses will be subjected to statistical tests to determine the direction of results, conclusion, and possible recommendation of this study.

2.5 Summary of Gaps in Literature Reviewed

Evident by the challenges faced by organisations globally, scholars opined that possessing adaptive resilience mechanism (Social Media Agility, Omoluabi Leadership, collaborative engagement) at a time of intense disruptions, market uncertainties, intense market competition, weak demands and turbulent environment becomes a critical recipe for business survival and success³⁶⁶. Building resilient abilities at the organizational level is not only essential for business survival but also for competitive advantage purpose^{366,367}. Scholarly literature has provided evidence of resilience studies whose emphasis is on developed economies context, multinational enterprises in multiple industries, and on internal organisation factors that can enhance planned and adaptive resilience, however within the context of aquaculture enterprise in Nigeria nothing is known about the interaction between adaptive resilience and performance. This gap limits our empirical understanding of the relevance of adaptive resilience within the developing economy context with specific emphasis on the performance of aquaculture enterprise in Lagos State, Nigeria³⁶⁸.

Furthermore, during challenging times, organisations need to create and recreate itself to cope and achieve sustainable business performance. How to strategically respond to achieve this superior performance became critical and challenging given the dynamism experienced in the macro environment. Several studies have been done regarding different firm-level competences that can guaranty success in the face of adversities in different developed, emerging market and in developing economies^{271,299,314,346,}

Through the dynamic capability theory scholars have position the relevance of competences that can adapt, absorb and innovate interorganisational resource to suit changing market dynamics and competitive intensity. However, these studies did not categorical specify which response capabilities is the holy grail to contend with changing time. Consequently, strategic response capabilities such risk management, socia media agility, marketing capability, and innovation capability and their interaction with firm performance becomes a path unexplored and unclear. The consequence of gap is that it limits the broad understanding of the relevance of strategic response capability-performance linkage within the context of empiricism. Hence, scholars have suggested the need to address this gap by conducting further studies to substantiate the interactions between strategic response capability and organisational performance^{341,348,387,369}It is noteworthy to stress that within the aquaculture enterprise context in Lagos Nigeria, how entrepreneurial mind-set moderate the link between adaptive resilience factors and strategic response on performance, is unclear hence, creates another gap for this study worthy of investigation.

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Chapter Three

Methodology

This section details the methods used to investigate the aims and questions posed in the introduction section of this study. The methods to be discussed adhered to a synthesized framework that included the research design for this study, the study population, the computation of sample size, the sampling technique adopted, the methods used to collect data, the research instrument, the validity and reliability of the research instrument, the data collection procedures and the method of data analysis.

3.1 Research Design

In order to investigate a sample of a population at a given period and to establish causal connections between adaptive resilience, strategic response, and organisational performance, this research utilized a cross-sectional survey design. In comparison to the costly and time-consuming longitudinal survey design, this approach has several advantages'. Research has shown that cross-sectional survey design is useful in certain contexts, such as when looking at the functional link between strategic response, adaptive resilience and short-term organizational performance^{2,3}. Also, the usage of this design premised on scholars who have found it appropriate in similar but different research context.

3.2 Population of the Study

This study population comprised of four thousand and twelve (4,012) employees of fish farms in Lagos State, Nigeria. The selected fish farms have large aquaculture operations in Lagos State and account for more than 75% of the market size in Lagos State. More so, they partake in Lagos State and federal government skill acquisition intervention and they are registered members of the Fish research institute Nigeria, Lagos State chapter. Furthermore, Lagos State was selected as the location for this study since it is home to the majority of Nigeria's fish farming operations. Also, no other State in Nigeria can match Lagos State when it comes to the quantity and quality of seafood that it produces for local consumption and imports.

3.1 Population of the Study

S/N	Names of Fish Farm	Location	Staff strength
1	Lagos State Fish Farm Estate	Ikorodu	1823
2	Anchor Borrowers Fish Farm Estate	Agege/Alagbado	1501
3	Beodale Farm	Off Lekki-Epe Exp.	38
4	Tarabaroz/Ocean/ORC fisheries	Badagry Creek Apapa	598
5	Dickem Farms	Isashi	52

Source: Human Resource Offices of selected fish farms (2022)

3.3 Sample and Sampling Techniques

This study adopted Krejcie and Morgan's formula for the determination of sample size from a finite population⁴. This is because the researcher is not considering gathering data from every staff of the five fish farms in Lagos State. More so, the resultant sample size is considered a representation of the population. Below is a mathematical expression of the formula: The formula is expressed mathematically below:

Where:

	Required Sample size
	confidence level)
p	pulation proportion (expressed as decimal) (assumed to be 0.5 (50%))
d	%), expressed as a proportion (.05); It is margin of error

for the selected fish farms with target population of 4,012 employees.

Furthermore, 20% (70) of the scientifically determined sample size (350) was added to the computed sample. The addition of the 70 sample was to address issues of anticipated non-response from the respondents, inappropriate filling of questionnaire items, and this procedure is in concomitance with existing literature². Likewise, to avoid getting response rate below the scientifically determined optimum sample size, it became imperative to provide for such eventualities. Therefore, the sample size for this study is 420 employees working with the five fish farms in Lagos State, Nigeria.

Table 3.2: Sampling Frame for the Study

Fish Farms	Number of staff	Sample 420 Proportional sample	Top Management level	Middle Management level	Operational Management level
Lagos State Fish Farm Estate	1823	190	38	57	95
Anchor Borrowers Fish Farm Estate	1501	158	32	47	79
Beodale Farm	38	4	1	1	2
Tarabaroz/Ocean/O RC fisheries	598	63	12	19	32
Dickem Farms	52	5	1	1	3
Total	4012	420	84	125	211

Researcher's Compilation (2022)

A stratified random sample technique will be used to select the 420 participants from the population of this study. To do this, the sample size will be proportional to each aqua-culture firm population to determine how many employees to select (Note the proportional sample was calculated as number of employees per fish farm divided by population and multiplied by the sample size for example for Lagos State fish farm estate $1823/4012 \times 420 = 190$). The employees will then be divided into three groups: upper-level management, middle-level management, and lower-level "operational" management based on the percentage recommended by extant literature (20%, 30%, & 50% respectively).

for top,middle,and operational level)3. Byusing this method, researchers will be able to collect representative data about the study's population4. Stratified sampling is ideal for populations with heterogenous features, but not if such subcategories do not exist or cannot be constructed. Last but not least,the researcher will use a simple random method to select employees from each stratum in each fish farm according to the proportions already determined. It is important to note that when the

need to collect data from a population that is not uniform in composition, a stratified random approach is preferable to a simple random one since it produces smaller error margins.

3.4 Description of Research Instrument

The researcher employed a structured questionnaire for the analysis. The use of questionnaires is also important since it makes it easier to gather feedback based on the participants' perspectives and opinions, which enhances quantitative data analysis. The questionnaire's items were modified.The modified questionnaire items are standardized scales that the authors have used to the topic of this study in other nations, industries, and sectors. The researcher included a question in the bio-data section asking respondents to rank their understanding of the overall organizational activities and performance on a scale of 1-10 in order to address the quality of response. Because it implies a lack of awareness of the organization's overall operations and performance, respondents who checked fewer than five will not be taken into account.However, those who checked five or more will be taken into account as necessary. This process was utilized by researchers to increase the accuracy of the replies they collected for their study,and it was used to both the pilot and the main study. The sources of the modified questionnaire items are listed in Table 3.3.

Table 3.3: Source of Adapted Questionnaire items

Variable	Source
Collaborative Engagement	Mu et al. (2018)7
Competitiveness	Vlachvei & Notta, (2017)8;Onamusi 202
Entrepreneurial-mindset	Arokodare et al 202010
Exploitative Innovation Capability	Camisón & Villar-López, (2014)11; Najafi-

	Tavani et al.(2019)12
Market Sensing Capability	Mu et al.(2018)7
New Product Development	Song & Xie,(2000)13
Omoluabi Leadership	Onamusi 2020°
Profitability	Vorhies & Morgan (200
Social Media Agility	Onamusi(2020)

Strategic Planning Asihkia,Adewole,Onamusi,Makinde,(2022)10
Source: Researcher's compilation (2022)

The 6-point Likert-type scale is used in this study's questionnaire, which is consistent with previous research⁵. The numbers on this scale represent ordinal intervals from 6 to 1. Very High Extent (VH), High Extent (HE) = 5, Moderately High Extent (MHE) = 4, Low Extent (LE) = 3, and Very Low Extent = 1 were the response options in the questionnaire for this study. The questionnaire is divided into four parts: Part A covers demographic characteristics with 6 questions; Part B covers strategy response with 25 questions; Part C covers adaptive resilience factors with 22 questions; Part D covers organizational performance with 19 questions and Part E covers moderating variable (entrepreneurial orientation) with 10 questions.

3.5 Validity of Research Instrument

A pilot study was carried out employing the staff members of the Titan and Ajebo farms in Ijebu Ode given that they have characteristics in common with the fish farms under research.

Forty-two (42) people were included in the sample, which was 10% of the total. But the method for gathering data described in subsection 3.4 called for administering more than 42 copies of the questionnaire. As a result, the employees of Titan and Ajebo farms received seventy (70) copies of the questionnaire. Respondents were chosen at random from the sampling unit. 63 copies of the questionnaire that had been recovered were usable when they were sent. However, only 58 respondents ranked six above on the "SCALE" in terms of their familiarity with the organizational operations and performance. This represented a response rate of 58.5%.

Utilizing construct, content, and criterion validity, the research tools were validated. The researcher's supervisor and practitioners who participated in the pilot study gave their input on the instruments' criterion and content validity. Taking into account how each of the variables was measured in the prior research, the contributions will be utilized to adjust the questionnaire as necessary for the main study. The conducted pilot study offered the chance to pre-test the instruments in order to determine construct validity.

Statistics for validity and reliability can be examined and produced by measuring the structural model in PLS-SEM. Construct validity was demonstrated for each of the investigated variables by the AVE and discriminant validity scores. The convergent validity was therefore further supported by the AVE value more than 0.5 and the construct validity was further supported by the discriminate validity value for all the constructs below 0.90 on the Heterotrait-Monotrait (HTMT) criterion for each of the measured variables. A summary of the construct validity for these questionnaire items from this study is provided in Tables 3.4 and 3.5 below.

Table 3.4: Summary of Pilot Test Incorporating Construct Validity Test.

Variable	No. of items	AVE	Remark
Collaborative Engagement	9	0. 670	Reliable
Competitiveness	7	0. 657	Reliable
Entrepreneurial-mindset	10	0. 686	Reliable
Exploitative Innovation Capability	11	0. 697	Reliable
Market Sensing Capability	8	0. 693	Reliable
New Product Development	6	0. 655	Reliable
Omoluabi Leadership	8	0. 629	Reliable
Profitability	6	0. 731	Reliable
Social Media Agility	5	0. 639	Reliable
Strategic Planning	7	0. 633	Reliable

Source: Computed from Pilot study, (2022)

Table 3.4 above shows that the AVE values for all the constructs are above the threshold of 0.5 to suggest that the convergent validity has been established for all the reflective constructs in this study.

In addition, the HTMT criterion was used to assess the discriminant validity for all the reflective constructs. The new acceptable approach to establishing discriminant validity is the HTMT criterion, which measures the indicators' average correlations across constructs. A researcher posited that where the HTMT values for all the reflective constructs are

below 0.90, discriminant validity has been established between the reflective constructs. Table 3.5 presented the HTMT criterion for this study⁵.

Table 3.5: Discriminant Validity using Heterotrait-Monotrait Ratio (HTMT)

Variables	CE	CC	EM	EIC	MS C	NP D	OL FP SM SP A
Collaborative Engagement							
Competitiveness	0.05						
Entrepreneurial-mindset	0.58	0.2					
Exploitative Innovation	0.18	0.2	0.2				
Capability		8	7				
Market Sensing Capability	0.12	0.3	0.1	0.1 1			
		0	8				
New Product Development	0.15	0.1	0.3	0.1 3	0.2 4		
		9	2				
Omoluabi Leadership	0.51	0.1	0.3	0.0 4	0.0 2	0.1 8	
		5	2				
Profitability	0.05	0.0	0.0	0.1 2	0.1 6	0.0 6	0.16
		3	8				
Social Media Agility	0.14	0.3	0.2	0.1 0	0.0 1	0.0 4	0.15 0.2
		4	8				8
Strategy Planning	0.52	0.2	0.7	0.25	0.11	0.27	0.16 0.1
	3	0	0	5			

Source: Computed from Pilot study via SmartPLS version 3.3.9, (2022)

All of the constructs in Table 3.5 above met the study's criteria for establishing discriminant validity, which indicates that discriminant validity has been established for all of the reflective constructs in this study. The importance of convergent and discriminant validity as crucial indicators of construct validity has been stressed by academics^{5,6}.

Table 3.6: Validity Statistics Process

Variable	No. Items	KMO	Bart.	Sig	Remark
Collaborative Engagement	9	.786	101.597	(0.000)	Accepted
Competitiveness	7	.570	129.173	(0.000)	Accepted

Entrepreneurial-mindset	10	.717	97.848	(0.000)	Accepted
Exploitative Innovation Capability	11	.862	218.059	(0.000)	Accepted
Market Sensing Capability	8	.711	159.619	(0.000)	Accepted
New Product Development	6	.799	77.520	(0.000)	Accepted
Omoluabi Leadership	8	.570	112.518	(0.000)	Accepted
Profitability	6	.724	94.238	(0.000)	Accepted
Social Media Agility	5	.794	124.164	(0.000)	Accepted
Strategy Planning	7	.789	124.789	(0.000)	Accepted

Source: Computed from Pilot study through SPSS V25(2022)

Kaiser-Meyer-Olkin (KMO) test was used to examine the applicability of the data to the study and the sampling adequacy for each variable in the model and the full model. This method helped to advance the process of validating the research instrument. The variable must have a KMO larger than 0.5 in order to be accepted. But readings between 0.5 and 0.7 are considered average, 0.7 and 0.8 are considered good, and 0.8 and 0.9 are considered quite good. The Bartlett test of sphericity also gauges how strongly variables are related to one another. The original correlational matrix's items were then subjected to the null hypothesis test, which revealed that there is no relationship between them. This would suggest that the variables are unrelated and the study is therefore inappropriate for them. The KMO and Bartlett test scores and corresponding probability values in table 3.6 above were below the 0.05 cutoff, indicating that the conducted factor analysis was appropriate.

3.6 Reliability of Research Instrument

The reliability of the questionnaire was tested by the researcher. The variables' internal consistency technique of reliability and composite reliability were assessed. The variables included adaptive resilience components, reaction strategy, entrepreneurial attitude, and organizational performance measure. By assessing the within-scale consistency of the responses to the measure's items, the internal consistency was utilized to determine a measure's reliability. Cronbach's alpha coefficient is frequently used to evaluate this internal consistency and is

applicable to multiple-item measuring instruments (such as this study). A Cronbach's alpha coefficient for a questionnaire that is > 0.7 but < 1 is deemed reliable⁶. The instrument's reliability is revalidated using the composite reliability. The reliability statistic for each variable in this study is shown in Table 3.7 below.

Table 3.7: Reliability Statistic

Variables	Composite Reliability	Cronbach's alpha coefficient
Collaborative Engagement	0.912	0.819
Competitiveness	0.912	0.795
Entrepreneurial-mindset	0.839	0.843
Exploitative Innovation Capability	0.882	0.766
Market Sensing Capability	0.874	0.816
New Product Development	0.933	0.910
Omoluabi Leadership	0.928	0.873
Profitability	0.951	0.942
Social Media Agility	0.943	0.929
Strategy Planning	0.806	0.745

Source: Computed from pilot study (2022)

3.7 Administration of Research Instrument and Method of Data Collection

The relevant data were gathered, which helped the study reach its goal. Primary data will be gathered for this study since it lowers the likelihood of getting inaccurate data and gives the opportunity to learn more about the respondents at the time of data collection. A systematic questionnaire will be utilized to gather primary data in line with earlier studies. Because it makes data collecting on respondents' opinions and perspectives on current events easier and because it is compatible with a cross-section survey methodology. To get permission for the study, the researcher will arrange meetings with the human resources directors and other specified officials at each fish farm.

This is crucial since securing the support of HR managers will increase the researcher's accessibility to participants and, in turn, boost response rates.

Four hundred and twenty (420) employees from the fish farms at the top, middle, and operational management levels will receive the questionnaire while the firm is open. The responders will get a letter introducing the researcher, outlining the goals of the study, and copies of the questionnaire. With clear instructions on the administration method, which comprised giving copies of the questionnaire to regular employees and obtaining the copies from respondents, the copies of the questionnaire will be given both personally and by qualified research assistants.

3.8 Method of Data Analysis

The descriptive and inferential statistics were used to examine the information gathered from the fish farms under investigation. Descriptive statistics was utilized to examine the survey data and provide insight into the research question. Ordinary Least Square (OLS) technique was used to conduct inferential statistical tests for the study's hypotheses. Results from testing these hypotheses will be statistically significant at a significance level of less than or equal to 0.05.

Statistical Package for the Social Sciences (SPSS) version 25 was used to generate descriptive and inferential statistics, respectively.

Endnotes

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Chapter Four

Results and Discussion of Findings

The chapter provides empirical information concerning the result of the data analysis with respect to data description, interpretation of the result of the hypotheses tested and the discussion of the study's implications within extant literature. The purpose of this research is to analyze how adaptive resilience and response strategy influence performance of aqua-culture firms in Lagos State, Nigeria. This research was carried out via questionnaire in order to acquire the necessary information for this purpose. The study adopted the SPSS version 25 for the descriptive statistics and inferential statistics to analyze the data.

4.1 Demographic Data Analysis

4.1 Data Presentation

A total of four hundred and twenty (420) copies of questionnaire were administered, and four hundred and one (401) copies were returned. After sorting the questionnaires only three hundred and ninety-seven (397) copies were certified as duly filled and considered usable. The useable questionnaire represented 94.5% response rate. The high response rate was recorded as the researcher administered the instruments with the help of research assistants who put concerted efforts to regularly visit the respondents to request them to fill the instrument. The response results are presented in Table 4.1.

Table 4.1: Response Rate

Responses	Frequency	Percent
Completed usable copies of questionnaire	397	94.5%
Unusable, unreturned and disqualified questionnaires	23	5.5%
Total	420	100%

Source: Field Survey Results (2023)

Table 4.2: Demographic Characteristic of Respondents

Variables	Category	Frequency	Percentage
Gender	Male	278	70.0%
	Female	119	24.9%
Age	41-50 years	160	40.3%
	51-60 years	237	59.7%
Academic Qualification	ND/NCE	259	65.2%
	BSc/BA/HND	40	10.1%
	Others	98	24.7%
Job Level	Top Management	199	50.1%
	Middle Management	118	29.7%
	Operational management	80	20.2%
Length of Service	6-10 years	79	19.9%
	11-15 years	199	50.1%
	16 years and above	119	30.0%

Source: Field Survey Results (2023)

This section consists of background and respondents' information that describes basic characteristics such as gender of the respondents, age, academic qualification, job level, and length of service. To this effect, the results are presented in Table 4.2.

Table 4.2 presents the demographic and personal profile of respondents used for this study. Demographic and personal profile of respondents as shown in table 4.2. Profile of gender indicated that 278 respondents representing 70.0% were male, while, 119 respondents representing 24.9% were female, indicating that most of the respondents were male. Also, 160 respondents representing 40.3% were between 41-50 years, and 237 respondents representing 59.7% were between 51-60 years, indicating that most of the respondents were between 51-60 years. Furthermore, 259 respondents representing 65.2% had ND/NCE, 40 respondents representing 10.1% had BSc/BA/HND, and 98 respondents representing 24.7% had others. In addition, 199 respondents representing 50.1% were top management, 118 respondents representing 29.7% were middle management, and 80 respondents representing 20.2% were operational management. Also, 79 respondents representing 19.9% spent 6-10 years, 199 respondents representing 50.1% spent 11-15 years, and 119 respondents representing 30.0% spent 16 years and above.

4.2 Presentation of Data

In Table 4.3, Strategy planning, exploratory innovation, marketing (sensing) capability was presented as measures of response strategy for aquaculture firms in Lagos State, Nigeria using descriptive statistics and computed for each statement to reveal the frequencies, percentages, and mean on a six-point Likert-type scale (6=Very High extent; 5=High extent; 4=Partially High extent; 3=Partially Low extent; 2=Low extent; 1=Very Low extent)

Table 4.3: Descriptive Analysis of Responses on Response Strategy

Strategy Planning	VHE	HE	PHE	PLE	LE	VLE	MEAN
Establish specific actions to implement the strategy	180 (45.3%)	178 (44.8%)	39 (9.8%)	–	–	–	5.36
Encourage staff input in planning strategy	79 (19.9%)	199 (50.1%)	119 (30.0%)	–	–	–	4.90
Demarcate resources to enhance strategy planning	39 (9.8%)	139 (35.0%)	140 (35.3%)	79 (19.9%)	–	–	4.35
Designate who is responsible for each	20 (5.0%)	79 (19.9%)	198 (49.9%)	100 (25.2%)	–	–	4.05

strategic action							
Engage managers in	59	160	98	80	-	-	4.50
defining resources	(14.9%)	(40.3%)	(24.7%)	(20.2%)			
required to achieve plan							
Define goal indicators in	40	237	120	-	-	-	4.80
order to monitor strategy	(10.1%)	(59.7%)	(30.2%)				
success							
Able to comprehensively	79	239	59	20	-	-	4.95
monitor the	(19.9%)	(60.2%)	(14.9%)	(5.0%)			
implementation of the							
strategy							
Grand mean							4.70
Exploratory Innovation	VF	F	O	R	VR	N	MEAN
Introduce a generation of	80	257	60		-	-	5.05
new products	(20.2%)	(64.7%)	(15.1%)				
Extend product range	80	237	80	-	-	-	5.00
	(20.2%)	(59.7%)	(20.2%)				
Open up new markets	99	199	99	-	-	-	5.00
	(24.9%)	(50.1%)	(24.9%)				
Enter new technology	99	218	80	-	-	-	5.05
fields	(24.9%)	(54.9%)	(20.2%)				
Improve existing product	139	179	79	-	-	-	5.15
quality	(35.0%)	(45.1%)	(19.9%)				
Improve	80	239	78	-	-	-	5.01
production/operation	(20.2%)	(60.2%)	(19.6%)				
flexibility							
Reduce	180	157	60	-	-	-	5.30
operation/production cost	(45.3%)	(39.5%)	(15.1%)				
Introduce a generation of	60	258	79	-	-	-	4.95
new products	(15.1%)	(65.0%)	(19.9%)				
Extend product range	119	219	59	-	-	-	5.15
	(30.0%)	(55.2%)	(14.9%)				
We consistently explore	40	238	119	-	-	-	4.80

new markets	(10.1%)	(59.9%)	(30.0%)					
We are quick to adapt our business to suit changing business environment	79	218	100	–	–	–	4.95	
	(19.9%)	(54.9%)	(25.2%)					
Grand mean							5.04	
Market Sensing Capability	VHE	HE	PHE	PLE	LE	VLE	MEAN	
Alert to market dynamics	139	198	60	–	–	–	5.20	
	(35.0%)	(49.9%)	(15.1%)					
Anticipate market records	178	199	20	–	–	–	4.40	
	(44.8%)	(50.1%)	(5.0%)					
Know competitors' pricing tactics	20	99	159	119	–	–	4.05	
	(5.0%)	(24.9%)	(40.1%)	(30.0%)				
Monitor competitors' price changes	20	139	119	119	–	–	4.15	
	(5.0%)	(35.0%)	(30.0%)	(30.0%)				
Advertise periodically	139	258	–	–	–	–	4.35	
	(35.0%)	(65.0%)						
Manage corporate image	60	178	119	40	–	–	4.65	
	(15.1%)	(44.8%)	(30.0%)	(10.1%)				
Develop creative marketing strategies	100	238	59	–	–	–	5.10	
	(25.2%)	(59.9%)	(14.9%)					
Interact with customers	60	238	99	–	–	–	4.90	
	(15.1%)	(59.9%)	(24.9%)					
Grand mean							4.60	

Source: Field Survey Results (2023)

According to results in Table 4.3. 45.3% of respondents rated to a very high extent that they establish specific actions to implement the strategy, 44.8% high extent, and 9.8% partially high extent. On average, the respondents indicated that they establish specific actions to implement the strategy has a mean of 5.36. Results also indicated that 19.9% of respondents rated to a very high extent that they encourage staff input in planning strategy, 50.1% high extent, and 30.0% partially high extent. On average, the respondents indicated that they encourage staff input in planning strategy has a mean of 4.90. Results also indicated that 9.8% of the respondents rated to a very high extent that they demarcate resources to enhance strategy planning, 35.0% high extent, 35.3% partially high

extent, and 19.9% partially low extent. On average, the respondents indicated that they demarcate resources to enhance strategy planning has a mean of 4.35.

Results also indicated that 5.0% of the respondents rated to a very high that they designate who is responsible for each strategic action, 19.9% high extent, 49.9% partially high extent, and 25.2% partially low extent. On average, the respondents indicated that they designate who is responsible for each strategic action has a mean of 4.05.

Results also indicated that 14.9% of the respondents rated to a very high extent that they engage managers in defining resources required to achieve plan, 40.3% high extent, 24.7% partially high extent, and 20.2% partially low extent. On average, the respondents indicated that they engage managers in defining resources required to achieve plan has a mean of 4.50. Results also indicated that 10.1% of the respondents rated to a very high extent that they define goal indicators in order to monitor strategy success, 59.7% high extent, and 30.2% partially high extent. On average, the

respondents indicated that they define goal indicators in order to monitor strategy success has a mean of 4.80.

Results also indicated that 19.9% of the respondents rated to a very high extent that they are able to comprehensively monitor the implementation of the strategy, 60.2% high extent, 14.9% partially high extent, and 5.0% partially low extent. On average, the respondents indicated that they are able to comprehensively monitor the implementation of the strategy has a mean of 4.95.

According to results in Table 4.3, 20.2% of respondents rated very frequent that they introduce a generation of new products, 64.7% frequent, and 15.1% occasionally. On average, the respondents indicated that they introduce a generation of new products has a mean of 5.05. Results also indicated that 20.2% of respondents rated very frequent that they extend product range, 59.7% frequent, and 20.2% occasionally. On average, the respondents indicated that they extend product range has a mean of 5.00. Results also indicated that 24.9% of the respondents rated very frequent that they open up new markets, 50.1% frequent, and 24.9% occasionally. On average, the respondents indicated that they open up new markets has a mean of 5.00.

Results also indicated that 24.9% of the respondents rated very frequent that they enter new technology fields, 54.9% frequent, and 20.2% occasionally. On average, the respondents indicated that they enter new technology

fields has a mean of 5.05. Results also indicated that 35.0% of the respondents rated very frequent that they improve existing product quality, 45.1% frequent, and 19.9% occasionally. On average, the respondents indicated that they improve existing product quality has a mean of 5.15. Results also indicated that 20.2% of the respondents rated very frequent that they improve production/operation flexibility, 60.2% frequent, and 19.6% occasionally. On average, the respondents indicated that they improve production/operation flexibility has a mean of 5.01. Results also indicated that 45.3% of the respondents rated very frequent that they reduce operation/production cost, 39.5% frequent, and 15.1% occasionally. On average, the respondents indicated that they reduce operation/production cost has a mean of 5.30. Results also indicated that 15.1% of the respondents rated very frequent that they introduce a generation of new products, 65.0% frequent, and 19.9% occasionally. On average, the respondents indicated that they introduce a generation of new products has a mean of 4.95. Results also indicated that 30.0% of the respondents rated very frequent that they extend product range, 55.2% frequent, and 14.9% occasionally. On average, the respondents indicated that they extend product range has a mean of 5.15. Results also indicated that 10.1% of the respondents rated very frequent that they consistently explore new markets, 59.9% frequent, and 30.0% occasionally. On average, the respondents indicated that they consistently explore new markets has a mean of 4.80. Results also indicated that 19.9% of the respondents rated very frequent that they are quick to adapt their business to suit changing business environment, 54.9% frequent, and 25.2% occasionally. On average, the respondents indicated that they are quick to adapt their business to suit changing business environment has a mean of 4.95.

According to results in Table 4.3. 35.0% of respondents rated to a very high extent that they are at alert o market dynamics, 49.9% high extent, and 15.1% partially high extent. On average, the respondents indicated that they are at alert has a mean of 5.20. Results also indicated that 44.8% of respondents rated to a very high extent that they anticipate market records, 50.1% high extent, and 5.0% partially high extent. On average, the respondents indicated that they anticipate market records has a mean of 4.40. Results also indicated that 5.0% of the respondents rated to a very high extent that they know competitors' pricing tactics, 24.9% high extent, 40.1% partially high extent,

and 30.0% partially low extent. On average, the respondents indicated that they know competitors' pricing tactics has a mean of 4.05.

Results also indicated that 5.0% of the respondents rated to a very high extent that they monitor competitors' price changes, 35.0% high extent, 30.0% partially high extent, and 30.0% partially

low extent. On average, the respondents indicated that they monitor competitors' price changes has a mean of 4.15.

Results also indicated that 35.0% of the respondents rated to a very high extent that they advertise periodically, and 65.0% high extent. On average, the respondents indicated that they advertise periodically has a mean of 4.35. Results also indicated that 15.1% of the respondents rated to a very high extent that they manage corporate image, 44.8% high extent, 30.0% partially high extent, and 10.1% partially low extent. On average, the respondents indicated that they manage corporate image has a mean of 4.65. Results also indicated that 25.2% of the respondents rated to a very high extent that they develop creative marketing strategies, 59.9% high extent, and 14.9% partially high extent. On average, the respondents indicated that they develop creative marketing strategies brand has a mean of 5.10. Results also indicated that 15.1% of the respondents rated to a very high extent that they interact with customers, 59.9% high extent, and 24.9% partially high extent. On average, the respondents indicated that they interact with customers has a mean of 4.90.

Table 4.4: Descriptive Analysis of Responses on Social Media Agility

Social Media Agility	VHE	HE	PHE	PLE	LE	VLE	MEAN
Increased avenues to address customer issues	100 (25.2%)	238 (59.9%)	59 (14.9%)	–	–	–	5.10
Deliver our products and services more quickly	179 (45.1%)	218 (54.9%)	–	–	–	–	4.45
Respond very reliably to market changes	80 (20.2%)	79 (19.9%)	158 (39.8%)	80 (20.2%)	–	–	4.40
Achieve greater flexibility in products/services offered	60 (15.1%)	118 (29.7%)	160 (40.3%)	59 (14.9%)	–	–	4.45
Been very quick to adapt to business opportunities	20 (5.0%)	259 (65.2%)	98 (24.7%)	20 (5.0%)	–	–	4.70

Grand mean							4. 62
Omoluabi Leadership	VF	F	O	R	VR	N	MEAN
Always on the lookout for new opportunities (34.8%)	239 (60. 2%)	20 (5. 0%)	–	–	–		5. 30
Has a clear view of its final aims for the (24.9%) business	278 (70. 0%)	20 (5. 0%)	–	–	–		5. 20
Succeeds in motivating all the employee (15.1%)	218 (54. 9%)	119 (30. 0%)	–	–	–		4. 85
Always act as the organization's leading (25.2%) force	217 (54. 7%)	80 (20. 2%)	–	–	–		5. 05
Sets high goals for myself (high (14.6%) performance expectations)	279 (70. 3%)	60 (15. 1%)	–	–	–		4. 99
Inspires others in the organization with their (40.3%) future plans	198 (49. 9%)	19 (4. 8%)	20 (5. 0%)	–	–		5. 25
Behaves in a manner thoughtful of my (20.2%) personal needs	179 (45. 1%)	138 (34. 8%)	–	–	–		4. 85
Builds a system of shared purpose for all (35.0%) employees	158 (39. 8%)	100 (25. 2%)	–	–	–		5. 10
Grand mean							5. 07
Engagement VHE	HE	PHE	PLE	LE	VLE	MEAN	
Develop a culture that values and practices open (25.2%) communication	178 (44. 8%)	119 (30. 0%)	–	–	–		4. 95
Possess a transparent performance appraisal (5.0%) mechanism	198 (49. 9%)	159 (40. 1%)	20 (5. 0%)	–	–		4. 55
Allow employee participation in goal (4.8%) (20.2%)(50.1%)(24.9%)	80	199	99	–	–		4. 05

setting

Possesses a personal and professional growth system that employees and	–	157 (39.5%)	160 (40.3%)	80 (20.2%)	–	–	4.19
Encourages scheduling	19	239	119	20	–	–	4.65
work flexibility that aids	(4.8%)	(60.2%)	(30.0%)	(5.0%)			
work-life balance							
Invest resources	120	198	79	–	–	–	5.10
necessary to closely connect with customers	(30.2%)	(49.9%)	(19.9%)				
Take customers	99	179	99	20	–	–	4.90
viewpoint to design and improve business process	(24.9%)	(45.1%)	(24.9%)	(5.0%)			
Effectively interact with customers	100	138	159	–	–	–	4.85
	(25.2%)	(34.8%)	(40.1%)				
Are able to immerse in customer reality	60	217	80	40	–	–	4.75
	(15.1%)	(54.7%)	(20.2%)	(10.1%)			
Grand mean							4.67

Source: Field Survey Results (2023)

According to results in Table 4.4. 25.2% of respondents rated to a very high extent that they increase avenues to address customer issues, 59.9% high extent, and 14.8% partially high extent. On average, the respondents indicated that they increase avenues to address customer issues has a mean of 5.10. Results also indicated that 45.1% of respondents rated to a very high extent that they deliver their products and services more quickly, and 54.9% high extent. On average, the respondents indicated that they deliver their products and services more quickly have a mean of 4.45. Results also indicated that 20.2% of the respondents rated to a very high extent that they respond very reliably to market changes, 19.9% high extent, 39.8% partially high extent, and 20.2% partially low extent. On average, the respondents indicated that they respond very reliably to market changes has a mean of 4.40.

Results also indicated that 15.1% of the respondents rated to a very high that they achieve greater flexibility in products/services offered, 29.7% high extent, 40.3% partially high extent, and 14.9% partially low extent. On average, the respondents indicated that they achieve greater flexibility in products/services offered has a mean of 4.45. Results also indicated that 5.0% of the respondents rated to a very high extent that they have been very quick to adapt to business opportunities, 65.2% high extent, 24.7% partially high extent, and 5.0% partially low extent. On average, the respondents indicated that they have been very quick to adapt to business opportunities has a mean of 4.70.

According to results in Table 4.4. 34.8% of respondents rated very frequent that they are always on the lookout for new opportunities, 60.2% frequent, and 5.0% occasionally. On average, the respondents indicated that they are always on the lookout for new opportunities have a mean of 5.30. Results also indicated that 24.9% of respondents rated very frequent that they have a clear view of its final aims for the business, 70.0% frequent, and 5.0% occasionally. On average, the respondents indicated that they have a clear view of its final aims for the business has a mean of 5.20. Results also indicated that 15.1% of the respondents rated very frequent that they succeed in motivating the entire employee, 54.9% frequent, and 30.0% occasionally. On average, the respondents indicated that they succeed in motivating all the employee has a mean of 4.85.

Results also indicated that 25.2% of the respondents rated very frequent that they always act as the organization's leading force, 54.7% frequent, and 20.2% occasionally. On average, the respondents indicated that they always act as the organization's leading force has a mean of 5.05. Results also indicated that 14.6% of the respondents rated very frequent that they set high goals for themselves (high performance expectations), 70.3% frequent, and 15.1% occasionally. On average, the respondents indicated that they set high goals for themselves (high performance expectations) has a mean of 4.99. Results also indicated that 40.3% of the respondents rated very frequent that they inspire others in the organization with their future plans, 49.9% frequent, 4.8% occasionally, and 5.0% rarely. On average, the respondents indicated that they inspires others in the organization with their

future plans has a mean of 5.25. Results also indicated that 20.2% of the respondents rated very frequent that they behave in a manner thoughtful of their personal needs, 45.1% frequent, and 34.8% occasionally. On average, the respondents indicated that they behave in a manner thoughtful of their personal needs has a mean of 4.85. Results also indicated that 35.0% of the respondents rated very frequent that they build a system of shared purpose for all employees, 39.8% frequent, and 25.2% occasionally. On average, the respondents indicated that they build a system of shared purpose for all employees has a mean of 5.10.

According to results in Table 4.4. 25.2% of respondents rated to a very high extent that they develop a culture that values and practices open communication, 44.8% high extent, and 30.0% partially high extent. On average, the respondents indicated that they develop a culture that values and practices open communication has a mean of 4.95. Results also indicated that 5.0% of respondents rated to a very high extent that they possess a transparent performance appraisal mechanism, 49.9% high extent, 40.1% partially high extent, and 5.0% partially low extent. On average, the respondents indicated that they possess a transparent performance appraisal mechanism has a mean of 4.55. Results also indicated that 4.8% of the respondents rated to a very high extent that they allow employee participation in goal setting, 20.2% high extent, 50.1% partially high extent, and 24.9% partially low extent. On average, the respondents indicated that they allow employee participation in goal setting has a mean of 4.05.

Results also indicated that 39.5% of the respondents rated to a high extent that they possess a system that guarantees employees personal and professional growth, 40.3% partially high extent, and 20.2% partially low extent. On average, the respondents indicated that they possess

a system that guarantees employees personal and professional growth has a mean of 4.19. Results also indicated that 4.8% of the respondents rated to a very high extent that they encourage scheduling work flexibility that aids work-life balance, 60.2% high extent, 30.0% partially high extent, and 5.0% partially low extent. On average, the respondents indicated that they encourage scheduling work flexibility that aids work-life balance has a mean of 4.65. Results also indicated that 30.2% of the respondents rated to a very high extent that they invest resources necessary to closely connect with customers, 49.9% high extent, and 19.9% partially high extent. On average, the respondents indicated that they invest resources necessary to closely connect with customers has a mean of 5.10. Results also indicated that 24.9% of the respondents rated to a very high extent that they take customers

viewpoint to design and improve business process, 45.1% high extent, 24.9% partially high extent, and 5.0% partially low extent. On average, the respondents indicated that they take customers viewpoint to design and improve business process has a mean of 4.90.

Results also indicated that 25.2% of the respondents rated to a very high extent that they effectively interact with customers, 34.8% high extent, and 40.1% partially high extent. On average, the respondents indicated that they effectively interact with customers has a mean of 4.85. Results also indicated that 15.1% of the respondents rated to a very high extent that they are able to immerse in customer reality, 54.7% high extent, 20.2% partially high extent, and 10.1% partially low extent. On average, the respondents indicated that they are able to immerse in customer reality has a mean of 4.75.

Table 4.5: Descriptive Analysis of Responses on Organisational Pw(Aquaculture)

Performance

Profitability	VHE	HE	PHE	PLE	LE	VLE	MEAN
Increase between 2015 and 2016	118 (29.7%)	239 (60.2%)	40 (10.1%)	–	–	–	5.20
Increase between 2016 and 2017	–	218 (54.9%)	179 (45.1%)	–	–	–	4.55
Increase between 2017 and 2018	40 (10.1%)	79 (19.9%)	258 (65.0%)	20 (5.0%)	–	–	4.35
Increase between 2018 and 2019	–	180 (45.3%)	99 (24.9%)	118 (29.7%)	–	–	4.16
Increase between 2019 and 2020	40 (10.1%)	179 (45.1%)	138 (34.8%)	40 (10.1%)	–	–	4.55
Grand mean							4.56
Competitiveness	VHE	HE	PHE	PLE	LE	VLE	MEAN
Offer better product quality	60 (15.1%)	218 (54.9%)	40 (10.1%)	79 (19.9%)	–	–	4.65
Better handling of customers complaints	20 (5.0%)	160 (40.3%)	217 (54.7%)	–	–	–	4.50

in new product							
Produce at lower unit cost	20	139	140	98	–	–	4.20
	(5.0%)	(35.0%)	(35.3%)	(24.7%)			
Have motivated and loyal workforce	79	100	178	40	–	–	4.55
	(19.9%)	(25.2%)	(44.8%)	(10.1%)			
Possess unique selling point	60	177	100	60	–	–	4.60
	(15.1%)	(44.6%)	(25.2%)	(15.1%)			
Have better brand reputation	78	140	139	40	–	–	4.64
	(19.6%)	(35.3%)	(35.0%)	(10.1%)			
Acquisition of competitive resources	60	159	119	59	–		4.55
	(15.1%)	(40.1%)	(30.0%)	(14.9%)			
Grand mean							4.53
New Product Development Performance	VHE	HE	PHE	PLE	LE	VLE	MEAN
Product success rate	159	198	20	20	–	–	5.25
	(40.1%)	(49.9%)	(5.0%)	(5.0%)			
Short time to market	20	238	139	–	–	–	4.70
		(5.0%)	(59.9%)	(35.0%)			
Short development cycle	140	158	99	–	–	–	4.10
	(35.3%)	(39.8%)	(24.9%)				
Market potential of new products	40	139	99	99	20	–	4.20
	(10.1%)	(35.0%)	(24.9%)	(24.9%)	(5.0%)		
Increase market presence	59	238	80	20	–	–	4.85
	(14.9%)	(59.9%)	(20.2%)	(5.0%)			
Better product quality	99	238	60	–	–	–	5.10
		(24.9%)	(59.9%)	(15.1%)			
Grand mean				4.70			

Source: Field Survey Results(2023)

According to results in Table 4.5. 29.7% of respondents rated to a very high extent that there is increase between 2015 and 2016, 60.2% high extent, and 10.1% partially high extent. On average, the respondents indicated that

there is increase between 2015 and 2016 has a mean of 5.20. Results also indicated that 54.9% of respondents rated to a high extent that there is increase between 2016 and 2017, and 45.1% partially high extent. On average, the respondents indicated that there is increase between 2016 and 2017 has a mean of 4.55. Results also indicated that 10.1% of the respondents rated to a very high extent that there is increase between 2017 and 2018, 19.9% high extent, 65.0% partially high extent, and 5.0% partially low extent. On average, the respondents indicated that there is increase between 2017 and 2018 has a mean of 4.35. Results also indicated that 45.3% of the respondents rated to a high that there is increase between 2018 and 2019, 24.9% partially high extent, and 29.7% partially low extent. On average, the respondents indicated that there is increase between 2018 and 2019 has a mean of 4.16. Results also indicated that 10.1% of the respondents rated to a very high extent that there is increase between 2019 and 2020, 45.1% high extent, 34.8% partially high extent, and 10.1% partially low extent. On average, the respondents indicated that there is increase between 2019 and 2020 has a mean of 4.55.

According to results in Table 4.5. 15.1% of respondents rated to a very high extent that they offer better product quality, 54.9% high extent, 10.1% partially high extent, and 19.9% partially low extent. On average, the respondents indicated that they offer better product quality has a mean of 4.65. Results also indicated that 5.0% of respondents rated to a very high extent that they handle customers complaints better in new product, 40.3% high extent, and 54.7% partially high extent. On average, the respondents indicated that they handle customers complaints better in new product has a mean of 4.50. Results also indicated that 5.0% of the respondents rated to a very high extent that they produce at lower unit cost, 25.2% high extent, 44.8% partially high extent, and 10.1% partially low extent. On average, the respondents indicated that they produce at lower unit cost has a mean of 4.20. Results also indicated that 19.9% of the respondents rated to a very high that they have motivated and loyal workforce, 25.2% high extent, 44.8% partially high extent, and 10.1% partially low extent. On average, the respondents indicated that they have motivated and loyal workforce has a mean of 4.55. Results also indicated that 15.1% of the respondents rated to a very high extent that they possess unique selling point, 44.6% high extent, 25.2% partially high extent, and 15.1% partially low extent. On average, the respondents indicated that they possess unique selling point has a mean of 4.60. Results also indicated that 19.6% of the respondents rated to a very high extent that they have better brand reputation, 35.3% high extent, 35.0% partially high extent, and 10.1%

partially low extent. On average, the respondents indicated that they have better brand reputation has a mean of 4.64. Results also indicated that 15.1% of the respondents rated to a very high extent that they have acquisition of competitive resources, 40.1% high extent, 30.0% partially high extent, and 14.9% partially low extent. On average, the respondents indicated that they have of competitive resources has a mean of 4.55.

According to results in Table 4.5. 40.1% of respondents rated to a very high extent that there is product success rate, 49.9% high extent, 5.0% partially high extent, and 5.0% partially low extent. On average, the respondents indicated that there is product success rate has a mean of 5.25. Results also indicated that 5.0% of respondents rated to a very high extent that there is short time to market, 59.9% high extent, and 35.0% partially high extent. On average, the respondents indicated that there is short time to market has a mean of 4.70. Results also indicated that 35.3% of the respondents rated to a very high extent that there is short development cycle, 39.8% high extent, and 24.9% partially high extent. On average, the respondents indicated that there is short development cycle has a mean of 4.10.

Results also indicated that 10.1% of the respondents rated to a very high extent that they have market potential of new products, 35.0% high extent, 24.9% partially high extent, 24.9% partially low extent, and 5.0% low extent. On average, the respondents indicated that they have market potential of new products has a mean of 4.20. Results also indicated that 14.9% of the respondents rated to a very high extent that they increase market presence, 59.9% high extent, 20.2% partially high extent, and 5.0% partially low extent. On average, the respondents indicated that they increase market presence has a mean of 4.85. Results also indicated that 24.9% of the respondents rated to a very high extent that they have better product quality, 59.9% high extent, and 15.1% partially high extent. On average, the respondents indicated that they have better product quality has a mean of 5.10.

Relating results in Tables 4.3, 4.4 and individual performance measure in 4.5, the measures of response strategy which includes strategy planning, exploratory innovation, and market sensing capability, likewise measures of adaptive resilience which include social media agility, Omoluabi leadership, and engagement all have varying patterns of increase with performance measures such as firm profitability, competitiveness, and new product development performance for aquaculture firms in Lagos State, Nigeria. Consequent on these findings mentioned

above, it suggests that response strategy may exert some influence on firm profitability, competitiveness, and new product development performance of selected

aquaculture firm in Lagos State, Nigeria. Likewise adaptive resilience may exert some influence on firm profitability, competitiveness, and new product development performance of selected aquaculture firm in Lagos State, Nigeria. This provided response to research question one, two, three and has enabled the researcher to achieve the first, second, third, fourth specific objectives of this study.

Table 4.6: Descriptive Analysis of Responses on Entrepreneurial Mindset

Entrepreneurial	VHE	HE	PHE	PLE	LE	VLE	MEAN
Mindset							
Display superior business knowledge	140 (35.3%)	118 (29.7%)	139 (35.0%)	-	-	-	5.00
Adoption of new technology in service delivery	60 (15.1%)	278 (70.0%)	59 (14.9%)	-	-	-	5.00
Conducting periodic market analysis for new opportunities	60 (15.1%)	178 (44.8%)	119 (30.0%)	40 (10.1%)	-	-	4.65
Encourage employee participation in decision making	40 (10.1%)	218 (54.9%)	79 (19.9%)	60 (15.1%)	-	-	4.60
Encourage employee creativity	40 (10.1%)	179 (45.1%)	119 (30.0%)	59 (14.9%)	-	-	4.50
Assess its risks	-	238 (59.9%)	99 (24.9%)	60 (15.1%)	-	-	4.45
Take reasonable risks	40 (10.1%)	197 (49.6%)	160 (40.3%)	-	-	-	4.70
Grand mean							4.70

Source: Field Survey Results(2023)

Source: Field Survey Results(2023)

According to results in Table 4.6. 35.3% of respondents rated to a very high extent that they display superior business knowledge, 29.7% high extent, and 35.0% partially high extent. On average, the respondents indicated that they display superior business knowledge has a mean

of 5.00. Results also indicated that 15.1% of respondents rated to a very high extent that there is adoption of new technology in service delivery, 70.0% high extent, and 14.9% partially high extent. On average, the respondents indicated that there is adoption of new technology in service delivery has a mean of 5.00. Results also indicated that 15.1% of the respondents rated to a very high extent that they conduct periodic market analysis for new opportunities, 44.8% high extent, 30.0% partially high extent, and 10.1% partially low extent. On average, the respondents indicated that they conduct periodic market analysis for new opportunities have a mean of 4.65.

Results also indicated that 10.1% of the respondents rated to a very high that they encourage employee participation in decision making, 54.9% high extent, 19.9% partially high extent, and 15.1% partially low extent. On average, the respondents indicated that they encourage employee participation in decision making has a mean of 4.60. Results also indicated that 10.1% of the respondents rated to a very high extent that they encourage employee creativity, 45.1% high extent, 30.0% partially high extent, and 14.9% partially low extent. On average, the respondents indicated that they encourage employee creativity has a mean of 4.50. Results also indicated that 59.9% of the respondents rated to a high extent that they assess risks, 24.9% partially high extent, and 15.1% partially low extent. On average, the respondents indicated that they assess risks has a mean of 4.45. Results also indicated that 10.1% of the respondents rated to a very high extent that they take reasonable risks, 49.6% high extent, and 40.3% partially high extent. On average, the respondents indicated that they take reasonable risks have a mean of 4.70.

Relating results in Tables 4.3, 4.4, 4.5 and 4.5, the measures of response strategy, likewise measures of adaptive resilience, entrepreneurial mindset all have varying patterns of increase with performance for aquaculture firms in Lagos State, Nigeria. Consequent on these findings mentioned above, it suggests that response strategy may exert some influence on firm

profitability, competitiveness, and new product development performance of selected aquaculture firm in Lagos State, Nigeria. Likewise adaptive resilience may exert some influence on performance of selected aquaculture firm in Lagos State, Nigeria. This provided response to research question four and has enabled the researcher to achieve the fourth objective of this study. More so, entrepreneurial mindset holds the potential to act as a moderating

factor given the interaction between response strategy, adaptive resilience and performance of aquaculture firms in Lagos State, Nigeria. Hence, this provided response to research question fifth and has enabled the researcher to achieve the fifth objectives of this study.

4.2.2 Hypotheses Testing

Restatement of Hypothesis One

H₀: Response strategy dimensions have no significant effect on profitability of aquaculture firms in Lagos State, Nigeria.

In order to test the hypothesis, linear multiple regression analysis was used. In the analysis, the values of profitability were regressed on the values of each of the values of response strategy dimensions. The data for response strategy dimensions was generated by summing responses of all items for strategic planning, explorative innovation, and market sensing capability respectively while that of profitability was generated by adding responses of all items used to measure the variable. The regression test results are presented in Tables 4.7.

Table 4.7: Summary of multiple regression analysis for the effect of response strategy dimensions on profitability of aquaculture firms in Lagos State, Nigeria

Model	Beta	t	Sig.	R ²	Adj. R ²	Anova Sig.	F(df)
				0.287a	0.082	0.075	0.000b
(Constant)	4.512	21.607	0.000				11.738 (3, 393)
Strategic planning	-0.001	-0.028	0.978				
Explorative Innovation	0.197	5.133	0.000				
Market Sensing capability	-0.204	-4.789	0.000				

a. Dependent Variable: Profitability

b. Predictors: (Constant), Strategic planning, Explorative Innovation, Market Sensing capability

Source: Researcher's Field Survey Results (2023)

Table 4.7 presents the results of multiple regression analysis for the effect of response strategy dimensions on profitability of aquaculture firms in Lagos State, Nigeria. Table 4.x presents a model summary which establishes how the model equation fits into the data. The Adj R² was used to establish the predictive power of the study's model. From the results, response strategy dimensions (Strategic planning, Explorative Innovation, Market Sensing capability) have positive but weak relationship with profitability of aquaculture firms ($R=0$). Adjusted coefficient of determination (Adj R²) of 0.075 shows that response strategy dimensions explained 7.5% of the variation in profitability of aquaculture firms under study while the remaining 72.5% variation in profitability is explained by other exogenous variable different from response strategy dimensions examined. This result suggests that response strategy dimensions' influence 7.5% of Profitability of aquaculture firms in Lagos State. Scholars provided threshold for Adj. R² Values of 0.02, 0.15, and 0.35, represents small, medium, and large effects respectively (Cohen, 1988). The Adj. R² of 0.075 according to Cohen's Adj. R² criterion suggest that the effect of response strategy on profitability of aquaculture firm in Lagos State, Nigeria is small.

Table 4.7 presents the results of ANOVA (overall model significance) of regression test which revealed that the combined response strategy dimensions have a significant effect on profitability of aquaculture firms in Lagos State. This can be explained by the F-value (11.738) and low p-value (0.000) which is statistically significant at 95% confidence interval. Hence, the result posited that response strategy implemented by aquaculture firms in Lagos State influenced their profitability.

Furthermore, the results of regression coefficients which revealed that a positive relative effect was reported for exploratory innovation, negative relative effect was reported for marketing sensing capability while insignificant relative effect was discovered for strategic planning components of response strategy. Further, the results reveal that at 95% confidence level, exploratory innovation ($\beta=0.00$) and market sensing capability ($\beta=-0.204$, $p=0.001$) of the aquaculture firms in Lagos State were statistically significant as the p-values were less than 0.05 and the t-values greater than 1.96. Based on coefficient of regression table 4.17c, the regression model is restated as follows:

.. Eq.(iii)

Aquaculture Firm Profitability

Exploitative Innovation

arket Sensing Capability

According to the regression equation above, taking all factors constant at zero, profitability of aquaculture firms in Lagos State 4.512. The result also indicates that taking all other independent variables at zero, a unit change in exploitative innovation will lead to a 0.197 increase in profitability of aquaculture firms in Lagos State given that all other factors are held constant. Similarly, the results also revealed

that a unit change in market sensing capability will lead to a 0.204 decrease in profitability of aquaculture firms in Lagos State given that all other factors are held constant.

Overall, from the results, exploitative innovation had the highest relative effect on the profitability of aquaculture firms in Lagos State, Nigeria with a coefficient of 0.197 and t value of 5.133. Based on the results, this study can conclude that response strategy dimensions significantly influence profitability of aquaculture firms in Lagos State, Nigeria. On the strength of this result, this study rejects the null hypothesis one (H₀₁) which states that response strategy dimensions have no significant effects on profitability of aquaculture firms in Lagos State, Nigeria.

Restatement of Hypothesis Two

H₀₂: Response strategy dimensions have no significant effect on new product development of aquaculture firms in Lagos State, Nigeria.

In order to test the hypothesis, linear multiple regression analysis was used. In the analysis, the values of new product development were regressed on the values of each of the values of response strategy dimensions. The data for response strategy dimensions was generated by summing responses of all items for strategic planning, explorative innovation, and market sensing capability while that of new product development was generated by adding responses of all items used to measure the variable. The regression test results are presented in Tables

4. 8.

Table 4.8: Summary of multiple regression analysis for the effect of response strategy dimensions on new product development of aquaculture firms in Lagos State, Nigeria

Model	Beta	t	Sig.	R	R ²	Adj.	Anova	F(df)
							Sig.	
				0.524	a 0.274	0.269	0.000b	49.462 (3, 393)
(Constant)	2.318	7.031	.000					
Strategic planning	.463	11.307	.000					
Explorative Innovation	.007	.118	.906					
Market Sensing	.037	.550	.582					

capability

a. Dependent Variable: New product development

b. Predictors: (Constant), Strategic planning, Explorative Innovation, Market Sensing capability

Source: Researcher's Field Survey Results (2023)

Table 4.8 presents the results of multiple regression analysis for the effect of response strategy dimensions on new product development of aquaculture firms in Lagos State, Nigeria. Table 4.8 presents a model summary which establishes how the model equation fits into the data. The Adj R² was used to establish the predictive power of the study's model. From the results, response strategy dimensions (Strategic planning, Explorative Innovation, Market Sensing capability) have positive relationship with new product development of aquaculture firms ($R=0.524, p=0.000$). The Adjusted coefficient of determination (Adj. R²) of 0.269 shows that response strategy dimensions explained 26.9% of the changes in new product development of aquaculture firms under study while the remaining 73.1% variation in new product development is explained by other exogenous variable different from response strategy dimensions examined. This result suggests that response strategy dimensions' influence 26.9% of new product development of aquaculture firms in Lagos State. Scholars provided threshold for Adj. R² Values of 0.02, 0.15, and 0.35, represents small, medium, and large effects respectively (Cohen, 1988). The Adj. R² of 0.269 according to Cohen's Adj. R² criterion suggest that response strategy has medium effect on new product development of aquaculture firm in Lagos State, Nigeria.

Table 4.8 presents the results of ANOVA (overall model significance) of regression test which revealed that the combined response strategy dimensions have a significant effect on new product development of aquaculture firms in Lagos State. This can be explained by the F-value (49.462) and low p-value (0.000) which is statistically significant at 95% confidence interval. Hence, the result posited that response strategy implemented by aquaculture firms in Lagos State influenced their new product development.

Furthermore, the results of regression coefficients which revealed that a positive and significant relative effect was reported for only strategic planning components of response strategy while exploitative innovative and marketing sensing capability have insignificant relative effect on new product development. Further, the results reveal that at 95% confidence level, strategic planning ($p=0.001$) of the aquaculture firms in Lagos State were statistically significant as the p-values was less than 0.05 and the t-values greater than 1.96. Based on coefficient of regression table 4.17c, the regression model is restated as follows:

(ii)

Product Development

strategic Planning

According to the regression equation above, taking all factors constant at zero, new product development of aquaculture firms in Lagos State is 2.318. The result also indicates that taking all other independent variables at zero, a unit change in strategic planning will lead to a 0.463

increase in new product development of aquaculture firms in Lagos State given that all other

factors are held constant.

Overall, from the results, strategic planning had the highest relative effect on the new product development of aquaculture firms in Lagos State, Nigeria with a coefficient of 0.463 and t value of 11.307. Based on the results, this study can conclude that response strategy significantly influences new product development of aquaculture firms in Lagos State, Nigeria. On the strength of this result (Adj), this study rejects the null hypothesis two (Ho2) which states that response strategy dimensions have no significant effects on new product development of aquaculture firms in Lagos State, Nigeria.

Restatement of Hypothesis Three

Ho3: Adaptive resilience factors have no significant effect on competitiveness of aquaculture firms in Lagos State, Nigeria.

In order to test the hypothesis, linear multiple regression analysis was used. In the analysis, the values of competitiveness were regressed on the values of each of the values of adaptive resilience factors. The data for adaptive resilience factors was generated by summing responses of all items for Social media agility, Omoluabi leadership, and Collaborative engagement respectively while that of competitiveness was generated by adding responses of all items used to measure the variable. The regression test results are presented in Tables 4.9.

Table 4.9: Summary of multiple regression analysis for the effect of adaptive resilience factors on competitiveness of aquaculture firms in Lagos State, Nigeria

Model	Beta	T	Sig.	R	R ²	Adj. R ²	Anova F(df)
					0.501	0.251	0.245
(Constant)	2.635	6.103	0.00				0.000b 43.808(3,393)
			0				

Social media	-	0.00
		-5.899
agility	0.253	0
Omoluabi		0.00
	0.552	9.516
leadership		0
Collaborative	0.056	0.646
engagement	8	0.51

a. Dependent Variable: firm competitiveness

b. Predictors: (Constant), Social media agility, Omoluabi leadership, Collaborative engagement

Source: Researcher's Field Survey Results (2023)

Table 4.9 presents the results of multiple regression analysis for the effect of adaptive resilience factors on competitiveness of aquaculture firms in Lagos State, Nigeria. Table 4.9 presents a model summary which establishes how the model equation fits into the data. The Adj R² was used to establish the predictive power of the study's model. From the results, adaptive resilience factors (Strategic planning, Explorative Innovation, Market Sensing capability) have positive relationship with competitiveness of aquaculture firms ($R=0.245$). The Adjusted coefficient of determination (Adj R²) of 0.245 shows that adaptive resilience factors predicted 24.5% of the changes in competitiveness of aquaculture firms under study while the remaining 75.5% variation in competitiveness is explained by other exogenous variable different from adaptive resilience factors examined. This result suggests that adaptive resilience factors' influence 24.5% of competitiveness of aquaculture firms in Lagos State. Scholars provided threshold for Adj. R² Values of 0.02, 0.15, and 0.35, represents small, medium, and large effects respectively (Cohen, 1988). The Adj.R² of 0.245 according to Cohen's Adj.R² criterion suggest that adaptive resilience factors have medium effect on competitiveness of aquaculture firm in Lagos State, Nigeria.

Table 4.9 presents the results of ANOVA (overall model significance) of regression test which revealed that the combined adaptive resilience factors have a significant effect on competitiveness of aquaculture firms in Lagos State. This can be explained by the F-value (43.808) and low p-value (0.000) which is statistically significant at 95% confidence interval. Hence, the result posited that adaptive resilience factors exhibited by the aquaculture firms in Lagos State influenced their competitiveness.

Furthermore, the results of regression coefficients which revealed that a positive relative effect was reported for Omoluabi leadership, negative relative effect was reported for social media agility while insignificant relative effect was discovered for collaborative engagement components of adaptive resilience. Further, the results reveal that at 95% confidence level, Omoluabi leadership ($\beta = 0.552$, $p=0.00$) and social media agility ($\beta = -0.253$, $p=0.01$) of the aquaculture firms in Lagos State were statistically significant as the p-values were less than 0.05 and the t-values greater than 1.96. Based on coefficient of regression table 4.17c, the regression model is restated as follows:

Where: AFC = Aquaculture Firm Competitiveness

omoluabi leadership

ial Media Agility

According to the regression equation above, taking all factors constant at zero, competitiveness of aquaculture firms in Lagos State 2.635. The result also indicates that taking all other independent variables at zero, a unit change in Omoluabi leadership will lead to a 0.552

increase in competitiveness of aquaculture firms in Lagos State given that all other factors are held constant.

Similarly, the results also revealed that a unit change in social media agility will lead to a 0.253 decrease in competitiveness of aquaculture firms in Lagos State given that all other factors are held constant.

Overall, from the results, Omoluabi leadership had the highest relative effect on the competitiveness of aquaculture firms in Lagos State, Nigeria with a coefficient of 0.552 and t value of 9.516. Based on the results, this study can conclude that adaptive resilience factors significantly influence competitiveness of aquaculture firms in Lagos State, Nigeria. On the strength of this result, this study rejects the null hypothesis three (Ho3) which states that adaptive resilience factors have no significant effects on competitiveness of aquaculture firms in Lagos State, Nigeria.

Restatement of Hypothesis Four

Ho4: Response strategy and adaptive resilience have no significant effect on performance of aquaculture firms in Lagos State, Nigeria.

In order to test the hypothesis, linear multiple regression analysis was used. In the analysis, the values of performance were regressed on the values of each of the values of response strategy and adaptive resilience. The data for response strategy and adaptive resilience was generated by summing responses of all items for both independent variables respectively while that of performance was generated by adding responses of all items (profitability, new product development, & competitiveness) used to measure the variable. The regression test results are presented in Tables 4.10.

Table 4.10: Summary of multiple regression analysis for the effect of response strategy and adaptive resilience on performance of aquaculture firms in Lagos State, Nigeria

Model	Beta	t	Sig. R	R2	Adj. R2	Anova Sig.	F(df)
			0.453a	0.205	0.201	0.000b	50.935 (2, 394)

(Constant)	2.348	9.229	0.000
Response Strategy	0.349	7.472	0.000
Adaptive Resilience	0.122	2.091	0.037

a. Dependent Variable: firm performance

b. Predictors: (Constant), Social media agility, Omoluabi leadership, Collaborative engagement

Source: Researcher's Field Survey Results (2023)

Table 4.10 presents the results of multiple regression analysis for the effect of response strategy and adaptive resilience on performance of aquaculture firms in Lagos State, Nigeria. Table 4.10 presents a model summary which establishes how the model equation fits into the data. The Adj R² was used to establish the predictive power of the study's model. From the results, response strategy and adaptive resilience have positive but weak relationship with performance of aquaculture firms ($R^2 = 0.201$, $p = 0.000$). The Adjusted coefficient of determination (Adj. R²) of 0.201 shows that response strategy and adaptive resilience predicted 20.1% of the changes in performance of aquaculture firms under study while the remaining 79.1% changes in performance is explained by external factors different from response strategy and adaptive resilience examined. This result suggests that response strategy and adaptive resilience influenced 20.1% of changes in performance of aquaculture firms in Lagos State. Scholars provided threshold for Adj. R² Values of 0.02, 0.15, and 0.35, represents small, medium, and large effects respectively (Cohen, 1988). The Adj. R² of 0.201 according to Cohen's Adj. R² criterion suggest that response strategy and adaptive resilience have medium effect on performance of aquaculture firm in Lagos State, Nigeria.

Table 4.10 presents the results of ANOVA (overall model significance) of regression test which revealed that the combined response strategy and adaptive resilience have a significant effect on performance of aquaculture firms in Lagos State. This can be explained by the F-value (50.935) and low p-value (0.000) which is statistically significant at 95% confidence interval. Hence, the result posited that response strategy and adaptive resilience strategies deployed by the aquaculture firms in Lagos State influenced their performance.

Furthermore, the results of regression coefficients which revealed that a positive relative effect was reported for response strategy and adaptive resilience. Further, the results reveal that at 95% confidence level, response strategy ($p = 0.00$) and adaptive resilience ($\beta = 0.122$, $p = 0.001$) of the aquaculture firms in Lagos State were statistically significant as the p-values were less than 0.05 and the t-values greater than 1.96. Based on coefficient of regression table 4.10c, the regression model is restated as follows:

= Aquaculture Firm Performance

Response Strategy

Adaptive Resilience

According to the regression equation above, taking all factors constant at zero, performance of aquaculture firms in Lagos State 2.348. The result also indicates that taking all other independent variables at zero, a unit change in response strategy will lead to a 0.349 increase in performance of aquaculture firms in Lagos State given that all other factors are held constant. Similarly, the results also revealed that a unit change in adaptive resilience will lead to a 0.122 increase in performance of aquaculture firms in Lagos State given that all other factors are held constant. Overall, from the results, response strategy had the highest relative effect on the performance of aquaculture firms in Lagos State, Nigeria with a coefficient of 0.349 and t value

of 7.472. This was followed by adaptive resilience with a coefficient of 0.122 and t value of 2.091. Based on the results, this study can conclude that response strategy and adaptive resilience significantly influence performance of aquaculture firms in Lagos State, Nigeria. On the strength of this result (Adj p=0.000), this study rejects the null hypothesis four (Ho4) which states that response strategy and adaptive resilience have no significant effects on performance of aquaculture firms in Lagos State, Nigeria.

Restatement of Hypothesis Five

Ho5: Entrepreneurial mindset has no significant moderating effect on the interactions of response strategy, adaptive resilience and organisational performance of selected manufacturers of baby-care products in Lagos State, Nigeria.

To evaluate the null hypothesis five, hierarchical regression was applied whereby the analysis was carried out in the order of hierarchy. A composite score was obtained for response strategy and adaptive resilience as adopted by the aquaculture firms in Lagos State, Nigeria and were used in the regression analysis. Also, data for performance (Y) was created by adding responses of all items for the variable, while that of entrepreneurial mindset (Z) was obtained from adding responses of all items for the variable. In addition, an interaction term for response strategy, adaptive resilience, and entrepreneurial mindset (X;*W;*z2) was obtained by multiplying the composite score for response strategy, adaptive resilience, and entrepreneurial mindset. The hypothesis would be supported if the effect of the interaction of response strategy, adaptive resilience, and entrepreneurial mindset (2) on performance of aquaculture firms in Lagos State is statistically significant. The results of the analysis step by step are presented in Table 4.11a-c.

Table 4.11: Summary of hierarchical regression analysis for the moderating effect of entrepreneurial mindset on the relationship between response strategy, adaptive resilience, and performance of Aquaculture firm in Lagos State, Nigeria

Model	Beta	t	Sig. R R2 Adj.	ΔR2 ΔF Sig.F	Change
			R2		
(Constant)	2.348	9.229	.000 0.453a 0.205 0.201	0.205 50.935 .000	
Response Strategy	.349	7.472	.000		
Adaptive Resilience	.122	2.091	.037		
F & Anova Sig: 50.935(2	,394), p=	.000			

					.000
	2.270	9.291	.000	.521b .271 .266	0.066 35.458
(Constant)2					
Response Strategy	.213	4.240	.000		
Adaptive Resilience	.114	2.047	.041		
Entrepreneurial Mindset	.162	5.955	.000		
F & Anova Sig:48.746(3	,393),p=	.000			

					.000
		-15.054	.000	.746° .556 .552	.286251.870
(Constant)3	43.671				
Response Strategy	4.399	16.496	.000		
Adaptive Resilience	5.340	16.077	.000		
Entrepreneurial Mindset	5.387	16.329	.000		
	-.219	-15.870	.000		

F & Anova Sig: 122.864(4,392),p=.000

a. Predictors: (Constant), Response strategy, Adaptive resilience

b. Predictors: (Constant), Response strategy, Adaptive resilience, Entrepreneurial mindset

c. Predictors: (Constant), Response strategy, Adaptive resilience, Entrepreneurial mindset, RS*AR*EM

denote Response strategy*Adaptive resilience*Entrepreneurial mindset

d. Dependent Variable: Performance

Source: Researcher's Field Survey Results (2023)

Tables 4.11 present hierarchical multiple regression results for the moderating effect of entrepreneurial mindset on the relationship between response strategy, adaptive resilience, and performance of Aquaculture firm in Lagos State. Results in Table 4.11 model 1 summarizes the output for the analysis if moderation effect is not considered. Therefore, in this model, the independent variable was response strategy and adaptive resilience.

From the results, response strategy and adaptive resilience have positive but weak relationship with performance of aquaculture firms ($R^2 = p=0.000$). The Adjusted coefficient of determination (Adj. R^2) of 0.201 shows that response strategy and adaptive resilience predicted 20.1% of the changes in performance of aquaculture firms under study while the remaining 79.1% changes in performance is explained by external factors different from response strategy and adaptive resilience examined. This result suggests that response strategy and adaptive resilience influenced 20.1% of changes in performance of aquaculture firms in Lagos State.

Table 4.11 presents the results of ANOVA (overall model significance) of regression test which revealed that the combined response strategy and adaptive resilience have a significant effect on performance of aquaculture firms

in Lagos State. This can be explained by the F-value (50.935) and low p-value (0.000) which is statistically significant at 95% confidence interval. Hence, the result posited that response strategy and adaptive resilience strategies deployed by the aquaculture firms in Lagos State influenced their performance.

Furthermore, the results of regression coefficients which revealed that a positive relative effect was reported for response strategy and adaptive resilience. Further, the results reveal that at 95% confidence level, response strategy ($p=0.00$) and adaptive resilience ($\beta=0.122, p=0.001$) of the aquaculture firms in Lagos State were statistically significant as the p-values were less than 0.05 and the t-values greater than 1.96. Based on coefficient of regression table 4.17c, the regression model is restated as follows:

Eq.(iv)

aquaculture Firm Performance

RS=Response Strategy

AR=Adaptive Resilience

In the second model, a multiple regression involving response strategy, adaptive resilience and entrepreneurial mindset was introduced in the model as predictor variables and the results indicate that a change was experienced as R^2 change is 0.066 implying that the regression model explains 26.6% of changes in performance while the rest (73.4) are attributed to variables not included in the model. The F-statistic is 48.746 with a corresponding p-value of 0.000 ($p<0.05$) indicating that the effect is statistically significant.

Response strategy has a coefficient of 0.213; t-statistic of 4.240 and a p-value of 0.000. This implies that response strategy has positive and significant influence on performance of aquaculture firms in Lagos State, Nigeria. Moreover, a unit change in response strategy will have a concomitant 0.213 change in performance. In addition, adaptive resilience has a coefficient of 0.114; t-statistic of 2.047, and a p-value of 0.041. This implies that adaptive resilience has positive and significant influence on performance of aquaculture firms in Lagos State, Nigeria. More so, a unit change in adaptive resilience will have a concomitant 0.114 change in performance.

The beta coefficient for entrepreneurial mindset is 0.162; t-statistic of 5.955, and a corresponding p-value of 0.000. This implies that environmental turbulence has positive and statistically significant influence on performance of aquaculture firm in Lagos State, Nigeria. The result posits that a unit change in entrepreneurial mindset would

result in 0.162 change in performance of aquaculture firms in Lagos State, Nigeria. The regression model is hence restated as follows;

$$\text{Eq. (iv)} 0.114AR + 0$$

= Aquaculture Firm Performance

sponse Strategy

AR= Adaptive Resilience

EM=Entrepreneurial Mindset

The third model involved the introduction of interaction term of response strategy, adaptive resilience, and entrepreneurial mindset using regression model. Result in Table 4.11 indicates that the R square change is 0.285, and F-change of 251.870 with a corresponding p-value of 0.000 implied that the interaction term of response strategy, adaptive resilience, and entrepreneurial mindset have a positive and significant moderating effect on performance of aquaculture firms in Lagos State, Nigeria (p=0.000). Furthermore, the interaction term of response strategy, adaptive resilience, and entrepreneurial mindset has a beta coefficient of -.219, and a corresponding p-value of 0.000. Hence, this implies that entrepreneurial mindset moderates the functional relationship between response strategy, adaptive resilience, and performance of aquaculture firms in Lagos State, Nigeria. The established regression equation from the result is stated as follows:

Where:

Aquaculture Firm Performance

sponse Strategy

laptive Resilience

=Entrepreneurial Mindset

Interaction term of response strategy, adaptive resilience, and entrepreneurial mindset

The results posit that entrepreneurial mindset moderates the functional relationship between response strategy, adaptive resilience, and performance of aquaculture firms in Lagos State, Nigeria. Based on this result, this study rejects the null hypothesis five (Ho5) which states that entrepreneurial mindset has no significant moderating effect on the association between response strategy, adaptive resilience, and performance of aquaculture firms in Lagos State, Nigeria.

Resultant Model

Do Not Copy, Lead City University, Nigeria

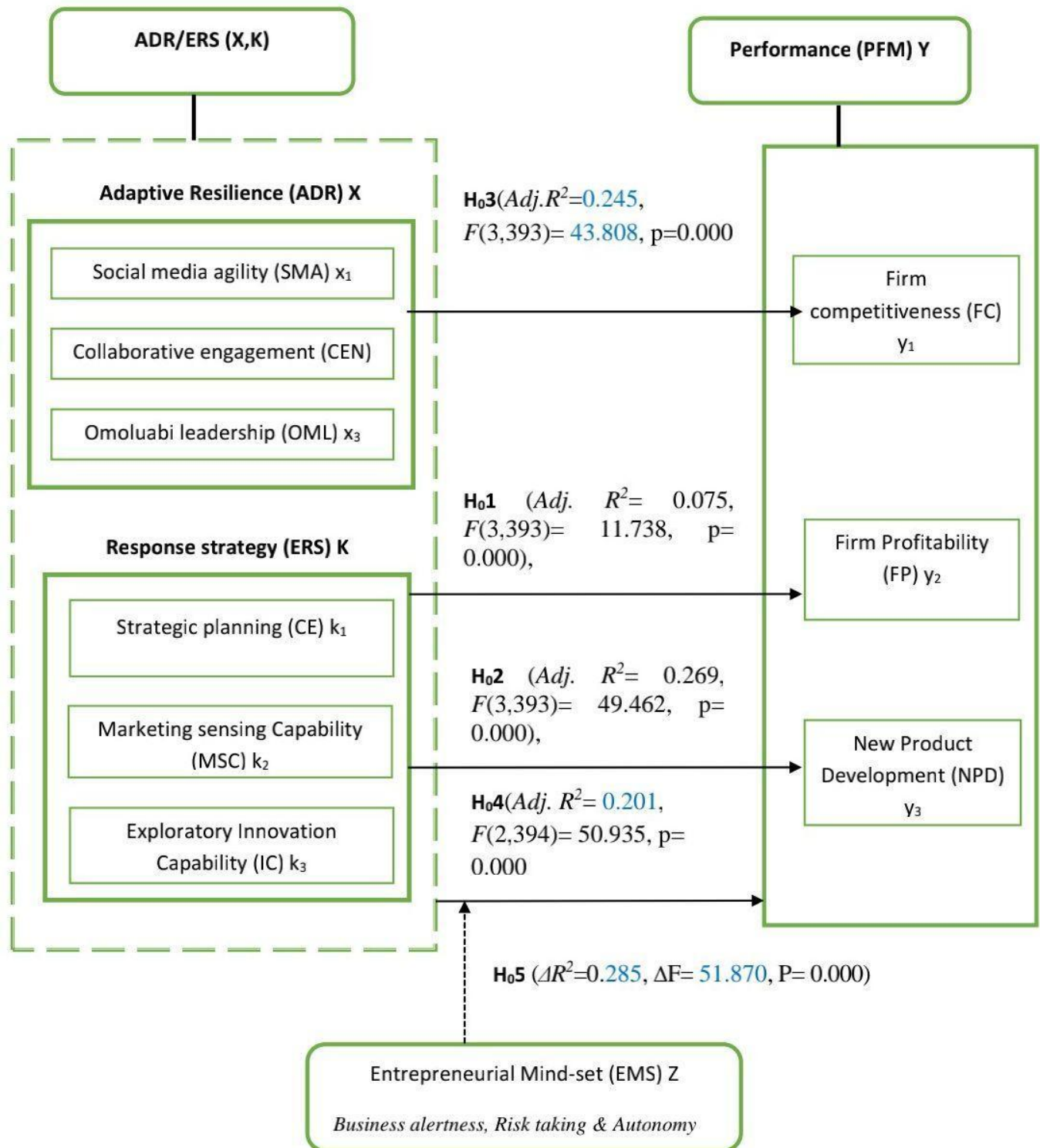


Figure 4.2 Research Resultant Model

Source: Researcher's Resultant Model,(2023)

Figure 4.2 presents the summary of result of the five null hypotheses tested in relation to the selected aquaculture firms in Lagos State, Nigeria. The null hypotheses one, two,three four,and five were not accepted and this suggested that response strategy,adaptive resilience, entrepreneurial mindset are critical success factors to the

performance of aquaculture form in Lagos State, Nigeria. This result has implication for management and external stakeholders of the aquaculture firms in Lagos State, Nigeria. On the aggregate, the result of this study, buttressed the submission of the ADKAR theory, dynamic capability theory, and the contingency theory hence contributing to knowledge in this regard.

4.3 Discussion of Findings

The results of multiple regression analysis for the effect of response strategy on profitability and new product development of aquaculture firms in Lagos State, Nigeria revealed that response strategy has a positive and significant effect on firm performance. Conceptually the capacity to formulate and execute strategies to contend with an environment characterized by uncertainties and intense competition is a recipe for sustaining higher level of performance. This finding aligns with this study's supposition concerning response strategy. This study considered response strategy as set of actions taken to align current strategy of a firm to environment changes so as to gain competitive advantage. Moreover, literature on response strategy organisations were better able to capitalize on their core capabilities, and as a result, offered value-adding products and services at prices that were more affordable than those offered by their rivals. More so, with response strategy expert emphasized that with strategic response capabilities, businesses are in a better position to boost their relevance in an environment that is changing by remaining consistent with their operations.

The findings of this study have support in empirical literature. For instance, a researcher established that commercial banks listed on Kenya's stock exchange that had significant investment in strategy planning and implementation recorded a high level of performance and consequently achieved a substantial increase in profitability on year on year from 2011 to 2016.

In a similar study, some researchers found a positive and significant relationship between strategy planning, implementation and firm profitability among SMMEs in Buffalo City Municipality. While the finding of researchers differs because one focused on the financial performance effect of strategy execution, the other examined the relationship between strategy execution and financial performance. Despite this dissimilarity, an underlining

relevance of strategic execution for firm performance can be deduced. In addition, the findings are in consonance with related studies. The study of a researcher produced results that showed a positive relationship between strategy implementation and corporate performance. These findings were also similar to previous research. Also, some researchers found a positive and significant correlation between strategic goals achievement and the actions' profitability. This suggests why the strategic goals are considered as one of the organisational performance measures^{1,2,3,4}.

To buttress the relevance of response strategy execution to organization performance, aver that strategy execution is a critical influencer of performance in any organization. Another related study that corroborated the finding of some authors. The pharmaceutical industry in Thailand showed that strategy unfolding and implementation is a critical element that explains significant variation in organisational performance^{5,6}.

Study was aimed at determining the influence of marketing capability on firm performance in Nigeria using a sample of 361 firm owners located in Kano state. Base on the statistical analysis, marketing capability is significantly related to firm performance (financial and non-financial), hence for a firm to achieve performance, its marketing capability must be effective⁶⁷. There findings is in line with the findings of previous studies. Some researchers

examined the relationship between market orientation and SMEs business performance using a sample of 212 SMEs from Kano state, in North- western part of Nigeria. The finding of the study showed that there is a positive and significant relationship between market orientation and SMEs business performance in Nigeria^{8,9,10}.

More so, this finding is in harmony with the previous findings of some researchers. Some researchers investigated the impact of marketing capability and diversification strategy on performance using manufacturing firms registered in Lagos with a sample of 127. The results showed that there exists a significant relationship between marketing capability and organizational performance (Sales growth, customer patronage) while also proving the fact that diversification has a significantly strong impact on the performance of an organization. Thus, organizations are advised to put much resource on the marketing of its products so as to reach out to its target market, thereby

increasing sales which automatically increase the profits of the organization while also improving its performance^{11,12}.

A researcher examined Outside-in marketing capability and firm performance of 376 US firms. Study revealed that outside-in marketing capability leads to superior firm performance via its impact on inside-out marketing capability and strategic flexibility. The researcher examined outside-in marketing capability and firm performance of 376 US firms. The study revealed that outside-in marketing capability leads to superior firm performance (measured as profitability, market share, customer satisfaction) via its impact on inside-out marketing capability and strategic flexibility. By implication, managers need to understand that outside in marketing capability is required to identify gaps in inside-out marketing capabilities in order to compete in a fast-changing marketing environment. Inside-out marketing capability development must align with signals from market sensing, customer engaging and partner linking. Furthermore, results also suggest that outside-in marketing capability guides how managers should strategically allocate firm resources for both current productivity and future competitiveness.

Therefore, firm need to prioritize building outside-in marketing capability as it leads to inside-out capability and strategic flexibility, both of which then lead to superior firm performance ^{13,14,15}.

Studies were aimed at determining the influence of marketing capability on firm performance in Nigeria using a sample of 361 firm owners located in Kano state. Base on the statistical analysis marketing capability is significantly related to firm performance (financial and non-financial), hence for a firm to achieve performance, its marketing capability must be effective. Their findings is in line with the findings of previous studies^{16,17}.

Study examined the relationship between market orientation and SMEs business performance using a sample of 212 SMEs from Kano state, in North- western part of Nigeria. The finding of the study shows that there is a positive and significant relationship between market orientation and SMEs business performance of Nigeria. Moreso, this finding is in harmony with the previous findings of some researchers ^{18,19,20,21}.

Studies aimed at investigating the effect of Innovation capability and Firm performance among Nigeria Small and Medium Enterprises in all sectors. Data was collected using self-administered structured questionnaire from 280

SME's in North-western Nigeria. The data was analysed with Partial Least Squares Structural Equation Modelling (PLSSEM) technique. The findings revealed that innovation capability has significance positive relationship with firm performance. In addition, the findings also revealed that innovation capability is a significant SMEs success factor hence, stressing the importance of organizations innovation capability in rising the performance of SMEs. More so, the finding is in line with the assertion of some researchers who posited that innovation capability can influence firm performance. The necessary prerequisites for driving firm performance depends on well-designed, developed, and implemented innovations which play the important roles in bringing new ideas, improvement, reduction in cost of production and increase performance^{22,23,24}.

A researcher in his study used data collected from 264 large and medium sized Croatian companies with more than 100 employees, to examine innovative capabilities, firm performance and foreign ownership. The results proved that companies with more developed innovative capabilities achieve higher performance levels, but that there is no difference in innovative capabilities between large and medium-sized companies. On the other hand, medium-sized companies have slightly higher levels of sales growth and increase in market share. Also, companies in foreign ownership are better at development of new products and new production methods, and they have higher levels of sales growth, market share and increase in market share²⁵.

A researcher examined Effective sense-and-respond strategies: Mediating roles of exploratory and exploitative innovation among 150 firms in Vietnam Manufacturing & Service industries. opined that exploratory and exploitative innovations are salient modi-operandi through which the effects of technology-sensing and market-sensing capabilities affect firm financial performance²⁶. Some researchers in their study examine the new product innovation-performance relationship: Optimizing the role of individual-level creativity and attention-to-detail focusing on 150 Indian manufacturing firms in Tech & Chemicals. study revealed that individuals need to engage at high levels of creativity and attention-to-detail when seeking to impact the firms' pursuit of new product innovation as a contributor to financial performance²⁷.

In a study, a researcher found which focused on Influence of innovation capability and customer experience, collecting data form 606 customers of retail firms, discovered that both technical innovation capability and non-technical innovation capability modifies the effect of complex demographics on loyalty and reputation. Some researchers examined innovation and

business success: The mediating role of customer participation. The main purpose of this study is to advance the marketing literature by untangling the relationships among innovation capability, customer participation, service quality, and firm performance (Sales, market share & profitability). Result show that customer participation does not directly influence firm performance. This finding is in line with a theoretical contention that customer participation may result in opposite effects on speed to market. Specifically, customer participation activities have no or even negative impact on firm performance because bringing customers into collaboration activities may reduce the efficiency and increase the timelines 18,19,23.

Some researchers studied Synergy effects of innovation on firm performance among 856 firms. Result revealed that exploration and exploitation orientations have positive impacts on product innovation and process innovation respectively which have positive impacts on the firm's performance. Product differentiation: a tool of Competitive advantage and optimal Organizational performance (a study of Unilever Nigeria Plc). Collecting data from 323 respondents based in Ota, Ogun state were selected based on the simple random sampling technique. Finding indicates that there is a significant relationship between new product innovation of an organization and its customer satisfaction. Similarly, indicate that there is a significant relationship between unique product features of an organization and its customer satisfaction. There is a significant relationship between higher product quality and the sales growth of an organization 29,30.

Some researchers in their study examined innovation Capability and Firm Performance Relationship: a Study of PLS-Structural Equation Modelling, comprising of 280 SMEs owners/managers in North-western part of Nigeria. The outcome of the structural model shows that there is significant positive relationship between innovation

capability and firm performance (market share, profit, sales growth, customer acquisition). The role of innovation on performance of firms on the Nigerian Stock Exchange was examined by some researchers in their study. The central objective of the paper was to look at the relationship between innovativeness and firm performance in Nigeria. 60 firms were purposively selected out of a targeted population of 176 firms listed in the Nigerian Stock Exchange with financial returns as at August, 2014. Innovation was found to have negative relationships with both returns on assets, and returns on equity. This result suggests that, in Nigeria, like in Kenya, innovation has been widely adopted and practiced, but it was yet to have positive relationship with returns on assets and returns on equity in Nigeria^{31,32}.

In addition, an author investigated the performance-effect of foreign firms' innovation capability, and it confirmed that firms that possess innovative proficiency achieve better performance, and this is irrespective of the size of the company. Further analysis showed that foreign firms had more capability to develop new products and consequently reap better NPP. In an attempt to substantiate how specific internal organisation's contingencies influence, some researchers result suggested that NPP is attributed to organisation learning flexibility and innovation exploration capacity in NPD. However, unlike Wei et al. that focused on learning and innovation, Kim et al., sort to establish a link between two firm-specific capabilities; marketing proficiency and technological asset that drives NPP of Korean firms. The study suggested that technological resources (proxy to innovation capability) enhance marketing capability to influence NPP. Specifically, the positive association between MC and NPP was explained through the possession of technological resources such as dynamic and embedded technology assets^{33,34,35}. Focusing on another firm-specific capability variable different from researchers perspective, a researcher was interested in determining what NPD feature drive NNP. The findings revealed that NPD features, such as uniqueness and quality drive NPP. Contrasting to Dirisu et al., Ateke and Iruka was more interest in what NPD activities that can influence NPP but not the NPD features. The scholar found that involving the customers in the NPD activities (co-creation activities) is significant for NPP. The study revealed that customer involvement management and NPP are strongly and positively related. This stressed that when customers are involved in the co-creation activities to produce a new product, their expectations as per product features and quality are captured hence reducing the potential of NPD failures^{36,37}.

From the theoretical stand point both the ADKAR and dynamic capability theory are strengthened. The strength of the DCT provided the link between the aquaculture enterprise and the macro-environment in which they operate and the ADKAR emphasizes that activities that make up the dimension of response strategy and adaptive resilience factors are change activities that holds potential for enhancing the performance of aquaculture enterprise in Lagos State. This study's results are in concomitance with these theoretical perspectives. Therefore, on the strength of the support found in conceptual, empirical and theoretical submissions in prior literature with this present study's

result, the study posits that response strategy have significant effect on performance vis-à-vis profitability and new product development.

The results of multiple regression analysis for the effect of adaptive resilience on firm competitiveness of aquaculture firms in Lagos State, Nigeria revealed that adaptive resilience has a positive and significant effect on firm performance. Conceptually, organizational resilience is the maintenance of positive adjustment under challenging conditions such that the organization emerges from those conditions strengthened and more resourceful. A resilient company is one that is able to leverage its resources and capabilities in order to capitalize on unforeseen difficulties and changes. This finding aligns with this study's supposition concerning adaptive resilience. This study considered adaptive resilience as critical internal-firm factors that enable an entity or a system to recover quickly from the negative effects of external shocks.

The findings of this study have support in empirical literature. For instance when asked why do some organizations cope with adverse environmental conditions better than others? What processes lead to the creation and adoption of new ways of working? These are questions addressed by resilience²⁶. Some researchers offer more specific answer by advocating that firm with adaptive resilience mechanism are more prone to excel better than firm that do not. A researcher point was corroborated by another researcher that stressed resilience becomes a critical characteristic of a strategic firm with the capability to excel during environmental disruption^{38,39}.

Within supply chain literature, some researchers found relevance for resilience capability. The study posits that external resilience enhance supply chain performance. The implication of the researcher submission is that organisations need to build resilience capability with their supply chain partners to ensure stable material supply as well as continuous product and service delivery so that the end customers' needs can be satisfied and they can improve the firm competitiveness. This result is supported by previous studies. For instance, some researchers emphasized that firm resilience contributes to firms' survival and sustainability by helping firms to behave as complex dynamic systems, operating within dynamic systems of SC partners^{40,41,42}.

In a study, some researchers found that Resilience positively and significantly influences firm performance. Some researchers corroborated another researcher to posit that adaptive resilience has a significant influence on business performance. Studies showed planned resilience had a significant and positive influence on adaptive resilience. Planned resilience had no statistically significant influence on financial performance but, despite the small effect, adaptive resilience had a positive and significant influence on financial performance. In a related study, but offering a different outcome in terms of the unit of analysis is some researchers submit that employee-level resilience affect performance positively when the entrepreneur has a strong propensity towards personal resilience^{37,39}.

Some researchers in their findings predicted that the owner's resilience has a positive impact on the owner's CSE and firm innovation respectively, a direct positive relationship between the owner's CSE and firm innovation; this was also supported by a researcher in his findings. Another researcher predicted that resilience has a direct positive effect on firm performance, this was not supported, and the owner/manager's degree of resilience does not directly lead to a higher level of performance for the firm. However, further examination of the results revealed that resilience has an indirect effect on performance through the mediating variables of CSE and innovation. In the presence of supply-chain-resilience capabilities in the apparel industry, studies finds that supply-chain risk-management culture positively affects supply-chain-resilience capabilities, namely re-engineering, agility and collaboration^{43,44}.

Despite the submission of several resilience scholars about its relevance and significance contribution to firm performance in different context, contrary findings were observed. In a study, a researcher found no direct positive and significant influence of adaptive resilience on firm performance. More so, the business owner manager's resilience did not result in higher level of firm performance. Nonetheless, further analysis revealed that resilience provided the boundary condition through which creative-self efficacy and innovation influenced firm performance. Stressing that resilience is more of a second-order construct as against a first order construct with a direct impact on performance. The ability to cope with challenging situations and to deal with adversity, as well the self-belief in

problems solving is positively related to building creative capabilities and a willingness to search for innovative solutions in business, these in turn become important drivers of firm competitiveness^{45,46}.

In the event of unprecedented market dynamics, where customer exhibit erratic behavior and competition becomes aggressive it becomes critical for firms to gather customer intelligent that would enhance its ability to respond to the market need more effectively^{39,40,41}. Otherwise, failure to be responsive to this competitive market dynamics suggests a firm that is not interested in being competitive nor wanting to survive the harsh business environment. As suggested by scholars, one way to quickly reach out to the customer is by adopting social media platforms^{47,48}. As a customer-related tool, social media can remotely enable customers to connect with the firm to exchange information and obtain feedback that will better the firm in terms of goods and service on offer. This helps foster customer relations, improving customer equity, customer trust, and brand attachment⁴⁹.

While this narrative may be correct, employing social media and not being agile in customer feedback may not guarantee the positive ripple effect as identified earlier. This is because a lack of agile social media suggests that a firm that cannot identify changing market demands attributable to erratic customer feedback quickly and proactively takes advantage of the opportunities it provides and responds efficiently by providing a market offering that meets customer feedback³⁰⁸. Besides, some researchers in their study stressed that using social media to create a new product for customers is not an isolated activity because its success is preconditioned on how such external feedbacks are effectively integrated within existing firm-level capabilities⁵⁰.

Several studies have found relevance for agility in different topical areas of management, such as in supply chain management, internet of things, customer engagement, and technology driven operational management and its usage in this study followed its inter-disciplinary relevance of the concept of agility to firm success.

From the theoretical stand point dynamic capability theory is strengthened. The strength of the DCT provided the link between the aquaculture enterprise and the macro-environment in which they operate and emphasizes that activities that make up the dimension of adaptive resilience factors are change activities that holds potential for enhancing the performance of aquaculture enterprise in Lagos State. This study's results are in concomitance with these theoretical perspectives. Therefore, on the strength of the support found in conceptual, empirical and

theoretical submissions in prior literature with this present study's result, the study posits that adaptive resilience has significant effect on performance vis-à-vis firm competitiveness.

The results of hierarchical regression analysis for the moderating effect of entrepreneurial mindset on the interaction between response strategy, adaptive resilience, and performance of aquaculture firms in Lagos State, Nigeria revealed that entrepreneurial mindset has a positive and significant moderating effect on the interaction effect. Conceptually, a researcher suggested that entrepreneurial mind-set offers potential insights to numerous situations in understanding entrepreneurship in terms of opportunity recognition, entrepreneurial action, new venture formation, business performance¹⁹. Entrepreneurial mind-set is the inclination to discover, evaluate, and exploit opportunities. Entrepreneurial mind-set is about creativity, innovation and taking opportunities that leads to organisational wealth creation and success and that this type of mind-set enables entrepreneurs to make realistic decisions when faced with uncertainties. Creativity is a means to unlock the entrepreneurial potential of individuals, entrepreneurs and organisations, since new ideas and approaches are key ways of promoting an entrepreneurial culture²².

An entrepreneur thinks ahead and consolidates opportunities before they become obvious. An entrepreneur sees the problems/needs around her and sees opportunities to make profits or create value. Successful entrepreneurs contribute towards the development of society and advancement of economic growth²⁶. An entrepreneurial mind-set can be seen as a growth-oriented perspective through which individuals promote flexibility, creativity, continuous innovation and renewal in organizations^{28,29,30}. Uncertainty can be used to your benefit if you create and employ an entrepreneurial mind-set. Thus, an entrepreneurial mind-set is required for the founding of new businesses as well as the rejuvenation of existing ones⁵¹.

Within the context of the stated objective, the empirical submission discussed so far only addressed the performance effect of response strategy and adaptive resilience. However, the potential influence of entrepreneurial mind-set to organisation performance nor how it can become a contingent factor to affecting the interaction between response strategy, adaptive resilience and organisational performance is yet to be addressed.

Extant literature on entrepreneurship development-performance linkage has made emphasis on the need for business organisation regardless of size to have entrepreneurial-mindset given its potential to help business owners to deploy knowledge, innovativeness, autonomy, and understand how to engage risk to enhance organisation competitiveness and superior performance. For example, some researchers found that entrepreneurial mind-set has a positive effect in getting youth to see entrepreneurship and self-employment as a possible career path and something that can be learned and developed. Similarly, the results revealed that entrepreneurial mind-set has a positive effect on youth intentions to start a business. Likewise, Erik et al. in their study on enhancing students' entrepreneurial mind-set in Sweden showed significant positive changes (enhancements) of the students' opportunity recognition and individual entrepreneurial orientation which led to the interest of becoming entrepreneurs. The findings from the analysis indicated that appropriate entrepreneurial mind-set can ensure the success of SMEs in Nigeria^{34,37,43}

Studies revealed that entrepreneurial mind-set has a positive and significant effect on success of SMEs. The findings from the analysis indicate that appropriate entrepreneurial mind-set can ensure the success of SMEs. Similarly, some researchers in their study of entrepreneurial mind-set and organizational success in SMEs in Rivers State found a significant relationship exist between both variables (entrepreneurial mind-set and organizational success). In the same vein, some researchers discovered that entrepreneurial knowledge significantly affect the success of SMEs in Benue State, Nigeria. In congruence with the findings of researchers, a researcher examined entrepreneurial mind-set and performance of small and medium scale enterprises in Makurdi metropolis, Benue State, Nigeria and found that that innovativeness, creativity, business alertness and risk taking were significant in affecting the success of SMEs in Benue State⁴⁸.

Furthermore, some researchers examined mind-set and entrepreneurial activities in Rwanda and found that an entrepreneurial mind-set is an important factor of performance and sustainability in Rwanda without which a business will fail. Likewise, a researcher revealed that entrepreneurial mind-set can be used to improve business

performance to achieve business success. Also, some researchers on assessment of entrepreneurial mind-set on sustainability of Nigerian SMEs found that entrepreneur's experience was a key factor that significantly affected entrepreneur's business growth in South-East Nigeria. The researchers also revealed that there was a significant relationship between risk taking and business profitability. In the same vein, some other researcher found that personality trait plays an important role in entrepreneurs' success and has important implications for entrepreneurs and for others wishing to assist them in their efforts to start new ventures³⁵.

Studies examined the role of autonomy on performance of small and medium scale enterprises and found a positive interaction between dimensions of entrepreneurial mind-set and productivity of SMEs. Likewise, some researchers found that increases in the levels of entrepreneurial alertness are related to increases in productivity of new venture performance. In the same vein, a researcher reported that innovativeness, proactiveness and autonomy were

significantly associated with tourism firm productivity and performance, whereas risk-taking and competitiveness were not. Despite the geographical difference in the studies, the explanation of most of the empirical studies reviewed previously indicated that dimensions of entrepreneurial mind-set have significant effect on productivity which is not in alignment with the hypothesis of the study³⁶.

In collaboration with the past positive findings some researchers examined the effect of external relationships in the organizational innovation. The study revealed that organizational innovation is more likely to lead to a reduction of administrative transaction costs, as well as enhance satisfaction in the work environment. In the same vein, some other researchers investigated the relationship between innovation and firm performance among Turkish automotive supplier industry and found a positive significant relationship exist between organizational innovativeness and financial performance. Despite the geographical difference in the studies, the explanation of most of the empirical studies reviewed previously indicated that dimensions of entrepreneurial mind-set have significant effect on SME success which is not in alignment with the hypothesis of the study^{36,37,38}.

Studies have found that entrepreneurial mind-set plays a pivotal role in entrepreneurial intention among students as well as business success. However, literature has not contributed much in exploring the influence of government

policy on the relationship between entrepreneurial mind-set and success of Small and Micro-Enterprises in Nigeria^{36,39}. The significant role of SMEs can be realized if there are government policies are in their favour in terms of regulatory frameworks, tax, business registration cost to help them. To address the moderating effect on entrepreneurial mind-set on the interaction between response strategy, adaptive resilience and organisational performance, the study given the rarity of prior empirical submission on this objective, adopt a theoretical approach to logically present the possible outcome. Drawing from the interactionist perspective in other words, contingency theory of fit

as a moderator, the success of a firm is contingent on its strategic fit with the environment. Specifically, the CT of fit as a moderator suggests that when the interaction between the independent variable and the dependent variable is enhanced with the introduction of a third variable then a moderating-effect has taken place. By implication, the fit between the independent variable and the third variable should produce significant influence on the dependent variable. Hence, given this narrative, this study can conclude that the interaction between adaptive resilience, strategic response and performance of aquaculture fish farms in Lagos State was enhanced where they exhibit a higher-level entrepreneurial orientation/mindset⁴³. This study's results are in concomitance with the contingency theoretical perspectives. Therefore, on the strength of the support found in conceptual, empirical and theoretical submissions in prior literature with this present study's result, the study posits that entrepreneurial mindset has significant moderating effect on the interaction between response strategy adaptive resilience and performance of aquaculture firms in Lagos State, Nigeria.

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Chapter Five

Conclusion

This chapter discusses the summary of the findings, conclusions and recommendations of the study. The findings of this study concisely summarize the contributions of the study to knowledge whilst also emphasizing respective limitations to study as well as suggestions to further studies.

5.1 Summary of Findings

The study examined the effect of response strategy (strategic planning, market sensing capability, exploitative innovation), and adaptive resilience (Omoluabi-leadership, collaborative engagement, social media agility) on performance (profitability, new product development, firm competitiveness) of aquaculture firms in Lagos State, Nigeria. It precisely assessed the effect of response strategy on profitability and new product development respectively. Also, it assessed the effect of adaptive resilience factor on firm competitiveness. Moreover, the study examined the effect of response strategy and adaptive resilience on performance of aquaculture firms. Further analysis was done to determine the moderating effect of entrepreneurial mindset on the interaction between response strategy, adaptive resilience and performance of aquaculture firms in Lagos State. From the analyses and interpretation of hypotheses, the following can be summed up as the major empirical findings of this study:

1. Response strategy has positive and significant effect on profitability of aquaculture firms in Lagos State, Nigeria (Adj
2. Response strategy has positive and significant effect on new product development of aquaculture firms in Lagos State, Nigeria
3. Adaptive resilience has positive and significant effect on competitiveness of aquaculture firms in Lagos State, Nigeria (Adj

4. Response strategy and adaptive resilience have positive and significant effect on performance of aquaculture firms in Lagos State, Nigeria (Adj

5. Entrepreneurial mindset has significant moderating effect on the interactions between response strategy, adaptive resilience and performance of aquaculture firms in Lagos State,

5.2 Conclusion

Based on the empirical findings, this study concluded that there was a statistically significant effect of response strategy (strategic planning, market sensing capability, exploitative innovation), and adaptive resilience (Omoluabi- leadership, collaborative engagement, social media agility) on performance of aquaculture firm which include profitability, new product development, and firm competitiveness. Further analysis showed that entrepreneurial mindset has significant moderating effect on the interaction between response strategy, adaptive resilience and performance of aquaculture firms in Lagos State, Nigeria.

Theoretically, the outcome of this study is in line with the ADKAR theory, dynamic capability theory and the contingency theory which provided the theoretical underpinnings for this study. The theories were selected to guide this study because their perspectives relate to the variables under investigation. The strength of the DCT provided the link between the aquaculture enterprise and the macro-environment in which they operate and the ADKAR emphasizes that activities that make up the dimension of response strategy and adaptive resilience factors are change activities that holds potential for enhancing the performance of aquaculture enterprise in Lagos State. Drawing from the interactionist perspective in other words, contingency theory of fit as a moderator, the success of a firm is contingent on its strategic fit with the environment. Specifically, the CT of fit as a moderator suggest that when the interaction between the independent variable and the dependent variable is enhanced with the introduction of a third variable then a moderating-effect has taken place. Based on explanatory powers of these theories, the CT offers explanation for the potential of deploying entrepreneurial mindset as a contingent factor that moderate the interaction between response strategy, adaptive resilience, and performance of aquaculture business in Lagos State, Nigeria.

5.3 Recommendations

Based on the findings of this study, the following recommendations are made;

- i. The study established that response strategy significantly contributes to profitability of aquaculture firms. However, the effect is weak suggesting that more effort is required by management with regards to strategic planning and market sensing capability given their insignificant and negative relative effect of profitability of aquaculture firms in Lagos State, Nigeria.
- ii. Exploitative innovation capability and market sensing capability has insignificant relative effect on new product development. This suggests weakness on the part of aquaculture firms in Lagos State hence to reap the benefit associated with new product development management must reinvent their innovation and marketing activities to include exploiting their value chain and obtain market information through sensing capability to develop new product.
- iii. Adaptive resilience contributes significantly to aquaculture competitiveness however, the effect is weak. Hence. Management of the aquaculture firms in Lagos should pay special attention to collaborative engagement because of its insignificant relative effect on firm competitiveness.
- iv. Response strategy and adaptive resilience have significant but weak effect on performance of aquaculture firms in Lagos State. This means that the aquaculture firms in Lagos State should engage a strategic management consultant to undergo training on internal organisation competences that can enhance the deployment of response strategy and proper development of adaptive resilience attributes.
- v. Entrepreneurial mindset acts as a significant moderator which enhances the interaction between response strategy, adaptive resilience and performance of aquaculture firms in Lagos State, Nigeria. With a significant moderating effect, it is critical that aquaculture firms in Lagos State, Nigeria take advantage of developing and deploying entrepreneurial mindset vis-à-vis risk taking, innovativeness, and business alertness which can be used to take advantage of business opportunities in the environment.

5.4 Contributions to Knowledge

The finding of this study its findings made important contributions to academia and practitioners in the following ways:

5.4.1 Implication to Researchers

Based on the conceptual review done, this study offers immerse contribution to knowledge conceptually in several ways. This study identified and filled conceptual gaps in literature regarding the response strategy and adaptive resilience linkage with performance of aquaculture firms in Lagos State, Nigeria. Likewise gap regarding the moderating role of entrepreneurial knowledge on the linkage between response strategy, adaptive resilience, and performance of aquaculture firms in Lagos State, Nigeria was equally addressed. This was done considering, prior studies have only considered the individual effect of response strategy and business resilience but not the combined effect of the two variables as it affect aquaculture firm performance.

This study also contributed to conceptual knowledge by providing it definition to each of the independent variables and their sub variables and this can form the basis for conceptual discussion in future studies on response strategy and adaptive resilience literature. In conclusion, the conceptual model developed for the study suggests another area in which this study has contributed to the body of knowledge conceptually because no known similar studies, both theoretical and empirical, have utilized the model in their studies. Hence, adding to models that can explain the link between response strategy, entrepreneurial mindset, and performance of aquaculture firms in Lagos State, Nigeria.

The outcome of this study offered additional support for the tenets of the ADKAR theory, dynamic capability theory and the contingency theory, which provided the theoretical underpinnings for this study. Specifically, these theories offered a complementary explanation to substantiate the interaction of response strategy, adaptive resilience, entrepreneurial mindset as critical for enhancing firm performance. The strength of the DCT provided the link between the aquaculture enterprise and the macro-environment in which they operate and the ADKAR emphasizes that activities that make up the dimension of response strategy and adaptive resilience factors are change activities that holds potential for enhancing the performance of aquaculture enterprise in Lagos State. The contingency theory of fit as a moderator, offers the theoretical explanation for the potential of deploying

entrepreneurial mindset as a contingent factor that moderate the interaction between response strategy, adaptive resilience, and performance of aquaculture business in Lagos State, Nigeria. Therefore, on the strength of the outcomes of theory testing (see 4.2 Test of hypotheses), this study confirms that via the complementary role played by the ADKAR theory, dynamic capability theory and the contingency theory, this study has made a significant contribution to theory application and offers future studies the ability to infuse three theories to provide theoretical basis and explanation for the achievement of the objective of a study.

5.4.2 Implications for Practitioners

This study evaluated the interactions of response strategy, adaptive resilience, entrepreneurial mindset, and performance of aquaculture firms in Lagos State, Nigeria. The empirical outcome of this study contributes to the existing literature and empirical findings in the area of response strategy, adaptive resilience, entrepreneurial mindset, and performance of aquaculture firms in Lagos State, Nigeria and equally served as a reference material for future researchers. Specifically, the empirical findings from the test of hypotheses suggested that response strategy, and adaptive resilience are critical success factors for performance of aquaculture firms in Lagos State, Nigeria, given that individually and collectively, they exert positive and significant effects on aquaculture firm performance.

Moreover, this study positioned the value relevance of having and deploying entrepreneurial mindset given that it can help aquaculture firms seize and take advantage of business opportunities within their environment. This is because entrepreneurial mindset acted as a moderator which enhanced the interaction between response strategy, adaptive resilience, and performance. These empirical submissions are a product of hypotheses testing, and they offer future researchers the opportunity of having a robust finding to aid their empirical reviews in their studies and the basis to corroborate and present a contrary outcome as with this study's submission, hence pushing forward the frontier of knowledge in accounting field. Overall, these above-mentioned points lay emphasis on the

fact that this study offers significant contribution to knowledge and has practical implication for the aquaculture firms in Lagos State that were investigated.

The limitations of this study offer opportunity and suggestions for future study.

i. Future studies may consider a multi-industry study that will incorporate other organisation in FMCG, Automobile and service industry like hospitality, logistics firms, marketing agencies and quick-service restaurants in the country to enhance the generalization of this study's findings.

ii. In order to provide explanations of causality between the variables studied over time, future studies may consider a longitudinal study.

iii. Future studies may consider incorporating environmental turbulence to evaluate the performance-effect of each dimension.

5.5 Suggestion for Further Studies

iv. A comparative study focused on local and multinational aquaculture firms with regards to the performance effect of response strategy and adaptive resilience factors will present interesting research.

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Questionnaire

Lead City University Ibadan

Department of Management and Accounting

Dear Respondent,

As part of the requirement for a Doctor of Philosophy degree in Accounting, I am carrying out a study on "Response Strategy, Adaptive Resilience factors, and Performance of Aquaculture Firms in Lagos State, Nigeria". This study is mainly an academic exercise as all information provided would be treated with the utmost confidentiality. In any case, you feel uncomfortable to proceed; you may withdraw your consent at no cost. Below is the questionnaire that addressed the objective of this study. Please feel free to tick the option that best express your personal views.

Thank you.

Jimoh-Lawal

Section A: Demographic Information

Please carefully go through each item and tick (V) as appropriate.

1. Gender: Male(☐)Female(☐)
2. What is your age bracket: 21-30(☐)31-40(☐)41-50(☐)51-60(☐)61-65(☐)
3. What is your highest academic qualification: ND/NCE (☐)B.Sc/BA/HND(☐)PGD/MBA/MSc/MA(☐) MPhil (☐) PhD(☐) Others, (please specify).
4. Job Level: Top management (☐) Middle management (☐) Operational management (☐)
5. Length of Service: Below 5yrs (☐) 6-10yrs (☐) 11-15yrs (☐) 16yrs -
6. Kindly rate your knowledge of the overall organisational activities and performance of your organisation on the scale below.

Very low

Excellent

1	2	3	4	5	6	7	8	9	10
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Section B: Response Strategy

The statement in this section concerns response strategy applicable to your firm. Using the six-point Likert-type-scale provided, please indicate the extent to which each statement applies to your organization by selecting one of the options provided (6,5,4,3,2,1).

6=Very High extent;5=High extent; 4=Partially High extent; 3 =Partially Low extent; 2= Low extent;1=Very Low extent

I	Strategy Planning	VHE	HE	PHE	PLE	LE	VLE
	To what extent, does your firm do the following?						
1	Establish specific actions to implement the strategy						
2	Encourage staff input in planning strategy						
3	Demarcate resources to enhance strategy planning						
4	Designate who is responsible for each strategic action						
5	Engage managers in defining resources required to achieve plan						

6	Define goal indicators in order to monitor strategy success						
7	Able to comprehensively monitor the implementation of the strategy						
ry frequently; requently;							
III	Exploitative Innovation Capability How often does your firm's do the following?	VF	F	O	R	VR	N
	Introduce a generation of new products						
	Extend product range						
	Open up new markets						
	Enter new technology fields						
	Improve existing product quality						
	Improve production/operation flexibility						
	Reduce operation/production cost						
	Introduce a generation of new products						
	Extend product range						
	We consistently explore new markets						
	We are quick to adapt our business to suit changing business environment						
IV	Market Sensing Capability To what extent,does your firm exhibit the following?	VHE	HE	PHE	PLE	LE	VLE
1	Alert to market dynamics.						
2	Anticipate market trends.						
3	Know competitors' pricing tactics.						
4	Monitor competitors' price changes.						
5	Advertise periodically.						
6	Manage corporate image.						
7	Develop creative marketing strategies.						
8	Interact with customers.						

Section C: Adaptive Resilience Factors

The statement in this section concerns adaptive resilience indicators applicable to your company. Using the six-point Likert-type-scale provided, please indicate the extent to which each statement applies to your organization by selecting one of the options provided (6,5,4,3,2,1).

I	Social Media Agility Since our organisation started using social media,we have?	VHE	HE	PHE	PLE	LE	VLE
1	Increased avenues to address customer issues						
2	Deliver our products and services more quickly						
3	Respond very reliably to market changes						
4	Achieve greater flexibility in products/services offered.						
5	Been very quick to adapt to business opportunities						
6 = Very frequently; 5 = Frequently; 4 = Occasionally;							

III	Omoluabi Leadership How often does your firm's leadership exhibit the following?	VF	F	O	R	^v R	N
1	Always on the lookout for new opportunities						
2	Has a clear view of its final aims for the business						
3	Succeeds in motivating all the employee						
4	Always acts as the organisation's leading force						
5	Sets high goals for myself (high performance expectations						
6	Inspires others in the organisation with their future plans						
7	Behaves in a manner thoughtful of my personal needs						
8	Builds a system of shared purpose for all employees						
IV	Collaborative Engagement To what extent,does your firm exhibit the following?	VHE	HE	PHE	PLE	LE	VLE
1	Develop a culture that values and practices open communication						
2	Possess a transparent performance appraisal mechanism						
3	Allow employee participation in goal settings						
4	Possesses a system that guarantees employee's personal and professional growth						
5	Encourages scheduling work flexibility that aids Work-life balance						
6	Invest resources necessary to closely connect with customers						
7	Take customers' viewpoint to design and improve business process						
8	Effectively interact with customers						
9	Are able to immerse in customer reality						

Section D:Performance of Aquaculture Firms

The statement in this section concerns sustainability performance indicators as applicable to your firm.Using the six-point Likert-type-scale provided, please indicate the extent to which each statement applies to your organization by selecting one of the options provided (6,5, 4, 3,2,1).

y High extent; =High extent;4 = Partially High extent; 3 = Partially Low extent;2=Low extent;Low extent

V	Profitability In the last 5 years, to what extent,does your firm achieve the following relative to industry average?	VHE	HE	PHE	PLE	LE	VLE
1	Increase between 2015 and 2016						
2	Increase between 2016 and 2017						
3	Increase between 2017 and 2018						
4	Increase between 2018 and 2019						
5	Increase between 2019 and 2020						
6	Increase between 2020 and October 2021						
VI	Competitiveness To what extent,does your firm achieve the following relative to industry average?	VHE	HE	PHE	PLE	LE	VLE
1	Offer better product quality						
2	Better handling of customer complaints in new product						

3	Produce at lower unit cost						
4	Have motivated and loyal workforce						
5	Possess unique selling point						
6	Have better brand reputation						
7	Acquisition of competitive resources						
VIII	New Product Development Performance To what extent, does your firm achieve the following relative to industry average?	VHE	HE	PHE	PLE	LE	VLE
1	Product success rate						
2	Short time to market						
3	Short development cycle						
4	Market potential of new products						
5	Increase market presence						
6	Better product quality						

Section E: Moderators

The statement in this section concerns moderating variables (Entrepreneurial-mindset) which firm are exposed to. Using the six-point Likert-type-scale provided, please indicate the extent to which each statement applies to your organisation by selecting one of the options provided (6,5,4,3,2,1).

=Very High extent;5=High extent;4=Partially High extent;3=Partially Low extent;
ery Low extent

IX	Entrepreneurial-mindset: To what extent does your firm's leadership exhibit the following	VHE	HE	PHE	PLE	LE	VLE
1	Display superior business knowledge						
2	Adoption of new technology in service delivery						
3	Conducting periodic market analysis for new opportunities						
4	Encourage employee participation in decision making						
5	Encourage employee creativity						
6	Assess its risks						
7	Take reasonable risk						
8	Encourage continuous improvement						
9	Encouraging product innovation						
10	Encourage business opportunity identification						

Thank you for participating in this study
Biodata

A. Personal Data

1. Full Names: Lawal Ojo JIM-SAIKI

2. Address: 26, Adeola street, Off Ilado Road, Akesan, Igando-Ikotun, LCDA, Lagos.

3. Date and Place of Birth: 15/09/1962, Lagos

4. Nationality: Nigerian

5. Name and Address of Next of Kin: 26, Adeola street, Off Ilado Road, Akesan, Igando-Ikotun, LCDA, Lagos.

B. Educational Background

1. Educational Institutions Attended with Dates and Qualifications

· Etuno Model Primary School, Igarra	1969-1975
· Etuno Grammar School, Igara	1975-1980
· Bendel State University, Ekpoma	1995-1997
· Lagos State University, Ojo, Lagos State	2007-2008
· Lagos State University, Ojo, Lagos State	2012-2013
· Lead City University Ibadan, Oyo State	2019-till date

2. Academic Qualifications Obtained (with Dates)

Primary School Leaving Certificate	1975
Secondary School Certificate	1980
Bachelor of Science (B.Sc) Economics	1997
Master in Environmental Resource Management	2008
Master in Business Administration	2013
· PhD in Business Administration	in-view

C. Working Experience with Dates

· Nigerian Institute for Oceanography and Marine Research (NIOMR), Lagos (1989-Date)
Research into Supply of Credit and Subsidy to Coastal Artisanal Fisheries in Nigeria (2008). NIOMR Capital Project.

Research team member, Nigeria-Sao Tome and Principe Joint Development Zone of the Non-Hydrocarbon Resources Project-Fisheries Socio-economic Studies (2008). Nigeria-Sao Tome and Principe Joint Development Authority (JDA) Sponsored Project.

· Member, Inter-ministerial Committee on "Creation of Nigeria's Fish Stock Data Bank" for Fishers' Compensation in the Event of Losses During Oil Pollution (2009). Federal Ministry of Transport Sponsored Project.

Research team member, DFID-FAO Sustainable Fisheries Livelihood Programme (SFLP) GCP/INT/735/UK Study on "Contribution of Research to the Improvement of Coastal Fishing Communities in Nigeria" (2001-2002).FAO/DFID Sponsored Project.

Research team member,SFLP"Fisheries and HIV/AIDS in Africa Project". Baseline Information on the Prevalence of STDS, HIV/AIDS in Coastal Artisanal Fishing Communities in Lagos State, Nigeria(2008-2010).FAO/DFID Sponsored Project.

Research Team member, Fisheries Study of the Lagos Lagoon (Ikorodu) for the Establishment of Independent Power Project (IPP). Chevron/NIOMR (2006).Chevron Nigeria Unlimited Sponsored Project.

·Research team member, Nigeria Liquefied Natural Gas (NLNG) Limited, Socio-economic Project - "Fisheries Studies in the Bonny Island Area for the Channel Deepening Project off Bonny"(2004-2005).NLNG Sponsored Project.

Research team member, Base Line (Historical) Data for The Channel Deepening Project off Bonny, Rivers State. NLNG/NIOMR (2003). NLNG Sponsored Project.

Research team member, Socio-economics of Shrimps By-catch Trade.GEF/FAO/UNEP Project."Reduction of Environmental Impact from Tropical Shrimp trawling through the Introduction of By-catch Reduction Technologies and Change Management EP/GLO/201/GEF (2004-2008).GEF/FAO/UNEP Sponsored Project. Team Leader,Research into Nigeria's Fish Marketing and International Trade (2002).NIOMR Capital Project.

Research team member, Study of Main Drainage Channels of Victoria and Ikoyi Islands in Lagos Nigeria and their Response to Tidal and Sea Level Changes-Coastal and Small Island(CSI-UNESCO)Special Project. UNESCO Sponsored Project.

2000

· Research team member, Promotion of Agro-Food Enterprises in West Africa-ARCT (Senegal) & IDRC (Canada). ARCT (Senegal) and IDRC (Canada) Sponsored Project.1998

Research Team Member,Socio-economic Study of Nigeria's Coastal Artisanal Fisheries. NIOMR Capital Project. 1998-till date

Research Team member, Costs and Earnings Study of Artisanal Fisheries at Orimedu,Lagos-Nigeria.IDAF/NIOMR Collaboration Project. 1996

Continuous Collection and Assessment of Catch and Effort Statistics in Nigeria's Coastal Artisanal Fisheries. NIOMR Capital Project. 1998

General Administration of Staff: Documentation, Update of Records of Service,Secretary to Management Committee, Implementation of NIOMR's Administrative Policies

S& J Industrial Services Limited, 88, Palm Avenue Road, Off Isolo Road,Mushin,Lagos 1987-1989

- Staff Recruitment, Training and Discipline.
- Book Keeping,Salary preparation and General Cash Management.
- Tax Assessment.

Enwan Mixed Secondary School, Enwan-Igarra, Edo State
Class Teacher and Sanitary supervisor.

1980-1982

D.Award and Fellowships if any

One Incremental Salary Credit for Loyalty and Dedication to Duty 1993

E.Membership of Academic Professional Bodies

Associate Member, Nigerian Institute of Management (AMNIM)

Member, Fisheries Society of Nigeria (MFS)

F.Conferences and Workshops Attended with Dates

Jim-Saiki, Ojo Lawal, Ogunbadejo, Kehinde Hussain and Giwa, Esemuze Joseph (2020).COVID-19:The Role of Aquaculture in Employment Generation in Nigeria. 35th Annual Conference of FISON, Minna, Niger State. Pp207.

Jim-Saiki L. O., Eke M., Ogunbadejo H. K., Alhaji T.A. and Giwa J. E. (2020). Industrial Fishing In Nigeria: A Recent Assessment Of Fish Landings. 35th Annual Conference of FISON, Minna, Niger State. Pp293.

Ogunbadejo H.K., Jim-Saiki L. O. and Alhaji T. A. (2020). An assessment of marine fish resource exploitation in Ogun state, Nigeria. 35th Annual Conference of FISON, Minna, Niger State. Pp318.

Alhaji T.A, Jim-Saiki L.O., Ogunbadejo H.K and Mohammed R. (2020). The Effects of Imported Fishes on Nigeria Fishing Industry.35th Annual Conference of FISON,Minna,Niger State. Pp349.

Alhaji T.A.,Anyanwu P. E., Jim-Saiki L. O., Abdullahi M.M., Omotoyo I. A., Mohammed R.and Rayyanu H. S. (2019). Impact of Value Chain Capacity Building, Training for Youths and Women in Chikun/Kajuru Constituency, Kaduna State, Nigeria. 34th Annual Conference of FISON, Abakaliki, Eboyin state. Pp 179.

Obasi U.E., Jim-Saiki O.L., Nwezza N.S., Adeyemo A.M. Eke M. and Agwu C.S. (2019).An Assessment of Gender participation in Fishing Gear Operation among Artisanal Fishers in Badagry,Lagos.34th Annual Conference of FISON, Eboyin State Pp 379.

Tanko A.A., Anyanwu P.E., Matanmi M.A., Jim-Saiki L.O.,Giwa E.J.,Obasi E.U.and Waniko S.N. (2019). Assessment of Aquaculture Trainees' Impact on Improved Fish Production in Nigeria. 34th Annual Conference of FISON, Eboyin State, Nigeria. Pp 394.

Nwezza S.N., Eshiet I., Adeogun O., Jim-Saiki L. O., Unah R. L., Obasi E. U. and Olajide O.T. (2018).Gender and Participation in Artisanal Fishing and Fish Processing Activities in Badagry,Lagos State. 33rd Annual Conference of Rural Sociological Association of Nigeria (RUSAN) ABU, Zaria. Pp 136-139.

Unah R.L., Jim-Saiki L. and Obasi E. U. (2018). An Over-view of Nigeria's Fish Production and Inter-regional Fish Trade. FISON 33rd Annual National Conference, Ikorodu,Lagos.

Giwa Esemuze, Jim-Saiki Lawal and Ogunbadejo Kehinde (2018).Short-term Projection of Aquaculture Contribution to Domestic Fish Production in Nigeria and its Expected Potentials.FISON 33rd Annual National Conference, Ikorodu,Lagos.

Jim-Saiki L.O., Adedokun, W.A., Tanko A.A., Giwa E.J. and Eke M. (2018).An Assessment of Economic Efficiency of artisanal Fishing in Lagos: Case Study of Okun Folu Fishing Community,Ibeju-Lekki. FISON 33rd Annual National Conference, Ikorodu,Lagos.

Nwezza S. N., I. Eshiet, Adeogun O., Jim-Saiki L. O., Unah R. L. and Obasi E.U. (2018).An Investigation of Gender Differentials in the Use of Fishing Gears in Artisanal Fishing in Badagry,Lagos.FISON 33rd Annual National Conference, Ikorodu, Lagos.

Jim-Saiki L., Adedokun W. A., Oyewo O. O. and Mercy Eke (2018). Assessment of Price Index of Some Essential Feed Ingredients for Fish Culture in Lagos. FISON 33rd Annual National Conference, Ikorodu, Lagos.

Ogunbadejo H. K., Jim-Saiki L. O. and Giwa J. E. (2018). An assessment of the application of Linear Programming in Aquaculture Feed Formulation. FISON 33rd Annual National Conference, Ikorodu, Lagos.

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The University Compliance Certification

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