

**MEDIATING ROLE OF INNOVATION IN THE RELATIONSHIP BETWEEN  
MARKET ORIENTATION AND FIRM PERFORMANCE IN ABUJA  
TELECOMMUNICATION INDUSTRY**

**BY**

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**AUGUST, 2021**

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## ABSTRACT

The relationship between market orientation and firm performance and mediating influence of many factors has been researched extensively across various contexts. However, little focus has been on mediating role of innovation which could potentially channel the effects of market orientation on performance. The study was aimed at determining the mediating role of innovation in the relationship between market orientation and performance of telecommunication firms in Abuja, while the specific objective is to examine the effect of market orientation on telecommunication performance. This study adopted the survey design, with simple random sampling technique used for data collection. A sample size of 300 respondents was determined from the population of 13,145 employees of the four major telecommunication operators in Abuja using Taro Yamane (1967) statistical formula. The study also adopted the market orientation scale developed by Narver and Slater to investigate the mediating role of innovation in the market orientation and performance relationship of telecommunication firms in Abuja, while adopting the resource based theory (RBT) as the analytical framework. Structured questionnaires on a 5-point Likert scale were used for primary data collection. The validity of the instrument was ascertained using content validity. The instrument was checked for reliability using test re-test method through composite reliability test with a value of  $\geq 0.70$ . The study made use of Structured Equation Model (SEM) using Smart PLS to estimate and analyze the objectives. Probability level of significance was given at 5%. The study found out that there is a significant relationship between competitor orientation and business performance ( $t=9.796$ ;  $p=0.000$ ). Innovation was found to partially mediate the relationship between market orientation and business performance. It was recommended that management of telecommunication firms consider and review their level of innovation and also give attention to what their subscribers want as a way of improving business performance. In deed in a highly competitive market the key drivers of success is the speed with which market intelligence is shared across department and built into all processes and offerings to the target market.

## TABLE OF CONTENTS

<b>Contents</b>	<b>Page</b>
Cover Page	
Title Page	i
Declaration	ii
Certification	iii
Dedication	iv
Acknowledgements	v
Abstract	vi
Table of Contents	vii
List of Tables	xii
List of Figures	xiii
<b>CHAPTER ONE</b>	
<b>1.0 INTRODUCTION</b>	<b>1</b>
1.1 Introduction to Study	1
1.2 Background of the Study	1
1.3 Statement of the Research Problem	4
1.4 Aim and Objectives of the Study	5
1.5 Research Questions	5
1.6 Research Hypothesis	6
1.7 Scope of the Study	6
1.8 Significance of the Study	7
1.9 Limitations of the Study	7
1.10 Definition of Terms	8

<b>CHAPTER TWO</b>	<b>9</b>
<b>2.0 LITERATURE REVIEW</b>	<b>9</b>
2.1 Concept of Market Orientation	9
2.2 Elements and Measurement of Market Orientation	13
2.2.1 MARKOR scale	15
2.2.1.1 Gaining information	16
2.2.1.2 Dissemination of information	16
2.2.1.3 Planned and implemented response	17
2.2.2 MKTOR scale	18
2.2.2.1 Customer orientation	18
2.2.2.2 Competitor orientation	19
2.2.2.3 Inter-functional coordination	20
2.2.3 Other measurement scales	21
2.3 Theoretical Background	22
2.3.1 Schumpeter's theory of innovation	22
2.3.2 Resource Based Theory (RBT) of the firm	24
2.4 Concept of Innovation	25
2.5 Concept of Business Performance	27
2.6 Market Orientation and Performance	28
2.7 Market Orientation and Innovation	31
2.8 Market Orientation, Innovation and Firm Performance	32
2.8.1 Mediating role of innovation	33
2.9 Empirical Studies	34
2.10 Conceptual Framework	38
2.11 Mobile Telecommunication Industry	39
2.12 Nigeria Mobile Telecommunication Industry	40
2.13 Competitors in Nigeria Telecommunication Industry	41
2.14 Contribution of Mobile Telecommunication to Nigeria Economy	41

2.15	Performance of Mobile Telecommunication Firm in Nigeria	42
<b>CHAPTER THREE</b>		43
<b>3.0</b>	<b>RESEARCH METHODOLOGY</b>	43
3.1	Location of the Study	43
3.2	Research Design	44
3.3	Population of the Study	44
3.4	Sampling Techniques	44
3.5	Sample Size	45
3.6	Measurement of Research Constructs	47
3.7	Sources of Data Collection	47
3.8	Method of Data Collection	47
3.9	Pilot Study	48
3.10	Data Analysis Techniques	49
3.10.1	Justification for use of SEM	49
3.10.2	Instrument of reliability and validity	50
3.11	Method of Data Administration	52
3.11.1	Staff questionnaire administration	53
3.12	Mediation Analysis Using Bootstrapping Approach	53
3.13	Structural Equation Model of MO and Firm Performance	55
<b>CHAPTER FOUR</b>		57
<b>4.0</b>	<b>RESULTS AND DISCUSSION</b>	57
4.1	Demographic Characteristics of Respondents	57
4.2	PLS-SEM Model Assessment	59
4.3	Confirmatory Factor Analysis	60
4.3.1	Measurement model assessment	61
4.3.2	Internal consistency reliability	61

4.3.3	Convergent validity	62
4.3.4	Discriminant validity	63
4.4	Structural Model Assessment	64
4.5	Effect of Market Orientation on Telecommunication Performance	66
4.5.1	Effect of customer orientation on performance of telecommunication firm	67
4.5.2	Effect of competitor orientation on performance of telecommunication Firm	67
4.5.3	Effect of Inter-functional coordination orientation on performance of telecommunication firm	68
4.6	Effect of Market Orientation on Innovation	68
4.7	Effect of Innovation on Telecommunication Performance	69
4.8	Mediating role of Innovation and Market Orientation on Performance	70
4.9	Summary of the Hypothesis Tested	71
<b>CHAPTER FIVE</b>		72
<b>5.0</b>	<b>CONCLUSION AND RECOMMENDATION</b>	72
5.1	Summary of findings	72
5.2	Elements and effects of Market Orientation on Performance	72
5.2.1	Effect of market orientation on innovation	72
5.2.2	Effect of innovation on performance	73
5.2.3	Mediating role of innovation between market orientation and performance	73
5.3	Conclusion	73
5.4	Recommendations	73
5.5	Recommendations for Further studies	74
<b>REFERENCES</b>		75
<b>APPENDICES</b>		94

## LIST OF TABLE

Table	Pages
2.1 Summary of the Empirical Reviews	37
3.1 Sample Size for Staff Questionnaire Administration	46
3.2 Output of the Construct Validity Test	48
3.3 Breakdown of returned questionnaires by telecom operators	52
4.1 Response rate	57
4.2 Demographic Characteristics of Respondents	58
4.3 Reliability test using Cronbach Alpha	61
4.4 Composite Reliability Table	62
4.5 Average Variance Extracted Table	63
4.6 Average Variance Extracted and Correlation Matrix	63
4.7 Summary of Validity and Reliability test using smart PLS	64
4.8 Variables measuring the construct	65
4.9 Hypotheses and Sub-hypotheses tested	66
4.10 Results of Hypothesis Testing using Path Coefficient	67
4.11 Estimating the effect of market orientation on innovation	69
4.12 Result of the Effect of Innovation on Performance	69
4.13 Mediating Effect of Market Orientation on Performance	70
4.14 Summary of hypothesized construct	71



## LIST OF FIGURE

Figure	Page
2.1 Conceptual Framework	39
3.1 Graph of telecom operator's market share.	46
3.2 Single Mediator Model	54
3.3 Mediation Analysis Using Bootstrapping Approach	54
4.1 Conceptual Model	60

## **CHAPTER ONE**

### **1.0**

### **INTRODUCTION**

#### **1.1 Background to the Study**

The service sector is an important component of every country's economy, and it has been identified as a sector with the capability to become a significant driver of sustained growth in Africa. The Nigerian service sector consists of several industries such as telecommunications, information and communication technology, banking, retail and wholesale trade, tourism, real estate, motion pictures (Nollywood), entertainment and education. The service sector is presently the fastest developing sector in the world. It accounts for a significant proportion of gross domestic product in most countries and makes significant contribution to the share of total employment. As of 2019, service sector contribution to Nigeria's GDP stood at about 60% and the telecommunication sector accounts for more than 13.8% of this growth (Nigeria Communication Commission, 2019).

In Nigeria, there are four major network operators namely MTN with market share of 37.43%, Airtel with 26.81% , Globacom with 26.74% and 9mobile with 9.01% (NCC, 2019). These firms have adopted diverse strategies in order to improve their market performance (market share). Also, in the estimation of the National Communications Commission (2018), mobile subscribers in Nigeria stood at 172,871,094 at the end of 2019. Of these, Airtel Nigeria had a subscriber base of 46,836,395; Globacom had 46,713,068; (mobile had 15,739,967; while MTN had 65,379,196 subscribers. This shows that there is rapid growth in mobile phone subscription and usage in Nigeria. The growth rate of Global system for Mobile Communication (GSM) in Nigeria is an accurate pointer to how much it affects life itself. The growing increase in telecommunication penetration in Nigeria and the future potential for even more development and pervasiveness tend to shift the paradigm of

thought and allay the fears of what was once redundantly referred to as the digital divide (Okoruwa, 2004).

Telecommunication firms are facing fierce competition due to an extraordinarily turbulent and dynamic business environment. Upon this they are forced to renew their offerings accordingly. These situations demand a firm's capability for innovations towards having a competitive advantage and superior performance (Yadav *et al.*, 2019). An industry that has a superior innovative capacity will react and exploit new opportunities quickly and better than the non or less innovative firm (Brown and Eisenhardt, 1995; Oyedijo, 2012).

The survival of mobile telecommunication has drawn attention from many quarters of Nigeria because of the tremendous role it plays in terms of job creation, poverty reduction, revenue generation and as it serves as the engine of growth for many economies (Adi, 2015). Nigeria's mobile telecommunications system therefore needs to be strategically positioned in terms of new strategic directions so that the sector can be globally competitive and gain financial strength in the years to come. It has also been ascertained that major policy makers have concerns with respect to how telecommunication can accelerate growth in low income countries (Quartey and Kayanula, 2000). In Nigeria, mobile telecommunication is seen as the engine through which the realization and sustainability of the economy can Grow, hence the numerous efforts being engineered to promote its development.

The telecommunications industry has experienced constant technical turbulence (technological intensity) for the last few decades. It has faced intense time to market pressures and changes in other technologically related factors such as deregulation and changing standards, which may also thwart the ability to carry out timely marketing activities within the companies (Stringfellow and Jap, 2015). On the other hand, due to the increase in demand experienced at the end of the 20<sup>th</sup> century, several new competing companies and

technologies have emerged (Rojas-Saldana, 2004).

For many years the assertion that the businesses that adopt market orientation improve on their performance has been made by both academicians and marketing managers (Adu *et al.*, 2017). Market orientation as an antecedent of greater and better performance has been researched across many industries and regional locations for example in medium scale enterprises in countries like Spain (Bigne and Blesa 2003). The same conclusions were arrived at in bigger corporations in Japan (Deshpande, Farley and Webster 1993) and in USA some strategic business units (Narver and Slater 1990). Market oriented firms have been found to respond better to their external environment and therefore offer superior value to the customers. These firms put strategies that give an edge in the competitive environment. The positive relationship that exists between markets oriented firms and their overall performance across many industries and economies having been established would be investigated in the Nigerian context and in the telecom sector in particular. Such research has been done in the Nigeria environment in many industries. The work by Udegbe (2017) in the Hotel industry and Ogbu (2016) in construction industry is an example. This thesis will look at the relationship between market orientation and business performance in the Telecommunication sector in Nigeria with innovation playing a mediating role.

The above analyses under pin the concept of market orientation which has gain so much attention recently. Innovation becomes critical as it serves as the oil within the organisation to help drive the market orientation strategy through the company's employees. The focus of this thesis was to mediate the relationship between market orientation and firm performance with innovation.

## 1.2 Statement of the Research Problem

Many studies have shown that the adoption of market orientation by firms improve their performance across many industries over the globe. Market orientation seeks to address companies' orientation towards customers, competitors and inter-functional coordination in their value creation processes. The telecommunication companies in Nigeria have also adopted this strategy with the intention of gaining competitive advantage in the stiff competitive environment. This work sought to examine market orientation adoption by these companies and the role it played on their performance in terms of market share and profitability (Chen *et al.*, 2015).

Market orientation of a business has been strongly linked to superior performance in a highly competitive industry (Chen *et al.*, 2015; Boso *et al.*, 2013; Cheng and Krumwiede 2012; Akomea and Yeboah 2011; Narver *et al.*, 2004). The telecommunication industry in Nigeria is highly competitive and has adopted the market oriented approach in order to improve its performance in terms of increased market share and profitability. In spite of the adoption of market orientation strategy, the telecommunication industry in Nigeria still experiences constant technical turbulence, poor quality of service and lots of complaints from customers.

As intimated by Dauda (2010) the research conducted on market orientation and the mixed findings reported complicate efforts amongst both academics and practitioners to conclude on the real effects of the construct upon business performance. This is further exacerbated by the absence of empirical research on the market orientation and firm performance in Nigeria's mobile telecommunications industry; thus, representing both an empirical and theoretical gap to which this practical study seeks to bring clarity and certainty.

In the light of the above situation of the telecommunication firms, this work seeks to investigate market orientation practices and performance relationship of telecommunication

industry in Nigeria then mediate it with innovation. The novelty of this work lies in the fact that it is the first of its kind in the sector across the country, and again the work looked at the mediatory role of innovation in the relationship between market orientation and business performance

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

The aim of this study is to examine the mediating role of innovation in the relationship between market orientations and telecommunication performance. Specifically, the study seeks to achieve the above aim through the following specific objectives, which are to:

- i. examine the effect of market orientation on telecommunication performance within Abuja City in Nigeria;
- ii. investigate the effect of market orientation on telecommunication firm's innovation within Abuja City in Nigeria;
- iii. evaluate effect of telecommunication innovation on telecommunication performance within Abuja City in Nigeria; and
- iv. determine mediating role of innovation between market orientation and telecommunication performance within Abuja City in Nigeria.

### **1.4 Research Questions**

The following research questions were designed to be answered in the study:

- i. What effect does market orientation have on telecommunication performance within Abuja City in Nigeria?
- ii. What effect does market orientation have on telecommunication innovation within Abuja City in Nigeria?
- iii. What effect does innovation have on telecommunication performance within Abuja City in Nigeria?

- iv. Does innovation play a mediating role between market orientation and performance of telecommunication firms within Abuja City in Nigeria?

## **1.5 Research Hypotheses**

The effect of individual elements of market orientation on the telecommunication firms will be tested through the following main hypotheses:

- i. HO<sub>1</sub>: There is no significant effect of market orientation on telecommunication performance.
- ii. HO<sub>2</sub>: There is no significant effect of market orientation on telecommunication innovation.
- iii. HO<sub>3</sub>: There is no significant effect of innovation on telecommunication performance.
- iv. HO<sub>4</sub>: Innovation does not mediate the relationship between market orientation and telecommunication performance

## **1.6 Scope of the Study**

According to The Nigerian Communications Commission (2018), there are four major operators in Nigeria's telecoms industry. Since this study is to examine the relationship between market orientation and business performance on telecommunication industry in Nigeria, the research focus shall be on the major telecommunication operators in Nigeria at the time of the study, namely MTN, Globacom, 9mobile and Airtel.

Also, in view of constraints in covering the entire landscape of the targeted industry, there was the need to limit the scope to a realistic sample location and sample size within the time-frame of the research and available resources. The Federal Capital Territory (FCT), Abuja was chosen as the sample location for its broad-based representation of Nigeria. Respondents were asked to express their opinions through structured questionnaire. With regard to the level of analysis, researchers are at liberty to adopt the level of analysis that fits the scope of enquiry being carried out. For this study, the organizational level approach

(meso level) was found appropriate as the focus of the study was on the Nigerian Telecommunication industry. The choice was premised on the fact that this is an explanatory research which is constrained by time, resources, sample size and sample location. The research work was conducted between March 2019 and February 2020.

### **1.7 Significance of the Study**

This research is of great benefits to telecommunication firms as it would help such firms to adapt to business practice by acquiring some level of intelligence with respect to customers' preferences. This will help keep with technological advancement, just as it will help firms to have good understanding of their operating environment. The research will also help firms to take market orientation seriously and adopt it in their lines of operations. This research will also help firms to adopt innovation in business operations with a view to achieving greater successes in their corporate operations.

The research is also hoped to serve as a guide to managers and policy makers on how to start and use market orientation to increase their competitive advantage, just as it will be useful to the government in the formulation of policies towards technological development in Nigeria. Furthermore, the study hopes to help the government in identifying the importance of telecommunication sector in the achievement of economic development and national growth in Nigeria.

### **1.8 Limitations of the Study**

There are many possible limitations that the researcher face while undertaking research. These limitations are defined as parameters that mostly cannot be controlled by the researcher in the course of the research. The current research is cross sectional in nature as it does not differentiate between cause and effect of market orientation on performance, it only shows the relationship between the variables.



The study is also limited to the responses from staff of the telecommunication operators only as views of telecommunication subscribers were not included in the research. The research is limited to only Abuja metropolis as the location of the research because of the city's broad-based representation of Nigeria.

## **1.9 Definition of Terms**

This report contains some key words that are briefly introduced in this sub-section to allow readers to make sense of what is presented in the subsequent chapters.

**Market Orientation:** This include customer orientaion, competitor orientation and iner-functional coordination.

**Performance:** This denotes to the success of telecommunicstion firms measured in terms of Market share, profitability and sales revenue.

**Sale Revenue:** This is the amount realized from the sale of goods and service in the operation of an enterprise in a specified period of time.

**Market Growth:** This denotes an increase in sales or size observed within a particular consumer group over a given time frame.

**Innovation:** Processes by which new ideas are generated and converted into useful products

**Firm:** Is an organization which sells or produces something or which provides a service which people pay for.

**Services Sector:** The service sector includes all businesses that offer intangible value or goods (such as food services, transport, retail, distribution among others).

## CHAPTER TWO

### 2.0 LITERATURE REVIEW

#### 2.1 Concept of Market Orientation

The development of the concept of market orientation over fifty-nine (59) years ago has led many scholars to contribute to different areas of business in terms of how it can be applied Najafi-Tavani *et al.* (2016) and Jogaratnam (2017).

The concept of market orientation has been identified in literature as an important and vital tool that is required to be used by firms to achieve competitive advantage (Najafi-Tavani, *et al.*, 2016). Significant attention has been placed on market orientation both in practice and academic for quite some time (Qu and Zhang, 2016). Its conceptualization differs across varying fields from different authors.

Nasution *et al.* (2011) described market orientation as a resource that results to capabilities while Barrales-Molina *et al.* (2014) and Takata (2016) viewed it as core dynamic marketing capability. To Lonial and Carter (2015) and Jogaratnam (2017) and from the concept of resource-based theory, the concept is seen as an organization resource that enhances the superior performance.

Morgan *et al.* (2009) considered it as an important market-based asset owned and controlled by an organization. For this study, the concept of market orientation is seen as a strategic management practice and an organization intangible resource that possesses the capability to propel an organization to attain competitive position among its competitors. Basically, the conceptualization of market orientation has followed two basic ideologies which are behavioural and cultural perspectives (Kohli and Jaworski, 1990; Narver and Slater, 1990) respectively. As for Kohli and Jaworsky (1990), three behavioral components were used to

describe market orientation and these are intelligence generation, intelligence dissemination, and responsiveness, while Narver and Slater (1990) examined market orientation from three cultural dimensions that included customer orientation, competitive orientation and inter-functional coordination. More importantly, both perspectives emphasized the customers as the key component of market orientation. They placed customers as the main strategic focus for the organization to achieve superior performance.

Many authors try to give different meanings and explanations to the concept of market orientation. Market Orientation was conceptualized by Shapiro in 1988 according to Hult and Ketchen (2017). Scholars believed that market orientation is an organizational decision-making process beginning from information gathering and later to implementation (Julian *et al.*, 2014). This can only be achieved if there is a strong commitment by managers by sharing information interdependently and allowing employees to contribute to decision making at all levels of management.

Iyer *et al.* (2019) looked at market orientation as the set of firm capabilities targeted to serve customers and monitor the organization's competitors more efficiently. This is not far from the work of Kohli and Jaworski (1990). Market orientation may also be seen as a model of market management behavior which emphasizes customer satisfaction coordination of functional marketing activities, sensitivity to competition and intelligence thus leading to higher performance (Liu and Wang, 2009; Zhou *et al.*, 2009).

Market orientation is also seen as the culture that mainly effectively and efficiently brings about superior value for customers via customer orientation, competitor orientation and inter-functional coordination. According to Narver and Slater (1990), later corroborated by Tzempelikos and Govnaris (2015) and Tomczak *et al.* (2018), customer orientation is a significant element of market orientation which refers to the capability of a business

organisation to understand the needs of its new customer, with a view to providing the customers with a sustained benefit for their products and services.

Narver and Slater (1990) and Baker and Sinkula (2015) explained competitor orientation as what an organization used to understand both the strengths and weaknesses of its key competitors, as well as the ability to understand their competencies and strategies. Inter-functional coordination, according to Narver and Slater (1990) and Tzempelikos *et al.* (2015), is the coordination of firms' resources to add value for target customers. In their different but concurrent submissions, Deshpande *et al.* (1993), Soltani *et al.* (2018) and Williamson *et al.* (2018) view market orientation as a set of beliefs that placed customers' interest first by creating value, but without neglecting other important stakeholders such as managers and employees so as to promote a long-term profitable venture. Day (1994), Atanassova and Clarl (2015) and Kasim *et al.* (2018) all submitted that market orientation can be seen as a superior skill in understanding and satisfying customer. They emphasize market sensing as well as customer linking capabilities that propel market-led firms to adjust to market requirements through information anticipation.

According to Wrenn (2015), a market orientation typically ignores company objectives and competencies in favor of customer wants and needs. Again, some see market orientation as an integral part of firms' culture and process as it may be facilitated by factors that are peculiar to the firm (Harris, 2000; Harris and Ogbonna, 2001). Market orientation would seem to be very important to businesses as a result of intense global competition and fluctuations in consumer needs. Companies must therefore organize their activities with a strong focus on their markets in order to survive (Kurtinaitiene, 2005; Mohammed *et al.*, 2010). Monitoring rapid changes will promote client satisfaction and enhance product improvement, while strategy implementation will help in developing superior value among players in the industry (Kotler, 2009).

Looking objectively at the various definitions and explanations postulated by scholars with regard to market orientation, one recurrent point across all is that businesses need to collect information from the business terrain and implement decisions based on such information in order to create value. Market orientation can therefore be defined as the effort of knowing what clients want by ways of getting some level of idea and then implementing such ideas so as to create value for clients and remain competitive.

Market orientation contributes significantly to various areas of business activities such as return to assets, how organizations learn and quickly react to environmental challenges, and new product success and innovation (Narver and Slater, 1990; Lukas and Ferrell, 2000). One important point worth mentioning is that market orientation differs from marketing orientation in some ways whereas market orientation looks at the entire organization in the form of wide application, marketing orientation explains the philosophy and actions that are specific to marketing departments (Kohli and Jaworski, 1990; Ladipo *et al.*, 2016). A market-oriented organization is one that effectively and efficiently implements marketing concept in its lines of operations.

One major downside of Narver and Slater (1990)'s model is the idea of considering profitability and long-term focus as part of market orientation. It can be argued that any other orientation strategy may also have profitability and long-term focus as an essential component. It is thus not a component that clearly distinguishes a market orientation from other alternatives. Another view is that profitability is not a part of market orientation but a consequence of it (Jaworski and Kohli, 1990). Finally, Anis *et al.* (2016) argue that the model of Narver and Slater (1990) focuses more on measuring the company's customer commitment. In contrast, Jaworski and Kohli (1993)'s model studies the implementation of a market-oriented philosophy.

Narver and Slater (1994) used Jaworski and Kohli (1993)'s environmental factors in their Study. They argued that the environmental factors are transient, and that a long-term market orientation will work despite short term environmental factors. This argument may not necessarily hold in industries where the environmental factors (such as technological turbulence in high-tech industries) remain for long periods.

In addition, previous studies propose that some market level factors, such as buyer power, seller concentration, ease of entry, market growth, technological change, and supplier power, affect business performance directly instead of through a moderating effect on the link between market orientation and performance.

## **2.2 Elements and Measurement of Market Orientation**

Market orientation viewpoints are decision-making aspect (Shapiro, 1988), market intelligence aspect (Kohli and Jaworski, 1990), culturally based behavioral aspect (Narver and Slater, 1990), strategic aspect (Schlegelmilch and Ram, 2015) and customer orientation aspect (Hult and Ketchen, 2017).

The two most sought out approaches of market orientation are specified by Kohli and Jaworski (1990) and Narver and Slater (1990). While Kohli and Jaworski (1990) consider market orientation as the execution of the marketing idea, Narver and Slater (1990) view it to be an organizational tradition. Kohli and Jaworski (1990) specifically defined market orientation as a firm-wide creation of market surveillance, spreading of the intelligence across departments and organization-wide acceptance to it.

According to Kohli and Jaworsky (1990), the marketing concept is an industry viewpoint, whereas the term market orientation refers to the actual implementation of the marketing concept. On the other hand, Narver and Slater (1990) defined market orientation as the organization culture that most excellently and proficiently creates the necessary behaviors

for the creation of superior value for buyers and, thus, continuous superior performance for the business. As such, they consider market orientation to be an organizational culture consisting of three behavioral components, namely, customer orientation, competitor orientation and inter-functional coordination. The findings of some studies have been documented to the effect that among all three behavioral components, inter-functional coordination, especially those between (RandD) and marketing has the most significant influence on new product success (Hult and Ketchen, 2017).

Market-oriented theories of inequality are focused on the laws of the free market. The free market refers to a market in which prices are set based on competition. Prices of goods and services are supposed to be governed by the law of supply and demand. Goods and services that are scarce but desired by many will definitely attract a higher price. Also, if goods and services are desired by few people and such are readily available, such goods and services will attract a lower price. On the other hand, price equilibrium is reached when the supply of goods and services equals the demand for the goods and services.

The free market is commonly applied to wages in the market for labor. The typical roles of supplier and consumer are reversed. The suppliers always try to render services for the highest price, while consumers of labors always try to demand for lowest price. Increase in populations always results in wage fall for any given unskilled or skilled labor supply, while wages tend to increase with a reduction in population. When demand surpasses supply, suppliers increase prices, and vice versa.

Consumers who can afford the higher prices may still buy, but others may forgo the purchase altogether, demand a reduction in price, buy a related item, or go elsewhere to buy. An increase in price may force suppliers to also increase production, or more new ventures can consequently be created.

Several measurement scales have been developed in the last few decades to measure the market orientation construct. Once again, both Jaworski and Kohli, and Narver and Slater developed the most widely used measurement scales, MARKOR and MKTOR respectively. Subsequently, other authors have modified these scales to fit their research, with attempts to improve on the measures themselves (Matsuno *et al.* 2002; Frosen *et al.* 2016).

### **2.2.1 Markor scale**

The Markor measurement scale (Jaworski *et al.*, 1993; Rombon and Rengkung, 2018) is widely used to study market orientation in the relevant literature. It is a viable instrument to measure a company's implementation of the market orientation philosophy and its ability to respond to environmental factors (Sampaio *et al.*, 2019). However, Deng and Dart (1994) and Desembrianita *et al.* (2018) note that the scale's generic (philosophical) questions may be subject to wrong response.

There are two versions of the MARKOR scale, a 32-item scale and a 20-item scale which is a subset of the 32-item scale. The 20-item scale was proposed by the authors to improve the fit of the scale, as well as to reduce the probability that a respondent will not respond due to the scale being too long and impractical (Jaworski *et al.*, 1993). These scales are referred to in this research as Markor32 and Markor20 respectively. Markor32 contains ten items to measure the intelligence generation component in their market orientation model, eight for the dissemination component, and fourteen for their responsiveness component. Markor20 contains six items to measure the intelligence generation component in their market orientation model, five for the dissemination component, and nine for their responsiveness component. Both scales have been tested empirically by their authors using a confirmatory factor analysis. Unfortunately, the fit statistics for each model are far from ideal (Matsuno, 2000). Gaining Information, Dissemination of Information and Planned and Implemented Response which are the three dimensions of Markor models of market orientation is



explained below.

#### **2.2.1.1 *Gaining information***

Scholars like Qudan (2017) have emphasized the significant function of market information in helping to champion strategic goals. Most driving forces of the desires of firms to implement market information have to do some level of competition, demands from customer as well as needs uncertainty. One of the prominent means of coping with dynamic nature of business setting is the ability of business to collect and make use of market information (Takata, 2016). Information that is knowledge based is made of adopting new skills and specific techniques by means of employee involvement as they normally have direct contact with customers on a daily basis (Højbjerg, *et al.*, 2017).

One veritable way of adapting in business practice is to acquire some level of intelligence to help keep with technological development by means of information systems through formal and informal means (BolíVar-Ramos, *et al.*, 2012). As expected of small businesses, they do not conduct any formal market research but gather some sort of intelligence to implement in their business (Leković and Marić 2015). It is worth mentioning that in large technological organizations, there exists good intelligence with respect to customers' preferences and the current happenings in the market.

#### **2.2.1.2 *Dissemination of Information***

The extent to which information is communicated, shared and distributed among organizations plays an important role in increasing performance of firms (Carbonell and Rodriguez, (2010). These scholars are of the opinion that businesses that gather information have the ability to improve their speed and respond to opportunities and threats if they disseminate the information appropriately.

Gathering intelligence may be meaningless if such intelligence is not disseminated to the appropriate functional area for implementation (Dong *et al.* (2016). Some employees may constitute a hindrance to information dissemination as most of them may not value the information put across as a result of limited training acquired in information handling.

As a number of studies have noted, when studied in isolation, intelligence generation or dissemination of information does not have performance on a firm (Rose and Sholam, 2002; Murray *et al.* 2007; Carbonell and Rodriguez, 2010

### **2.2.1.3 *Planned and implemented response***

The implementation of planned response takes a major trend in the realization of intelligence gathered thereby creating value for stakeholders. Some sort of antecedents in organization in the form of interdepartmental dynamics, systems in organization as well as senior management attitude could promote or impede the implementation of intelligence gathered (Kohli and Jaworski, 1990). The active participative and innovative nature of strategic managers with effective and consistent communication regarding market orientation with the support of the required resources will positively enhance business performance. However, high formalization as well as centralization, and poor attitude of employees in one way or the other impede market orientation success.

An employee who relied on customer specific oriented information may have very scanty incentive to distribute and this may hinder firms' market orientation effort and may hinder effective implemented response (Kohli and Jaworski, 1990). In their quest to be competitive therefore, businesses must endeavor to put into practice information gathered and disseminated among functional areas of business operations.

### **2.2.2 Mktor Scale**

The Mktor scale, according to Musa *et al.* (2018) is developed by Narver and Slater in 1990 and it is widely used to measure the market orientation construct, although as previous discussions indicate, it lacks the necessary variables to measure the responsiveness component of the Jawroski and Kohli model (1993). In addition, Fernandes *et al.* (2019) argue that Mktor is more suited to evaluate a firm's commitment to its customers which may not be linked to a market orientation cultural philosophy. Given that this research is interested in finding a company's implementation of the market orientation philosophy versus a customer orientation, it may prove more useful to use a scale based on Narver and Slater's (1990) in line with the recommendation of Gauzente (1999). The study therefore adopts the MKTOR scale which is the model developed by Narver and Slater (1993).

#### **2.2.2.1 Customer orientation**

According to Smyrnios (2014), Tzempelikos and Govnaris (2015); Tomczak *et al.* (2018), the term "customer orientation" is defined as a significant element of market orientation which refers to the capability of a business organisation to understand the needs of its new customer, with a view to providing the customers with a sustained benefit for their products and services. Customer orientation has to do with the culture of placing customer's interest first and requires a thorough understanding of client needs so as to fashion products or services of superior value (Narver and Slater, 1990; Deshpande *et al.*, 1993). Businesses that are market oriented in nature have an insight into adopting multiple tools to add value and benefits to clients with respect to savings in overall cost acquisition and the use of its offerings to benefit clients (Narver and Slater, 1990). Businesses continuously evaluate these alternatives to understand how the greatest effect can create increases value for current and potential customers. Therefore, to achieve the highest level of performance, maintain firms' long-term capacity and create a mutually beneficial relationship with the customer, market orientation

should be at the heart of every organization. Businesses must therefore try to collect proper and accurate information about customers in order to help them address their needs and wants.

Customer orientation is universally seen as a critical part of an organization's strategic means of creating desired value for customers (Zhou, Yim, and Tse, 2005). The central focus of customer orientation is to put in place a solid foundation for getting information about current and prospective customers for strategic actions based on adequate information given by customers, thereby resulting in improved superior value to the customer base (Narver and Slater, 1990). Kohli and Jaworski (1990) believed customer orientation represents the level to which customer intelligence is gathered and implemented in the business set up and used by the business unit. The important distinct feature of customer orientation is specifically stated in the management literature, and they have concurrently and very constantly emphasized the notion of client concentration as a pivotal reason for business operations (Matsuno and Mentzer, 2015). If customers, as argued by previous studies, are the reason for business existence, then information that will help deliver value to them must be at the heart of management. Customer orientation must therefore not be relegated to the background since it will help in delivering value to customers.

#### ***2.2.2.2 Competitor orientation***

Baker and Sinkula (2015) explained that competitor orientation is moved by an organisation to understand both the strengths and weaknesses of its key competitors, as well as the ability to understand their competencies and strategies. For businesses to be competitive, it is required of them to understand their weaknesses and strengths as well as the capabilities and activities of competitors. The information gathered about competitors help the firm to reposition its offering so as to prepare for the future survival of the entity (Narver and Slater, 1990; Deshpande *et al.*, 1993).

Competitor orientation as part of market orientation is seen as an organizational strategy to end up helping businesses to improve on the products they deliver to customers. It is important to know that competitors will not sit down unconcerned but strive over the same group of customers. Businesses must therefore seek intelligence about their competitors in order to improve on their service delivery.

The aim of competitor orientation has to do with providing a strong foundation of intelligence regarding current and future competitor for strategic actions. Those competitors of the business are seen as enterprises that are providing substitute product by serving the same need of customers (Kotler, 2009). A business's current and future competitors are found in firms with peculiar or non-peculiar production technology platform. All this justifies for the need to gain an insight into the activities of competitors to help shape a firm's operations.

#### **2.2.2.3 *Inter-functional coordination***

It is vital to coordinate a firm's resources so as to add value for target customers. This process is what Tzempelikos *et al.* (2015) referred to as Inter-functional coordination. Inter-functional coordination means that all the sections in the industry must harmonize well with one another in all aspects of the business processes. When there exists a synchronized expansion of the firm's possessions that aims at performing well in the eyes of the consumer, then the organization practices inter-functional orientation (Narver and Slater, 1990). Market orientation, as a matter of fact, is not the same as marketing orientation in a sense that market orientation fails to indicate that it is only marketing department in the organization that has important role; rather all are important.

Market orientation recognizes that all departments as well as employees are aware of the fact that employee's attitude with respect to internal and external customer is crucial.

Coordinated integration of resources is tightly related to the customer and competitor since they are promoting customers' experience among departments. There is therefore a need to inter-coordinate the activities that are concerned with the day-to-day management of the business in order to help realize the full potentials of the business and facilitate performance maximization.

### **2.2.3 Other measurement scales**

Since the introduction of the MARKOR scale by Jaworski and Kohli (1993), several authors have modified this scale to improve the scale in different aspects. For example, Njegic *et al.* (2019) improved the scale's goodness of fit by deleting items from the original MARKOR20, using standard correlation (EQS) residuals to determine which items to be deleted. They ended up with a 10-item scale<sup>1</sup> that they feel "maintains a reasonable balance between the various sub constructs"<sup>2</sup>, while at the same time improving the goodness of fit of the model. They also argued that a shorter scale is much easier to administer than a larger scale. In addition, Gauzente (1999)'s study of the Markor scale concluded that the MARKOR scale is best suited to study a company's implementation of the market orientation philosophy on question wording and vocabulary richness.

Arthur (2016)'s reduced 10-item scale may also prove suitable for this purpose given that it maintains question wording and vocabulary. Sampaio *et al.* (2019) combined both the Markor and the Mktor scales into a single 20-item scale which they argued is more managerially useful and parsimonious. They used Cronbach's alpha scores and an exploratory factor analysis as the basis for selection. Their final scale contained only 4 questions derived from Jaworski *et al.* (1993) Markor scale and the rest from Narver and Slater (1990) Mktor scale. To improve the goodness of fit of the Markor scale, Matsuno (2016) also redesigned the scale by retaining only seven items of the original Markor scale and adding 15 new ones. Fit statistics (modification index and standardized residuals) and

reliability statistics (item-to-item, item-to-total correlation, and Cronbach's alpha) were used to decide which items to be deleted and which to be retained. He argued that the new market orientation scale improves operationalization of the constructs, while it, at the same time, its psychometric properties. The resulting 22-item "MO" scale differs significantly from the original Markor scale.

Zhu *et al.* (2019) relied on Diamantopoulus and Hart (1993) by building their own scale based on Jaworski and Kohli's (1990) intelligence generation, intelligence dissemination and responsiveness dimensions of market orientation, although they agreed that their results were not directly comparable to other studies based on the Markor scale. Deng and Dart (1994) are the only authors studied who proposed their own 25-item scale based on the Mktor scale, designed to fit their study. They argued that their scale further distinguished between a market orientation operationalization and a market orientation philosophy.

## **2.3 Theoretical Background**

Entrepreneurship theories provide guidelines as to how the various concepts in the domain are linked, and which constructs of the concepts can be identified as unique to the field. The focuses of these theories are diverse but specific to the context in which they are created. This study was based on resource-based theory (RBT) and Schumpeter theory of innovation.

### **2.3.1 Schumpeter's theory of innovation**

Joseph Schumpeter propounded the well-known innovative theory of entrepreneurship in the year 1934. Schumpeter entrepreneurs are described as innovators, creators and catalysts for change. He assumed that entrepreneurs interrupt the static flow of the market by creating new ideas and take the market to a new level of improvement. The activities of the entrepreneurs represent a situation of disequilibrium as their activities break the routine circular flow (Keklik, 2018).

Improvements of entrepreneurs are accountable for the express economic development of any nation. According to Soltani *et al.* (2018) an entrepreneur is one who brings about change through introduction of new technological products/processes. His 'creative destruction' mantra projected the endogenous displacement of old processes with new ones. His theory distinguishes between invention and innovation. According to him, while invention refers to the creation of new materials, innovation refers to the application of new materials into practical use in industry. Similarly, there is variance between an innovator and an inventor. The inventor is the one who discovers new processes or ideas while the innovator is the one who uses these inventions and discoveries in order to make new mixtures. The latter is the application of new development to practical use while the former is the discovery of new development.

However, although Schumpeter's theory has added immensely to the development of entrepreneurship studies, it has also been faulted for a number of reasons. Witt (2008) believes Schumpeter exaggerates the personality of the entrepreneur, claiming that the average entrepreneur does not resemble the Schumpeterian entrepreneurs who are anything but average.

Furthermore, the Schumpeterian theory assumes that research and development (RandD) and innovative character are embedded in the innovating entrepreneurs (Hofer, 2015). But these characters are supposedly missing in developing nations where entrepreneurs are small-scale business men/women who are constrained to imitate rather than innovate. In addition, the theory is heavy on innovation at the expense of the risk-taking and organizing features partly because not many entrepreneurs ever embark on the Schumpeterian type of radical innovations for most innovations are of an incremental nature (Vlados, 2018; Witt, 2008).



Schumpeter portrays entrepreneurs as large-scale businessmen who introduce new technology, process, and method of production. But this may not be a stable portrayal of developing countries as most entrepreneurs in those parts are small-scale business owners with few resources. The theory failed to adequately explain why some economies have more entrepreneurial talents than others. Lastly, researchers such as Galvez (2006) find fault in the theory as it focuses mainly on men entrepreneurs with no recognition for women entrepreneurs.

### **2.3.2 Resource-based theory (RBT) of the firm**

Entrepreneurship is an integral part of the resource-based framework (Alvarez and Busenitz, 2001). During the 1990s, the resource-based theory of the firm became the dominant pattern in strategic preparation and promotion. The state of the art of the resource-based research is that firms are dissimilar in terms of the planned resources they possess and control. It is commonly recommended that this heterogeneity is an outcome of resource-market deficiencies (Barney, 2018), resource rigidity (Barney, 2018), and firms' inability to alter their amassed stock of resources over time (Timsit *et al.*, 2015). In this vein, each firm can be bundled into real and immaterial resources and capabilities (Delery and Roumpi, 2017). Resources, which are the basic unit of analysis for RBT, can be defined as those assets that are tied semi-permanently to the firm (Huy and Khin, 2015). It includes monetary, physical, human, profitable, scientific, and managerial assets used by an organization to improve, manufacture, and deliver products and services to its customers (Barney, 1991). We can classify resources as tangible (financial or physical) or intangible (i.e., employee's knowledge, experiences and skills, firm's reputation, brand name, organizational procedures). RBT centers attention on an organization's internal resources as a means of organizing processes and obtaining a competitive advantage (Priem and Butler, 2001). (Barney and Mackey (2016) stated that for resources to hold potential as sources of sustainable

competitive advantage, they should be valuable, rare, imperfectly imitable and not substitutable. The resource-based view advocates that organizations must develop unique, firm-specific core abilities that will allow them to outpace competitors by doing things otherwise.

The resource-based theory says that firms have resources which enable them to achieve competitive advantage that give birth to superior long-term performance. Resources that are valuable and scarce can bring about creation of competitive advantage which can be sustained over longer period of time so that the organization can protect itself against identity theft, imitation, transfer or substitution of resources.

Resource-based theory also specifies that resources that are valuable is not easily imitated, scarce, and cannot be changed. The resource-based theory postulates that firms should look inside the company to find the sources of competitive advantage through the use of their resources. Competitive advantage is the edge a firm has over its competitors and it allows firms to increase sales and retain more customers than their competitors.

In the resource based theory model, the resources of help such an organization to achieve greater and increased performance. A firm's competitive advantage evolves from the resources that it has. For the purpose of this study, therefore, it is the resource-based theory that was adopted as the analytical framework.

## **2.4 Concept of Innovation**

The introduction and the way new ideas, processes, technologies, or products are applied and are useful to the organization is called innovation. It is also a process involving both the generation and implementation of creative ideas. Scholars agree that the innovation process involves two qualitatively separate stages which are creativity and implementation (Wang and Miao, 2015).

Innovation plays a critical role in increasing and improving firm performance and customer satisfaction efforts. Bringing in new ideas into businesses helps improve performance and competitiveness of such businesses (Calantone *et al.*, 2002; Agarwal *et al.*, 2003; Lee and Tsai, 2005; Keskin, 2006). An innovation can take the nature of coming out with new product, new production technology or a new strategy regarding employees that the businesses do not practice formerly (Damanpour *et al.*, 2009). Innovation is regarded as exposure to new ideas as part of an organisation's way of doing things (Kibbeling *et al.*, 2013). There are also ways by which a firm tends to be proactive thereby exploring new happenings rather adopting current strength to deliver its offerings (Menguc and Auh, 2006).

Others also see innovation as managerial and organizational engagement that suggest new ways of promoting corporate responsibility by rebuilding the relationship between organizations and the customers they serve (Lenssen *et al.*, 2009). Firms tend to innovate due to pressure from the external environment which may take the form of competition, deregulation in the industry, scarcity of limited resources, and higher customer demands. It could also be as a result of internal organizational alternatives which may include gaining unique competencies, attaining a higher level of ambition, and improving the extent of quality service delivery (De Vries *et al.*, 2016).

Whatever motivates businesses to innovate, the purpose is to facilitate adaptive behavior, and changing trends in the firm improve and enhance the level of performance (Agarwal *et al.*, 2003; Calantone *et al.*, 2002; Lee and Tsai, 2005). It is worth supporting that market orientation and business innovativeness should have the capacity to complement each other, and as to whether market orientation is proactive or responsive, it should serve a strong foundation for firm's innovative effort (Morgan *et al.*, 2015).

## **2.5 Concept of Business Performance**

As far as business performance is concerned, it can be perceived in the two perspectives of judgmental performance and objective performance (Agarwal *et al.*, 2003; Guo, 2002). Scholars have showed that judgmental measures of performance are substantial to viability while objective measures of performance throw more light on profitability in most service organizations. According to Melián-González and Bulchand-Gidumal (2016) performance is fundamentally measured by the profitability of a business. Judgmental and objective performance of a service organization can be heightened by enlightening organization's Customer Relationship Management (CRM), customer retention, loyalty, customer satisfaction and lifetime value (LTV).

Performance is normally a tool for measuring a method or strategy used to achieve a firm's goals. Performance with respect to enterprise management is seen as the ability of managing a firm well and the value and its efforts in satisfying its stakeholders (Moullin, 2003). Both Akande (2011) and Kareem *et al.* (2017) view performance as the desire to evaluate the extent of success a firm has achieved be it a large or a small firm. Businesses can be evaluated on the basis of their size, number of employees, working capital as well as profitability.

There are measures used to evaluate the performance of a business. Some used objective performance measures of Return on Equity (ROE), sales growth and Return on Asset (Shariff, Peou, and Ali, 2010). Naala *et al.* (2017) suggested performance measures of financial and non-financial approaches to measuring firm performance. Financial means include market share, level of debtors and return on assets. Non-performance measures also include employee commitment and satisfaction, customer satisfaction and loyalty, and minimal customer complaints help create sustainable shareholders value (Ankrah and Mensah 2015).

Performance of firms is a crucial issue in business activities which entails ample planning as well as commitment. Trkman and McCormack (2009) were of the view that when the organization evaluates their level of performance, it will help them to know if they are progressing or not, and for large companies, the financial dimension is very important because it is the financial success of the effort that will help them to embark on other critical aspect of payment of salaries and expansion of their business.

## **2.6 Market Orientation and Performance**

Market orientation is very important in helping firms to have better understanding of the market place and develop appropriate and proper products and service strategies to meet customer needs and requirements (Liu, 2009). A market orientation guarantees a client focused strategy for market knowledge base generation which is scrutinized by coordinated, inter-functional marketing efforts to achieve enduring firm success. A quantity of scholars has reported positive association between market orientation and firm performance. Julian *et al.* (2014) believed that market orientation represents a major marketing strategy that can be adopted by business organisations to improve their performance. The contradictory results reported by previous studies suggest that the relationship between market orientation and performance may be more complex and the impact cannot be viewed in a simple manner (Yusif, 2012).

Customer orientation as a feature of market orientation has to do with putting clients' attention first and entails a detailed understanding of client needs so as to fashion products or services of superior value towards them (Narver and Slater, 1990). Customer orientation is universally viewed as an aspect of a firm's strategic plan of delivering desired value to customers (Zhou *et al.*, 2005). The central focus of customer orientation is to give a solid foundation for gaining information concerning old and new customers for strategic actions based on adequate information provided by customer. This will result in creating improved

superior value to the customer base (Narver and Slater, 1990). Businesses continuously evaluate these alternatives to understand how the greatest effect can create sustainable better value for current and potential customers. Therefore, to get the maximum level of performance, uphold firms' long-term capacity and fashion a jointly helpful relationship with the customer, market orientation should be at the fore front of an organization.

For businesses to be competitive, it is required of them to know the weaknesses and strengths, as well as capabilities and activities of competitors. Information that is generated about competitors will help the firm to redefine its offering so as to get ready for the future survival of the firm (Narver and Slater, 1990). Competitor orientation as part of market orientation is seen as an organizational strategy to improve on the products they deliver to customers. The positive effect that market orientation has on performance has been buttressed by many scholars (Narver and Slater, 1990, 2000). The authors further extended their original study by taking into account the influence of entrepreneurial orientation on profitability. An entrepreneurial orientation entails such activities as innovativeness, risk taking and competitiveness which may increase the prospects for developing a breakthrough product or identifying a new venture (Slater and Narver, 2000).

There have been several studies on market orientation in relation to many types of businesses. Examples include hospitality business (Jogarathnam, 2017), manufacturing firms (Morgan *et al.*, 2015), service firms (Kamboj and Rahman, 2017) and other firms ranging from small, medium to large (Frosen *et al.*, 2016). The general construct against which market orientation is mostly measured was something that had to do with the performance of the organization. This is in line with Wang *et al.* (2012) and Lee *et al.* (2015) In order to satisfy customer needs in a better way, there is a notion that managers should exhibit market oriented behavior to enhance better business performance. Hence, market orientation is believed to have a positive relationship on performance. This has been the line of argument in many of the previous

studies. Several studies have shown the positive relationship of market orientation and performance. Some of these studies include Kumar *et al.* (2011), Pena *et al.* (2012), Wang *et al.* (2012), Campo *et al.* (2014), Huhtala *et al.* (2014), Najafi-Tavaniet *et al.* (2016), Jogaratnam (2017), Kamboj and Rahman (2017). Contrary to the belief above, Frosen *et al.* (2016) found that there is no realistic contribution of market orientation to performance of firms. In the same vein, Shehu and Mahmood (2014) established an inverse relationship between market orientation and firm performance. Carpenter (2017) is of the opinion that with the mixed findings in market orientation and firm performance relationship, market orientation might still not be able to provide adequate firm performance.

Market orientation is very important in helping organizations to have a better understanding on the market place and produce suitable products and service strategies to meet clients' needs (Liu, 2009). There has been significant progress in the development of a market orientation construct since the late 1980s and much analytical effort has been devoted to defining, conceptualizing, and operationalizing the constructs of market orientation (Ashwin and Hirst, 2015). Qu and Zhang (2015) contrastively concluded that market orientation might not be a suitable organizational strategy for turbulent markets, especially in a situation where customers have limited power and technological change is rapid.

The study will therefore test these sub-hypotheses based on the hypotheses one to evaluate the effect of market orientation on performance.

- H<sub>1a</sub>: There is no significance relationship between customer orientation and performance.
- H<sub>1b</sub>: There is no significance relationship between competitor orientation and performance.
- H<sub>1c</sub>: There is no significance relationship between inter-functional coordination and performance.

## 2.7 Market Orientation and Innovation

One important argument in existing literature on market orientation and innovation is whether market orientation fosters innovation or brings incremental improvements in products coming from customer preference modifications (Zehir *et al.*, 2018). In Mahmood *et al.* (2016) innovation was viewed as the degree to which firms create, receive and implement new ideas, processes, products, or services. For Damanpour *et al.* (2009) organizations innovate primarily because of pressure from the external environment, such as competition, deregulation, resource scarcity, customer demands and the likes.

Firms that are market-oriented enhance the level of innovation and therefore have a comparative advantage for greater success when marketing new products. It has been demonstrated emphatically that both innovation and market orientation have relevant effects on business performance though much of the variations in performance are accounted for by the mediating effect of market orientation and business performance (Agarwal *et al.*, 2003).

In essence, one cannot minimize innovativeness with respect to market orientation or market orientation to innovativeness (Carmen and María-José, 2008). Effective Market orientation gives intelligence for bringing new things into the business, hence its positive impact on the extent of innovation. Thus, with firms having a lot of information from understanding market orientation, there is the likelihood of coming out with new offering for the customers (Carmen and Maria-Jose, 2008; Guo and Wang, 2015) agreed on this viewpoint when they emphasised that firms that are less market-oriented are less likely to opt for innovation and further maintained that unless such firms are protected from competition, they are likely to record declining business performance.

As rightly stated by Tehseen and Sajilan (2016), innovation capability is the most critical determinant of firm performance. Scholarly articles on the review of the two constructs of



market orientation and innovation show both as yet interconnected. Market orientation itself can be seen as an innovative behaviour as it entails implementing new ideas or something that is different. Firms that are market-oriented enhance the level of innovation and therefore enjoy greater success while marketing new products. The most important manifestation of market orientation is the success of innovation which leads to performance. Innovation and market orientation have significant impact on firm performance. Several of the variance in business performance is accounted for through the mediating role of innovation in the market orientation and performance linkage as Agarwal *et al.* (2003). Therefore, innovativeness to market orientation cannot be reduced or vice versa (Carmen & Jose, 2008).

In summary, the previous studies suggest that innovation positively affects the long-term performance of firms as it improves the flexibility of an organization coupled with their willingness to change and their capability to introduce new products (Calantone *et al.*, 2002; Hult *et al.*, 2004; Low *et al.*, 2007). When firms effectively implement market orientation practice, it will impact positively on their performance. Building on the above line of argument, hypotheses two is hereby formulated thus:

H<sub>2</sub>: There is no significance relationship between market orientation and innovation.

## **2.8 Market Orientation, Innovation and Firm Performance**

Extant literature has confirmed positive correlation between innovation and firm performance as evident in Lado and Maydeu-Olivares (2001), Calantone *et al.* (2002), Vincent *et al.* (2004), Rosenbusch *et al.* (2011), Koellinger (2008) The impact of on business performance differs from one innovation type to another (Gunday *et al.*, (2011). Whether it is a product, process, organizational, or marketing innovation, its effects depend on firm performance and on type of industry. Rosenbusch *et al.* (2011) argued that the innovation effect on firm performance depends also on firms' size, as new and small firms produce

more impacts of innovation on performance than bigger and well-established firms. Building on the above line of argument, the hypothesis below is then formulated:

H<sub>3</sub>: There is no significant effect of innovation on telecommunication performance.

### **2.8.1 Mediating role of innovation**

MacKinnon *et al.* (2000) opined that mediation and its confounding effects are scientifically equivalent. While studies that adopt market and its effect on performance show positive effect, other studies too have not found significant relationships hence a need to introduce a mediating factor. Baron and Kenny (1986) are of the opinion that an instant variable serves as a mediator when it is introduced within a direct relationship resulting in reducing the directed relationship (full mediation) or at least significantly reduce (Partial mediation). For Johnson *et al.* (2008) a market that is focused strategically and flexible could serve as a possible mediator between market orientation and performance relationship. Researchers have established that in the case where a predictor significantly affects a mediator, and such results in the mediator significantly affecting the outcome, though there is a primary relationship between the predictor and the outcome which may not be significant, such instance is called an inconsistency in mediation (MacKinnon *et al.*, 2000).

Innovation is seen among scholars and practitioners as a critical feature in contemporary business landscape. Businesses are concentrating their energies on bringing innovation to make them competitive and sustain them in the long run when the industry activities change as it doubles as a strategic tool for invention and building new markets (Kim, 2003). Innovation must therefore be introduced between market orientation and performance so as to bring about improved performance. A firm that is innovative is seen as competitive in nature as it tends to adopt fresh working processes, generating answers to difficulties that as well as producing value by means of delivering exceptional products (Samra-Fredericks, and Yanow,

2009; Kocher, Kaudela-Baum, and Wolf, 2011). There is therefore a need for businesses that adopt market orientation approach in their line of operation to consider innovation in their activities. Thus, it is hypothesized that innovation would mediate the association between market orientation and performance. It is therefore relevant to test this hypothesis:

H<sub>4</sub>: Innovation mediates the relationship between market orientation and firm performance.

## **2.9 Empirical Studies**

Many studies have been conducted in the areas of market orientation and how the application of market orientation will affect the performance of a company. Most of the studies done in the areas of market orientation confirm positive outcome. It has been observed over the period that previous studies focused attention on the applicability of market orientation on business and it is only recently authors began to focus attention on SMEs (Blankson *et al.*, 2006; Keskin, 2006). Even with the SMEs, researchers are yet to reach a consensus on the suitability of the measurement of market orientation. Jabeen *et al.* (2016) reported that it is only very few findings that did not establish any relationship between market orientation and performance (Au and Tse, 1995).

One can then conclude that in spite of unclear cases, there has been a significant concurrence researches on the positive impact of market orientation on performance. There have been several studies done in hotel businesses regarding market orientation. A study was done among small hotel businesses in the United Kingdom (UK) and the author is of the opinion that market orientations dimension may not be appropriate and applicable in the small business operation (Harris, 2000). Several reasons such as lack of competitive differentiation, perception of short-term focus of owner manager and ignorance about market intelligence limit the strengths of small businesses in their application of market

orientation. It is believed that small businesses engaged in marketing practices in a holistic and inappropriate manner which seems to have any significant effect on their performance and hence perceived as not being useful (Blankson and Stokes, 2002).

In the United States of America (USA), a study was conducted using market orientation among SMEs (Blankson *et al.*, 2006). The research agreed on the appropriateness of the framework of market orientation for small business sector. Documented findings of the study included a unique marketing style, for example, customer care and market intelligence with respect to the size of business surveyed, attitude of owner managers, resource availability as well as operating environment. The study therefore established a positive impact on the performance of SMEs.

A study in Ghana (Mohammed, 2010) examined market orientation and business performance among SMEs in Ghana using 191 firms in Accra and Tema. The study concludes that SMEs need to be more focused, assessed competitor trend and as well react appropriately to market information to survive given evidence of technical, financial as well as other constraints. The study adopted market dimension proposed by Narver and Slater (1990) and Kohli and Jaworski (1990) in measuring market orientation. The findings of the study confirmed a positive impact of market orientation on performance and show that the attitude of owner managers influences market orientation practices.

In Malaysia, a study was conducted in the area of market orientation among 53 small firms in the small towns of Chunglun at Sintok-Kedah (Muhammad, 2010) The research adopted MKTOR model of market orientation which include customer orientation, competitor orientation and inter-functional orientation to predictor of firm performance. The findings from the study suggest that market orientation measures of customer orientation, competitor orientation as well as inter-functional orientation are very strong predictor of performance of

small businesses.

A study on market orientation was done in Russia using Tatarstan Knowledge to assess the influence of market orientation on the performance of businesses (Protcko and Dornberger, 2014). The study validated market dimension of gaining information, dissemination of information as well as planned and implemented response proposed by Kohli and Jaworski (1990). The findings further show that market orientation practices have positive impact on both objective and judgmental performance of small-scale enterprise.

A similar study has been conducted in Nigeria using 640 SMEs to establish the impact of market orientation on performance, the mediating role of organizational culture (Shehu and Mahmood, 2014). Even though the intervention test was not supported, the correlation result showed a good association between market orientation, performance and organizational culture. Even then, the regression result showed no established relationship between market orientation and SMEs performance.

In a related study, Ibidunni and Inelo (2014) assessed the association between market-oriented strategic flexibility and market performance of the furniture Industry under fierce competitive environment in the South-Western Nigeria. The study was anchored on resource-based view and capability theories. The findings showed a connection between resource portfolio and firm's profit, and it was, thus, concluded that businesses were unable to vie effectively because of absence of exposure to cutting-edge information and limited financial and intellectual resources.

Presented in Table 2.1 is the summary of some of the studies reviewed in towards a proper contextualization of the current study.

**Table 2.1: Summary of the Empirical Reviews**

Summary of Some of the Empirical Reviews	Author(s) Name(s)/ Year	Nations	Findings	Methods of Analysis
Marketing Strategies and Performance of Indigenous Construction Firms in Nigeria	Ogbu (2016)	Nigeria	The study found that the groups of marketing strategies that influence indigenous construction firms' level of performance are: third party-based, client-based, firm-based, and publicity-based marketing strategies	Chi-Square Analysis
Market oriented strategic flexibility and market performance of the furniture industry in Southwest Nigeria under fierce competitive environment	Ibidunni and Inelo (2014)	Nigeria	The conclusion showed that firms were unable to compete favorably because of lack of exposure to cutting edge information and limited financial and intellectual resources	Pearson product moment correlation analysis
Relationship Between Market Orientation, Firm Innovativeness and Innovative Performance	Ihinmoyan and Akinyele (2011)	Nigeria	The study found that a firm with a market orientation is likely to improve its innovation capacity and performance	Correlational Analysis
Market orientation and sales of quoted companies in Nigeria	Oseyomon and Ogieva (2014)	Nigeria	The study showed that there was a positive relationship between the adoption of market orientation and sales of quoted companies in Nigeria	correlation analysis
Effects of Market Orientation Practices on Business Performance of Hotels in Nigeria	Udegbe (2017).	Nigeria	The study found that market orientation was practiced by the surveyed hotels as their core marketing strategy. Market orientation practices were positively linked to business performance.	Factor Analysis
Market Orientation in Nigerian Manufacturing Companies	Osuagwu and Obaji (2011)	Nigeria	The established revealed strong market orientation was also used via practices in the selected manufacturing companies	Cronbach's alpha factor analysis
The Mediating Effect of Proactive Market Orientation on Entrepreneurial Proclivity and Small-Scale Business Performance	Abubakar and Bambale (2016)	Nigeria	The study found that Proactive market orientation has a mediating effect on entrepreneurial proclivity and small-scale business performance in Nigeria.	Multiple regression analysis

**Table 2.1: Summary of the Empirical Reviews (continue)**

Effect of Market Orientation on Performance of Small and Medium Enterprises; Mediating Role of Innovation	Bamfo and Kraa (2019)	Ghana	The study revealed that Small and Medium Enterprises should embark on market orientation practices and innovate so as to maximize performance	Structural Equation Model
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The Relationship between Shehu and Mahmood Malaysia Market Orientation and (2014) Business Performance of Nigerian SMEs: The Role of Organizational Culture			The result from correlation correlation analysis analysis established a good and OLS) Regression relationship between market Analysis orientations, organizational culture and business performance. However, regression results established no relationship between market orientation and SME performance, whereas, the mediation test was not supported. The study's implications also discussed.
Market Orientation, Shehu (2014) Knowledge Management, Entrepreneurial Orientation and Performance of Nigerian SMES	Malaysia		The findings of mediation multiple regression test indicated that and hierarchical organizational culture regression analysis partially mediated the relationships between knowledge management, entrepreneurial orientation and firm performance.
Market orientation and firm Arthur (2016) performance in Ghana's mobile telecommunications Industry	Ghana		Market orientation is Smart PLS determined by one internal antecedent - top management emphasis with no external antecedent influencing it

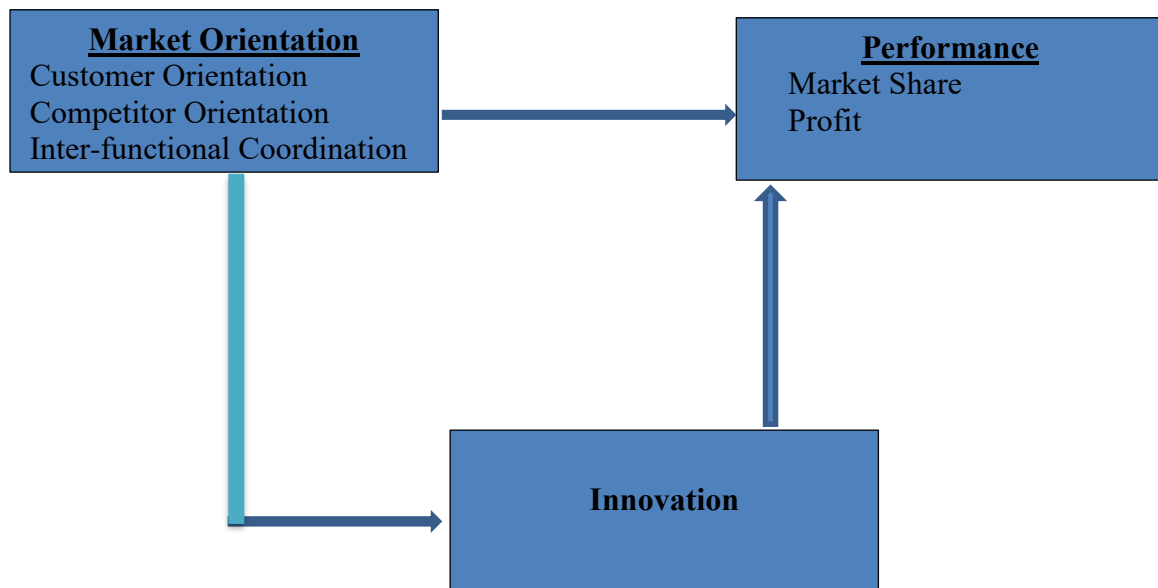
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**Source: Author's compilation, (2019)**

## 2.10 Conceptual Framework

Various meanings of market orientation were taken from both Kohli and Jaworski (1990) and Narver and Slater (1990). Generation of information, dissemination of information and planned and implemented response were proposed by Kohli and Jaworski (1990) as a way of measuring market orientation. Narver and Slater (1990) also proposed customer orientation, competitor orientation and inter-functional orientation as measurement for market orientation.

Kohli and Jaworski (1990) and Narver and Slater (1990) model of market orientation was also adopted for the study, with innovation used as a mediating variable. Market orientation has positive impact on innovation and performance; innovation will impact positively and will serve as a mediator between market orientation and performance of firms in Nigeria's Mobile telecommunication industry. Figure 2.1 shows the conceptual framework.



**Figure 2.1: Conceptual Framework**  
**Source: Research Author, 2019**

## **2.11 Mobile Telecommunication Industry**

The telecommunications industry which is under the purview of information and communication technology consists of all telephone companies and internet service providers and plays a critical role in the advancement of mobile communications and the information society.

Mobile telecommunications have been one of the main dynamic segments in the telecommunications sector over the decade. Mobile telecommunication has rebranded the manner in which clients and business operate in developing markets. Mobile services have often become the universal providers of communication services as opposed to the fixed-line system which has remained undeveloped (Deloitte, 2012). There has been incredible progress in mobile phone proprietorship and use universally. Total mobile penetration has more than doubled in all areas of the world since 2005, and is attributable to many factors comprising a fall in handset and usage cost, and an enhancement in service quality and network coverage (Deloitte, 2012). By 2007, mobile phone subscriptions constituted 60 percent of the world inhabitants (Frempong, 2009). These significant penetration increases



have made basic mobile services (voice, texts and basic text-related services) available to billions of people across all income levels globally (Deloitte, 2012).

Mobile telephones have since exhibited a positive influence on some of the critical pillars of business operations - access to market, reduced cost of doing business, e-financial services and access to business information (Frempong, 2009) thereby making mobile telecommunications paramount to a country's economic and social development (Deloitte, 2012). Mobile communication has continued to provide unprecedented opportunities for economic growth in both developed and developing markets, and mobile services have become an essential part of how economies work and function (Deloitte, 2012)

## **2.12 Nigeria's Mobile Telecommunication Industry**

Nigeria is one of the most populated countries in Africa. With the fact that the country is abundant in many other natural resources and has good potential facilities, one might think that international business would be fighting for a piece of the action in Nigeria. Nigeria is Africa's most populated country with a population of about 198 million (NPC, 2018).

The eruption of firms and the unparalleled success of foreign companies such as South Africa's MTN, have also demonstrated that potential could be turned into reality in Nigeria.

## **2.13 Competitors in Nigeria's Telecommunication Industry**

Since the mid-80s, M-Tel, a subsidiary of NITEL (Nigeria) the national carrier, has enjoyed a monopolistic market. Over the years it has only produced just 40,000 connected lines to subscribers nationwide (Doyle and McShane, 2001). The creation of the sector's independent regulator, the Nigerian Communications Commission (NCC) in 1999 and the award in January 2001, via an auction, of three GSM spectrum licenses to MTN, GLO and Airtel Wireless Nigeria Limited opened wide the market. Today, the market is made of primarily the four GSM companies, GLO, MTN, Airtel (formerly Zain), 9mobile (formerly

Etisalat).

## **2.14 Contributions of Mobile Telecommunication to Nigeria's Economy**

The development of telecommunication facilities in Nigeria began in the 18<sup>th</sup> century when a cable connection was established between Lagos and London by the Colonial administration (Adegboyega, 2008). From the onset, it was clear that the introduction of telephone services in the country was not induced by economic or commercial motives, as it is also not meant to enhance economic growth; the idea for its development was for colonial subjugation.

Salawu (2008) stated that between independence in 1960 and 1985, telecommunication service became commercialized. He specified further that the ancient department of post and telecommunication (PandT) under the Ministry of Communication Limited (N.E.T) was formed to take care of external telecommunication services while the old P and T handled internal network. By January 1985, the erstwhile (PandT) divisions merged with N.E.T to form Nigeria Telecommunication Limited (NITEL) a government owned Limited Liability Company. The main reason for establishing NITEL was to blend the planning and coordination of the internal and external communication service, and deliver accessible, effective services that are affordable.

NITEL, the only national monopoly operator in the division, was characterized by unreliable service and bad administration which made telephone then to be undependable, jammed and consumer unfriendly. According to Ajayi *et al.* (2008), the years 1992 to 1999 were labeled as the partial liberalization age, when government embarked on market oriented telecommunication service, partially liberalizing the Nigerian telecommunication sector with the NCC Decree 75 of 1992.

## **2.15 Performance of Mobile Telecommunication Firms in Nigeria**

Performance is an essential concept in management research. Managers are judged on their firm's performance. Good performance influenced the continuation of the firm (Eniola and Entebang, 2015). They also state that much of the research on performance measurement has come from organization theory and strategic management. For instance, Zehir *et al.* (2015) defines good performance as the above average rate of return sustained over a period of years.

Mohan and Sequeira (2016) pointed out that firm performance is a multidimensional construct. Financial performance includes return on assets (ROA), return on sales (ROS), and return on equity (ROE). They measure financial success and tap current profitability (Parker, 2000; Man, 2009). Business performance measures such market related items as as market share, sales growth diversification, and new product development (Man, 2009). Organizational effectiveness measures are closely related to stakeholders than shareholders like employee satisfaction, quality and social responsibility (Gibcus and Kemp, 2003; Man, 2009).

The Nigerian telecommunication sector witnessed a main revolution in 2001 with the permission of the global system for mobile telecommunication (GSM) authorization to providers. The present roll call of GSM operators consists of MTN, Airtel, Glomobile, 9mobile, among others. In real terms, Telecoms industry contribution to the Nigerian Gross Domestic Products has been on a steady rise from 8.66% as at December 2017 to 9.85% in the Fourth Quarter, 2018 (Nigerian Communications Commission, 2018).

## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

#### **3.1 Location of the Study**

Abuja the capital of Nigeria is situated in the centre of the nation within the Federal Capital Territory (FCT). It is a planned city and was built mainly over forty (40) years ago replacing Lagos as the capital in the year 1991 (Aliyu, 2016). Abuja's geography is defined by Aso Rock, a 400-metre (1,300 ft.) monolith left by water erosion. The Presidential Complex, National Assembly, Supreme Court and much of the city extend to the south of the rock. Zuma Rock, a 792-metre (2,598 ft.) monolith, lies just north of the city on the expressway to Kaduna. At the 2006 census, the city of Abuja had a population of 776,298, making it one of the ten most populous cities in Nigeria (Lovejoy, 2016).

According to the United Nations, Abuja is the fastest growing city in the universe as it grew by over 140% in the space of ten (10) years between 2000 and 2010. As at the end of year 2015, Abuja was reported as witnessing growth of 40%, yearly. The population as at 2016, is approximately about six million persons, placing it behind only Lagos, as the most populous metro area in Nigeria (Lovejoy, 2016).

Major landmarks in Abuja include the Nigerian National Mosque, Nigerian National Christian Centre and Nnamdi Azikiwe International Airport to mention a few. Abuja is famous for being one of the rare purpose-built capital cities in Africa, as well as being one of the richest. Abuja is Nigeria's administrative and political centre. It is also a key capital on the African continent due to Nigeria's geo-political influence in regional affairs. Abuja is also a conference centre and hosts various national and international meetings yearly.

### **3.2 Research Design**

This study adopted explanatory research design approach to achieve the objectives set for the study. The study is explanatory as it established the relationship among market orientation, innovation and performance of telecommunications firms in Nigeria. The study tested underlying hypotheses of the constructs and provide an explanation to the relationship (positive or negative) as well significance of the variables used in the study. The study established the relationship between market orientation, innovation and performance. A descriptive analysis was also used to define, explain and explore what is happening by providing additional information on the topic. Descriptive research design was selected primarily because it comprises cross-sectional design in relation to which data were collected predominantly by questionnaire. The analysis was also quantitatively done using structural equation model (smart PLS) statistical tool.

### **3.3 Population of the Study**

The population of this research consists of the entire staff of all the four major telecommunication operators in Nigeria (MTN, Globacom, 9mobile and Airtel). This population comprised staff, as well as executives of the telecommunication operators. The entirety figure of all the staff of the four major communication operators as listed with Nigeria Communication Commission (NCC) as of December, 2018 was 13,145 (NCC, 2018).

### **3.4. Sampling Techniques**

For this study, a probability sampling technique is used based on characteristics of the population and the objective of the study. Simple random sampling technique in which every subject meeting the criteria of inclusion is selected until the required sample size was achieved. This method is used because it allows every employee to be included until the required sample size is achieved (Bowers, *et al.*, 2011).

### 3.5. Sample Size

In the determination of the study sample size, a formula which was invented by Yamane (1967) was used. Yamane (1967) provides a simplified formula to calculate sample sizes. This research will be adopting the use of 95% confidence level, being the standard value for social science research, and  $e = 0.05$  are assumed. The selected sample size was arrived at by the following formula:

$$n = \frac{N}{1 + N(e)^2} \quad (3.1)$$

Where:

$n$  = required sample size

$N$  = total number of staff of the four major telecommunication firms in Nigeria.

$N = 13,145$  (Nigerian Communications Commission, 2018)

$e$  = error of margin = 0.05

$$n = 13145 / 1 + 13145(0.05)^2$$

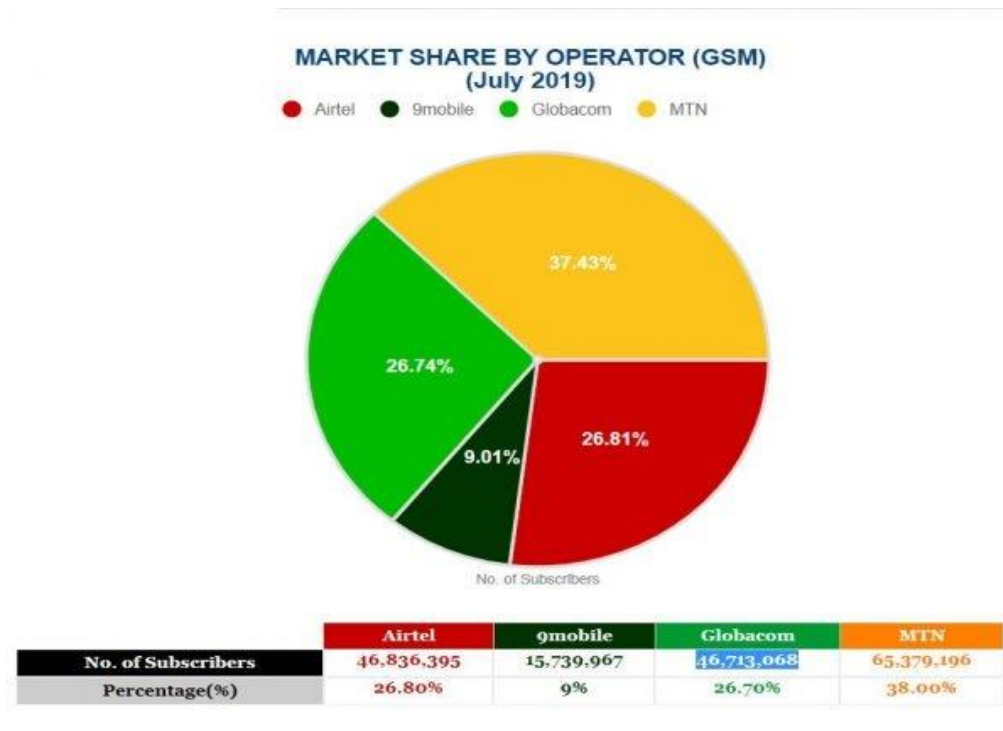
$$n = 300.19$$

$$n = 300.$$

Therefore, the sample size used for this research was 300.

Operator market share was used to calculate the number of questionnaires to be administered to each of the telecom operators. A total of three hundred and fifty (350) questionnaire was administered, this is so in order to get the required sample size.

Figure 3.1 shows the market share of each telecom operator.



**Figure 3.1: Graphical Representation of Telecom Operators' Market**

Source: NCC, 2019

**Table 3.1: Sample Size for Staff Questionnaire Administration**

No	OPERATOR	MARKET SHARE (%)	QUESTIONNAIRES ADMINISTERED
1	MTN	37.43	131
2	Globacom	26.74	93
3	9mobile	9.01	32
4	Airtel	26.81	94
	TOTAL	100	350

Source: Author's field data 2019

### 3.6 Measurement of Research Constructs

There has been debate with respect to the application of market orientation construct

developments that are tested on large companies to small companies (Gilmore *et al.*, 2001; Blankson and Stokes, 2002; Keskin, 2006). The study adopted market orientation scale measurement from Narver and Slater (1990) construct to measure market orientation.

The use of Narver and Slater scales in a study is not anything new. Farrell and Oczkowski (1997) used MKTOR to conduct a study in Australia. Hinson *et al.* (2007) used the scale to study market orientation among SMEs in Ghana.

According to Agarwal *et al.* (2003), objective performance variables include net profit, market share, capacity to expand, account receivables, cash flow, among others. Bamfo and Kraa (2019) measured business innovativeness by examining how telecom operators actively seek ways of doing things new, and constantly making changes to lines of business operations. The study also adopted Agarwal *et al.* (2013) and Bamfo and Kraa (2019) as analytical frameworks (See Table 3.1).

### **3.7 Sources of Data Collection**

The study made use of primary data. The study used questionnaires to collect primary data from purposeful selected respondents. Closed-ended structured questionnaires under the market orientation variables of customer orientation, competitor orientation and inter-functional orientation, as well as innovation and performance construct were adopted and used for the respondents. The questionnaire was sent and received in July 2019.

### **3.8 Method of Data Collection**

Existing methods of market orientation measurement as postulated by Narver and Slater (1990) and Bamfo and Kraa (2019) were analyzed. But majority of the propositions were taken from Narver and Slater's construct because it has been greatly used by various studies. A 5-point Likert scale rating ranging from strongly disagree (1), disagree (2), neutral (3), agree (4) to strongly agree was used in this study for all the scale items. Zebal (2003) noted



that scales are easy to prepare and interpret, and simple for a respondent to answer.

### 3.9 Pilot Study

In determining the sample size of a pilot study, Treece and Treece (1982), Connelly (2008) and Vicario *et al.* (2017) suggested 10% of the project sample size. The instrument was administered to 30 employees of the four major telecommunication firms being considered for the study in Minna and Suleja, Niger state of Nigeria.

Reliability analysis was carried out to ensure consistent measurement among the various items in the instrument (Melere, 2017). It shows the extent to which the information obtained can be confidently relied on through the use of the instrument (questionnaire) adopted to gather data for this study. The Cronbach's Alpha was used to determine whether all the items within the instrument measure the same thing. The threshold of an acceptable reliability coefficient is generally 0.7 (Hair *et al.*, 2019). The results obtained confirmed that the instrument used in the study was reliable with Cronbach's score above 0.70 for all the variables. The result is shown in Table 3.2.

**Table 3.2: Output of the Construct Validity Test**

S/N	Sections	Cronbach's Alpha	No. of Items Before	No. of Items After
1	Customer Orientation	0.814	6	6
2	Competitor Orientation	0.838	6	6
3	Inter-functional Coordination	0.760	6	6
4	Innovation	0.934	7	7
5	Financial Performance	0.870	7	6

Source: Author's Field Data 2019

### 3.10 Data Analysis Techniques

Data collection was followed by data coding for the purpose of analysis. The study made use of Structured Equation Model (SEM) using Smart PLS to estimate and analyze the results.

The SEM is a set of multivariate statistical technique that permit the simultaneous investigation of a set of theoretical relations among one or more independent variables, with continuous or discrete variables, and one or more dependent variables, also continuous or discrete (Ringle *et al.*,2018). Combining aspects of factorial analysis with multiple regression, the SEM enables the researcher to simultaneously investigate multiple relations of dependence and independence among latent variables, by means of observed variables, as one of the most recent multivariate techniques used in the Social Sciences (Hult *et al.*, 2018)

Smart PLS is a software with graphical user interface for variance-based structural equation modeling (SEM) using the partial least squares (PLS) method. The software can be used in empirical research to analyze collected data and test hypothesized relationships.

(Kline, 2011) suggests a six-step approach when using SEM as an analyzing tool. These are model specification, evaluation of model identification, selection of measures and collect, prepare and screen the data, estimation of model (evaluation of model, interpretation of parameter estimations, consideration of equivalent or near-equivalent models) and Re-specification of model and Result-reporting. The data analysis passed through all the stages highlighted above.

### **3.10.1 Justification for the use of SEM**

The study used SEM for the analysis because the statistical tool produces benefits not possible with first-generation statistical methods (Regression and correlation). A significant benefit of SEM is that it is feasible and considers the forms of errors confounding the use of regression and correlation. For instance, random or measurement error in indicators of latent variables may be modeled and estimated explicitly. SEM also provides more straightforward tests of mediation methods to evaluate construct validity in broader and deeper ways

compared to correlation analyses, and ways to correct for systematic bias in tests of substantive hypotheses.

SEM allows a thorough search for alternatives until a good fit model is obtained. SEM has greater flexibility regarding assumptions; particularly allowing interpretation even in the face of multicollinearity. PLSSEM was used for this study because it is suitable for theory building studies (Vinzi *et al.*, 2010; Sarsted (2008).

### **3.10.2 Instrument of Reliability and Validity**

Different tests were carried out in order to assess the overall reliability and validity. These tests include convergent, face or content validity, discriminant and composite reliability test. The composite reliability is used to assess whether the sample is truly free from bias or of the responses on the whole – are reliable. Traditionally, “Cronbach’s alpha” is used to measure internal consistency reliability in social science research but it tends to provide a conservative measurement in PLS-SEM. Prior literature has suggested the use of “Composite Reliability” as a replacement (Bagozzi and Yi, 1988; Hair *et al.*, 2017). Composite reliability coefficients between 0.60 and 0.70 are considered appropriate in exploratory studies, while coefficients of 0.70 and 0.90 are considered satisfactory for the other types of research (Hair *et al.*, 2014). A reliability coefficient of 0.70 or higher is considered acceptable, 0.80 or greater is preferred. Higher is better (Cortina, 1993).

To check convergent validity, each latent variable Average Variance Extracted (AVE) is evaluated. The AVE is the part of the data of the variables explained by each of the respective latent constructs or, in other words, the average extent to which the variables are positively correlated with their respective constructs (Ringle *et al.*, 2014). Thus, when the AVE is superior to 0.50, it is admitted that the model converges to a satisfactory result (Fornell and Larcker, 1981).

Taheri *et al.* (2018) explain content validity tests as referring to the degree to which elements of a measurement instrument are relevant to and representative of, the targeted construct for a particular assessment purpose. The market orientation items used were based on a comprehensive list of literature reviewed on the subject of market orientation and only those that had been validated in previous empirical studies were included in the analyses. The instrument of data collection was also given to three experts in the field of entrepreneurship and information technology. This is done to make the questionnaire more effective and efficient in measuring what it was intended to measure and also if the instrument covered the breadth of the content area. It was to also ascertain if the instrument contained representative sample of the content being assessed and too confirm whether the format used in designing the instrument was appropriate or not. This is to ensure that the instrument is capable of obtaining the required information from various respondents

The discriminant validity ensures that a construct is truly distinct from the others through empirical standards (Bamfo and Kraa 2019). Hence, the establishment of discriminant validity implies that the construct is unique and captures phenomena the other constructs in the proposed model do not understand. The main form of assessing the discriminant validity is by confronting the square roots of the AVE coefficients of each construct with the (Pearson) correlations between the other latent constructs (Fornell and Larcker criterion). Discriminant validity will exist if the correlations between the latent variables are inferior to the square root of the AVE (the indicators have a stronger relation with their VL than with other VL (Hair Jr. *et al.*, 2017).

### **3.11 Method of Data Administration**

There are number of ways in which questionnaires can be administered: face-to-face, by phone, online, and on paper. There is need for the researcher to analyze his target audience

before a questionnaire is created. This will enable the researcher to determine their preferred method of completing the questionnaire for optimal result.

The administration of questionnaires to the staff of mobile telecommunications operators was undertaken personally, leveraging Hinson and Sorensen (2006) who noted that people are more comfortable filling in questionnaires that are personally delivered and thoroughly explained to them by the interviewer. Questionnaires were administered to the staff in their offices in Abuja metropolis where their company offices are located after obtaining permission to proceed. The researcher was on ground to answer any question as the need arose because he personally administered the questionnaires.

The questionnaire was self-completed by the respondents. Out of the 300 questionnaires administered, 275 (representing 91.6%) were usable, with the breakdown as follows: MTN 106; Globacom 73; Airtel 72 and 9mobile 24.

**Table 3.3: Breakdown of returned Questionnaires by Telecom Operators**

<b>Operator</b>	<b>Questionnaire administered</b>	<b>Questionnaire returned</b>
MTN	131	112
Globacom	93	80
Airtel	32	78
9Mobile	94	30
<b>Total</b>	<b>350</b>	<b>300</b>

**Source: Author's Field Data 2019**

### **3.11.1 Staff Questionnaire Administration**

The questionnaire measured the mediating effect of innovation on the relationship between market orientation and performance of the mobile Telecommunications firms Nigeria. A total of thirty (30) questions were asked in each questionnaire which were to be answered by

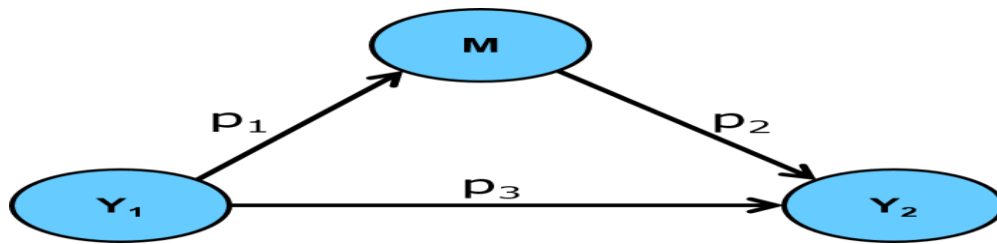
each respondent. For this study, variables developed by Narver and Slater were used because of their wide recognition and acceptability in the market orientation literature. These included customer orientation, competitor orientation, inter-functional orientation, while Net profit, market share, revenue growth and increase in subscriber base were the financial performance measured in this study. In line with Harris (2001) which says market orientation constructs can be suited for different contexts, slight adjustments were made to some of the terms used by previous authors (Narver and Slater, 1990; Zebal, 2003; Arthur, 2016). Therefore, terminologies such as telecom operators, subscribers, market share, etc. were used in the study.

### **3.12 Mediation Analysis Using Bootstrapping Approach**

Mediation usually happens when a third mediator variable intervenes between two other related constructs. Mediation is carried out to test the causal relationship between a dependent variable and an independent variable by adding the third variable known as a mediator variable (Hair *et al.*, 2017). Mediation variables affect the strength of either the dependent variable or the independent variable. PLS-SEM makes use of the bootstrapping approach for mediation analysis because bootstrapping can be used in smaller sample size and makes no assumption about the sampling distribution of the statistics (Hair *et al.*, 2017). According to Zhao *et al.* (2010), the first step in carrying out mediation analysis is to assess the direct effect of the dependent variable on the independent variable. The direct effect should be significant provided the mediator is not included.

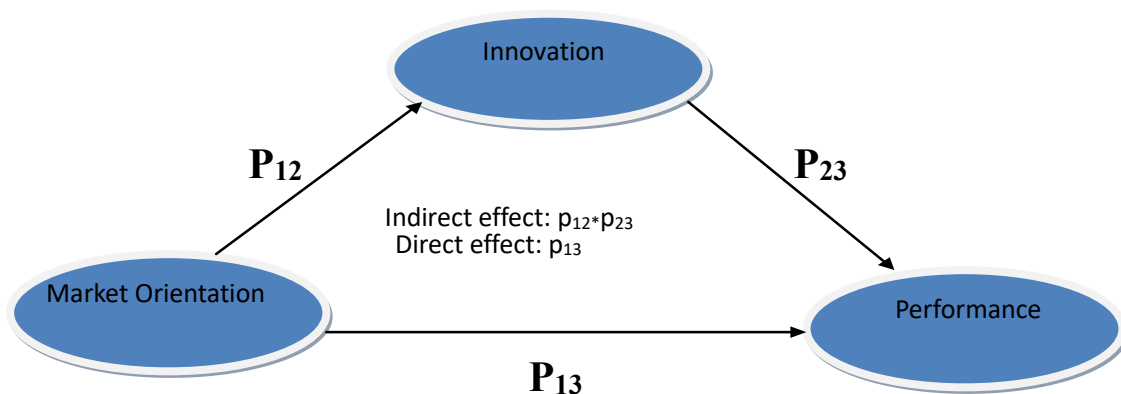
The systematic mediator process in smartPLS is best described in Nitzl *et al.* (2016), Cepeda *et al.* (2017) and Hair *et al.* (2017). According to the authors, the mediator model is briefly described in Figure 3.2, where  $p_3$  is the direct effect,  $p_1 \cdot p_2$  is the indirect effect while the

total effect equals the addition of direct effect and the indirect effect, i.e.  $(p_3) + (p_1 \cdot p_2)$ .



**Figure 3.2: Single Mediator Model**  
Source: Hair *et al.* (2017)

For the purpose of this study, the mediating model is represented using the bootstrapping approach. This is described in figure 3.2.



**Figure 3.3: Mediation Analysis Using Bootstrapping Approach**

Source: Zhao *et al.* (2010); Hair *et al.* (2017)

Provided the direct path is significant, the second step is to add the third variable (i.e., the mediator variable) in the PLS path model followed by accessing the significance of the indirect path (i.e.,  $p_{12} * p_{23}$ ). The significance of each individual path  $p_{12}$  and  $p_{23}$  must be significance for this condition to occur. Variation accounted for (VAF) is calculated in order to know the magnitude of the direct path absorbed.

### 3.13 Structural Equation Model of Market Orientation and Firm Performance

In this model, performance is the outcome variable while customer orientation, competitor orientation and inter-functional coordination are the predictor variables. The partial least squares (PLS) procedure found to be the most appropriate for the non-normal datasets in the current research Chin (1998) was used for the study.

$$Y_{(1-2)} = \beta_0 + \sum \beta X_1 + \sum \beta X_2 + \sum \beta X_3 + \epsilon \quad (3.2)$$

Where:

Y and X are the dependent and independent variables, respectively.

Y= Dependent Variable (Firm Performance)

Y1= Market share

Y2= Net profit

X= Independent Variable (Market Orientation)

X1 = Customer Orientation,

X2 = Competitor Orientation,

X3 = Inter-functional Coordination,

$\beta$  = Path coefficients which measures the relationship among constructs.

$\epsilon$  = error term

The condition imposed is  $E(Y/X) = \sum \beta X_{1-n}$ . This means the relationship between the dependent and independent variables equals the summation of path coefficient of the exogenous variable(s).



## **CHAPTER FOUR**

### **4.0 RESULTS AND DISCUSSION**

This chapter present detail of the data obtained for the study and the analysis of the data

based on the statistical method adopted. The interpretations of the results as well as the discussion of the findings are also detailed in this chapter.

A well structure questionnaire was administered to the staff of the four major telecommunication operators. However, not all the copies distributed were returned as envisaged. Table 4.1 shows the distribution and response rate.

**Table 4.1      Distribution and Response Rate**

Questionnaire	Frequency	Percentage (%)
Response	300	85.71%
Non-response	50	14.29%
Total	350	100

**Source: Author's Field Data 2019**

Table 4.1, shows clearly the distribution and the response rate of the respondents. Out of the 350 questionnaires distributed, 300 were returned and this account for about 86% response rate, which gives the desired sample size.

#### **4.1      Demographic Characteristics of Respondents**

The demographic characteristics of the respondents used for the study are presented in table 4.2.

**Table 4.2: Distribution of Demographic Characteristics of Respondents**

Variables	Frequency	Percentage
Mobile Network		
MTN	112	37.33
Globacom	80	26.67

Airtel	78	26.00
9mobile	30	10.00
Total	<b>300</b>	100
Gender		
Male	164	54.67
Female	136	45.33
Total	<b>300</b>	100
Age		
Under 20 yrs.	0	0
21-30 yrs.	103	34.33
31-40 yrs.	134	44.67
41-50 yrs.	46	15.33
Above 50 yrs.	17	5.67
Total	<b>300</b>	100
Duration of Work		
Under 5 yrs.	162	54
6 - 10 yrs.	96	32
11 - 15 yrs.	31	10
Above 15 yrs.	11	4
Total	<b>300</b>	100
Education		
PhD	11	3.67
Masters	50	16.67
B.Sc.	160	53.33
HND	79	26.33
SSCE	0	0
Total	300	100

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**Source: Author's Field Data 2019**

The study involved a total of 300 respondents drawn from four telecommunication operators in Nigeria. Table 4.2 shows that 37.33% of the respondents were employees of MTN, 26.67% employees of Globacom, 26.00% employees of Airtel and 10.00% employees were of 9mobile.

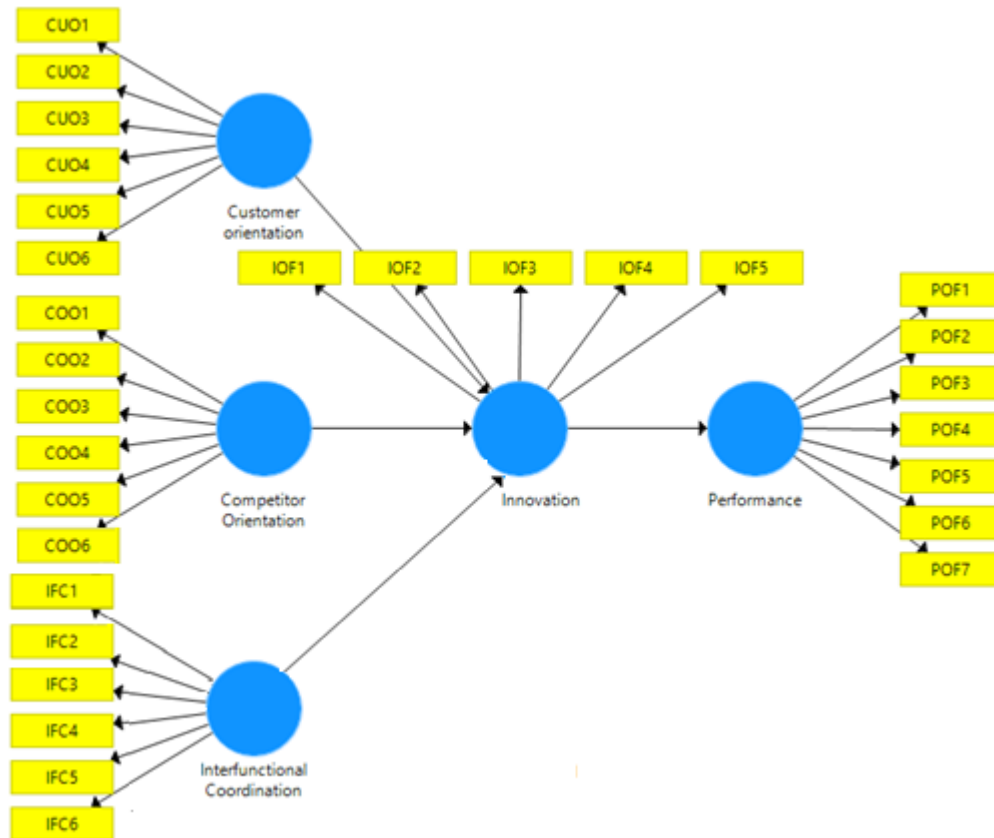
It is also noticed that 54.67% of respondents for quantitative data collected were male and 45.33% female. This shows that the questionnaires were evenly distributed. The table also establishes that ages 31-40 dominated the work force of the telecommunication firms

with 44.67%, followed closely by ages 21-30 with 34.33%. This demonstrated that the telecommunication firms were dominated by young and energetic people. 15.33% of staff respondents were between age 41-50years, just 5.67% were above age 50, while under 20 had no representation.

With respect to educational level, those with BSc. dominated the respondents recording 53.3%; followed by those with HND 26.33%; Masters 16.67%; PhD 3.67% and SSCE is Zero (0). The results indicate that the telecommunication firms were dominated by BSc. Holders. The reported results also show that in terms of length of service, those that had been working under 5 years dominated the telecommunication industry with 54%.

#### **4.2 PLS-SEM Model Assessment**

SmartPLS 3 software (Ringle *et al.*, 2014) was used to carry out the CFA and to test the hypotheses (See Appendix 1 for the SEM output of the conceptual model) with more details provided in Figure 4.1.



**Figure 4.1: Conceptual Model**  
**Source: Author's Field Data 2019**

### 4.3 Confirmatory Factor Analysis

Factor analysis was examined and programmed in such a way that it would find out and expunge any indicators that might pose a problem to the construct under measurement. Some items were totally expunged because they were poorly loaded on the factor after the cleansing was done. Hair *et al.* (2013) suggested that items having a loading  $>0.70$  should be retained. This was done in order to keep the items that had higher loadings so as to maintain reliability. Therefore, in replica of the extant literature and using Confirmatory Factor Analysis (CFA), offending items were removed sequentially using smart PLS until the standardized loadings and the fit indices revealed that no improvement could be attained through item deletion. The measurement models were estimated using smart PLS 3. See table 4.3.

**Table 4.3: Reliability Test Using Cronbach's Alpha**

Variables	Number of items	Number of items deleted	Cronbach's Alpha
Competitor orientation	6	3	0.814
Customer Orientation	6	2	0.838
Inter-Functional Coordination	6	2	0.896
Performance	7	5	0.711
Innovation	5	2	0.878

**Source: Author's Field Data 2019**

Alpha coefficient must exceed 0.70 for exploratory research (Hair *et al.*, 2017). Therefore, from table 4.3, values of alpha for each variable exceeded 0.7. This makes the questionnaire significantly reliable and analysis could be done with the questionnaire. See Appendix II for PLS output.

#### **4.3.1 Measurement model assessment**

Assessment of the outer model which is also known as measurement model includes composite reliability (CR) to evaluate internal consistency, individual indicator reliability and average variance extracted (AVE) to evaluate convergent validity Hair *et al.* (2013).

#### **4.3.2 Internal consistency reliability**

According to Hair *et al.* (2019) ICR is a form of reliability that is used to access the consistency of results across items of the same variables which also helps to know whether the items measuring a variable are closely related in their scores.

**Table 4.4: Composite Reliability Table**

Variables	Composite Reliability
Customer Orientation	0.892
Competitor Orientation	0.887
Inter Functional Coordination	0.916
Innovation	0.926
Performance	0.868

Source: Author's Field Data 2019

Table 4.4 shows that the composite reliability values of all the latent variables used in this study were found to be > 0.70 (Gafen *et al.*, 2000 and (Hair *et al.*, 2006) and this therefore establishes internal consistency. The PLS output is shown below.

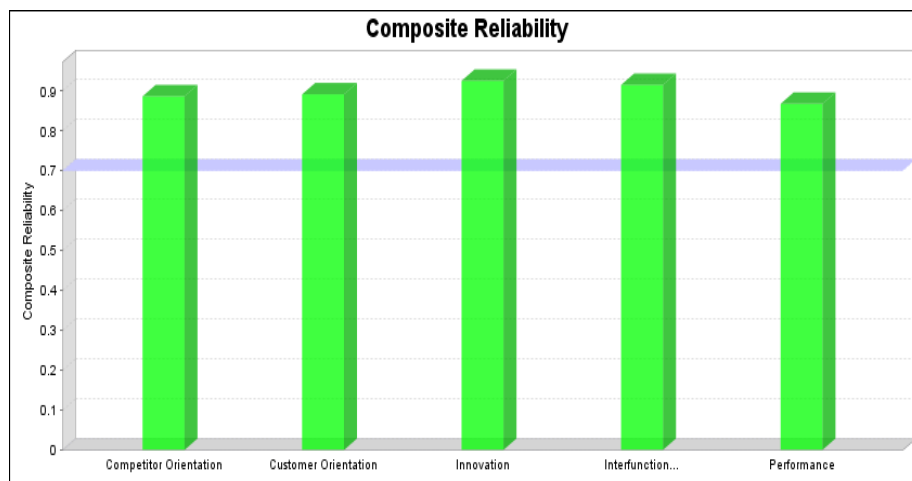


Figure 4.2: PLS output

Source: Author's Field Data 2019

### 4.3.3 Convergent validity

Convergent reliability according to Hair *et al.* (2017) refers to the extent of positive correlation of the measures. AVE was calculated to access convergent validity and this is shown in Table 4.5. These values were found to be more than the prescribed value of 0.50 (Bagozzi 1998 and Hair *et al.*, 2016) and therefore established convergent validity.

Table 4.5 Average Variance Extracted Table

Variables	Average Variance Extracted (AVE)
Customer Orientation	0.674

Competitor Orientation	0.724
Inter Functional Coordination	0.733
Innovation	0.807
Performance	0.767

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**Source: Author's Field Data 2019**

#### 4.3.4 Discriminant validity

This refers to the extent to which a variable is different from other variables with respect to how much the variable correlates with other variables, Hair *et al.* (2017). The average variance extracted (AVE) was used to assess the convergent validity of the latent variables. Fornell and Lacker (1981) specified that the AVE should be higher than 0.5. The criterion and cross-loading scores of Fornell and Lacker (1981) were used to calculate discriminant validity. In Table 4.5 the square root of AVE for all latent variables was higher than the inter-construct correlations Fornell and Lacker (1981), thus confirming discriminant validity. Appendix II provides additional evidence for discriminant validity.

**Table 4.6: Average Variance Extracted and Correlation Matrix)**

	<b>AVE</b>	<b>COO</b>	<b>CUO</b>	<b>IOF</b>	<b>IFC</b>	<b>POF</b>
COO	0.723	0.867				
CUO	0.674	0.863	0.821			
IOF	0.807	0.844	0.777	0.898		
IFC	0.732	-0.512	-0.53	-0.564	0.856	
POF	0.766	0.851	0.764	0.876	-0.526	0.876

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**Source: Author's Field Data 2019.** \*\*. Correlation is significant at the 0.01 level (2-tailed).

Note: Bold faces on diagonal are Average Variance Extracted)

**Note:** CUO = CustomerOrientation, COO = CompetitorOrientation, IFC =Inter-FunctionalCoordination, POF = Performance of firm and IOF = Innovativeness of firm

#### 4.4 Structural Model Assessment

After establishing the reliability and validity of the latent variables in the measurement model, structural model (also known as inner Model) was assessed to test the relationship between dependent and independent variables. In PLS-SEM, structural model assessment includes path coefficients to



evaluate the significance and relevance of structural model relationships, Hair *et al.* (2013).

Nonparametric bootstrapping routine as advocated by Vinzi *et al.* (2010) as used on 275 data points and 5000 samples. Bootstrapping is a re-sampling method that draws random samples from the data and uses these samples to determine the path model multiple times under slightly changed data assemblage (Hair *et al.*, 2013). The main purpose of bootstrapping is to calculate the standard error of coefficient estimates in order to examine the coefficient's statistical significance (Vinzi *et al.*, 2010).

**Table 4.7: Summary of Validity and Reliability test using Smart PLS**

Measures		Factor Loadings	Cronbach's Alpha	Composite Reliability	AVE
Competitor Orientation	COO3	0.892	0.814	0.887	0.724
	COO4	0.784			
	COO5	0.872			
Customer Orientation	CUO1	0.846	0.838	0.892	0.674
	CUO2	0.785			
	CUO5	0.856			
	CUO6	0.794			
Inter Functional coordination	IFC2	0.763	0.896	0.916	0.733
	IFC3	0.953			
	IFC4	0.956			
	IFC5	0.727			
Innovation	IOF2	0.943	0.878	0.926	0.807
	IOF3	0.811			
	IOF4	0.935			
Performance of Firm	POF4	0.932	0.711	0.868	0.767
	POF5	0.816			

**Source: Author's Field Data 2019**

**Table 4.8: Variables Measuring the Construct**

S/N	Measures	Factor loading	Composite Reliability
	<b>Competitor Orientation</b>		0.887
1	Our people are instructed to monitor and report on competitor activity	0.892	

2	We respond rapidly to competitors' actions	0.784	
3	Our top managers often discuss competitors' actions	0.872	
	<b>Customer Orientation</b>		0.892
1	We have a strong commitment to our customers	0.846	
2	We are always looking at ways to create customer value in our products	0.785	
3	We measure customer satisfaction on a regular basis	0.856	
4	After-sales service is an important part of our business strategy	0.794	
	<b>Inter-Functional Coordination</b>		0.916
1	All departments are involved in preparing business plans/strategies	0.763	
2	We do a good job integrating the activities inside our organization	0.953	
3	We regularly have inter-organizational meetings to discuss market trends and developments	0.956	
4	All the departments function well to promote growth of the business	0.727	
	<b>Innovativeness of firm</b>		0.926
1	We try to employ new ideas in the business to help us work well	0.943	
2	Innovation is readily accepted in program/project management	0.811	
3	Technical innovation, based on research results, is readily accepted	0.935	
	<b>Performance of firm (Financial)</b>		0.868
1	We have been making profit since we started business (Net profit)	0.932	
2	We have increased our customer base (Market Share)	0.816	

Source: Author's Field Data 2019

## 4.5 Effect of Market Orientation on Telecommunication Performance

**Table 4.9: Formulation of Sub-hypotheses Tested**

Sub-hypotheses 1a	There is no significance relationship between customer orientation and performance.
Sub-hypotheses 1b	There is no significance relationship between competitor orientation and performance
Sub-hypotheses 1c	There is no significance relationship between inter-functional coordination and performance
Hypothesis 2	There is no significance relationship between market orientation and innovation
Hypotheses 3	There is no significant effect of innovation on telecommunication performance
Hypotheses 4	Innovation mediates the relationship between market orientation and firm performance.

Table 4.9 shows the sub-hypothesis tested in the study. These sub-hypotheses were derived from the main hypotheses postulated in the study. The three elements of market orientation

were tested and the results were presented.

**Table 4.10: Results of Hypothesis Testing using Path Coefficient**

Variable	Path Coefficient	T-Values	P-Values
Competitor Orientation ->Performance	0.645	9.796	0.000
Customer Orientation ->Performance	0.135	1.833	0.067
Inter Functional Coordination ->Performance	-0.162	8.887	0.000

**Source: Author's Field Data 2019**

(Note: \*Significant at  $p \leq 0.05$ ; if  $(t) \geq 1.96$ )

#### **4.5.1 Effect of customer orientation on performance of telecommunication firms**

From Table 4.10, Customer orientation has path coefficient value of 0.135. Customer orientation is not statistically significant. This indicated by the result of the structural model of the relationship between customer orientation and performance as indicated by value ( $t = 1.833$ ) with significance P value (0.067). Therefore, sub-hypotheses 1a which says there is no significant relationship between customer orientation and performance is accepted.

It is evident from the result that telecommunication firms in Nigeria do not place emphasis on their customers. This quantitative finding is in line with Yadav (2019). For a firm or industry to be called as being market oriented, such firms must place high emphasis on their customers, have knowledge of their customers, meet the needs of their customers not only now but in the future as well and create value for the customers.

#### **4.5.2 Effect of competitor orientation on performance of telecommunication firms**

Competitor orientation recorded the highest path coefficient value of 0.645 and was positive. Competitor orientation is statistically significant. This is indicated by the result of the structural model of the relationship between competitor orientation and performance as shown by value ( $t = 9.796$ ) with significance P value (0.000). So, sub-hypotheses 1b which says there is no significant relationship between competitor orientation and performance is not accepted.

This means telecommunication firms take competitors seriously. They know the weaknesses and strengths as well as capabilities and activities of competitors for them to be competitive. This result contradicts the work of Frosen *et al.* (2016) and Yadav *et al.* (2019) which found that there is no realistic contribution of competitor orientation to performance of firms. In the same vein, Shehu and Mahmood (2014) established an inverse relationship between competitor orientation and firm performance.

On the other hand, the result is in line to the believe of Kumar *et al.* (2011); Pena *et al.* (2012); Wang *et al.* (2012); Campo *et al.* (2014); Huhtala *et al.* (2014); Lee *et al.* (2015); Najafi-Tavaniet *et al.* (2016); Jogaratnam, 2017 and Kamboj and Rahman (2017) studies in which positive association is found between competitor orientation and firm performance.

#### **4.5.3 Effect of inter-functional coordination on performance of firms**

Inter-functional coordination recorded an inverse relationship on telecommunication performance with path coefficient value of -0.162, this is indicated by the result as indicated by ( $t = 8.887$ ) with significance  $p$  value of (0.000). So, sub-hypotheses 1c which says there is no significant relationship between inter-functional coordination and performance is not accepted.

This finding does not confirm a previous study using SMEs in Malaysia which found positive association of inter-functional orientation on performance Muhammad (2010). This implies telecommunication firms by their nature in Nigeria do engage in inter-functional orientation activities. They tend not to work independently and do not operate individually.

#### **4.6 Effect of Market Orientation on Innovation**

The impact of market orientation on innovation was also considered in the study. The result is presented in Table 4.11.

**Table 4.11 Estimating the Effect of Market Orientation on Innovation**

Variable	Path Coefficient	T-Values	P-Values
Market Orientation -> Innovation	0.875	70.661	0.000

*Source: Author's Field Data 2019.*

(Note: \*Significant at  $p \leq 0.05$ ; if  $(t) \geq 1.96$ )

The Smart PLS result showed that the path coefficient value for market orientation is 0.875 showing a positive impact on innovation. Market orientation is statistically significant to the prediction of innovation with a P value of 0.000 recording a T statistic of 70.661. Thus, hypotheses 2 which say there is no significant relationship between market orientation and innovation is not supported and not accepted. (Narver and Slater (1995) believed that businesses that are market oriented enhance the degree of innovativeness and hence enjoy success in their line of operations. Market orientation must be taken seriously so that telecommunication firms in Nigeria can adopt new ways of conducting their business activities. The findings revealed that when telecommunication firms in Nigeria coordinate and utilize their business actively, they will be in capacity to adopt new ways of creating best value for their customers and thus increase their performance

#### 4.7 Effect of Innovation on Telecommunication Performance

**Table 4.12: Result of the Effect of Innovation on Performance**

Variable	Path Coefficient	T-Values	P-Values
Innovation -> Performance	0.877	47.90	0.000

*Source: Author's Field Data 2019.*

T is significant at  $p \leq 0.05$ ; if  $(t) \geq 1.96$ .

Innovation records a coefficient value of  $t = 47.90$  with significance value 0.000 showing positive impact on performance and statistically significant. So, the hypotheses proposing a positive effect of innovation on firm performance is proved and therefore hypotheses 3 which says there is no significant effect of innovation on telecommunication performance is

not accepted.

This corroborates Narver and Slater, (1990); Calantone et al. (2002); Chen (2017) and Bamfo and Kraa, (2019) that innovativeness in business is associated with business performance and very important determinant as far as business performance is concerned.

Contrastively, the findings of current study contradict the submissions of Iavorska (2014) which established inverse relationship between innovation and performance

#### 4.8 Mediating Role of Innovation and Market Orientation on Performance

In this study, mediation analysis was carried out to estimate how much of the indirect effect of mediating variable (Innovation) was found on the relationship between market orientation (independent variable) and performance (dependent variable).

**Table 4.13: Mediating Effect of Market Orientation on Performance**

Variables	Indirect Effect	Total Effect	VAF	T-Value	Mediation
Market Orientation -> Innovation -	0.187	0.907	0.2062	3.13	Partial
> Performance					

*Source: Author's Field Data 2019.*

Mediating Variable: **Innovation**

As shown in Table 4.13, innovation (the mediator variable) was added in the PLS path model and variation accounted for (VAF) was calculated in order to know the magnitude of the direct path absorbed.

$$VAF = (p_{12} * p_{23}) / (p_{13} + p_{12} * p_{23}). \text{ i.e., indirect effect / Total effect}$$

For mediation to occur, the following conditions must be met (Hair *et al.*, 2017)

- i) If  $0 < VAF < 0.20$ , then No Mediation.
- ii) If  $0.20 < VAF < 0.80$ , then Partial Mediation.
- iii) If  $VAF > 0.80$ , then Full Mediation.

The total effect for market orientation, 0.907, is the effect we would find if there was a mediator in the model. It is significant with a T value of 3.13. The indirect effect of market orientation, is also 0.187 and is also statistically significant. The variance accounted for (VAF) =  $0.187/0.907 = 0.2062$ . Based on the assumption by Hair *et al.* (2017) there is partial mediation. Therefore, hypotheses 4 which says innovation mediates the relationship between customer orientation and firm performance is supported and accepted. The implication is that the presence of market orientation on its own will not impact significantly on performance except innovative activities are introduced. There is also another way that performance can be enhanced and this is through innovation. Telecommunication firms in Nigeria must therefore take innovation activities seriously as they play important roles on how well their performance will increase when it comes to customer orientation.

#### 4.9 Summary of the Hypotheses Tested

**Table 4.14: Summary of Hypothesized Construct**

	Hypothesis	Supported/Not Supported	Sig./Not Sig.
<b>H1a</b>	No significance relationship between customer orientation and performance	Supported	Not significant
<b>H1b</b>	No significance relationship between competitor orientation and performance	Not supported	Significant
<b>H1c</b>	No significance relationship between inter-functional coordination and performance.	Not supported	Significant
<b>H2</b>	No significance relationship between market orientation and innovation	Not Supported	Significant
<b>H3</b>	No significance relationship between innovation and firm performance	Not supported	Significant
<b>H4</b>	Innovation mediates the relationship between market orientation and firm performance.	Partial Mediation	

**Source: Author's Field Data 2019**

## **CHAPTER FIVE**

### **5.0 CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary of findings**

The summary of findings was captured under the objectives set for the study. This section of the study compares quantitative findings on the elements of market orientation obtained from staff of the mobile telecommunications companies to establish consistency or otherwise in their response and the extent to which the findings correspond with earlier studies.

#### **5.2 Elements and Effects of Market Orientation on Performance**

Customer orientation, competitor orientation and inter-functional orientation are the elements of market orientation that were used for this study. The results indicate a significant effect of competitor orientation and inter-functional coordination on performance. While the effect of the other dimension, (i.e., customer orientation) was found insignificant but tested as predictive variables of performance.

##### **5.2.1 Effect of market orientation on innovation**

The quantitative results show that market orientation elements of competition orientation is statistically significant and has a positive impact on innovation thereby making a unique contribution to the prediction of innovation, while inter-functional coordination recorded an



inverse relationship. Effective market orientation gives intelligence for bringing new things into the business and hence positively impacted on the extent of innovation. Thus, with firms having a lot of information from understanding market orientation, there is likelihood of coming out with new offering for the customers. Market orientation itself can be seen as an innovative behaviour as it entails implementing new ideas or something that is different.

### **5.2.2 Effect of innovation on performance**

Innovation recorded a positive effect on performance and is statistically significant. Therefore, innovation increases the performance of the telecommunication firms.

### **5.2.3 Mediating role of innovation between market orientation and performance**

Innovation is very vital to the performance of the telecommunication firms as there is a partial mediation between market orientation and performance. What this means is that the presence of elements of market orientation (customer orientation, competitor orientation and inter-functional coordination) alone is not enough to boost performance on its own. Firms that are market oriented also need to be innovative as this will boost their financial performance greatly.

## **5.3 Conclusion**

This study shows that if market orientation coupled with innovation is practiced by telecommunication firms in Nigeria, it will add to their performance greatly, that is to say, the higher the telecommunication firms employ some level of market orientation, the higher the possibility of increased level of performance. This is consistent with the overriding proposition of the literature that increased market orientation coupled with innovation lead to higher firm performance (Narver and Slater, 1990; Slater and Narver, 2000; Agarwal *et al.* (2003); Dwair *et al.* (2007); Low *et al.* (2007); Arthur (2016) and Bamfo and Kraa (2016).

#### **5.4 Recommendations**

This study has important implications for both researchers and practitioner. In the introductory part of this report, scanty issues of market orientation research in developing countries were highlighted. The study is an attempt to bridge this gap and shine some light on the nature of the relationship that exists between market orientation and telecommunication performance. Among the three dimensions of market orientation, only competition orientation and inter-functional coordination were found significantly affecting the performance variable, this is an important contribution to knowledge. The role of employees in inter-functional coordination can be an essential aspect, which might be explored. Due to less complex organizational structure, telecommunication firms can manage information flow more effectively to get better performance, and at the same time, they can also have more empathetic treatment to its customers.

For the practitioner, developing a sound recruitment and selection process to get high-skilled employees is recommended because they are the key to effective coordination and ultimately performance. Also, they should try to bring more flexibility to the system so that telecommunication firms can react against volatile demand in a better manner. This will lead to high customer orientation, which will yield superior performance. Along with customer orientation, it is also essential to make organization competitive because customer compares a firm's offering from rival's offering and many times these comparisons created a base for purchase decisions.

#### **5.5 Recommendations for Further Studies**

Future research can also be done in other states of Nigeria as the sample size for the study was all chosen from Abuja, the capital of Nigeria. It will also be appropriate to examine the responses of telecommunication subscribers in the country as this research is only limited to the responses of staff of the telecommunication firms.

Future studies should assess interactions between market orientation, innovation and performance in other evolving or developing economies to expand our knowledge of the collaborating effects of market orientation and innovative capabilities on performance. Other studies using market orientation should also be done in health care sector, education sector and sport sector in Nigeria to help improve their efficiency and effectiveness.

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## APPENDIX I

### QUESTIONNAIRES

I am in the final stages of my Master in Entrepreneurship and Business Studies with Federal University of Technology, Minna, Niger state researching into Mediating Role of Innovation in the \relationship between Market Orientation and Firm Performance in Abuja Mobile Telecommunication Industry and collecting data for analysis. As a member of staff with one of the mobile service providers I would appreciate it if you could take some time to answer the attached questionnaire. The information provided is for academic purpose only and will be treated with the utmost confidentiality.

*Please tick (✓) the appropriate response that best answers each question*

Assessing Market orientation among Telecommunication firms in Nigeria

Assess the extent to which your firm tries to satisfy customer by the following practices.

**Please use the scale below:**

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly agree

S/N	CUSTOMER ORIENTATION	1	2	3	4	5
1	We have a strong commitment to our customers					
2	We are always looking at ways to create customer value in our products					
3	We encourage customer comments and complaints because they help us do a better job					
4	Our business objectives are driven by customer satisfaction					
5	We measure customer satisfaction on a regular basis					
6	After-sales service is an important part of our business strategy					
	<b>COMPETITORS ORIENTATION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
7	We regularly monitor our competitors' marketing efforts					
8	We frequently collect marketing data on our competitors to help direct our marketing plans					
9	Our people are instructed to monitor and report on competitor activity					
10	We respond rapidly to competitors' actions					
11	Our top managers often discuss competitors' actions					
12	We are aware competitors will want to take our customers					
	<b>INTER FUNCTIONAL COORDINATION</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
13	Market information is shared inside our organization					
14	All departments are involved in preparing business plans/strategies					
15	We do a good job integrating the activities inside our organization					
16	We regularly have inter-organizational meetings to discuss market trends and developments					
17	Employees meet regularly to take collective decision					
18	All the department function well to promote growth of the business					

### Assessing innovativeness of telecommunication firms in Nigeria

Assess the level of innovativeness of your business. Please use the scale below

1= Strongly disagree    2 =Disagree    3=Neutral    4=Agree    5=strongly agree

S/N	INNOVATIVENESS OF TELECOMMUNICATION FIRMS	1	2	3	4	5
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19	We actively seeks ways of doing things new					
20	We try to employ new ideas in the business to help us work well					
21	Innovation is readily accepted in program/project management					
22	Technical innovation, based on research results, is readily accepted					
23	Because of competition, we always do new things for our customers					

### Assessing Telecommunication performance in Nigeria

Assess performance of your firm. Please use the scale below

1= Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly agree

S/N	OBJECTIVE (FINANCIAL) PERFORMANCE OF TELECOMMUNICATION FIRMS	1	2	3	4	5
24	We have remarkable subscriber growth in our company.					
25	There has been revenue growth in our business					
26	Our debtors pay us regularly					
27	We have been making profit since we started business (Net profit)					
28	We have increase our customer base (Market Share)					
29	We have the capacity to expand our business					
30	Cash flows in our business is well without much challenges					

**PE**

### PERSONAL DATA

1. **Gender:** Male [ ]

Female [ ]

**2. Age:** Under 20 years [ ]    21-30 years [ ]    31-40 years [ ]

41-50 years [ ]

51years and above [ ]

**3. Highest Educational Level:**

PhD [ ]

Master's Degree [ ]

B.Sc. Degree [ ]

HND [ ]

SSCE/MSLC [ ]

Basic Education

[ ]    No formal education [ ]

Others specify .....

**4. How long have you been in this firm?**

Under 5 years [ ]    6-10 years [ ]    11-15 years [ ]    15 years and above [ ]

**6. Please indicate which mobile network you work with**

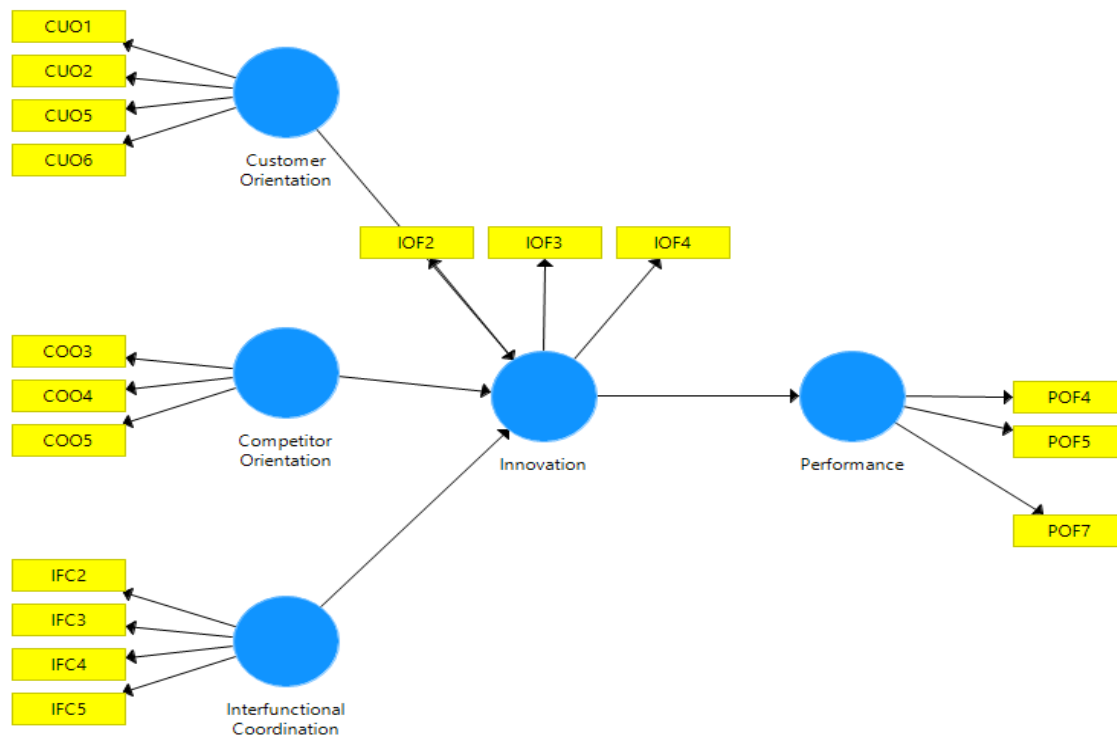
Mobile Company: MTN [ ]    Airtel [ ]    Glo Mobile [ ]    9Mobile [ ]

*Thank you for your time*

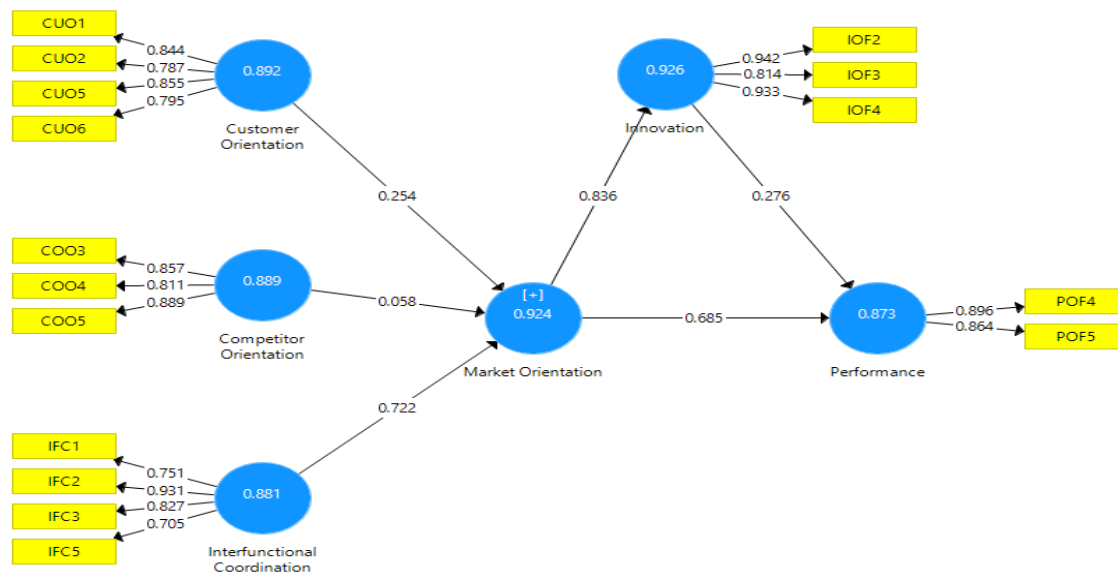
## APPENDIX II

### PATH DIAGRAM FROM STRUCTURAL EQUATION MODEL ESTIMATION

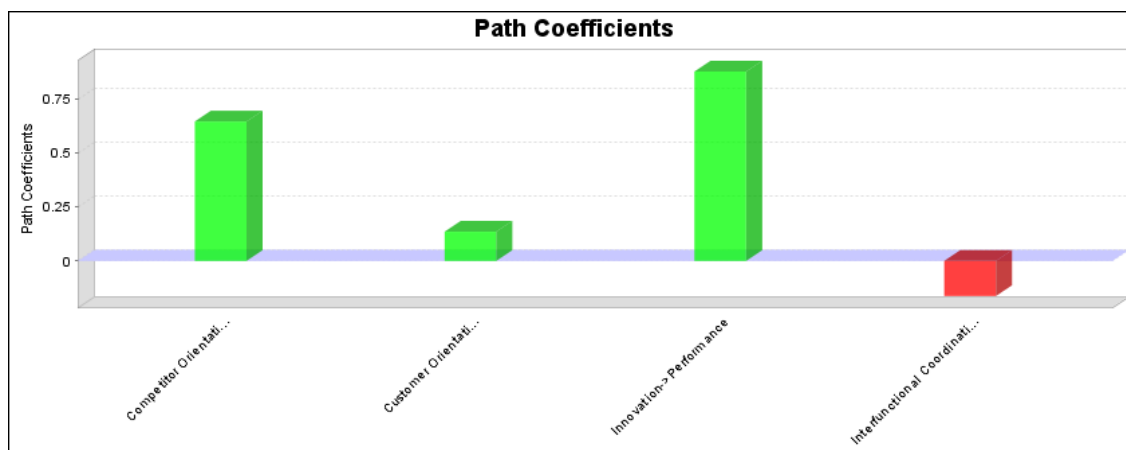
#### Conceptual Model after Expulsion



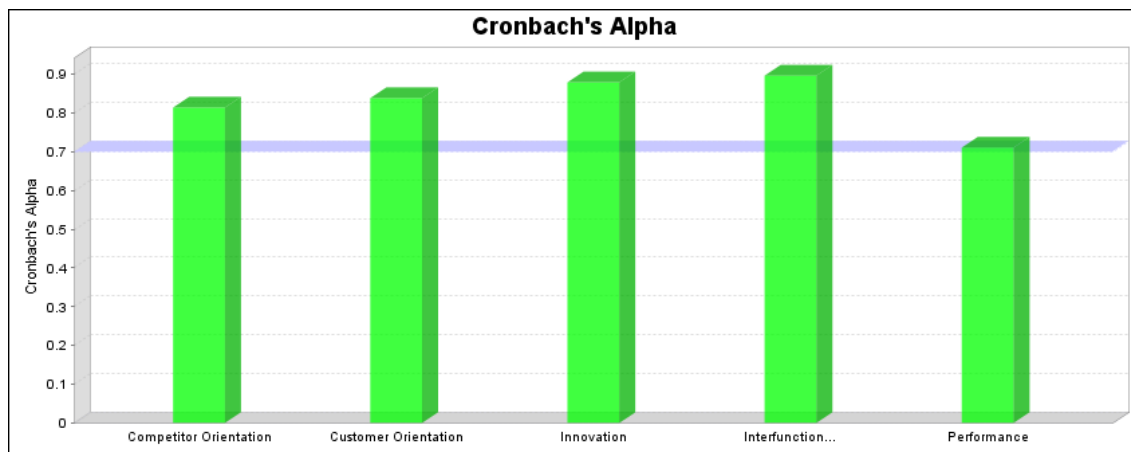
## Construct Factor Loading



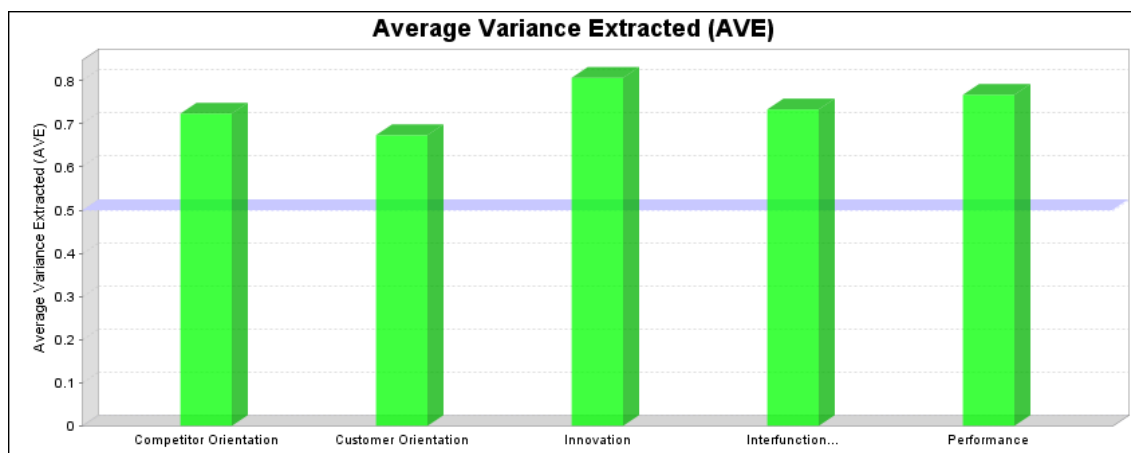
## Path Coefficient



## Cronbach's Alpha



## AVE



## Discriminant Validity

	AVE	COO	CUO	IOF	IFC	POF
COO	0.723	0.867				
CUO	0.674	0.863	0.821			
IOF	0.807	0.844	0.777	0.898		
IFC	0.732	-0.512	-0.53	-0.564	0.856	
POF	0.766	0.851	0.764	0.876	-0.526	0.876

## Mediation Path

