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TECHNOLOGY FORECASTING AND ORGANIZATIONAL PERFORMANCE IN TELECOMMUNICATION FIRMS IN RIVERS STATE

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ABSTRACT

This study sought to analyze Technology Forecasting and Organizational Performance in Telecommunication Firms in Rivers State. The study was designed as a correlation investigation the significant relationships between Organizational Performance (Innovativeness, Customer Acquisition and Service Delivery) adopted by this study. A Correlative study design was used. The methodology adopted was Correlative study design to collect both primary and secondary data was used, a structured questionnaire with open and close-ended questions were used to gather information. The population of the study consists of four telecommunication firms operating in Port Harcourt. The sampling technique used was the census sampling techniques to select 24 managers' four telecommunication firms in Rivers State. Secondary and Primary data was utilized in this study. Secondary data was obtained from reviewing text books, publications. Primary data was gathered with the aid of questionnaires. A total of 24 copies questionnaire were distributed with 17 being answered correctly and fully. Data was analyzed using percentage, tables and Spearman Rank Order Correlation techniques and with Statistical Package for Social Science (SPSS) was used to test the nine hypotheses. The findings revealed Technology Forecasting has positive relationship between Organizational Performance in Telecommunication Firms in Rivers State. It was therefore recommended that Telecommunication firms in Rivers State should emphasize on building a positive Strategic Intelligence to meet customer's expectation and offer more benefits to customer. Managers and supporting organizations should not only focus exclusively on either technological intelligence or process innovation, but should give due emphasis on the combined and synergetic approach to get the maximum firm performances benefits from these capabilities.

Keywords: Technological Forecasting, Innovativeness, Customer Acquisition, Service Delivery

INTRODUCTION

Technology can be defined as the application of scientific knowledge for the satisfaction of human needs, Grupp H_ and Linstone, 2011. The role of the individual technologist is to ensure that his expertise makes its maximum contribution to the organisation that employs him, but that organisation itself only prospers by satisfying the market that it serves. Thus, any consideration of the corporate role of technology must focus on the needs of both the organization and the market. Forecasting is not a panacea. There are too many unknowns surrounding the future for us to ever hope to forecast it with certainty. The forecasts will inevitably contain errors, but this cannot be avoided. The decisions must be taken in the present using the best information available at the time, but it behoves us to use the information in the most effective way. That is objective of forecasting, for although it cannot eliminate uncertainty, it can assist in reducing it, thereby a better view of the future and its evolution are obtained, leading to better decisions. Forecasting identifies the rate and direction of change as well as the implications of that change, Kayal, 2012. It can be easily said that forecasting is an important tool for marketing as it helps in technical decision making and reduction of uncertainty whilst accepting that it can never be eliminated totally. As a result, the business risk, the possibility of financial loss through taking a poor decision, is considerably reduced.

Since the main goal of telecommunication firms is to satisfy the needs of customers which will lead to increased profit. This indicates that without the existence of customers business activities will be futile. Business owners often concentrate on the improvement of their products, this is one of the basic features of the production concept. Often they ignore their customer care and relationship; as a result, many of their customers move their purchasing interests to organizations who can serve them better. The problem here is that they fail to understand that customers" value, care and concern is far above the product quality. The most obvious problems of telecommunication firms in Port Harcourt is how to provide effective services to the nation, which has been yearning for an improved telecommunication services for a long period of time. In response to that, the Federal Government provided for the creation of a company that will function purely on commercial basis (Asare, 2008). It is on this premise that this study tends to examine the impact of Technology forcasting and Organizational Performance.

Aim and Objectives of the Study

1. To examine the Technology Forecasting and Innovativeness in telecommunication firms in Rivers State.
2. To examine the Technology Forecasting and Customer Acquisition in telecommunication firms in Rivers State.
3. To examine the Technology Forecasting and Service Delivery in telecommunication firms in Rivers State. d Organizational Performance in telecommunication firms in Rivers State.

Research Questions

The following research questions have been formulated.

7. To what extent does Technology Forecasting impact on Innovativeness in telecommunication firms in Rivers State?
8. To what extent does Technology Forecasting impact on Customer Acquisition in telecommunication firms in Rivers State?
9. To what extent does Technology Forecasting impact on Service Delivery in telecommunication firms in Rivers State.

Research Hypotheses

The hypotheses of this study were stated as follows:

Ho_1: There is no significant relationship between Technology Forecasting and Innovativeness in telecommunication firms in Rivers State.

Ho_2: There is no significant relationship between Technology Forecasting and Customer Acquisition in telecommunication firms in Rivers State.

Ho_3: There is no significant relationship between Technology Forecasting and Service Delivery in telecommunication firms in Rivers State.

Technology forecasting

Technology can be defined as the application of scientific knowledge for the satisfaction of human needs, Grupp H_ and Linstone, 2011. The role of the individual technologist is to ensure that his expertise makes its maximum contribution to the organisation that employs him, but that organisation itself only prospers by satisfying the market that it serves. Thus, any consideration of the corporate role of technology must focus on the needs of both the organization and the market. Forecasting is not a panacea. There are too many unknowns surrounding the future for us to ever hope to forecast it with certainty. The forecasts will inevitably contain errors, but this cannot be avoided. The decisions must be taken in the present using the best information available at the time, but it behoves us to use the information in the most effective way. That is objective of forecasting, for although it cannot eliminate uncertainty, it can assist in reducing it, thereby a

better view of the future and its evolution are obtained, leading to better decisions. Forecasting identifies the rate and direction of change as well as the implications of that change, Kayal, 2012. It can be easily said that forecasting is an important tool for marketing as it helps in technical decision making and reduction of uncertainty whilst accepting that it can never be eliminated totally. As a result, the business risk, the possibility of financial loss through taking a poor decision, is considerably reduced.

Technology forecasting is the method to predict the future especially for R&D for financial planning and investment to develop the new product or innovation. It is also used for decision making for company or government strategies. Methods for technology forecasting are broadly classified into two main categories: qualitative or judgmental forecasting methods and quantitative or normative forecasting methods (Cheng, AChen and Chen, 2008).

Technology Forecasting (TF) is a planning tool to be at use in dynamic environments which undergo rapid changes, Box and Jenkins 2016. The technological backwardness of developing countries is primarily due to lack of planned attention to the maintenance, development of technology capabilities and utilising resources efficiently. Rapid technology progress and the increased rate of obsolescence of technologies necessitate technology forecasting for any planning process. Since technologies play a major role in planning of business, industry, government and society's growth, it becomes essential to determine its direction and magnitude by systematic analysis and study.

Technology Forecasting can be defined as a probabilistic prediction of technological changes in terms of future characteristics of useful machines, systems or procedures. In other words, technology forecasting attempts to predict rate of technology advance, Coates 2006. Primarily TF attempts to bring potential future technology into focus. Decision-makers are concerned about the desirable and undesirable effects of fast growing technologies. Anticipation of such technologies serve as early warning signals before a particular technology is imported or manufactured indigenously.

Need for technology forecasting

The need for technology forecasting is essential for the following reasons:

- Future oriented R & D
- Prevention of import of obsolete technologies
- Anticipating technical innovation
- Shift towards appropriate technology
- Effective technology transfer
- Development of exportable technologies
- Leap across generations
- Rapidity of innovations
- Trade restrictions
- Avoid surprises

Elements of technology forecasting

There are four essential elements in a technology forecast, namely:

- Time
- Qualitative
- Quantitative
- Probability of occurrence depending on the purpose

Time

Time is the indefinite continued progress of existence and events that occur in an apparently irreversible succession from the past, through the present, into the future, *Hardie & Gaye, 2010.* It is a component quantity of various measurements used to sequence events, to compare the

duration of events or the intervals between them, and to quantify rates of change of quantities in material reality or in the conscious experience. Time is often referred to as a fourth dimension, along with three spatial dimensions. Time has long been an important subject of study in religion, philosophy, and science, but defining it in a manner applicable to all fields without circularity has consistently eluded scholars. all incorporate some notion of time into their respective measuring systems.

Concept of Organizational Performance

Each organization has its own goal, and workers have to utilize different control activities and effective operation to achieve their organizational goal. Performance indices are an instrument to evaluate goal achievement. In the for-profit organizations, performance is to measure revenue, production, and profit making. In the non-profit organizations, they do not evaluate performance by profits. They do not have to make an imminent improvement whether the decision is right or not, whether the resource is used properly, and whether the mission is being achieved. However, Seetoo (2009) the non-profit organizations need performance management to control organizational operation.

Drucker (2014) indicated that the performance of the non-profit organizations must use missions as guideline. Otherwise, they cannot operate properly since missions determinate what performances and results they want to accomplish. Thus, the mission accomplishment is the performance indices of the non-profit organization. Decision makers have to continuously examine whether their missions are meaningful to the society and whether the resources are effectively used, and they need seek timing for an improvement.

Organizations today are trying to adapt to all the changes surrounding them by improving their performance through the competitive advantage they create (Ramezan et al, 2013; Masa'deh et al., 2015). Researchers have always looked at organizational performance as the ultimate dependent variable concerned with almost every area in management. This is because organizational performance allows researchers to evaluate organizations, their actions, and environments and compare them to those of their rivals (Richard et al, 2006; Obeidat, 2016).

Regarding the definition of organizational performance each person tends to have a different conceptualization of performance in general and organizational performance in particular. From a process point of view, performance refers to the transformation of inputs into outputs to achieve specific outcomes. From and economic point of view, performance is the relation between effective cost, realized output, and achieved outcomes (Abu Jarad et al, 2010; Masa'deh et al.,2016). Performance is a fairly broad concept, and it is meaning changes in accordance with user's perspective and needs (Lebas 1995). Traditionally, firm performance has been viewed and measured in accounting terms (Avci et al. 2011). An additional issue should be raised here; due to confidentiality concerns, it is often challenging to obtain actual accounting data from organizations unless they are publicly quoted companies. As a result, previous research studies looking into performance related issues used self-reported financial and non-financial performance measures. However, Sink and Tuttle (2009) note that performance should not be treated only as a financial concept. Thus, it is suggested that particularly in the service sector, non-financial performance should receive serious consideration. In addition, Law et al. (1995) recommend the use of nonfinancial performance measures based on the fact that tourism establishments are labour intensive and customer-oriented. The marketing literature is replete with evidence of the positive relationship between market performance and financial performance (Anderson, 2007). Similarly, studies demonstrate the influence of market performance variables such as market share on return on sales (Buzzell, 2014). On the other hand, marketing performance measurement continues to be a large and growing concern for marketing scholars and managers' alike (O'Sullivan, 2009).

Performance is defined as the extent of accomplishment of tasks associated to work. Lumpkin and Dess (2006) displayed that organizations can achieve higher performance, when workers become successful in accomplishing their objectives related to job. Because employee job objectives basically determine firm performance (Hanif and Gul, 2016). Likewise, Kropp (2004) has given perspective that numerous researchers used the term performance to assess put in and output competence. Organizational Performance is basically the ability of the organization to achieve its targets by proficiently utilizing its resources. Various Scholars have recommended various performance evaluation tools. According to Hanif and Irshad (2018), Balance Scorecard is the best instrument to measure the performance of the organization and to enhance the strategies or methodologies of the business. Performance measurement systems must be utilized to remain aware of the performance; and to control the dubious occasions by enhancing its corporate procedures. Organizational performance can be defined as the degree to which an organization is able to meet its own needs and the needs of its stakeholders in order to survive (Griffin, 2003). Carton (2004) suggested that organizational performance is the voluntary association of productive assets that lead to the achievement of shared purpose. Another definition of organizational performance refers to it as "the ability to acquire and process properly human, financial, and physical resources to achieve the goals of the organization" (Ramezan et al, 2013).

Organizational performance refers to the "firm's market and financial performance, which is positively related to the firm's economic value" (Slater and Narver, 1994, p58) According to the definition there are three important concepts can be highlighted. Those are Market performance, Financial Performance and Economic value. In this study specially consider about the Market performance of the industry. Not only that according to Hunt and Morgan (2015) organizational performance in competitive terms (i.e., compared to relevant competitors), because a market-oriented culture has been posited as one of a firm's competitive capabilities and sources of advantage. The literature argues that a market-oriented culture provides a unifying focus of organizational efforts in the delivery of value to customers while also providing a comparative impetus with competitors' activities (Kohli and Jaworski 2010). Therefore, a market oriented firm is more likely to achieve high levels of customer satisfaction, to keep existing customers loyal, to attract new customers, and subsequently to attain the desired level of growth, market share, and hence of organizational performance (Homburg, 2010).
According to another scholars like Yamin (2001), Gunasekruan (2008) and Mavondo, (2010), Organizational performance refers to how well an organization achieves its market oriented goals as well as its financial goals (Yamin, 2001, Gunasekruan 192008, Mavondo 2010). When consider about this definition there are two important concepts illustrated. In this study consider about the market oriented goals.
Organizational Performance can be seen as a multidimensional construct consisting of more than simply financial performance (Baker and Sinkula, 2005). Organizational performance is described as the extent to which the organization is able to meet the needs of its stakeholders and its own needs for survival (Griffin, 2003). According to Daft (2000) and Ricardo and Wade (2001), organizational performance means an appropriate use of resources in an effective and efficient manner. This concerns how an organization is able to achieve its goals. As Organization Performance has been considered in depth now but still remains debatable subject among organizational scholars (Barney, 2007). However, it is generally measured in two dimensions, i.e., financial and non-financial. The financial dimension means profitability, return on investment, return on asset (ROA), return on sale (ROS), return on equity (ROE), stock price, export growth, sales growth, revenue growth, operational efficiency, market share and organizational success (Gimenez, 2010; Stewart, 2010; Thomas & Ramaswamy, 1996). The Non-financial performance, on the other hand, measures OP in terms of organizational commitment, job satisfaction, employee turnover, innovativeness, customer satisfaction, quality, and flexibility in resource utilization (Kaplan & Norton, 2001).

Organisational performance refers to an organisation's ability to attain its goals by using resources in an efficient and effective manner (Daft, 2010). Consequently, it is an evidence of the output of members of an organisation measured in terms of revenue, profit, growth, development and expansion of the organisation. Organisational performance suffers from the conceptual problem of distinguishing between performance and productivity (Hefferman & Flood, 2010). While productivity has to do with the ratio depicting the volume of work completed in a given amount of time, performance is a broader indicator that could include productivity as well as quality, consistency and other factors (Ricardo and Wade, 2011). According to Daft (2010), organisational performance is defined as an organisation"s ability to attain its goals by using resources in an efficient and effective manner. Consequently, it is an evidence of the output of members of an organisation measured in terms of revenue, profit, growth, development and expansion of the organisation. In the same vein, organizational performance refers to the ability of an enterprise to achieve such objectives as high profit, quality product, large market share, good financial results, and survival at pre-determined time using relevant strategy for action (Koontz and Donnell, 1993). Organizational performance can also be used to view how an enterprise is doing in terms of level of profit, market share and product quality in relation to other enterprises in the same industry. Accordingly, it is a reflection of productivity of members of an enterprise measured in terms of revenue, profit, growth, development and expansion of the organization (Kehinde, Jegede, and Akinlabi, 2012).

Innovativeness as a measure of Organizational Performance

Innovation defined as the development and use of new ideas or behaviors in organizations manifested in terms of a new product, service, technology, or organizational structure (Damanpour & Wischnevsky, 2016). A firm adopting an innovative style relies on knowledge that is possessed by players of the market (Mahmood & Rufin, 2005) Innovativeness is the predisposition to support new ideas and favor change (Rauch et al., 2009). It embraces creativity in technology adoption, and internal processes (Baker & Sinkula, 2009). Innovation is regarded as a key business process that oranizations are using to achieve competitive advantage. Innovations are currently a fundamental prerequisite of competitiveness (Bloch & Bhattacharya, 2016; Ariguzo, Abimbola, & Egwakhe, 2018). Innovativeness involves the tendency to engage in and support new ideas, novelty, experimentation and creative processes (Mohammad, Armanu, & Achmad, 2013). Successful companies are currently the ones that implements innovative strategies, invests in research, development and innovations. The basic precondition for the creation and use of innovation in the enterprise is a well formulated and implemented innovative strategy. Innovativeness is a central component in an entrepreneurial orientation as posited by Presutti and Odorici (2018). Lumpkin and Dess (2006) credited Schumpeter with being amongst the first to emphasize the role of innovation in the entrepreneurial process, in the form of a process of creative destruction, by which wealth was created when existing market structures were disrupted by the introduction of new goods or services reallocating resources from existing firms to new firms and growth.

Customer Acquisition as a measure of Organizational Performance

Customers are assets that need to be acquired before they can be managed for profit (Levitt 1986). Customer acquisition has emerged as one of the most challenging issues in business because of the value expected from carrying out the customer acquisition in organizations. Customer acquisition has become an important business process because it touches the most important assets of all organizations, which is the customer. Customers nowadays are highly educated, well-aware, more focused and influenced by the global market of the internet (Alryalat et al., 2008). In this way, customer acquisition has become a key source for organizations to enhance their competitive advantage. Consequently, they have started to recognize the importance of knowing their customers better to provide online information services due to the rapid change in the

business environment, featuring strong competition as a result of the increasing importance of using the Internet to conduct business. customer acquisition is about defining the needs that have to be fulfilled in order to gain new customers. Customer Acquisition focuses on using different available techniques to establish a new relationship with prospect customers. It builds up its major efforts on employing different marketing communication tools that can help in the process of acquiring new customers to the company. Furthermore, Customer Acquisition is important where the organization recognizes unidentified consumers as customers who are identifiable by gathering information about them through diverse communication channels (Park and Kim, 2003). Also, a customer acquisition objective is to obtain more profitable prospective customers. Customer Acquisition is essential where a company attempts to convert customers into profitable ones (Ganapathy et al., 2004). Moreover, acquisition of customers refers to the need of organizations to find new customers for their Products; this means they are required to develop strategies to attract potential customers (Berndt et al., 2005).

Service Delivery as a measure of Organizational Performance

Service can be defined as the performance of work or duty by an official or an act of helping others, or power to control or make use of resources, or an organisation or system providing the public with something useful or necessary (The Universal Dictionary 2011). The act of delivery can be defined as producing or performing, handing over, taking goods to the intended recipient, or producing results as promised or expected (The Universal Dictionary 2011). These definitions are adopted by Riekert (2011: 90), arriving at a combined definition which reads as follows: 'Service delivery is concerned with the provision of a product or service, by a government or government body to a community that it was promised to, or which is expected by that community'. Service delivery which is an essential tool for development is at its lowest rates in most developing countries across the globe. However, service delivery is the easiest activity which can be worked on if there is a clear and steady attention towards its implementation. Service delivery has to be taken vital and primarily of every state's purpose for existence. Therefore, every country should manifest its existence through services it delivers to its citizens.

Service delivery refers to the actual delivery of a service and products to the customer or clients (Lovelock & Wright, 2002). Service delivery indicates 'where', 'when' and 'how' the service product is delivered to the customer (Lovelock and Wirtz, 2014). The service delivery process can be broken down into service encounters that comprise the main part of the whole process (Danaher and Mattsson, 2014) and, as noted by Chowdhary and Prakash (2007), some generalization within service types is possible for different services and service providers, and managers may have to consider this in its design. Thus, the power to deliver optimal service quality will get the service firms competitive advantages among others in the same industry (Turel, Serenko & Bontis, 2007). According lash (2009) to work life balance helps to enhance service delivery among the employees. Service delivery is a component of business that defines the interaction between providers and clients where the provider offers a service, and it could be an information or task. In the banking sector different types of services are being offered. The heads of the banks are located at one place. However, their branches are scattered and located across the country. The jobs of offering the services are assigned to employees and the performance on the job matters a lot. This is because it affects the customers' satisfaction, getting and retaining existing customers, complaints handling, targets achieved, sales turnover, profits, market shares and good will of the company. The performance of employees is important, not only in banking but other service sectors. Better performance gives satisfaction to the customers. Services are to be provided with minimum processing and waiting time, proper response, promptness and the desire to handle many customers as the demand arises. Service delivery can be regarded as the paramount function of any government. Citizens elect representatives to ensure that the services they need are provided. If a government fails to meet the needs of the community, then the elected representatives and councillors must accept responsibility for such failure. Members of the public can and should

demand explanations from their elected representatives if the demanded standard of service is not met (Riekert 2011).

Technology forecasting and organizational Performance

Technology" can be regarded as a quite specific physical entity. In some sense, it does not include tacit knowledge embodied in human beings by definition. However, Quinn explains more precisely technology as "not a single immutable piece of hardware or bit of chemistry, but also knowledge of physical relationships – systematically applied to the useful arts, Ralph Charles Lenz, 2012. "Forecast" is to predict how something will develop. Forecasting normally ends with the identification of the possible futures. The definitions of technology forecasting vary to a certain extent. Technology forecasting is continuously recognized as influences in the transformation of individual behavior, organization, economy, society and culture in such a turbulent world. Forecasting is used to predict the future using data on hand or the formation of opinions. The frequent involvement of individuals in forecast implementation can influence how forecasts are employed (Berinato, 2001; Fildes and Hastings, 2014). According to Winklhofer et al. (1996), while research questions concerning the utilization of forecasting methods have attracted a lot of studies, issues such as the role and practical level of forecasting in firms have been relatively unexplored. Bails and Peppers (2012) and Adebanjo and Dotun (2010) state that demand forecasts are necessary since the basic operations processes take time. Firms must anticipate and plan for future demand so that they can react immediately to customer orders as they occur since most customers are not willing to wait the time it would take to process their order. The ability to accurately forecast demand enables the firm to control costs through leveling its production quantities, rationalizing its transportation and planning for efficient logistics operations. Accurate demand forecasts lead to efficient operations and high levels of customer service (Adam and Ebert, 2011). Technology Forecasting is categorized as an explorative and a normative technique. Technology forecasting consists of subset elements such as a certain future time span, technological change, continuous range of characteristics in applications, and a statement of the probability associated with the technology. Technology forecasting do not necessarily need to predict the exact form of technology dominating in a given application at some specific future date, since technology forecasting aims to provide the evaluation of the probability and significance of various possible future developments in order for managers to make better decisions. In most cases, technology forecasting is wrong. Technology forecasting, however, is valuable to give guidance for the direction of promising technology development. The value of technology forecasting lies in its usefulness for making better decisions, not in its coming true, Martino, 2013. Technology forecasting, in other words, typically partially correct and cannot include all exact future forms. Technology forecasting strives not only to identify research and knowledge gaps to find the right path to reach goals, but to search ranges of environment that will be encountered in the future. The growing importance of the forecasting function within companies is reflected in the increased level of commitment in terms of money, hiring of operational researchers and statisticians, and purchasing computer software. In addition, the increasing complexity of organizations and their environments have made it more difficult for decision makers to take all factors regarding future development of organizations into account. Organizations have also moved towards more systematic decision making that involves explicit justifications for individual actions - formalized forecasting is one way in which actions can be supported (Wheelright and Clarke, 2006; Fildes and Hastings, 2014; Makridakis et al, 2013). According to Khandwalla (2007), organizational performance is enhanced when there is a good „fit" between management style and various contextual factors.

Theoretical Framework

Diffusion of Innovation theory

The diffusion of innovations theory was propounded by Everett Rogers, and it explains how, why, and at what rate new ideas and technology spread. The core assumptions of the theory are that

diffusion research, canters on the conditions which increase or decrease the likelihood that a new idea, product, or practice will be adopted by members of a given culture and diffusion is the "process by which an innovation is communicated through certain channels over a period of time among the members of a social system". The theory considers a number of attributes associated with technological innovations and which are believed to influence the rate of adoption of the innovations. This theory is applicable to the study because innovations generated through research and development would need to be integrated with other business process to create a competitive advantage for the business in the market. Diffusion of innovation theory explains the importance of technology intelligence in the process of identifying and exploiting scientific and technological opportunities, exerting a significant influence on the ability to innovate and is viewed as a major source of competitive advantage.

RESEARCH METHODOLOGY

Research Design

A research design is the blue print that guides the researcher in obtaining and generating necessary data for the study. Yamene and Agbouifoh (2009) posit that the research designs commonly used in administrative success and education research are the case study and survey methods. In view of the above, the research design adopted in this study was correlative study. A correlative study is a research method where two or more variables are assessed to ascertain whether or not they have relationship with each other.

Population of the Study

Population of a study represents the total groups of items which a researcher desire to study and about which he plans to generalize his findings (Baridam, 2001). The target population of the study was made up of four telecommunication firms operating in Port Harcourt, Rivers State. They include MTN nig, 9Mobile, Airtel and Globalcom.

Sample Size Determination

Since the population of the study comprises of four telecommunication firms operating in Port Harcourt. However six senior managers of General manager, Advertising Manager and marketing managers and three Supervisors were drawn from each of this firms of the sample frame. Therefore the sample Size be 6 x 4 =24

Sample Distribution

Name of company	Manager
MTN	6
AIRTEL	6
9 mobile	6
Globacom	6
TOTAL	24

Method of Data Collection

The main primary source of data that was used is the questionnaire. To facilitate useful information, self-developed questionnaire was administered. Questionnaire is one of the most useful tool for data collection, (Foddy, 1993). The secondary data also were used. These are already existing data that can easily be gotten from various sources they can be from journals, bulletins, textbooks, newspapers, periodicals.

Validity of Research Instrument

To ensure that the instrument measures what it is purported to measure; face validity established by the researcher. To carry this out, the researcher presents the instrument to the supervisor and

two other experts for scrutiny in terms of its validity and conformity to the set objectives of the study. After this, the researcher incorporated their corrections, modifications and suggestions in the final draft of the instrument.

Methods of Data Analysis

The responses gathered from the questionnaire were collected and scored for analysis using frequency counts and then analyzed with the mean to answer the research questions. While hypothesis test were Spearman Ranking Order Correlation were used for the hypotheses testing. The formula for the test statistics is given as:

$$r = 1 - \frac{6 \Sigma d^2}{(n^3 - n)}$$

where,

Where ∑d = sum of the squared differences in the ranking of the n = number of subject being ranked.

Test of Hypotheses

Relationship between Market Intelligence and the measures of Organizational Performance

Correlation for Market Intelligence and the measures of Organizational Performance

			Market Intelligence	Innovativeness	Customer Acquisition	Service Delivery
Spearman's rho	Market Intelligence	Correlation Coefficient	1.000	.777**	.798**	.688**
		Sig. (2-tailed)	.	.000	.000	.000
		N	17	17	17	17
	Innovativeness	Correlation Coefficient	.777**	1.000	.865**	.985**
		Sig. (2-tailed)	.000	.	.000	.000
		N	17	17	17	17
	Customer Acquisition	Correlation Coefficient	.798**	.865**	1.000	1.000
		Sig. (2-tailed)	.000	.000	.	.
		N	17	17	17	17
	Service Delivery	Correlation Coefficient	.898**	.865**	1.000	1.000
		Sig. (2-tailed)	.000	.000	.	.
		N	17	17	17	17

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Research Data 2021, (SPSS output version 21.0)

Ho_1: There is no significant relationship between Market Intelligence and Innovativeness of telecommunication firms in Port Harcourt.

From the result in the table above, the correlation coefficient shows that there is a positive relationship between Market Intelligence and Innovativeness. The *correlation coefficient* 0.777 confirms the magnitude and strength of this relationship and it is statistically significant at p 0.000<0.00. The correlation coefficient represents a high correlation between the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate accepted. Thus, there is a significant relationship between Technology Forecasting and Innovativeness of telecommunication firms in Port Harcourt.

Ho_2: There is no significant relationship between Market Intelligence and Customer Acquisition of telecommunication firms in Port Harcourt.

From the result in the table above, the correlation coefficient shows that there is a positive relationship between Market Intelligence and Customer Acquisition. The *correlation coefficient* 0.798 confirms the magnitude and strength of this relationship and it is statistically significant at p 0.000<0.05. The correlation coefficient represents a high correlation between the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate accepted. Thus, there is a significant relationship between Market Intelligence and Customer Acquisition of telecommunication firms in Port Harcourt.

Ho_3: There is no significant relationship between Market Intelligence and Service Delviery of telecommunication firms in Port Harcourt.

From the result in the table above, the correlation coefficient shows that there is a positive relationship between Market Intelligence and *Service Delivery*. The *correlation coefficient* 0.898 confirms the magnitude and strength of this relationship and it is statistically significant at p 0.000<0.05. The correlation coefficient represents a high correlation between the variables. Therefore, based on empirical findings the null hypothesis earlier stated is hereby rejected and the alternate accepted. Thus, there is a significant relationship between Market Intelligence and *Service Delivery* ***of*** telecommunication firms in Port Harcourt.

Discussion of Findings

This study using descriptive and inferential statistical methods investigated the relationship between Technology forcasting and Organizational Performance of Telecommunication firms in Rivers State. The findings revealed a significant and positive relationship between Technology forcasting and Organizational Performance of Telecommunication firms in Rivers State using the Spearman Rank Order Correlation tool and at a 95% confidence interval. The findings of this study confirmed previous studies especially by Cooper 1984; Crawford (1980) that Technology Intelligence is widely recognized as central to the success of most companies. New products promote company growth, generate increased sales and profits, and are a crucial component in business planning. New product development is essentially an interdisciplinary activity requiring input from top management, scientific, technical, marketing, finance, sales and other personnel. Successful Technology Intelligence depends on a variety of factors which include the nature and quality of information acquired or known during the new product process, the proficiency of process activities, characteristics of the marketplace, the compatibility of the resource base of the firm with new product project requirements, the level and complexity of the technology used, organizational structures of the firm, and the innovativeness of the product itself

CONCLUSION

This study looked at Technology Forecasting and Organizational Performance of Telecommunication firms in Rivers State. All the relationships were strongly, moderately significant positive related. It is evident that from the study that Technology forecasting when emphasized in the trading relationships, will lead to repeated purchases hence consumer loyalty. This also enables Strategic Intelligence Industry to ensure that the greater the Technology forecasting, the higher the consumer loyalty levels. This research concluded that businesses operating in an intensely price based competitive environment, dependent on high economies of scale and with low levels of staff-customer interaction are bound to suffer shocks in their market positions and profitability unless huge investments are made in more relational strategies.

RECOMMENDATIONS

1. The study further recommends that of Telecommunication firms in Rivers State should emphasize on building a positive Strategic Intelligence to meet customer's expectation and offer more benefits to customer.
2. Managers and supporting organizations should not only focus exclusively on either technological intelligence or process innovation, but should give due emphasis on the combined and synergetic approach to get the maximum firm performances benefits from these capabilities..
3. Telecommunication firms need to be more innovative in the use of refined telecommunication know-how in new product development.

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