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Strategic Options for Improved Organizational Performance in the Nigerian Telecommunication Industry: Miles and Snow Approach

Waidi Adeniyi Akingbade*

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ABSTRACT

Telecommunications companies in Nigeria have formulated policies that could enable them to cope with the global challenges. However, most of them have not really employed strategic options that could enable them to cope with the changing condition. The main objective of this study is to examine the effect of Miles and Snows strategies which is considered the major approach that could promote competitiveness in the industry to enable them manage and survive challenges. The study adopted survey research design and population is 7,567 staff of four major service providers MTN, Airtel, Globacom and 9Mobile with sample size of 380. Judgemental and stratified random sampling techniques were used to select participants for the study. Out of the 380 distributed questionnaires, 369 were retrieved. The study reaffirmed the efficacy of Mile and Snow's competitive strategy. It was recommended that Telecom Company should adopt prospector, analyzer, and defender strategies to improve their performances.

1. Introduction

Strategy is the set of actions that organization managers take to outperform the company's competitors and achieve superior performance (Thompson, Peteraf, Gamble, Strickland III, 2016), and about making choices, trade-offs and deliberately choosing to be different (Porter, 1985). The goal of a well-crafted strategy is not merely temporary competitive success and profits in the short run, but rather the sort of lasting success that can support growth and secure the company's future over the long term. Thompson, et al (2016) stated that achieving this entails making a managerial commitment to a coherent array of well-considered choices about how to compete with rivals to achieve the company's performance targets. Previous studies had documented the writings of strategic management scholars in decades ago which had shifted to the studied of strategic typologies for the attainment of organizational objectives and development. Sollosy (2013) noted that past studies had recorded the findings of authorities and their theories had been recognised, like Miles and Snow's (1978) Strategic typology; Porter's (1980) generic strategy among others. Research development in the field of management has been enhanced by these typologies theoretical contributions (Anwar & Haswu, 2016). Meanwhile, out of all the above mentioned strategic archetypes, Miles and Snow typology is the most widely referenced applied framework also considered as landmark conceptual model and have been extensively applied in the management and strategy extant literatures (Anwar & Haswu, 2016; Lin, Tsai & Wu, 2014; Sollosy, 2013).

It is generally believed that an organization that adopts organizational strategy has a high propensity to survive, increase its customer and highly rank while the one that does not is often at the mercy of environmental variables (Porter, 1985). Miles and Snow's (1978) identified four competitive strategy typology: prospector, analyzer, defender, and reactor. The first three viable strategies can be associated with high performance if the organization's approach is aligned with the demands of its environment. Reactor, the fourth strategy type indicates low performance, a conceptualization consistent with the notion of strategic simplicity (Miller & Dess, 1993; Parnell & Wright, 1993; Lumpkin & Dess, 2012). Research findings have supported the validity of Miles and Snow typology, however there have been some inconsistencies in findings (Hambrick, 2003; Parnell, 2012) thus pointing to the need for further studies on this subject. Specifically, scholars continue to refine the understanding of the organizational strategies and performance relationship, but relatively few studies have examined the existence of a linkage in developing economies (Pang, Cropp & Cameron, 2006; Oyedijo & Akewushola, 2012).

*Lagos State University, Lagos, Nigeria. Email address: akinwaidi@yahoo.com

The global telecommunications industry has witnessed tremendous challenges in the last two decades. Telecommunications companies in Nigeria have formulated policies that could enable them to cope with the global challenge. However, most of them have not really employed strategic options that could enable them to cope with the changing condition. The main objective of this study is to examine the effect of Miles and Snows strategies which is considered the major approach that could promote competitiveness in the industry to enable them manage and survive other present and future challenges. Furthermore, the extent to which the application of Miles and Snow strategic typology enhanced organization performance has not been adequately and empirically tested in telecommunication industry of developing Nigeria economies.

2. Literature review

A theoretical framework developed by Miles and Snow (1978) groups firms in to four strategic archetypes of prospector, defender, analyser and reactor in line with how a firm react to three fundamental challenges facing the organization; entrepreneurial, engineering and administrative problems. The entrepreneurial problems bring out an organization's product-market domains by the management, monitoring the environment and growth policy. The engineering problem focus on the technological objectives, orientation and selection of appropriate technology for the production and distribution of the given products or services (Sollosy, 2013). The administrative problem involves the administrative functions like planning, organizing, controlling, innovation and stabilization of an organization's structure and policy processes that successfully solve those challenges that the organization encountered within the entrepreneurial and engineering phases (Tan, Weston, & Tang, 2019; Sollosy, 2013). The fundamental principle of Miles and Snow's strategic archetype is the rate at which an organization changes its products (Hambrick, 1983).

Prospectors are companies that are first in the product-market mix development by penetrating the market with the strategies of innovation, new products development, adoption of new technologies to become a market leader in numerous domains. They aggressively maintain a competitive position by repeatedly searching for new market opportunities and increasing its line of products and services (Martin & Kato, 2010). Prospectors possessed the attribute of a high risk orientation, a rapid response to new circumstances, the innovation of the markets of other organizations external focus and devolution of more attention to market changes than to improving internal efficiency and an organizational culture with a calculative commitment (Hansu, 2016).

Defender are companies that create a market niches and maintain a narrow and stable set of product or service focus to compete primarily on the foundation of cost efficiency, price, service delivery and quality not proactive but rather with a defender strategic orientation (Hambrick, 1983; Gnjidic, 2014; Youssef & Christodoulou, 2017). They maintain old without new product-market development in a stable environment to protect market share with core technology, using established and standardized technical process, economies of scale and profitable line of products in market niches which make it difficult for competitors to penetrate (Martins & Kato, 2010). However, a non-substitutability innovation by competitors may affect the organization performance of a defender.

Analyzers are companies achieve competitive advantage with a strategic combination which possessed the best features of both prospectors and defenders that constitute the middle of the continuum. Their combinations strategy type enable them to change their product slower than prospectors, and they are less devoted to stability and efficiency than defenders (Ingram, et al, 2016). Analyzers are second movers regarding new products or services development but watch rivals and change their strategies to new innovations that have strong market potentials, risk taking, low investment in research and development, flexible technology, risk minimization, profit maximization cost efficient and superior product or service (Isoherrarem & Kess, 2011).

Reactors are companies without clear and brief combination between structure and strategy as a result of dominant leader or not fit in to the turbulent and highly competitive environment. They are forced by competitive environmental pressures to change in order to maintain company performance and prevent organizational crises. Their strategy is reactive instead of proactive which is not suitable for the organization situation (Isoherrarem & Kess 2011).

Miles and Snow's Strategic Typology and Organizational Performance

The relationship that exists between organizational strategy and performance has been investigated theoretically and empirically by management scholars in their various studies. Miles and Snow (1978) strategic archetype was originally used in the publishers industry but later applied to other industries like electronic, health-care which justify its application to other industries. Meanwhile, scholars like (Sollosy, 2013; Blackmore & Nesbitt, 2013; Parnell et al, 2015; Hambrick, 1983) have investigated relationship between Miles and Snow strategic typology, their distinct competencies, strategic behaviour and other attributes across-industries and many-country analysis. Their findings revealed that defenders have more profitable cash flow than prospectors, while prospectors perform better than defenders in the aspect of market share (Hambrick, 1983). Prospectors and analyzers outperformed defenders and reactors (Hawes &

Crittenden, 1984). Analyzers showed higher returns on assets and prospectors revealed increased in sales growth (Panell & Wright, 1993), Prospectors and defenders are more profitable than reactors (Akingbade, 2016; Conant et al, 1990), Slaters and Olson (2001) remarked that prospectors and defenders performance are the same but Evans and Green (2000) revealed that Prospectors realized more business turnaround than defenders.

Further, prospectors did very well than defenders who in turn performed better than reactors in investigating relationships among strategic type, distinctive marketing competencies and organization performance (Oyedijo et al, 2012; Woodside, et al, 1999). Prospectors outperformed defenders on market share while reverse was found for return on investment (Hambrick, 1983). Miles and Snow first three typology performed better than the reactors however, Zajac & Shortell (1989) reported that the performance of defenders fell behind other strategic archetype in USA. Prospector's performance was poor in China while analyser was negative in USA and Turkey (Parnel et al, 2012). Defenders performed poorly in respect of growth and organization performance (Zamani et al, 2013). There are variations of significant (Blackmore & Nesbitt, 2013) and insignificant (Sarac et al, 2014) of the size of the firm, industry and strategic clarity and combination influences on organization and better performance. However, reactors outperformed viable strategies in case of return on assets (Blackmore & Nesbitt, 2013), reactors performed better than prospectors and defenders in highly regulated industries (Snow & Hrebiniak, 1980).

Therefore, application of Miles and Snow strategic typology to the telecommunication industry in developing economies focusing on Nigeria leads to the development of the following hypotheses:

Ho_1: Prospector and analyser strategies do not outperform defender and reactor strategies among telecommunication companies in Nigeria.

Ho_2: There is no positive relationship between strategic options (prospector, analyser, defender and reactor) and their level of organizational competitiveness of telecommunication companies in Nigeria

Ho_3: Strategic options (prospector, analyser, defender and reactor) do not have significant effect on performance of Telecommunication Companies in Nigeria

Market Opportunities and Strategies of Major Nigerian Telecommunication Companies

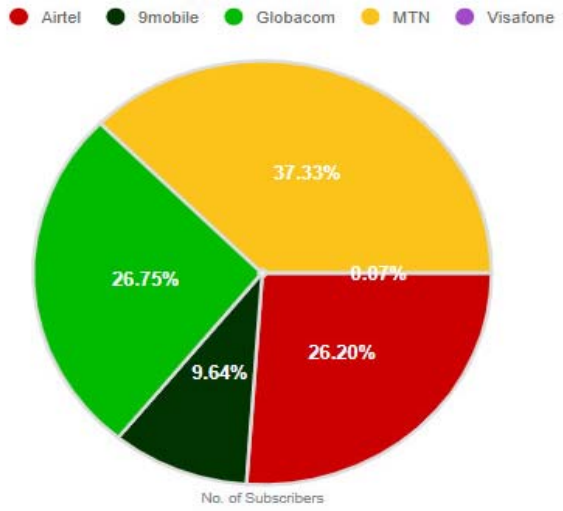
Nigeria colonial master, Britain established the first telecommunication facilities in the country in 1886 to perform administrative functions instead of provision of socio-economic development in the country. The introduction of public telegraph services linking Lagos by submarine cable along the west coast of Africa to Ghana, Sierra-Leone, Gambia and on to England was a greater priority than a robust telecom network for the colonial master (NCC, 2018). Since independent till around 2001 telecommunication business in Nigeria was monopolise by federal government with the establishment of both NET and NITEL as public corporation which could not account for any improved performance as a result of corruption and bureaucracy in the system. Telecom Industry in Nigeria undergo a lot of changes after deregulation like deployment of Global System for Mobile communications or Digital mobile technology in 2001 which led to the licence of (Airtel, MTN, Globacom, & 9Mobile), fixed wireless access system in 2002, introduction of technology-neutral unified access, 1G (analog voice), 2G (digital voice), 3G carriers in the 800 MHz spectrum band were launched in 2007 (voice and mobile data), most mobile telecoms operations are currently running on 4G (4^{th} Generation LTE and high-speed mobile internet), 5G is the next, and will elevate the mobile network to interconnect people, control machines, objects, and device. Also, 5G will deliver multi-GBPS peak rates, ultra-low latency, massive capacity, enhanced mobile broadband, mission-critical communications, and more uniform user experience (Punch, 2020). The deregulation and liberalization of Nigerian telecoms industry pave way for competent private investors to participate in highly competitive market which enhanced customer satisfaction but reduces organization profitability (Akingbade, 2016; 2014).

MTN remained the market leader in the Nigeria telecom industry with 36.04% market share and 36.54% internet user; Globacom with 26.1% market share and 27.35 internet user; Airtel with 25.67% market share and 24.3% internet user while EMTS trading as 9Mobile end the year with 11.69% market penetration and 11.49 internet user (NBS, 2017). This sector contributed 10.11% and 9.19 % to the country's GDP in 2019 and 2018 respectively. In 2019, market share and active subscribers were MTN has 37% (64.7 million), Visafone 1% (117 thousand), Globacom with 27% (46.38 million), Airtel with 26% (45.4 million), 9mobile has 9% market share and a subscriber base of 16.72million. Telecom company market share competitiveness shown in figure 1 with MTN (37.33 %,), Globacom (26.75%), Airtel (26.20%), 9Mobile (9.64%) (NCC, 2019).

Figure 1 shows that MTN is undisputed market leader in coverage (37.33%), revenue, subscriber base and innovation in the telecom industry which is easily attributable to its marketing savvy. Airtel was the first telecoms operator in 2001 to launch commercial GSM services in Nigeria. It favourably compete with MTN for telecom industry leadership in its first two years of operation in Nigeria. However, the company management crisis led to its loss of momentum which was further aggravated by frequent change of name and identity in five consecutive times as Econet, Vmobile, Celtel, Zain, and Airtel (Woweffect, 2018). It compete favourably in term of coverage, revenue, subscriber base (26.20%), innovation and performance in the

Nigeria telecom industry. Globacom penetrated, won wide market acceptance and goodwill by launching its service on per seconds billing. Globacom in term of coverage, revenue, subscriber base (26.75%) and innovation in the Nigeria telecom industry. Emerging Market Telecom Service (EMTS) trading as 9Mobile in term of coverage, revenue, subscriber base (9.64%), internet user and innovation in the Nigeria telecom industry (Woweffect, 2018; NBS, 2017; NCC, 2018 & 2019).

Stiff competition, increasing consumer awareness and rapid smartphone penetration have forced mobile network operators to constantly crash data tariffs and give massive discounts to their customers to increase their market share as marketing strategies (Business Day, 2020). Increasing number of active data users, yearly accelerating data revenues, data has been clearly identified as the future of telecoms, and service providers in Nigeria are investing massively in data service infrastructure and fiercely competing for the most favourable prices to draw in customers and continuously ramp up revenue. Besides from monthly, weekly and daily data plans, service providers are aggressively launching new bonus promotions and campaigns that further crash prices and offer more value for less, like the MTN double data promo, Airtel home broadband promo and Airtel Mega plans, Glo Oga sim, 9mobile more blaze and 9x offer Promo (Business Day, 2020). The telecom companies in Nigeria are merely taking advantage of the available market opportunities; these are the outcome of increasing population and business opportunities in the country.



	Airtel	9mobile	Globacom	MTN	Visafone
No. of Subscribers	45,433,300	16,720,146	46,380,756	64,732,167	117,434
Percentage(%)	26%	9%	27.00%	37.00%	1%

Figure 1: Market Share by Operator (GSM) April, 2019.
Source: NCC, (2019).

3. Methodology

The quantitative approach was used for the research because the analysis of study was quantitative and research hypotheses were tested. The essence of chosen descriptive research design was that it encompassed a cross sectional design in addition to which data are generated largely by questionnaire.

The study was conducted in Lagos state, the 3rd Largest Mega city in the world, the commercial nerve centre of the country and with its vintage position it has the major seaport (www.lswrc.lagosstate. gov.ng). The cosmopolitan nature of the state as well as its small landmark does not encourage exclusive agricultural activities. Hence, it has the largest concentration of different industry and houses the headquarters of all the telecommunication companies in Nigeria (NCC, 2018). The target population consisted of all 7,567 staff of major service providers; MTN, Glo, Airtel, and 9Mobile (NCC, 2018; & Guardian newspaper, 2019). Combinations of judgemental and stratified random sampling techniques were used to select from the four major service providers top and middle level management staff for inclusion in the sample. The total questionnaires distributed were 380, out of which 369 were completed and considered suitable for the final analysis representing a response rate of 97.1 %. The sample size of 380 respondents who are staff of the selected telecom companies were determined scientifically through Yamane's (1967) formula: Where; N = total population of the study; n = sample size; e = acceptable margin error term (0.05)

$$\text{Sample Size: } n = \frac{N}{1+N(e)^2}$$

$$\frac{7567}{1+7567(0.05)^2} = 379.917 \approx 380$$

Strategic typology was measured with an instrument adopted from Miles and Snow (1978) and Akingbade (2016) which comprised of 35 items in the instrument. Items in the questionnaire instrument requested respondents to rate or describe their company's business approach using the following options: Excellent=5, Very good=4, Good=3, Fair=2, Very low=1. Out of the 35 items, 15 items measured predominantly prospector strategy, 9 items measured domain defender strategy, and 7 items measured anxious analyser strategy while the remaining 4 items measured reluctant reactor strategy.

Table 1 shows the Cronbach's Alpha coefficients result for each of the construct and the number of items that make them up. Prospector Strategy (ὰ= 0.925), Defender Strategy (ὰ= 0.829), Analyzer Strategy (ὰ= 0.856), Reactor Strategy (ὰ= 0.743), and Competitiveness (ὰ= 0.888). This indicates that reliability of the scales is reasonably high thus depicting high internal consistency among the measurement items. Validity checks were made via assessment by a panel of experts in the field.

Table 1: Cronbach's Alpha Coefficients

Constructs	Cronbach's Alpha	Number of Items
Prospector Strategy	0.925	15
Defender Strategy	0.829	9
Analyzer Strategy	0.856	7
Reactor Strategy	0.743	4
Competitiveness	0.889	9

Source: Field survey, 2019.

The collected demographic data have been analysed descriptively with SPSS version 22.0, while the stated research hypotheses has been tested with descriptive statistics, correlation matrix and multiple regression analysis.

While organizational competitiveness and organisational performance was measured subjectively by means of instrument adopted from Khandwalla (1995) and Akingbade (2016) with 9 items scale questionnaire. Respondents were requested to rate performance of their company relative to competitors on the scale ranging from 1=Highly Unsatisfactory {HU}; 2=Unsatisfactory {US}; 3= Uncertainty {UC}; 4=Satisfactory {SF}; 5=Highly Satisfactory {HS} and the Cronbach Alpha reliability coefficient was (ὰ= 0.71). The instrument Cronbach Alpha reliability coefficient is above cut off point 0.7 indicating a reasonable level of reliability which is satisfactory for a study that is exploratory in nature (Nunnally, 1978). The draft instruments was validated by experts and necessary adjustments incorporated before administration. The collected demographic data have been analysed descriptively with SPSS version 22.0, while the stated research hypotheses has been tested with canonical correlation and regression analysis.

Table 2: Descriptive Analysis of Respondent Demographic Variable

S/N	Demographic Variables	Grouping	Frequency	Percentage
1.	Sex	Male	255	69.1
		Female	114	30.9
2.	Age	21-30	142	38.5
		31-40	98	26.6
		41-50	75	20.3
		51 & above	54	14.6
3.	Company	Airtel	102	27.6
		Glo	82	22.2
		MTN	112	30.4
		9Mobile	73	19.8
4.	Educational Qualification	OND/SSC	110	29.8
		B.Sc/HND	215	58.3
		MBA/M.Sc	44	11.9
5.	Years of Experience	1-5	117	31.8
		6-10	107	28.9
		11-15	91	24.7
		16 & above	54	14.6
6.	Management Level	Top	70	19
		Middle	299	81

Source: Field Survey, 2019

4. Results of descriptive analysis

Table 2 above showed that 369 are the total respondents in the study out of which 255 were male representing 69.1% while the remaining 114 respondents representing 30.9% were female. This indicates that male participated in the study than female from the selected telecom companies. Further, 142 (38.5%) of the total respondents fall between the age of 21-30 years, 98 (26.6%) were between the age bracket of 31-40 years, 75 (22.2%) are between the age of 41-50 years and the remaining 44 (14.6%) were above 51 years of age. In addition, 102 respondents representing 27.6% were members of staff of Airtel; 82 (22.6%) were staff of Globacom; 112 (30.4%) were staff of MTN while 73 (19.8%) were members of staff of 9mobile. Also, the table indicates the educational qualification of the respondents as 110 (29.8%) were ND/SSC holders, 215 (58.3%) were University/Polytechnic graduates and 54 (11.9%) obtained M.Sc/MBA degree qualification. It shows that 117 (31.8%) have spent between 1-5 years in the service, 107 (28.9%) have acquired between 6-10 years' experience, 91 (24.7%) have been in service between 11-15 years while 54 (14.6%) were 16 years and above and well experienced on the job. Finally, 70 (19%) and 299 (81%) were top and middle levels management staff of selected telecom companies respectively.

Hypotheses Testing

Ho_1: Prospector and analyser strategies do not outperform defender and reactor strategies among telecommunication companies in Nigeria.

Descriptive Statistics

Table 3: Averages and standard deviation of the responses to the questions under each strategy

	N	Mean	Std. Deviation	Arrangement (Rank)
Prospector Strategy	369	3.8573	0.75722	1
Defender Strategy	369	3.5673	0.77307	3
Analyzer Strategy	369	3.6272	0.82572	2
Reactor Strategy	369	3.2609	0.96527	4

Source: Field Survey, 2019

The researcher measured each item in the questionnaire and considered the averages of the responses to the questions under each strategy as shown in table 3. The category with the highest mean score is taken to represent the dominant strategy type within the Nigerian telecom industry.

The common strategy among the firms was the prospector strategy, followed by analyzer and then defender; the least strategy being reactor strategy. The means and standard deviations in table 3 shows that prospector strategy has a relatively high mean with low standard deviation to signify the data are not spread out over a large range of values (Mean = 3.8573; SD= 0.76). This is because Telecom companies that use prospector strategy have a greater chance to perform better than firms using other strategies. The mean scores for analyzer, defender and reactor strategies are 3.6272, 3.5673 and 3.2609 with standard deviation values of 0.83; 0.77 and 0.97 respectively. This implies that prospector and analyser strategies outperform defender and reactor strategies. These results give additional evidence in support of Miles and Snow's contention that analyzers and prospectors are more effective strategies in any business environment than defender and reactor strategy.

Correlation Matrix

Ho_2: There is no positive relationship between strategic options (prospector, analyser, defender and reactor) and their level of organizational competitiveness of telecommunication companies in Nigeria

Correlation result in Table 4 indicated that the relationship between the organizational competitiveness of telecommunication companies and strategic options (prospector, analyser, defender and reactor strategies

Table 4: Correlation Matrix of Prospectors, analysers, defenders, and reactor strategies and organizational competitiveness.

	Competitiveness	Prospector	Defender	Analyzer	Reactor
Competitiveness	1				
Prospector	.864	1			
Defender	.550**	.737**	1		
Analyzer	.596**	.708**	.787**	1	
Reactor	.431**	.508**	.586**	.663**	1

Source: Field Survey, 2019

Table 4 reveals that prospector, defender, analyser and reactor have positive relationship with organisational competitiveness of telecommunication firms in Nigeria. The strategy type with the strongest positive relationship with performance is prospector strategy (r = 0.864), followed by analyzer strategy (r = 0.596), and then defender strategy (r = 0.550). The least is reactor strategy (r = 0.431) which is lower than the value of others, therefore the null hypothesis was rejected and the alternative hypothesis accepted. Based on this result, it is therefore concluded that there is a significant relationship between Telecom companies engaging prospector, analyzer, and defender strategies and their level of organizational competitiveness are higher than that of reactor strategy.

Ho_3: Strategic options (prospector, analyser, defender and reactor Strategies) do not have significant effect on performance of Telecommunication Companies in Nigeria

Performance is hypothesized to depend on strategy types, that is, whether a Telecom company is pursuing reactor, prospector, analyzer or defender strategy, thus: Performance = f (Prospector, Defender, Analyzer, Reactor strategy)

$$\text{Org P} = \beta_0 + \beta_1 PS_1 + \beta_2 AS_2 + \beta_3 DS_3 + \beta_4 RS_4 + \mu$$

Where Org P represents organisational performance; PS represents prospector strategy; AS represents analyser strategy; Ds represents defender strategy; RS represents reactor strategy. B_0 represents constant, β_1- β_4 represent coefficient of the variables; μ represents error term.

Performance variable was regressed against prospector strategy, analyzer strategy, defender strategy and reactor strategy using multiple regression models. Table 4 presents the effects of strategic options on performance of the telecommunication industry. The finding shows that performance of the telecommunication firms in Nigeria is significantly affected by prospector, analyzer, defender and reactor strategies.

Table 5: Multiple regression analysis results for hypothesis 3

	Analyzer Strategy	Prospector Strategy	Defender Strategy	Reactor Strategy
B	0.460	0.462	0.440	0.303
T-Statistics	12.615	11.258	10.868	8.973
P-value	0.000	0.000	0.000	0.000
β_0 =	2.161			
R=	0.540			
R-Square=	0.291			
F-Statistics=	159.127			
F(Prob)=	0.000			

Source: Field Survey, (2019)

$$\text{Org P} = 2.161 + 0.460AS + 0.462PS + 0.440DS + 0.303RS + \mu$$

The ordinary least squares estimates in Table 5 shows that prospectors, analyzers, defenders and reactors strategies all have positive effects on organizational performance. Prospector strategy has the most significant positive effect on performance, then analyser strategy, defender and reactor strategies all significant at 5 percent level. This is evident from the results obtained through multiple regression analyses conducted on each of the strategies and performance. The coefficient of determination (R^2) shows that 29.1% of the variations in performance in the Nigerian telecom industry are accounted for by analyser, prospector, defender and reactor strategy while the remaining 70.9% are accounted by factors not captured in the study. The value of F-statistics 159.127 is higher than the F-statistics tabulated value 4.384 with p-value of 0.000. This implies that the model is fit to achieve the objectives of the study. The results signify that an increase in Prospector, analyser, defender and reactor strategies will lead to an improvement in the performance of telecommunication companies in Nigeria. Thus, strategic options have significant effect on the performance of telecommunication companies in Nigeria.

Discussion of Findings

This study examined Miles & Snow (1978) strategic options on organizational performance. Findings revealed that prospector and analyzer Telecom Company outperform defender and reactor strategy Telecom Company in relation to organizational performance but has not been established before particularly in Telecom company of developing economies such as Nigeria. This finding found support in the work of Hawes & Crittendon (1984) that prospector and analyser perform better than defender and reactor, which was attributed to innovation and new technology in the industry. That is innovative and new technology Telecom

company outperform those that are not. Further, there is a significant relationship between Telecom company engaging prospector, analyzer, and defender strategies and their level of organizational competitiveness are higher than that of reactor strategy. This study was supported by the work of Conant et al, (1990), that prospector and defenders are more profitable than reactors, it was attributed to market niche, cost efficiency and quality service delivery by the Telecom company (Hambrick, 1983 & Gnjidic, 2014). However, Blackmore & Nesbitt, (2013) argued that reactors outperformed viable strategies in case of return on assets. In addition, analyzer Telecom company outperform reactor Telecom company, and this was in agreement with the findings of Panell & Wright (1993), that analyzers showed higher returns on assets than reactor due to its flexible technology.

5. Conclusions and Recommendations

The importance of Miles and Snow Strategic options has continued to be relevant to organisations' success and ultimate survival in the Nigeria Telecommunication industry. The study found a prospector and analyzer Telecom company outperform defender and reactor strategy Telecom company, also analyzer Telecom company perform better than reactor Telecom company. Consequently, the study concludes that Telecom company engaging prospector, analyzer, and defender strategies and their level of organizational competitiveness are higher than that of reactor strategy Telecom company. The study reaffirmed the efficacy of Mile and Snow's competitive strategy. It was recommended that Telecommunication company should adopt prospector, analyzer, and defender strategies through innovation, new and improved technology, cost efficiency and quality service delivery to improve their performances.

Contributions to Knowledge

The study contributes to existing literature both theoretically and empirically. It has been asserted that there is a dearth of empirical studies that examines the link between Miles and Snow's strategic typology and organizational performance in developing countries Telecom industry. This study has deepened and extended the frontier of knowledge with regards to this hypothesized relationship by empirically testing each of the strategic archetype and their individual contribution to the performance of Nigeria Telecommunication companies. The study examines the work of Miles and Snow and noted that after four decades of the existence of the research work, the archetype is still a relevant and useful model for understanding an organization's strategic orientation. The study develops a clearer understanding of how the three problem domains (entrepreneurial, engineering and administrative) identified by Miles and Snow align and interact in influencing and positioning an organization's strategic archetype (Sollosy, 2013).

The application of Miles and Snow strategic typology in to Nigeria Telecommunication industries shows that this study improves on the initial study by Miles and Snow (1978). This work shows that while the original study by Miles and Snow presents the four strategic archetypes as static and mutually exclusive immutable states (Sollosy, 2013); when applied to Telecommunication companies in Nigeria, they are better view as various phases along a changing dynamic. That is, as an organization reconfigures and deploys its recourses in response to changes in its environment, it will reposition itself among the strategic archetypes. It becomes apparent that an organization can, and often does coexist simultaneously in more than one strategic archetype.

References

1. *Akingbade, W.A. (2014). Competitive strategies and improved performance in selected Nigeria telecommunication companies, Journal of Entrepreneurship Management and Innovation, National-Louis University, Poland, 10 (4), 143-167.*
2. *Akingbade, W.A. (2016). Effects of organizational strategies on the performance of selected Telecommunication companies in Nigeria. (Unpublished Ph.D thesis, Lagos State University, Nigeria).*
3. *Anwar, J., & Hasnu, S.A.F. (2016). Business strategy and firm performance: A multi-industry analysis. Journal of Strategy and Management. 9 (3). http.//dx.doi.org/10.1108/JSMA-09-2015-0071.*
4. *Blackmore, K., & Nesbitt, K. (2013). Verifying the Miles & Snow strategy types in Australian small and medium size enterprises. Australian Journal of Management, 38 (1), 171-190. doi: 10.1177/0312896212444692.*
5. *Business Day. (2020). Business Day. Lagos: Media Limited. www.businessday.ng*
6. *Conant, J.S., Mokwa, M.P., & Varadarajan, P.R. (1990). Strategic types, distinctive marketing competencies and organizational performance: a multiple measure-based study. Strategic Management Journal, 11(2) 365-383. http://dx.doi.org/10.1002/smj.4250110504.*
7. *Desarbo, W.S., DiBenedetto, C.A., Song, M., & Sinha, I. (2005). Revisiting the miles and snow strategic framework: uncovering interrelationships between strategic types, capabilities, environmental uncertainty, and firm performance. Strategic Management Journal, 26 (1), 47-74. http://dx.doi.org/10.1002/smj.431.*
8. *Evans, J.E., & Green, R.J. (2005). Why did British electricity prices fall after 1998? cmi working paper ep26, University of Cambridge.*
9. *Gnjidic, V. (2014). Researching the dynamics of Miles and Snow's strategic typology, Management, 19 (1) 93-117. UDC: 005.21:664>(497.5).*
10. *Hambrick, D.C. (1983). Some tests of the effectiveness and functional attributes of mile and snow's strategic types. Academy of Management Journal, 24(1), 5-26. http://dx.doi.org/10.2307/256132.*
11. *Hambrick, D.C. (2003). On the staying power of defenders, analysers, and prospectors. The Academy of Management Executive. 17 (4), 115-118.*
12. *Hansu, J.A.S. (2016). ''Business strategy and firm performance: a multi-industry analysis''. Journal of Strategy and Management, 9 (3) http://dx.doi.org/10.1108/JSMA-09-2015-0071.*
13. *Hawes, J.M., & Crittenden, W.F. (2004). Taxonomy of competitive retailing strategies. Strategic Management Journal, 5, 275-287.*

14. *Ingram,T., Krasnicka, T., Wronka-Pospiech, M., Glod, G., & Glod, W. (2016). Relationships between Miles and Snow strategic types and organizational performance in Polish production companies. Journal of Management and Business Administration, 24 (1) 17-45. Doi:10.7206/jmba.ce.2450-7814.162.*
15. *Isoherranen, V., & Kess, P. (2011). Analysis of strategy typology and orientation framework. Modern Economy Scientific Research. 2, 575-583. doi: 10.4236/me.2011.24064. http://www.SciRP.org/journal/me*
16. *Karabag, S.F., & Berggren, C. (2014). Antecedents of firm perform in emerging economics: business groups, strategy, industry structure, and state support. Journal of Business Research, (67) 10, 2212 – 2223*
17. *Khandwalla, R.N. (1995). The Management style. New Delhi: McGraw-Hill Companies Inc*
18. *Lin, C., Tsai, H.L., & Wu, J.C. (2014). Collaboration strategy decision making using the Miles and Snow typology. Journal of Business Research, 67 (9), 1979-1990. doi: 10.1016/j.jbures.2013.19.013*
19. *Lumpkin, G.T., & Dess, G.G. (2012). The effect of 'simplicity' on the strategy performance relationship: a note. Journal of Management Studies. 43, (2) 1583-1604.*
20. *Martins, T.S., & Kato,H,T. (2010). An analytical framework for Miles and Snow typology and dynamic capabilities. Encontro da ANPAD 25 1-14. Rio de janeiro/RJ-25 a 29 de Setembro de*
21. *Mc Kee, D., Varadarjam, P., & Pride, W. (1989). Strategic adaptability and firm performance: a market contingent perspective. Journal of Marketing. 24 (2) 16-25.*
22. *McDaniel, S. W., & Kolari, J.W. (1987). Marketing strategy implications of the miles and snow strategic typology. Journal of Marketing, 51(4), 19-30.*
23. *Miles, R.E., & Snow, C.C. (1978). Organizational Strategy, Structure and Process. New York: McGraw-Hill.*
24. *Miller, A., & Dess, G.G. (1993). Assessing porters (1980) model in items of its generalizability, accuracy and simplicity. Journal of Management Studies, 30(2), 553-583*
25. *NBS. (2017). National bureau of statistics telecoms data: Active voice and internet per state, porting and tariff information. www.nbs.com*
26. *NCC. (2018). Nigeria Communication Commission. Number of staff of Nigeria Telecommunication Industry. Retrieved from (https://guardian.ng/business-services/mobile-network-operators-assets-in-nigeria-hit-n1-95-trillion/)*
27. *NCC. (2019). Nigeria Communication Commission. Retrieved from http://www.nigeriacommunicationcommission.com*
28. *Oyedijo, A.I., & Akewushola, R.O. (2012). Organizational strategy and firm performance: An empirical test of Miles and Snow's model using 34 paint manufacturing SMES in south-western Nigeria. Journal of Research in International Business and Management, 2 (6) 170-178. http://www.interesjournals.org/JRIBM*
29. *Pang, A., Cropp, F., & Cameron, G.T. (2006). Corporate crisis planning: tensions, issues, and contradictions. Journal of Commerce and Management, 10 (2) 371-389.*
30. *Parnell, J.A., & Wright, P. (1993). Generic strategy and performance: an empirical test of Miles and Snow typology. British Journal of Management 4 (1), 29-36.*
31. *Parnell, J.A. (2012). Competitive strategy and performance in mexico, peru, and the united states. Journal of Centrum Cathedra, 12 (2), 150-164.*
32. *Porter, M.E. (1980). Competitive Strategy, New York: Free Press.*
33. *Porter, M.E. (1985). Competitive Advantage, New York: Free Press.*
34. *Punchnewspaper. (2020). http://punchng.com/5g-and-convid-19-the-technology-cospiracy -and-ignorance/ April 4.*
35. *Shortell, S. M. & Zajac, E .J. (1990). Perceptual and archival measures of miles and snow's strategic types: a comprehensive assessment of reliability and validity, Academy of Management Journal, 12(2), 817-832. http://dx.doi.org/10.2307/256292.*
36. *Slater, S.F., & Olson, E.M. (2001). Marketing's contribution to the implementation of business strategy: An empirical analysis. Strategic Management Journal. 22, 1055-1067.*
37. *Snow, C. C., & Hrebiniak, L. G. (1980). Strategy, distinctive competence and organizational performance, Administrative Science Quarterly, 25, (2) 317-336.*
38. *Sollosy, M.D. (2013). A contemporary examination of the miles & snow strategic typology through the lenses of dynamic capabilities and ambidexterity (Unpublished Ph.D Thesis, Kennesaw State University, USA).*
39. *Tan, H., Weston, R., & Tang, Y. (2019). Applying the Miles and Snow's business strategy typology to China's real estate development industry: A research framework*
40. *The Guardian. (2019). (https://guardian.ng/business-services/mobile-network-operators-assets-in-nigeria-hit-n1-95-trillion/)*
41. *Thompson, Jr, A.A., Peteraf, M.A., Gamble, J.E., & Strickland III, A.J. (2016). Crafting and executing strategy. The quest for competitive advantage: Concepts & cases. New York: McGraw- Hill (20th ed.)*
42. *Walker, O. C., & Ruekert, R.W. (1987). Marketing's role in the implementation of business strategies: a critical review and conceptual framework, Journal of Marketing, 51, 1S-33.*
43. *Woodside, A.G., Sullivan, D.P., & Trappey, R.P. (1999). Assessing relationships among strategic types, distinctive marketing competencies and organizational performance. Journal of Business Research, 45, 135-146.*
44. *Woweffect. (2018). Nigeria telecoms companies and marketing: A breakdown of their marketing: Strategies & recommendations. https://www.woweffect.com.ng/marketing/nigeria-telecoms-companies-marketing/*
45. *www.lswrc.lagosstate. gov.ng*
46. *Yamane, T. (1967). Statistics: an introductory analysis. New York: Happer and row.*
47. *Youssef, M.S., & Christodoulou, I.P. (2017). Assessing Miles and Snow typology through the lens of managerial discretion: How national-level discretion impact firms strategic orientation. Management and Organizational Studies. 4 (1) 67-73. doi:10.5430/mos.v4n1p67. URL:httP://dx.doi.org/10.5430/mos.V4n1p67.*
48. *Zahra, S.A. (1987). Research on the Miles and Snow (1978) typology of strategic orientation: review, critique and future directions. Academy of Management Best Papers Proceedings, 8, 56-60. doi: 10.5465/AMBPP.1987.17533740*
49. *Zamani, S., Parnell, J.A., Labbaf, H., & O'Regan, H. (2013). Strategic change and decision making in an emerging nation: An Exploring assessment of Iranian manufacturing firms. Strategic Change, 22 (355), 370. doi:10.1002/jsc*

APPENDIX: QUESTIONNAIRE

LAGOS STATE UNIVERSITY, LAGOS, NIGERIA.
FACULTY OF MANAGEMENT SCIENCES,
DEPARTMENT OF BUSINESS ADMINISTRATION.

Dear Respondent,

This questionnaire is strictly for research purpose. Please complete it by ticking the response that is applicable to you. Your responses will be treated with utmost confidentiality.
Yours faithfully,

Researcher

SECTION A: BACKGROUND INFORMATION

Please indicate by ticking appropriate option.

1. Sex: Male ( ) Female ( )
2. Marital Status: Single ( ) Married ( ) Divorce ( ) Widow ( )
3. Age in years: 18-30 ( ) 31-50 ( ) 51-65 ( ) 66 and above ( )
4. Family size – Number of dependent household members, e.g, children, wife, father, mother, uncle who depend on you for livelihood: 1 ( )2( )3 ( )4 ( )5 ( ) 6 and above ( )
5. What is your highest educational qualification: Ph.D ( ),M.Sc ( ), B.Sc/HND ( ) Others( )
6. Indicate your highest professional qualification: ACA( ), ACIBN( ), MBA( ), Others( )
7. State your working years of experience: Less than 10 yrs( ),10-20yrs( ), Above 20 yrs( )

SECTION B: ORGANIZATION'S BACKGROUND INFORMATION

1. Name of your organization: AIRTEL ( ), GLO ( ), MTN ( ), 9MOBILE ( )
2. State your department in the organization: ----------
3. What is your occupational status? Top-Level Management ( )Middle-Level Management ( )
4. Please indicate number of employees in your organization: Less than 1000 ( ) 1000-2000 ( ) 2001-3000 ( ) above 3000 ( )
5. Indicate the age of your organization (in years): 1-10 ( ) 11-20 ( ) 21 & above ( )
6. Is your organization listed on the Nigerian Stock Exchange Market? Yes ( ) No ( )
7. Do you have meaningful involvement in the development of your organization's strategy making activities? Yes ( ) No ( )
8. Indicate in figure the total number of Top-Level Management ----------and Middle-Level Management---------- member of staff in your organization.

SECTION C

How will you rate your company's practices of prospector's typology using the following items: Excellent = 5, Very good = 4, Good = 3, Fair = 2, Very Low= 1

S/N	Statements	1	2	3	4	5
1.	Our company's practice/commitment to searching for information about new customer demands and requirements is					
2.	Our company's commitment to study other companies for the purpose of improving on its products and services is					
3.	Our company's emphasis on rewards of staff for innovative suggestions is					
4.	Our company's management budget/expenditure on market research and development is					
5.	The role played by marketing, research and development in our company's decision and operation is					
How will you describe your company's business practices of prospectors typology approach using the following items from Strongly Disagree = 1 to Strongly Agree = 5.						
S/N	**Statements**	**1**	**2**	**3**	**4**	**5**
1.	Our company has a clear record of leading the development and introduction of new products into the market.					
2.	Other companies always wait to see what our company will do before embarking on any activity in production (other company's sees our company's development as a model in the market)					
3.	Our company has a strong policy of actively removing and replacing its product					

	periodically usually two years.					
4.	Our company is always the first to use a new distributive approach to market its product.					
5.	Our company is always the first to use a new process/product method.					
6.	Our company is always the first to introduce a new form of advertising message and media.					
7.	Our company is always the first to open new depot in otherwise untried and unexplored territories.					
8.	When things don't work out as expected with new ideas our company keeps trying, remains resolute and resilient.					
9.	When other company's imitate our company's innovative practices and actions, our company always find alternative ways forward.					
10.	Our company has a deliberate policy of searching for new opportunities despite the challenges involved.					
How will you rate your company's business practices of defender typology approach using the following items from Strongly Disagree = 1 to Strongly Agree = 5.						
S/N	**Statements**	**1**	**2**	**3**	**4**	**5**
1.	Our company strives aggressively to prevent competitors from entering their limited niche or domain.					
2.	Our company embarks on standard economic actions such as competitive pricing or production of high quality products.					
3.	Our company does little environmental scanning and limited product development.					
4.	Our company focuses on incremental growth through deeper market penetration within segment					
5.	Our company tends to ignore developments outside its product line areas.					
6.	In our company, we emphasize tight control, especially on cost to achieve efficiency.					
7.	Our company invests heavily in technology to improve efficiency.					
8.	As a matter of policy, our company adopts long tenure for top management like board of directors and chief executive officer.					
9.	Our company expands its range of activities in its present area of business backward into its sources of supply.					
Please evaluate your company's business practices of Analyzer typology using the following statements on a 5 point scale from Strongly Disagree = 1 to Strongly Agree = 5.						
S/N	**Statements**	**1**	**2**	**3**	**4**	**5**
1.	Our company's business model emphasizes involvement in multiple markets.					
2.	When a market is considered changing and unstable, our company is quick to recognize this and to get out fast.					
3.	Our company always scan the environment for new customer demands before embarking on new product research and development.					
4.	It is a deliberate policy and practice of our company to grow steadily through market penetration and new business development.					
5.	Our company always wait for a market or product to be pioneered by another company before it enters and improves on such a product.					
6.	Our company emphasizes applied research and supports this with a large and influential research team to achieve this objective.					
7.	In our company the mode of operation is moderately centralized with horizontal sharing of information.					
How will you describe your company's practices of reactor typology using the following items from Strongly Disagree = 1 to Strongly Agree = 5.						
S/N	**Statements**	**1**	**2**	**3**	**4**	**5**
1.	Our company uses any strategy it considers suitable and this changes from time to time.					
2.	In our company, organizational goals often fail to align with the method for achieving them.					
3.	In our company, organizational features are not coherent among themselves.					

4.	My company is always conscious of the healthiness of her product port-folio in order to remain an industry leader.					

SECTION D

This section looks in to Self-evaluation of performance relative to competition. Please evaluate the performance of your company relative to your competitors usi the following factors. 1= Highly Unsatisfactory {HU}; 2= Unsatisfactory {US}; 3= Uncertainty {UC}; 4= Satisfactory {SF}; 5=Highly Satisfactory {HS}.

S/N	Statements	1	2	3	4	5
1.	Increased value of assets due to regular good performance					
2.	Return on investments					
3.	Good profit margin on sales					
4.	Effective cost control systems					
5.	Competitive prices for product/services					
6.	Rapid turnover of inventories					
7.	Maintenance of market share for product/services					
8.	Improved customers satisfaction					
9.	Customer retention					