Business-it Strategic Fit And Performance of Telecommunications Companies In Nigeria: Moderating Role of Environmental Uncertainty

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ABSTRACT

The success of companies that operate globally is dependent on how well they adapt to the global business environment. To this end the alignment of a firm's resources and capabilities as well as its strategies, structures and its environment are vital in improving the overall performance of a firm. This study sought to evaluate the effect of business-IT strategic fit on the performance of MTN Nigeria Limited. A sample size of 113 staff of MTN Abuja branch was used to solicit for information from respondents and data was analyzed using hierarchical regression analysis. The result from the regression analysis showed that business-IT strategic fit had a positive effect on business performance of MTN Nigeria Limited. Likewise, environmental uncertainty moderated the positive relationship between business-IT strategic and performance. Therefore, businesses need to take not that fit between IT strategy and strategic orientation of the firm contributes to business performance with this relationship impacted negatively if environmental uncertainty is ignored in the strategic management process.

Keywords: Business-IT strategic fit, Environmental uncertainty, Firm performance

1. INTRODUCTION

The success of companies that operate globally is dependent on how well they adapt to the global business environment. Increasing competition, rapid technological change, and dynamic consumer needs require organizations to create strategies that help them leverage on the opportunities available, especially in the information and telecommunication subsector to create profitable, successful and sustainable companies (Wiersema & Bowen, 2008). New paradigm and thinking is required to ensure development of these successful companies, which are new approaches to strategic management. However, most companies are unable to leverage on this new approach of management due to a lack of adequate and user-friendly analytical tools and managerial processes (Tavares & Macedo-Soares, 2003). In Africa generally and Nigeria in particular the situation is not different. Nigerian companies have been unable to leverage on the opportunities available in the global business environment to establish a distinctive presence in the global arena. One of such areas is the alignment of business strategy to IT strategy to create distinctive competencies for telecommunication companies in Nigeria.

Globally, telecommunication companies have witnessed rapid growth and innovation over the past three decades (Adi, 2015). In Nigeria, this growth took off when telecommunication licenses were issued in 2001 by the Obasanjo Administration with the Nigerian economy having the largest telecommunications market in Africa. This witnessed vast investment in the sector by the following companies: MTN Nigeria Limited, Globacom Telecommunications, 9mobile and Airtel. Despite this unprecedented growth, the sector has faced challenges of low consumer purchasing power, currency movements, weak macro-economic conditions, loss of global investors among others. Furthermore, the sector has experienced significant drop in subscribers. In first quarter of 2017, subscribers dropped by 1.38% to 152m while for the second quarter of 2017, the percentage drop increased to 6.15% which is 149m (National Bureau of Statistics, 2018). These challenges coupled with the high degree of competition in the market, have forced the telecommunication companies to recognize the need to develop innovative business practices by investing in assets to ensure long-term growth and sustainability. One of such investments is in IT. MTN being the market leader with its share of 37.2% of the market and to ensure sustainability of this market position needs to link its business strategy to its IT strategy by ensuring a fit to maintain its competitive position and deliver superior value to its customers. Therefore, aligning a business strategy to the IT strategy especially is very important if Nigerian telecommunication companies are to be successful (Sev, Emakwu & Dewua, 2015).

The business strategic alignment with the IT strategy is a very important issue, particularly when the fit between business strategy and IT strategy is seen as an essential part of the business in the telecommunication sector. With the advancement of technology, the nature of this relationship is becoming even more relevant hence; if telecommunication companies are to be competitive then such companies should undergo rapid and significant changes (Luftman, 2005). This is becoming more recognized given the changing role of IT from a back office role to a strategic role (Henderson & Venkatraman, 1993). IT-business strategic alignment or fit is defined as the fit between IT strategy and business strategy in organizations (Henderson & Venkatraman, 1993). IT-business strategic fit depicts congruency, contingency, matching or co alignment (Venkatraman & Prescott 1990: Schichun et al., 2006). It refers to the efficiency with which the business strategies align with the IT strategies to create competitive advantage for the business, which ultimately impacts firm performance (Schendel & Hoffer 1978: Schichun et al., 2006). Therefore, IT-business strategic fit helps organizations use their IT resources effectively to support their business strategies, enabling them to maximize the impact of their IT investments, integrate IT and business processes, and increase competitiveness, revenue growth, and profitability (Byrd, Lewis & Bryan, 2006). However, despite the importance and potential benefits of the alignment, the number of businesses that have successfully achieved such alignment is shown to be considerably small (Luftman et al, 1999), which has ultimately impacted on the non-performance of such businesses. Research conclusions by Sabherwal and Kirs (1994), Teo and King (1996), Chan, Huff, Barclay and Copeland (1997), Chan, Huff, Barclay and Copeland, (1997), Sabherwal and Chan (2001), Kearns and Lederer (2003) and Chan, Sabherwal and Thatcher (2006) have indicated the link between strategic fit and firm performance. Unfortunately, these studies have failed to assess the moderating role of environmental uncertainty in the relationship between strategic fit and firm performance. This study is therefore, an attempt at evaluating the effect of the business-IT strategic fit on the performance of MTN Nigeria Limited. The study also attempts to ascertain the moderating role of environmental uncertainty on the relationship between business-IT strategic fit and the performance of MTN Nigeria Limited.

The paper is organized into five sections starting with an introduction of the research study, followed by the theoretical and conceptual frameworks, reviewed literatures and hypotheses development, methodology, results and discussions, conclusion, research implications and limitations.

2. THEORETICAL FRAMEWORK AND CONCEPTUAL FRAMEWORK

2.1 Theoretical Framework

The resource-based view (RBV), promoted by Penrose in 1959 considers an organization as comprising of both tangible and intangible resources that can contribute to firm growth (Ahmad, 2015). The argument of the importance of the RBV as advanced by Penrose suggest that the direction and degree of firm growth is dependent on the possession of resources, which must be effectively and innovatively managed and the establishment of a causal link between these resources and the generation of productive opportunities for growth and innovation. The basic assumption of the RBV is its focus on economic rather than social or political relationships and its belief in the rationality concept. The resource-based view of the firm therefore, conceptualizes a firm as a bundle of resources and considers it as the basis for a firm's competitive position (Wernerfelt, 1984). Knowledge integration is a focal aspect of the knowledge-based theory of the firm. Knowledge integration refers to the outcomes of that knowledge being shared, applied, or combined with other knowledge to create new knowledge Grant (1996).

Within the context of strategic IT planning, knowledge integration relates to the integration of business and IT knowledge. An important outcome of this knowledge integration is greater linkage of the strategic IT plan to the business goals and objectives, called strategic fit or what is called strategic alignment. Therefore, business–IT strategic alignment relates to alignment between business and IT strategies (Reich & Benbasat, 2000; Rockart, Earl & Ross, 1996), with the focus being on the extent to which the strategic IT plan is aligned with the business strategy. This theory succinctly captures the essence of this study, which is aimed at assessing the impact on business performance following the alignment of business and IT strategy of telecommunication businesses in Nigeria. Based on the following, the proposed conceptual framework for the study is presented as Figure 1.

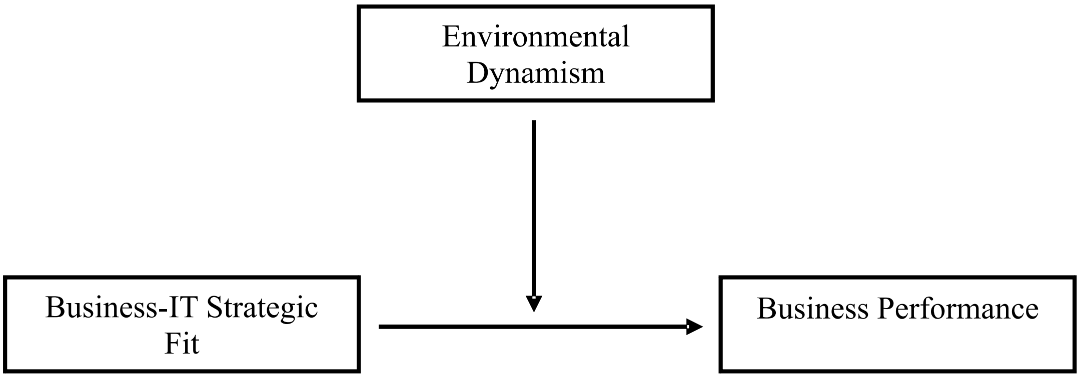

Figure 1: Conceptual Framework

3 LITERATURE REVIEWE AND HYPOTHESES DEVELOPMENT

3.1 Business-IT Strategic Fit

Information system (IS) and information technology (IT) are two terms that are used interchangeably. The former has been in existence even prior to the introduction of the later in business organizations. IS can be defined as a system that includes persons and data records and management activities for managing and processing information, which may include computer hardware, software, people and management policies and procedures, and that systems use the IT to store, manage, and process information. It is, therefore, an organized structure of interrelated components that is concerned with the purposeful utilization of information technology (Ward & Peppard, 2002). On the other hand, the concept of strategy has been defined variously by different scholars. In a basic and simple definition, strategy is a management concept that is defined as an elaborated and systematic long-term plan of action designed to achieve the basic long-term objectives of an organization. Strategy is the determination of the steps required to reach an objective that makes the best use of available resources. It is a top management duty that is of a great importance to the organization. It is therefore constrained to the business nature of the organization, including its resources, capabilities, culture, structure, etc., and the business environment within which it operates.

Strategy can be characterized as top managers' response to the constraints and opportunities that organization faces (Miles & Snow 1978; Donaldson

1995). The better the fit that an organization achieves with external circumstances, the more likely it is to win financial and political support, and thereby improve its performance. Miles and Snow (1978) argue that strategy is a way of adjusting the relationship between an organization and its environment, and that internal structure in turn must fit the strategy if this adjustment is to be successful. Organizations face not only an "entrepreneurial" problem (which strategy to adopt), but also an "administrative" problem (the selection of structures that are consistent with the strategy). They argue that, over time, strategy and structure reinforce each other: organizations choose an administrative system that is consistent with their strategy and then find that this system continues to propel them in the same strategic direction. The IS strategy is therefore, concerned mainly with aligning IS development with business needs in order to gain strategic advantage through the proper use of IT in the firm. It brings together the business aims of the organization, a clear understanding of the information needed to support those aims, and the implementation of computer systems to provide that information.

3.2 Business Performance

Performance is what the organization hires one to do and do well. Thus, performance is not defined by the action itself but by judgmental and evaluative processes. Moreover, only actions which can be scaled i.e. measured are considered to constitute performance, (Sabine and Michael, 2001). According to Hashem (2015), in the first decade of the twenty-first century, the definition of organizational performance mostly focused on the capability and ability of an organization to efficiently utilize the available resources to achieve accomplishments consistent with the set objectives of the company, as well as considering their relevance to its users. In this definition, the three general elements of OP, i.e., "efficiency," "effectiveness," and "relevancy" have been taken into consideration. Conversely, the performance of an organization is believed to be able to cover broader areas including the connection between performance and organizational goals (effectiveness); organizational resources (efficiency); and, satisfaction of the stakeholders (relevancy) (Hashem, 2015).

Some researchers, such as Thompson (1967), and Friedlander and Pickle (1968) consider performance as a theme that repeatedly occurs in paradigms of management. Strategic and operations management are also included in performance, a feature that attracts the interest of both practicing managers and academic scholars. Performance, therefore, can be defined as the evaluation of the constituents that try to assess the capability and ability of a company in achieving the constituents' aspiration levels using efficiency, effectiveness, or social referent criteria, which are briefly explained below (Hashem, 2015). Effectiveness, refers to the maximum extent production functions are able to fulfill and meet the demands and requirements of the customer. Efficiency, on the other hand, is assessing and evaluating how the resources of an organization are economically utilized through the accomplishment of functions to achieve its objectives. Quantitatively, performance and the dimension of scale are interrelated, i.e., it is generally quantifiable in different dimensions (Hashem, 2015).

3.3 Business-IT Strategic Fit and Business Performance

The business-IT strategic fit refers to the alignment between the external domain (business and IT strategies) and the internal domain (business and IS infrastructure). Therefore, given the increasingly strategic importance of IT in organizations, most studies have focused on the fit between IT strategy with business strategy and how this interaction impacts organizational performance. Several studies have investigated this dynamic relationship with the studies reporting conflicting research findings on the relationship between business-IT strategic fit and business performance. Business-IT strategic fit or alignment has been found to have a significant positive effect on business performance (Sabherwal & Kirs, 1994; Sabherwal & Chan, 2001; Craig, King & Hussin, 2002; Chan, Sabherwal & Thatcher, 2006; Schniederjans & Cao, 2009) while Chan, Huff, Barclay and Copeland (1997) report a significant negative effect on firm performance. Other research studies have reported a significant effect of business-IT fit on business planning (Teo & King, 1996), competitive advantage (Kearns & Lederer, 2003) and market growth and innovation (Chan, Huff, Barclay and Copeland, 1997). However, Palmer and Markus (2000) reported that business-IT strategic fit does not have a significant effect on business performance. Based on this evidence, the following hypothesis is suggested:

H_1: Business-IT strategic fit has a significant effect on business performance

3.4 Moderating Role of Environmental Dynamism

Environmental uncertainty is a key variable in organizational theory literature and is conceptualized as a three dimension construct consisting of the following: heterogeneity, dynamism and hostility (Miller & Friesen, 1983). The heterogeneity dimension is related to the diversity of the environment such as production and marketing orientation (Miller & Friesen, 1983). As diversity increases, the amount of information needed to understand the environment increases, and consequently it becomes more difficult for managers to assess the environment effectively due to their bounded rationality. The dynamism dimension captures the instability of the environment. A high rate of environmental change challenges managers to adopt new strategies and tactics quickly and frequently. And the hostility dimension is associated with the level of threat that firms face from the environment. Thus, the construct of environmental uncertainty captures the amount of unpredictability, the degree of instability, and the demand for information in decision making. Environmental uncertainty may require a ?rm to be able to respond more rapidly to unforeseen change in order to survive (Lawrence & Lorsch, 1967; Covin & Slevin, 1989).

Studies conducted by scholars have indicated that environmental uncertainty moderates the relationship between business-IT strategy and firm performance. Ting, Wang and Wang (2012) research conclusions indicates that environmental uncertainty moderates the relationship between innovation strategy and firm performance while environmental uncertainty moderates the relationship between IT and strategic alignment and competitive advantage of a firm (Berrich & Benkaddar, 2016; Muktar, Rosli & Azizi, 2017; Yayla & Hu, 2017). The following hypothesis suffices:

H_2: Environmental uncertainty moderates the relationship between business-IT strategic fit and business performance.

4. METHODOLOGY

4.1 Research Design

A research design is the plan adopted in pursuing a research activity. It defines the research methodology, the approach of the research, sample selection and determination among others (Oppenheim, 1992). For this study, the research design is survey design, specifically cross-sectional design where questionnaires are used at one or more points in time. Data collection would be achieved via questionnaire design. This is the most appropriate research design as it will provide a better perspective of the study and provide the most appropriate approach in addressing the research question.

4.2 Population, Sample Size and Sampling Procedure

This study attempts to assess the business-IT strategic fit and performance of telecommunications companies in Nigeria. The study also assesses the moderating role of environmental uncertainty on the relationship between business-IT strategic fit and performance. The population of the study consists of staff of MTN Nigeria, Abuja excluding cleaners, security etc that offer support services to the core services provided by the company. The total population of the study is therefore, 298. Applying the census approach, 298 were used as the sample size. However, only 285 questionnaires were finally used after adjusting for wrongly filled and unreturned questionnaires.

4.3 Measurement of Variables

Questionnaires were used to solicit for information from the respondents on the variables under study which are: business-IT strategic fit, business performance and environmental uncertainty. Business-IT strategic fit was measured using validated measures developed by Kearns and Sabherwal (2006) consisting of four items. The questions were framed as follows: “the IT plan aligns with the company's mission, goals, objectives, and strategies”, “the IT plan contains quantified goals and objectives”, “the IT plan contains detailed action plans/strategies that support company direction” and lastly “we prioritize major IT investments by the expected impact on business performance.

Business performance defined by Kearns and Sabherwal (2006) as the business effects of IT was measured using five items. Business performance is measured based on the extent to which the fit between business and IT strategy has on increased market share, increased sales revenue, creation of systems that are difficult for competitors to imitate, creation of systems that are significantly different from competitors and lastly how the strategic fit differentiates the business, that is products and services from other businesses in the same industry. Environmental uncertainty was measured using the perceived environmental uncertainty of the following items: suppliers' actions, customer demands, tastes and preferences, market activities of competitors, deregulation and globalization, government regulations/ policies, economic environment, industrial relations, and production and information technologies (Hoque, 2004). Respondents were therefore, asked to rate the uncertainty of the eight items listed as variables in the external environment.

4. RESULTS

Hierarchical regression was used as the data analytic tool to analyze the relationship between business IT strategic fit and business performance including the moderating effect of environmental uncertainty on this relationship. Data preparation led to a final sample size of 113 (after elimination of questionnaires with incomplete data) while preliminary analysis was done to test the assumptions of regression analysis. The result of the preliminary analysis showed that the sample size is adequate going by the suggestion by Tabachnick and Fidell (2007). Furthermore the correlation between business IT strategic fit and business performance is moderate ($R=.680$, $p<.001$) while the correlation between environmental uncertainty and business performance is low and negatively related (R=-.234, p<.01) showing an inverse relationship between environmental uncertainty and business performance, all indicating absence of multicollinearity. This is confirmed by the Tolerance values (0.990) and VIF (1.010) for both business IT strategic fit and environmental uncertainty which are within the acceptable limits of <0.1 and 10 respectively making the dataset appropriate for regression modeling. Furthermore, an assessment of the histograms, scatter plot normal P-P plots also indicated the absence of outliers, non-normality and non-linearity satisfying reasonably the assumptions of linearity and normality. This also confirms that the dataset is appropriate for regression analysis. The detailed result of the test of hypotheses is presented in Table 1.

Table 1: Result of Regression Analysis

	Model 1			Model 2		
	β	t	p	β	t	P
Independent Variables:						
Business IT Strategic Fit	.869	9.768	.000	.848	9.696	.000
Moderating Effect:						
Business IT Strategic Fit × Environmental Uncertainty				-.340	-2.459	.015
F		95.406*			52.895*	
R^2		.462			.490	
Adj. R^2		.457			.481	

*p<.001; DV: profitability

Source: Author Computation (2019)

Two models were tested in this study using hierarchical regression analysis. In model one, the business performance was regressed on business IT strategic fit while in model two, the moderator variable of environmental uncertainty was included in the model to assess its contribution on the relationship between business IT strategic fit and business performance. The model one was significant at $F(1,284) = 95.406$, $p < 0.001$, explaining 46.2% of the variation in business performance while model two including environmental uncertainty as a moderator, the F-statistic was $F(2,283) = 52.895$, $p < 0.001$. However, the variation in firm profitability increased marginally from 46.2% to 49.0%. Based on the result of the regression analysis hypothesis one is accepted indicating that business IT strategic fit has a significant positive impact on business performance of MTN Nigeria Limited as indicated by the following: $B = 0.869$, $t = 9.768$, $p < 0.001$. The moderating effect on the relationship between business IT strategic fit on business performance was also significant but negative as shown by the following: $B = -0.340$, $t = -2.459$, $p < 0.01$. Because of the presence of environmental uncertainty in the model, the influence of business IT strategic fit on business performance reduced marginal from $B = 0.869$ to $B = 0.848$.

5. DISCUSSION OF FINDINGS

The objective of this study was to evaluate the predictive ability of business IT strategic fit on business performance on the one hand and the moderating role of environmental uncertainty on the relationship between business IT strategic fit on business performance. The regression result shows that business IT strategic fit has a significant positive effect on business performance resulting in 86.9 percent increase in the performance of MTN Nigeria Limited. Similar research findings have been reported by Sabherwal and Kirs (1994), Sabherwal and Chan (2001), Craig, King and Hussin (2002), Chan, Sabherwal and Thatcher (2006), Schniederjans and Cao (2009), that business-IT strategic fit has a significant positive effect on the firm performance. This finding implies that the company's IT strategy depicts congruency, contingency or matching with its strategic orientation depicting fit, which has explained the variation in firm performance. In summary, the company is using its IT resources effectively to support its business strategies enabling them to maximize the impact of their IT investments, integrate IT and business processes, and increase competitiveness, revenue growth, and profitability (Byrd, Lewis & Bryan, 2006).

Lastly, environmental dynamism was found to contribute to the reduction of the positive effect of business IT strategic fit on business performance; this is, environmental dynamism significantly moderated the relationship between business IT strategic fit and business performance consistent with the findings reported by Ting, Wang and Wang (2012), Berrich and Benkaddar (2016), Muktar, Rosli and Azizi (2017), Yayla and Hu (2017), suggesting that environmental dynamism reduces the positive relationship between business IT strategic fit and business performance. The implication of this finding is that the environmental variables contribute to reducing the significant positive influence of business IT strategic fit and business performance therefore MTN Nigeria Limited should consider the role of environmental uncertainty when making business-IT strategic fit decisions. The company in developing strategic policies should capture the amount of unpredictability, the degree of instability, and the demand for information in decision making to be able to respond more rapidly to unforeseen changes (Lawrence & Lorsch, 1967; Covin & Slevin, 1989) that have the capacity to negatively affect its performance.

6. SUMMARY AND CONCLUSION

This study sought to evaluate the effect of the business-IT strategic fit on the performance of MTN Nigerian Limited including the moderating role of environmental uncertainty on this relationship. Two hypotheses were tested in the study: hypothesis one stated that business-IT strategic fit has a significant positive effect on business performance; while hypothesis two stated that environmental uncertainty moderates the relationship between business-IT strategic fit and business performance. The study which was conducted in the Nigerian telecommunications industry, specifically in MTN Nigeria Limited had a final sample size of 113, after elimination of questionnaires with incomplete data. The hierarchical regression analysis as the method of data analysis revealed that business-IT strategic fit has a significant positive impact on business performance. Furthermore, the result indicated the moderating effect of environmental uncertainty on the positive relationship between business-IT strategic fit and firm performance implying that environmental uncertainty reduces the positive effect of the relationship between business-IT strategic fit and firm performance.

7. IMPLICATION OF THE STUDY

The study was able to present a simplified model of strategic fit and firm performance by introducing a moderator variable – environmental uncertainty. The study was able to establish a positive impact of between business strategic fit on firm performance. Furthermore, the study established that the uncertainty inherent in a business environment has a significant impact on reducing the positive impact of strategic fit on business performance. Businesses should therefore, proactively implement strategies to mitigate the negative impact of the external business environment on business performance. In other words, since environmental uncertainty has an influence in moderating the effect of the relationship between business-IT strategic fit and the performance of firms, businesses should understand environmental dynamism and how it can influence strategic fit as well as the overall performance of the firm when making business-IT strategic decisions or any strategic fit decision that can affect the performance of the firm.

8. LIMITATION AND SUGGESTION FOR FURTHER STUDIES

The strategic fit concept was conceptualized and limited to the strategic-IT fit given that the study was focused on the Nigeria's telecommunication sector. Other sectors could also be studied. Future research studies could also expand the scope and also introduce other fit concepts in evaluating business performance. Furthermore, specific proxies of business performance such as profitability, sales growth, employment etc could be employed in future studies to better appreciate the impact of strategic fit on specific aspects of business performance. Other moderators such as resource munificence, organizational factors could be used in future studies besides environmental dynamism to better understand the IT-strategic fit and firm performance. Limitations of the study include the cross-sectional nature of the research which limits evaluation of causality. Longitudinal studies would help elucidate better on this reality. Also, small sample size is another limitation of the study, which can be addressed by expanding it in future studies carried out in this field.

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