

## ENHANCING SUSTAINABLE COMPETITIVE ADVANTAGE: THE MEDIATING EFFECT OF RESOURCE VALUE BETWEEN STRATEGIC MANAGEMENT ELEMENTS AND INNOVATION. EXPERIENCE FROM NIGERIA'S MANUFACTURING SECTOR

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**Abstract:** The purpose of this study is to investigate the mediation influence of resource value in towards enhancing sustainable competitive advantage in the relationship between strategic management element i.e. strategy implementation and control as independent variable and innovation as the dependent variable in the Nigeria's manufacturing sector. Data were collected through personal questionnaire from 66 manufacturing firms in Nigeria who are members of manufacturing association of Nigeria within North West and North central zones with 70% response rate. The results indicate that there is positive and significant relationship between strategic management elements; implementation and control with resource value, positive relationship between strategic management elements with innovation and positive relationship between resource value and innovation, hence the condition for mediation satisfied. According to the result after testing correlation analysis between ant variables and regression analysis in testing the two hypotheses, manufacturers in Nigeria fully agree that strategy control is essential when a unique strategy has been implemented with mediation influence of resource value through innovation enhance sustainable competitive advantage. This study adds Knowledge to the theory and practice of sustainable competitive advantage particularly in Nigeria's manufacturing firms. Its theoretical and empirical significance adds more insight on the previous empirical studies in the field that is to say it gives guidelines to manufacturers in Nigeria on the impact of strategic management approaches on sustainable competitive advantage. For government and firms, the study provides avenue of enhancing sustainable competitive advantage in Nigeria and Africa as a whole since the phenomena is general.

**Key words:** Competitive advantage, innovation Strategy and sustainable competitive advantage.

**Introduction:** Nigeria has allowed itself to be used for all sorts of imported goods from foreign industries and Asian Tigers in the name of globalization. Consequently, this has greatly affected the capacity utilization of various firms of the Nigeria's manufacturing sector. Similar view were explained by Dembele (1998); Sagagi (2004); Aluko, Akinola and Fatakun (2004).

Another serious problem is that if not all greater Nigerian's income (national income) is from the sale of crude oil and its allied which is oscillating from one ill to another, this is posing difficulty in applying strategic management principles by manufacturers as manufacturing firms are facing neglect from the regulators.

However, it is a thing of concern that even the oil which Nigeria produces, part of it is refined abroad and imported back to the country to meet-up local consumption, because the country's refineries have over the years been operating below capacity utilization (Daily Trust, 2010). The situation becomes more aggravated due to Nigerians preference for foreign good (Aluko et al. 2004; Ajayi, 1990).

There are few researches on strategic management in emerge markets i.e. developing economy. (Hussam and Hussien (2007), as such Manufacturers in Nigeria do not apply properly strategic management concepts for future development hence this study

intends to turn around the minds of regulators and manufacturers in Nigeria to focus on competitive advantage and push to -words sustaining it.

When developing strategy, it is important for firms to remember the goal that is of sustainable competitive advantage. Sustainable competitive advantage occurs where the firm is implementing a value creating strategy not being implemented simultaneously by rivals and other firms are unable to duplicate the benefit of this strategy (Burney, 1991). Sustainable competitive advantage has the possibility of competitive advantage being eroded by the innovation efforts of rival firms in changing the market place.

A company's strategy indicates the choices its managers have made about how to attract and place customers (value) how to respond to changing conditions and compete successfully and grow the business (rareness) how to manage each functional piece of the business and develop needed capability and achieve performance target (inimitability) (Thompson, Strickland, and Gamble 2005).

**Literature Review:** The pursuit of competitive advantage is indeed an idea that is at the heart of much of the strategic management literature (Berden, and Proctor (2000); Fahy (2000); Barney (2000a, 2000b, 2007); Lin (2003); Fahy, Ferrelley and Gister (2004); Newbert, (2008) among others.

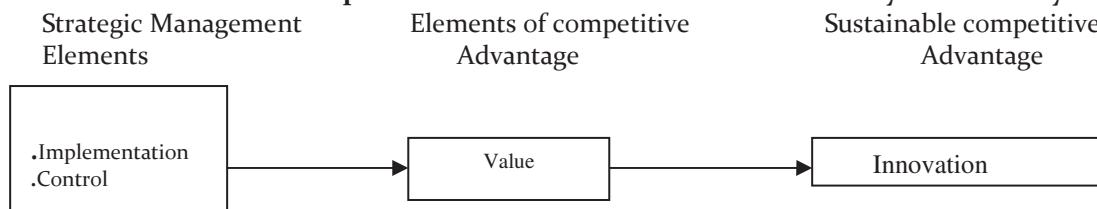
Barney, (1991a) contributes to the discussion by exploring the link between a firm's resources and sustainable competitive advantage. The study concludes that not all firm's resources hold the potential of sustainable competitive advantage instead, they must possess four attributes: rareness, value, inability to be imitated, and inability to be substituted. Prahalad and Hamel (1990) the study concludes that firms should combine their resources and skills into core competencies, loosely defined as that which a firm does distinctively well in relation to competitors. They also positioned that competitive advantage are realized only when the firm combines assortments of resources in such a way that they achieve a unique competency or capability that is valued in the market place. Day and Wensley (1988) focus on two categorical sources, involved in creating a competitive advantage i.e. superior skills and superior resources. Other authors have elaborated on the specific skills and resources that can contribute to sustainable competitive advantage

A company's strategy indicates the choices its managers have made about how to attract and place customers (value), how to respond to changing conditions and compete successfully and grow the business (rareness), how to manage each functional

piece of the business and develop needed capability and achieve performance target (inimitability). (Thompson, Strickland, and Gamble 2005). Manager's ability to separate powerful strategy from an ordinary or weak one is their ability to forge series of moves, both in the market place and internally, that makes the company distinctive as a reason for buyers to prefer its product and or services and produce a sustainable competitive advantage over rivals. Without competitive advantage a company risk of being beaten by stronger rivals hence to set strategy that put them apart from rivals in the mane of achieving sustainable competitive advantage and performance.

**Framework:** Based on the literature reviewed the integrative framework of this study is on resources base view of the firm to determined power of resource value, rareness and resource inimitability on firm's competitive advantage and continuous innovation as a route for sustaining the advantage. The study examines the elements of competitive advantage in line with resources base view as the independent variable with three constructs i.e. value, rareness and inimitability as bases for firm's competitive advantage and innovation as an avenue for sustaining the advantage as the dependent variable. See figure 1

### Relationship between SME and Innovation Mediated by inimitability



### Hypotheses

#### Questionnaire distributed to Manufacturing Firms in Nigeria:

**Firms in Nigeria:** According to Pearce and Robinson (2007) three economic goals that guide strategy of almost every business organization whether or not the mission statement explicitly states the goal or not it reflects the firm's intention to secure survival through growth and profitability as it can sustain advantage.

Also Newbert (2008), whose arguments used Barney (1991), and Castanias and Helfat (2001), as its foundation, concludes that a firm must identified and implement (strategic formulation and implementation) resource-based strategies to create economic value, also suggested to sustain the advantage of producing a product or service with more benefit inform of unique feature (differentiation) and or lower cost (cost leadership) than are associated with products or service of its

competitors.

The study further concludes that to produce a product or service with competitive advantage resulting from the organizational capabilities sustain firms advantage. Based on the above discussion the following hypotheses are generated:

H4.6 There is positive relationship between strategic implementation and sustainable competitive advantage when mediated by firm's resource value RBV aspires to explain the internal sources of firm's SCA. Its central proposition is that if a firm is to achieve state of SCA, it must acquire and control valuable, rare, inimitable non-substitutable (VRIN) resources and capabilities, plus the organization in place that can absorb and apply them. (Barney 1991, 1994, 2002) also shared several related analyses: core competence (Hamel and Prahalad, 1994) dynamic capability (Helfat and Peterat 2003); Teece, and

Shuen, 1997). The theoretical and empirical development of the RBV has been analyzed in number of review studies: the recent studies are Acedo, Barroso, and Galan (2006); Armstrong Shimizu, (2007);

Lockett, Thompson and Morgenstern (2009) and Newbert, (2008), all capitalized on the same view. Barry, Clulow and Gerstman (2005), conclude that a RBV of customer value can enhance sustainable competitive advantage and superior performance. Based on the above discussion the following hypothesis is generated:

*H4.11 There is positive relationship between strategic control and sustainable competitive advantage when mediated by firm's value.*

**Research Design:** The study considers a survey method being a popular and common strategy in business research, because it allows for the collection of large amount of data from sizable population in a highly economical way.

Therefore, this research considers questionnaire tool for data collections. Saunders et al. (2007), are of the opinion that research project for academic courses are time constrained, therefore in this study due to time management a cross-sectional strategy is employed, a study in which a group of individuals are composed into one large sample and studied only at a single point in time.

This research selects a cross-sectional approach which is a dominant method in marketing research and the questionnaire survey approach which sounds most appropriate means of collecting data from the manufacturing firms in Nigeria.

**Data Analysis:** A total of 166 questionnaires were distributed to and personally administered on the respondents. A total of 116 questionnaires were collected, the overall response rate was 70% and to ensure the goodness of measurement exploratory factor analysis (principal component analysis) was conducted on elements of competitive advantage and innovation.

In addition reliability test (Cronbach's Alpha) was done to measure the internal consistency of the items used on the questionnaire. These two methods were very important to assess the goodness of the measures (Sekaran, 2003). Correlation test was conducted to measure the relationship among the variable and regression analysis was also run in the study in order to test the relevance of the hypotheses.

**Factor and Reliability Analysis on Strategic Management Elements:** In conducting factor analysis, this study follows assumptions recommended by Hair et al. (2010).

Firstly, there must be sufficient number of statistically significant correlations in the matrix.

Secondly, Kaiser-Meyer-Olkin measure of sampling

adequacy should be at least 0.6. Thirdly, Bartlett's test of sphericity should be significant at 0.05.

Fourthly, communalities of items should be greater than 0.50. Fifthly, the minimum requirement of factor loading 0.50 based on a 0.05 significant level, with value of cross loading exceeds 0.50. Also to provide a simple structure column for interpretation, the factors were subjected to Varimax rotation. Finally, Eigenvalue should be more than 1 for factor analysis extraction.

The original questionnaire had three dimension, eight items for Formulation, eight for Implementation and seven measuring Control. The result of factor analysis indicates that two factor i.e. Implementation/ formulation and Control as suitable. .

Also Barney (1991) affirms that firm is said to be of competitive advantage when it is implementing a value creating strategy and not currently being implemented by present or possible future company. So, Implementation/formulation and Control stand.

Based on factor analysis result, the measurement of (KMO) was .71 and the Bartlett test of sphericity was significant, both indicating there is sufficient inter correlation among the factors.

The result was achieved after deleting several items for insufficient correlation i.e. were found to have communalities less than 0.50..

The table 4.2 shows the result of analysis. The two loading factors ranging from .72 to .60, factor one has three question and also three questions from factor two. The 2 factors cumulatively captured about 53% of the total variance in the data. All the items has factor loading above 0.50 with Eigenvalue of 4.56 and 2.26.

The factors are subject to varimax rotation and the factors were renamed; factor 1 implementation/ formulation and factor 2 control. The reliability value (Cronbach's alpha) for Implementation was .61 and Control .61. All assumptions were satisfactory fulfilled. All the remaining items had more than recommended value of at least 0.50 in MSA with KMO value of .71 (above the recommended minimum level of 0.60), and Bartlett's test of sphericity is significant ( $p < 0.01$ ) and Eigenvalue above

1. This indicates that elements of competitive advantage according to manufacturers in Nigeria were 3

i.e. This shows that according to manufacturers in Nigeria, strategic management elements are two, recognizing the implementation and formulation as one. The SPSS output reflected in Appendix B.1

**Table 3.3 Factor and Reliability Analysis on Strategic Management Elements**

Variable and Question Items	Factor loading	
	F <sub>1</sub>	F <sub>2</sub>
Implementation		
My company employ's good information system	.72	.026
My firm observes its budget head to head	.62	.158
My firm adopts sound performance indicator	.72	.022
Control		
May firm takes cognizance of changing market test	.272	.60
May company adopts good leadership style	.084	.70
My company has good organizational structure	.022	.61
% of Variance explain	28.43	25.00
Eigenvalue	4.56	2.26
Reliability	.61	.61

Variables loaded significantly on factor with Coefficient of at least 0.5, \* Items deleted due to high crossloading

#### Inter Correlation of Variables

Variables	Mean	S/Deviation	Implementation	Control	Value	Innovation
Implementation	4.02	.519	1.00	.381***	.243**	.304***
Control	4.31	.492	.381***	1.00	.396**	.390***
Value	4.51	.561	.243**	.396**	1.00	.412***
Innovation	3.77	.827	.304***	.390**	.412***	1.00

\*\*\*p<0.01 and \*\*p<0.05

The table above show the result of the inter correlation among the variables. It indicates that the mean values and standard deviation for both variables are above average, indication that they are positively and sufficiently correlated with each other. The test shows that Implementation is positively and sufficiently correlated with Control( $r=.381***$  p-value<0.01), Implementation is positively and sufficiently correlated with Value ( $r=.243***$  p-value<0.01) and Implementation is positively and sufficiently correlated with Innovation ( $r=.304***$  p-value<0.01). From the table also Control is positively and sufficiently correlated with Value and Innovation( $r=.391***$  p-value<0.10) and ( $r=.390***$  p-value<0.01) respectively. Here the independent, dependent and the mediating variables are

sufficiently and correlated which is the prime condition for mediation.

**Result:** The result from hierarchical regression analysis on the relationship between implementation/control and innovation when mediated by value indicates that there is positive and significant relationship between implementation/control and innovation when mediated by value, hence both hypotheses (Implementation and Innovation with value mediation and Control and innovation with value mediation) were accepted. Therefore, the regression coefficient from the table below shows that value fully Mediate the relationship between implementation/control and Innovation. Implementation ( $\beta=.15$ ) and control ( $\beta=.22$ ) while Value ( $\beta=.29$ ).

**Table 3.16 Multiple Regressions: Relationships between Strategic management elements (Implementation and Control) with Sustainable competitive advantage (Innovation) when mediated by Elements of competitive advantage (Value) (Beta coefficient)**

Variables	Innovation 1	2
Implementation	.182**	.151**
Control	.321**	.218**
Value		.289**
R <sub>2</sub>	.181	.250
Adjusted R <sub>2</sub>	.166	.229
Δ R <sup>2</sup>	.181	.070
F change	11.911**	9.947**

\*\*p<0.01 \*p<0.50

**Discussions:** Concerning the mediating role of elements of competitive advantage (value) in the

relationship between strategic management elements (implementation and control) and sustainable competitive advantage (innovation), the test indicated positive relationship between the variables. The result indicates that value mediate the relationship between implementation and innovation. Past studies also explain similar significant relationship between the variables, for example, Barney (1991); Newbert (2008); Castanias and Helfat (2001); concluded that a firm must identified, implement and control resource- based strategies to sustain the advantage of producing a products with more benefits inform of unique feature. Also in Barney (2000); Clulow and Gerstman (2005); Jeroen et al (2010); Locket et al (2010) substantiated that to produce a product with competitive advantage resulting from the organizational capability sustain firm's advantage. Previous studies from Alderson (1965); Hall (1980); Henderson (1983); Porter (1980); Hoffmann (2000); also explain similar positive relationship. The positive relationship between strategic management elements i.e. implementation and sustainable competitive advantage i.e. innovation when mediated by element of competitive advantage i.e. value indicated that manufactures in Nigeria took cognizance of implementing value creating resource to enhances sustainable competitive advantage through innovation, in essence implementing new value creating strategy means innovation. Concerning the influence of elements of competitive advantage value on the relationship between strategic management elements control and sustainable competitive advantage innovation, the findings explained positive relationship between the variables. This positive results support previous findings (e.g. Barney 1991, 1994, 2000; Hamel and Prahalad 1994; Helfat and Peteraf 2003; Teece and Shuen 1997 Acedo et al 2006; Armstrong 2007). In essence this positive relationship between control and innovation with mediation influence of value shows that manufactures in Nigeria took cognizance of controlling valuable resource as key factor in enhancing sustainable competitive advantage through innovation.

**Theoretical Implication:** The theoretical implication isolated in this study revealed that strategic management elements (Implementation and Control) are very important sources of resource creation and generate firm's capabilities in form value, (Competitive advantage). This result is consistent with Resource Base View which states that a firm is said have competitive advantage when it is implementing a value creating strategy not implemented simultaneously by any current or potential player. This study of manufacturing firms in Nigeria contributed and supports the theory and

various studies carried out by several scholars in the area of resource base view, above all its contributions to the Nigeria's firms and theory as well as to emerging economies.

The findings also provided evidence of relationship between elements of competitive advantage (Value,) and sustainable competitive advantage (Innovation). This was found in Barney (1991); Newbert (2008) among other that are advocated of resource base view, that firm must identified and implement resource- based strategy (Value) to sustain competitive advantage in producing product with more benefits inform of unique features (innovation). This study also support the view of sustainable competitive advantages as its finding contributes to the area of sustainable competitive advantage. Furthermore the study provides interesting insight for understanding the direct link between strategic management elements (implementation and Control) with sustainable competitive advantage (Innovation). This positive relationship encourages the view of Peace and Robinson (2007) that firms must determine and implement basic goals and philosophy that will be its structural posture at the same time set it apart from other firms, in essence (innovation) sustainable competitive advantage. The study supports the mediation effect of value in the relationship between implementation and innovation control and innovation. The result indicated that implementing and control of value creating and inimitable strategy means innovation which enhances sustainable competitive advantage. The study contributed in the literature of resource base view and sustainable competitive advantage particularly in the emerging economies Nigeria inclusive.

**Managerial Implications:** The result from the findings of this study should awaken managers to the fact that adequate utilization of strategic management elements (Implementation and Control) is essential in resources creation, which result in competitive advantage and when managed properly sustain the advantage. Manufacturers in Nigeria should equally put adequate concern on strategic formulation as they do to Implementation and control. Manufacturers in Nigeria according to the findings of this study conceded and view strategy formulation as part of strategy implementation.

The findings from this study indicated that Manufacturers in Nigeria adopt proper implementation and control of value creating, rare and inimitable strategy which leads to sustainable competitive advantage in form of innovation, therefore they should continue with similar effort nonstop in the name of turning around the Nigeria's manufacturing sector and the attainment of its vision 20;20;20.

Furthermore the findings of this study indicated that regulators in Nigeria paid much attention to one sector of the economy that is crude productions giving less priority to manufacturing sector, therefore it is very important from the finding of the study for firm or economy to have sustainable competitive advantage which requires proper application of strategic management techniques, in essence giving due concern to the manufacturing sector,

**Conclusion:** The main aim of this study was to examine the impact of strategic management elements (implementation and control) in creating resources (Value) in form of competitive advantage and means of upgrading it to sustainable competitive advantage (Innovation) in the Nigeria's manufacturing firms. Manufacturers in Nigeria appreciated strategic Implementation and control as a means of creating value resource to some reasonable extent.

The study indicated that manufacturers in Nigeria exerted efforts in promoting competitive advantage to be sustained through the influence of value as a mediator between implementation and control relationship with innovation.

Furthermore the study on enhancing sustainable competitive advantage in the Nigeria's manufacturing

sector discovered that resources based view theory has impact on firm's competitive advantage as well as sustaining the advantage further. This has been seen from various past researches and the findings from this study also supported the theory.

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The study encourages managers and government in the utilization of the concept of strategic management in the name of sustaining competitive advantage, and also solicits future studies to be conducted to see the impact of strategy formulation as it was merged with strategy implementation as well as similar study be conducted in other sectors of the economy with the same framework.

The findings provided empirical support for the theoretical framework, demonstrating the fact that the study had sufficiently addressed the research questions. The study also highlighted the implication, limitations and suggestions for future research.

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