Intellectual Capital and Cost Leadership of Deposit Money Banks in Rivers State, Nigeria

Okocha, B. F.[1] and Amah, E.[2]

[1]Doctoral Candidate, Department of Management, University of Port Harcourt, Nigeria
[2]Associate Professor, Department of Management, University of Port Harcourt, Nigeria

Abstract: *The study investigated the relationship between intellectual capital and cost leadership. The population for the study consists of two hundred and sixteen (216) Managers, particularly Branch, Operations and Customer Relationship Managers of Tier One Deposit Money Banks in Rivers State, Nigeria. The population was adopted as sample size. Data obtained from two hundred (200) retrieved and usable copies of the survey were analyzed by means of the Statistical Package for Social Science (SPSS) version 20.0 and Analysis and Moments of Structures (AMOS) version 24.0. Structural Equation Modelling (SEM), using a predictive and recursive model approach to estimate the dependent variable was implemented to test hypotheses. The results revealed that the dimensions of intellectual capital i.e. human, relational, and structural capital have a positive relationship with Deposit Money Banks ' cost leadership in Rivers State, Nigeria. The study recommended that intellectual capital is necessary to sustain devotion of clients and should be supported to mitigate negative threats and compete favourably with rivals.*

Keywords: *Relational Capital, Human Capital, Structural Capital, Cost Leadership, Deposit Money Banks*

1.0   Introduction

The idea of upper hand relates to a firm maintaining a sustainable edge over rivals in a particular industry setting that cannot be eroded over time. The organization with upper hand seeks after a methodology that isn't being executed by an opponent firm or firms. The procedure actualized by the firm with upper hand gives the chance to a decrease in costs (for example minimal cost) in the arrangement of an item with some vicinity on item or potential service ascribes to suppliers of the elective differentiation system in an expansive market portion. Alternatively, the organization may be able to abuse market openings with an item as well as services with unrivaled properties (for example differentiation) with some nearness to minimal cost suppliers on cost of creation or arrangement of services in a wide market segment. Both the low cost and the differentiation strategies can be pursued in a narrow market segment and this is termed cost and differentiation focus, respectively (O'Shannassy, 2006).

According to Montgomery and Porter (2009) cited in Vinayan, Jayashree and Marthandan (2012), Cost leadership is the ability of an organization to compete against the major competitors based on low price. Porter (1985), posits that three modest systems in particular; cost leadership procedure, differentiation and focus techniques are critical to accomplishing upper hand and improving organizational execution. Cost leadership is a coordinated arrangement of

activity taken to create products and enterprises with highlights that are worthy to clients at the most minimal cost, comparative with that of contenders (Ireland, Hokisson & Hitt, 2011). Cost leadership additionally will in general be more contender concerned as opposed to client situated (Frambach, Ruud, Prabhu & Verhallen, 2003). Porter (1980) place that a firm that effectively seeks after cost leadership methodology accentuates enthusiastic quest for cost decrease, tight cost and overhead control, innovative work and promotion among others to accomplish a minimal cost position.

Social capital comprises of significant things like gathering with clients, client criticism, information and customary client cooperation. Petrash (2001); Mc Elroy (2002); Guthrie, Wigfield, Barbosa, Perencevich, Taboada & Davis (2004); Rodriguez-Castellanos, Garcia-Merino and Garcia-Zambrano (2010), all consider relational capital as a principle wellspring of upper hand. Huang and Hsuen (2007) posits that a company improving its relational capital will directly contribute to business performance. It is the arrangement all things considered – market connections, power connections and cooperation – set up between firms, foundations and individuals that come from a solid feeling of having a place and an exceptionally evolved limit of participation common of socially comparable individuals and establishments (Capello & Faggian, 2005); Structural Capital alludes to the non-human storage facilities of information in a firm that include organizational structures, for example, the hierarchical schedules, the structure of the business and different kinds of protected innovation (Taghizadeh & Zeinalzadeh, 2012); Ogujiuba (2013), posit that human capital is strategic to the socio-economic development of a nation and includes education, health, labour and employment and women affairs.

Apiti, Ugwoke and Chiekezie (2017) studied intellectual capital management and organizational performance in selected food and beverages companies in Nigeria and findings show that there is a significant relationship between intellectual capital and firm's financial performance and that proper management of intellectual capital has an impact on firms reported financial performance;

However, literatures on human, relational and structural capital as a dimensions of intellectual capital and cost leadership as a measure of sustainable competitive advantage, adoption of structural equation modelling to test the correlation is scant which motivated this study on intellectual capital and cost leadership in deposit money banks in Rivers State, Nigeria and on managers/executives.

1.1   Statement of the Problem

Doyle (1994) sees that methodical assessment seldom happens inside organizations. It is only those bank that are able to adapt to the changing environment and adopt new ideas and ways of doing business that can guarantee hope of survival and gaining of competitive advantage. Some of the forces of change that have greatly influenced the financial institutions is intense competition, regulation, and technological advancement. According to Mavondo and Farrell (2003) commercial banks is characterized by its ability to channel creativity to survive in highly competitive market and achieving competitive advantage by giving a one of a kind product or service to customers.

Enhancing information communication technology in the financial business is an absolute necessity in a quickly changing commercial center, as its transformation has made way for outstanding increment in budgetary action over the globe (Aliyu & Tasmin, 2012). The web is the least expensive appropriation channel for institutionalized bank activities, for example,

account management and assets move (Polasik & Wisniewski, 2009). It offers a potential competitive advantage for banks and this advantage lie in the areas of cost reduction and more satisfaction of customer needs (Bradley & Stewart, 2003; Jaruwachirathanakul & Fink, 2005).

In another research, Omari and Bataineh (2012) carried out an examination on the effect of e-relying upon accomplishing upper hand for banks in Jordan. They concluded that, there was factually critical impact for electronic banking over the internet in achieving competitive advantage in the banking sector in Jordan. In addition, Malhotra and Singh (2009) sought to assess the Indian experience on the effect of web banking on bank performance and risk. The results revealed that, web banks are bigger banks and have better working effectiveness proportions and productivity when contrasted with non-web banks. It was further revealed that, the benefit and offering of web banking doesn't have any critical association. These studies and manifestations have shown paucity of evidence on sustained competitive advantage in relation to intellectual capital.

Hence, this study intends to study empirically the relationship between intellectual capital and cost leadership of deposit money banks in Rivers State, Nigeria.

Aim and Objectives of the Study

The aim of the study is to determine the relationship between intellectual capital and sustainable competitive advantage of Deposit Money Banks in Rivers State, Nigeria. Thus, the following specific objectives are stated as:

- To investigate the relationship between relational capital (RC) and cost leadership (CL) of Deposit Money Banks in Rivers State, Nigeria.
- To determine the relationship between human capital (HC) and cost leadership (CL) of Deposit Money Banks in Rivers State, Nigeria.
- To examine the relationship between structural capital (SC) and cost leadership (CL) of Deposit Money Banks in Rivers State, Nigeria.

Research Hypothesis

H_{01}: There is no significant relationship between relational capital and cost leadership of Deposit Money Banks in Rivers State, Nigeria.

H_{02}: There is no significant relationship between human capital and cost leadership of Deposit Money Banks in Rivers State, Nigeria.

H_{03}: Structural capital does not relate with cost leadership of Deposit Money Banks in Rivers State, Nigeria.

2.0   Concept of Relational Capital

Relational capital outcomes from association's relationship with clients, accomplices, investors, and different partners that are basic to the organizational performance (Bontis, Crossan & Hulland, 2002). Shih, Chang and Lin (2010) vied relational capital as the connection between associations, clients, providers, contractual workers and other subsidiary accomplices. Low (2000), elucidated relational capital as the progression of information from an association to outside condition. The abilities, for example, client connection just as client devotion and trust assume huge job in the advancement of social capital (Isaac, Herremans & Kline, 2010;

Sharabati *et al.,* 2010). For example, higher the level of client devotion and trust, better will be the relationship with clients which along these lines improves organizational worth.

The relational capital is defined as customer capital. Sometimes customer capital and relational capital are defined similarly (Roos, Roos, Dragonetti & Edvinsson, 1997). The focus of relational capital is on organization (Hsu, 2006). In the knowledge-based society, scholarly capital assumes a noteworthy job in the foundation of elusive and information towards esteem creation (Choo & Bontis, 2002; Marr, 2004; Lev, 2001; Roos *et al.*, 1997). Particularly, the past writing clarifies human, hierarchical and client capital as various substances and propose that they are interconnected causally with the goal that human capital makes information which at that point can get consistent in organizational capital to advance client relations (Fernstrom, Tonkonogi, & Sahlin, 2004; Johansson, 2002; Marr, 2004; Roberts, 2003).

2.1 Concept of Human Capital

Human capital is one of the significant factors in the investigation of intellectual capital. It is the element of scholarly capital which manages the human information and its experience, in light of different components and will impact a company's incentive by influencing different components. Employee information and capacities are the significant wellsprings of advancement (van der Meer-Kooistra & Zijlstra, 2001, cited in Wang & Chang, 2005). It is proper to reason that human capital intently impacts development capital. Employees are expected to do the inward procedure of a firm. Workers are likewise required to play out all client services. By giving quality of service while executing interior procedures, the ability of workers would influence process productivity and consumer loyalty (Wang & Chang, 2005). Stewart (1997) concentrated on the connection among clients and worker abilities. He called attention that workers should have reasonable information or aptitudes to serve client needs. As per Wang and Chang (2005), human capital influences business execution through advancement, process and client capital.

2.2 Concept of Structural Capital

Structural capital has not been defined adequately in the past studies, in which it had different tags but similar meanings among different intellectual capital concepts. Based on the past writing, structural capital (Bontis, 2001, 2002a, b) can be process capital (Van Buren, 1998) and authoritative capital (Pike, Rylander & Roos, 2002), what's more, it likewise interlink with advancement capital (Van Buren, 1998). In addition, Bontis (2002) clarified structural capital as the information dug in inside the calendars of an association that incorporates innovative modules and architectural competencies. Generally speaking, the knowledge infrastructure in Gold, Malhotra and Segars (2001) explained the variables such as organization structure, culture and technology. Then again, as talked about by Bontis (2001), structural capital is the equipment, programming, databases, organizational structure, licenses, trademarks and everything else that workers use to help their business exercises and procedures. The concentrate of structural capital, nonetheless, has more accentuation on "the information inserted inside the routines of an organization" (Bontis, 2002:45).

2.3 Concept of Cost Leadership

Cost Leadership is defined as "The ability of an organization to compete against major competitors based on low price" (Li, He, Lan, & Yiu, 2006). An organization should be able to

remove or change all its activities which do not provide it with a cost advantage, rather they must find ways to reduce cost or even look for ways like mass production, input cost, economies of scale, raw materials access, input cost, technology, utilization of resources, product design and even can look to outsource its activities to other organizations that could then help it achieve cost advantage (Akan, Allen, Helms & Samuel, 2006).

Porter (1980) defined cost leadership as the achievement of "overall cost leadership in an industry through a set of functional policies aimed at this basic objective. It requires an aggressive setting up of productive scale offices, enthusiastic quest for cost decreases as a matter of fact, tight cost and overhead control, shirking of negligible client records, and cost minimization in regions like Research and Development, service, deals power, promoting, etc," (p. 35). Porter (1980) outlined 10 top cost drivers which are attributed low-cost strategies, all of which has direct and indirect linkage to management and resources of manufacturing facility.
Cost leadership procedure is a coordinated arrangement of activity taken to create products or services with highlights that are adequate to clients at the most reduced cost, comparative with that of contenders (Ireland *et al.*, 2011). Cost Leadership additionally will in general be more contender situated as opposed to client arranged (Frambach *et al.*, 2003). Porter (1980), set that a firm that effectively seeks after cost administration procedure accentuates enthusiastic quest for cost decrease, tight cost and overhead control, innovative work and development among others to accomplish an ease position.

Cost preferences may originate from economies of scale, economies of extension, appropriateness innovation, and special access to materials among different elements. With cost favourable circumstances, firms can have better than expected return or can order cost. Grant (2005) contends that normal to the accomplishment of Japanese organizations in purchaser products enterprises, for example, vehicles, cruisers, customer hardware, and instruments has been the capacity to accommodate ease with high caliber and mechanical progressiveness.

2.2   Theoretical framework
2.2.1   *The Market-Based View (MBV)*
This technique contends that industry elements and outer market direction are the essential determinants of firm execution (Bain, 1968; Caves & Porter, 1977; Peteraf & Bergen, 2003; Porter, 1980, 1985, 1996). Bain's (1968), Structure-Conduct-Performance (SCP) system and Porter's (1980) five powers model (which depends on the SCP system) are two of the most popular speculations right now. The wellsprings of significant worth for the firm are inserted in the serious circumstance portraying its finished result key position. The vital position is a company's one of a kind arrangement of exercises that are not quite the same as their adversaries. Then again, the key situation of a firm is characterized by how it performs comparable exercises to different firms, yet in totally different ways. Right now, company's benefit or execution are resolved exclusively by the structure and serious elements of the business inside which it works (Schendel, 1994).

The Market-Based View (MBV) incorporates the situating school of hypotheses of technique and speculations created in the modern association financial aspects period of Hoskisson's record of the advancement of key intuition (of which Porter's is one model) (Hoskisson, Hitt, Wan & Yiu, 1999; Mintzberg, Ahlstrand & Lampel, 1998; Porter, 1980). During this stage, the emphasis was on the association's condition and outer variables. Researchers saw that the company's exhibition was essentially reliant on the business condition.

They saw procedure with regards to the business as a whole and the position of the firm in the market relative to its competitors.

2.3 Empirical review

Adekunle and Bontis (2012) investigated managing intellectual capital in Nigerian telecommunication companies. A formerly distributed research instrument was regulated and overview information were gathered from 320 administrators in 29 media communications organizations. Theories identified with the relationship of human, structural and client capital and its effect on business execution were tried. Results show that Nigerian media communications organizations have generally underlined the utilization of client capital, exemplified by statistical surveying and client relationship management to support their business execution. The over-emphasis on client funding to the impairment of other scholarly capital parts is seen as undermining the profitability of Nigerian media communications organizations.

Onyekwelu and Ubesie (2016) investigated the impact of intellectual capital on corporate valuation of quoted pharmaceutical firms in Nigeria. The investigation embraced the Panel Research Design as utilized Time Series and Cross-Sectional Data. Information secured a ten-year time frame (2004-2013). Simple Random Sampling was utilized in choosing firms for this examination. Information were sourced from the organizations' yearly fiscal summaries utilizing content examination approach. Market valuation information were sourced from the Nigerian Stock Exchange. Scholarly Capital (Independent Variable) was estimated utilizing Human Capital Efficiency (HCE), Structural Capital Eficiency (SCE) and Capital Employed Efficiency (CEE). Market to Book Value Ratio (M/BV) and Earnings per Share (EPS). The examination embraced the Value-Added Intellectual Coefficient (VAIC) Model as created to analyze the impact of Intellectual Capital on firms' qualities. Numerous Regression Correlation Analysis was utilized on the information at 5% level of criticalness. E-View Statistical Tool adaptation 8.0 was utilized in the investigation. HCE had a positive and significant effect on M/BV Ratio at 0.05 level of significance with a p-value of $x1=0.0193$; SCE had a negative and insignificant with M/BV ratio at 0.05 level of significance. However, CEE shows a negative and significant effect on M/BV ratio at 0.05 level of significance $x3=0.0268$. The probabilities connected with the model $x1,x2$, and $x3$ were higher than the specified level of significance, that it at $P(x1=0.1697>0.05)$; $P(x2=0.3966>0.05)$; and $P(x3=0.1548>0.05)$, therefore the null hypothesis is accepted and alternate hypothesis is rejected for HCE,SCE and CEE respectively. The result further show that the result of analysis of the relationship between IC components and Earnings per Share. It reveals the comprehensive effect of IC on the Earnings per Share Ratio of the health sector. The study shows that the relationship between IC and EPS in the healthcare industry is positive at 5% level of insignificance. Human Capital, Structural Capital and Capital Employed have p-values of $x1=0.1697$, $x2=0.3966$ and $x3=0.1548$. The results reveal that Human Capital Efficiency has a positive and significant effect on Market/Book Value. SCE has a negative and insignificant effect on M/BV; CEE has negative and significant effect on M/BV; positive and insignificant effect on EPS. Taking into account our discoveries, the investigation suggests that organizations ought to contribute considerable piece of their profit on human capital by means of information advancement in that capacity speculations are fit for animating the worth creation possibilities of their staff and can get financial specialists place higher premium on them.

John-Akamelu and Iyidiobi (2018) investigated intellectual capital and performance of Nigerian Banks using six selected banks in Nigeria from 2010-2015. The aim of this work was to

ascertain the relationship between Value Added Intellectual Coefficient Indices (HCE, SCE and CEE) and Employee Productivity (Log EP) in Nigerian banks and to determine the relationship between value added intellectual coefficient indices (HCE, SCE and CEE) and growth in revenue (GR), of Banks in Nigeria. Descriptive ex-post facto research design was adopted for this study. The study made use of secondary sources of data. The population of study is made up e of the six (6) selected banks in Anambra state. This study adopted Pearson coefficient correlation statistical tools to test the hypotheses. A value of .172 indicates a positive correlation between Value Added Intellectual Coefficient Indices of the banks. To get an idea of how much variance the two variables share, the coefficient of determination (R) is calculated. R is 0. .172x 0. .172= 0. 029. It implies that employee productivity of the banks help to explain 29 % of the variance in Value Added Intellectual Coefficient Indices. A value of -.058 indicates a negative correlation between Value Added Intellectual Coefficient Indices of the banks. To get an idea of how much variance the two variables share, the coefficient of determination (R) is calculated. R is -.058 x -.058 = 0. 0033. It implies that employee productivity of the banks help to explain 0.34 % of the variance in Value Added Intellectual Coefficient Indices. Based on the findings of this study, it is recommended that there should be recognition of intellectual capital as an important business resource and companies in Nigeria especially the banks should adopt an intellectual capital strategy.

3.0   Methodology
3.1   Research Design
This study utilized the survey design approach. A survey design gives a quantitative or numeric depiction of patterns, perspectives, or assessments of a population by examining an example of that population (Saunders, Lewis & Thornhill, 2009). Thus, the choice of descriptive survey design is made because important aspects of variables of interest concerning deposit money banks (DMBs), particularly Tier One banks in Rivers State, are outlined.

3.2   Population of the Study
The population of this study comprised of a complete listing of deposit money banks in Rivers State, Nigeria. The study population is two hundred and sixteen (216) representatives of the tier 1 banks focusing on branch, operations and customer relationship managers in Rivers State. According to CBN (2019) cited in Bukola (2019), Nigeria's Tier one (1) banks incudes; Access Bank, First Bank, Guaranty Trust Bank, United Bank for Africa and Zenith Bank.

The choice of these tier one (1) banks is because these banks have total assets of 24.6 trillion naira covering more than 50% of the total market share and seem to be highly competitive (CBN, 2019 cited in Bukola, 2019). Thus, the target population of two hundred and sixteen representatives of managers becomes the sampling frame.

Table 1: Population of the study

TIER ONE BANKS IN RIVERS STATE	Number of Branches in Rivers State x 3 managers from each branch (Branch, Operations & Customer Relationship Managers)
Access Bank	25 x 3 = 75
First Bank	13 x 3 = 39
United Bank for Africa	16 x 3 = 48
Guaranty Trust Bank	10 x 3 = 30
Zenith Bank	8 x 3 = 24
Total	**216**

Source: Individual Organizations' Desk

This study utilized judgmental sampling to identify the branch managers, operations managers and customer relationship managers. Based on the number of managers identified, the probability simple random sampling is used with the aid of random numbers to ensure each member of the population has equal chance of being selected.

The researcher adopted the population as the sample size for this study. According to Economic Commission for Europe of the United Nations (UNECE) (2000), A census is an overview led on the full arrangement of observation objects having a place with a given population or universe.

3.3   Method of Data Analysis
Inferential Statistics were tested using the Structural Equation Modelling (SEM). The AMOS (Analysis of Moment Structure) was used in this study. AMOS is one of the popular specialized SEM software programs (Byrne, 2001; 2010; 2012).

4.0   Result and Discussions
A sample size of two hundred and sixteen (216) was adopted, thus 216 copies of the questionnaire were distributed to the target sample. Retrieval of questionnaire items was also achieved manually with the researcher, as well as the research assistants, visiting, collecting and collating all copies of the questionnaire; unfortunately, 16 copies of the questionnaire were considered as lost given the absence of the units during the time of questionnaire retrieval, in some cases, due to the inability of the respondents to meet up with the time window stipulated for questionnaire completion. Therefore, the study utilized a representative size of 200 in the analysis.
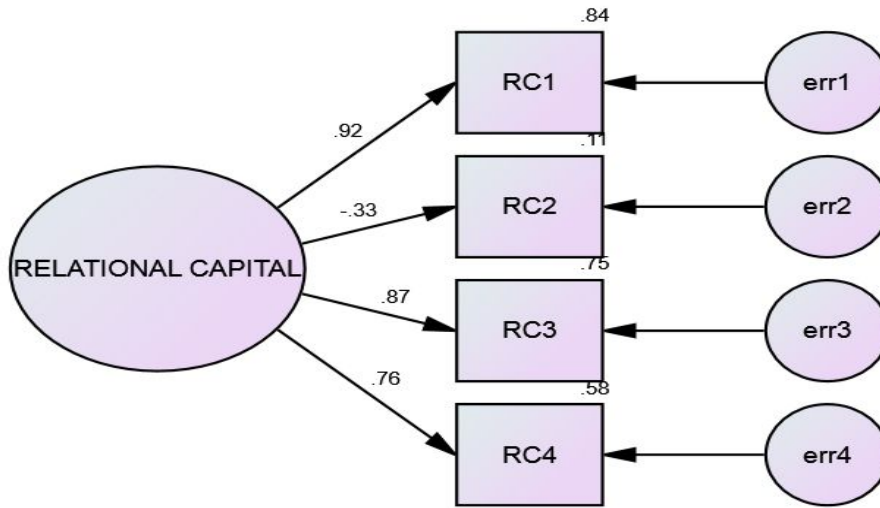
Figure 1: First Order Measurement Model of relational capital

Table 2: First Order Measurement Model Analysis of relational capital

Model	Chi-Square(df), Significance	NFI	TLI	CFI	RMSEA	Variable	Factor Loading Estimates	Error VAR
Relational Capital	(2df) =29.18, P<0.000	0.94	0.82	0.94	0.23	RC1	0.92	0.84
						RC2	-0.33	0.11
						RC3	0.87	0.75
						RC4	0.76	0.58

Source: Amos 24.0 output on research data, 2019

The results of the goodness of fit indices indicated acceptable fit to the data for one-factor model (chi-square (2df)=29.18, p<0.000, RMSEA=0.23, CFI=0.94, NFI=0.94, TLI=0.82). Table 2 summarized the goodness of fit indices, the factor loading estimates and the error variances. According to Brown (2010), completely standardized factor loadings of 0.3 (or 0.4) and above are commonly used to operationally define a "salient" factor loading. The indicators RC1, RC3 and RC4 had factor loadings of 0.92, 0.87 and 0.76 respectively and error variances of 0.84, 0.75, and 0.58 respectively. The average variance extracted (AVE) from the construct is 0.72. Thus, AVE=0.72>0.5. These parameters are consistent with the position that these are reliable indicators of the construct of relational capital.
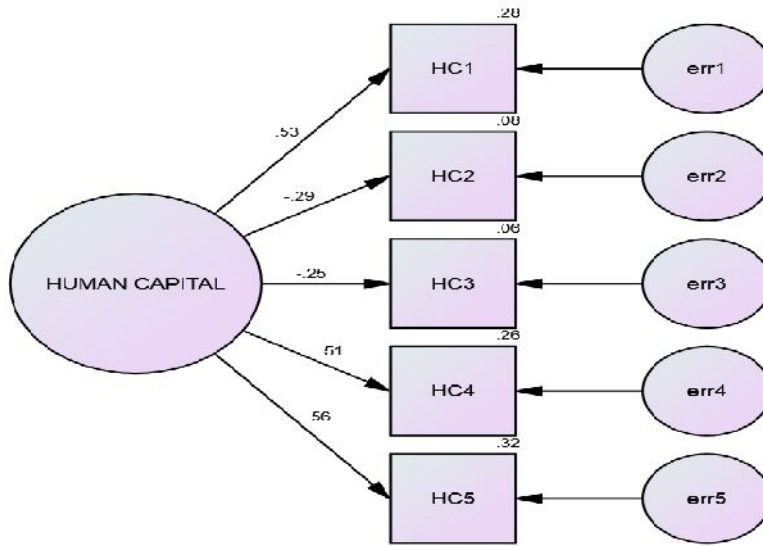
Figure 2: First Order Measurement Model of Human Capital

Table 3: First Order Measurement Model Analysis of Human Capital

Model	Chi-Square(df), Significance	NFI	TLI	CFI	RMSEA	Variable	Factor Loading Estimates	Error VAR
Human Capital	(5df) =36.26, P<0.002	1.05	1.03	1.00	0.08	HC1	0.53	0.28
						HC2	-0.29	0.08
						HC3	-0.25	0.06
						HC4	0.51	0.26
						HC5	0.56	0.32

Source: Amos 24.0 output on research data, 2019

The results of the goodness of fit indices indicated acceptable fit to the data for one-factor model (chi-square (5df)=36.26, p<0.002, RMSEA=0.08, CFI=1.00, NFI=1.05, TLI=1.03). Table 3 summarized the goodness of fit indices, the factor loading estimates and the error variances. Factor loading estimates revealed that the three out of the five indicators were related to latent factor human capital and were statistically significant. The indicators HC1, HC4 and HC5 had factor loadings of 0.53, 0.51 and 0.56 respectively and error variances of 0.28, 0.26 and 0.32 respectively. The average variance extracted (AVE) from the construct is 0.28. Thus, AVE=0.28<0.5. Estimated standardized parameters were statistically significant. These

parameters are consistent with the position that these are reliable indicators of the construct of human capital.
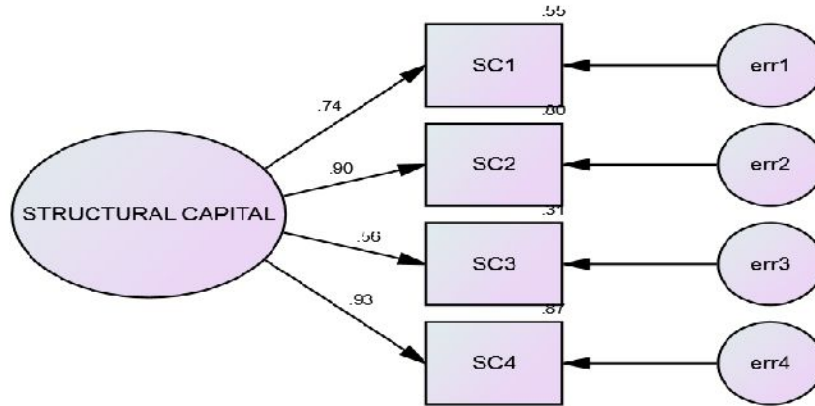

Figure 3: First Order Measurement Model of Structural Capital

Table 4: First Order Measurement Model Analysis of structural capital

Model	Chi-Square(df), Significance	NFI	TLI	CFI	RMSEA	Variable	Factor Loading Estimates	Error VAR
Structural Capital	(2df) =16.80, P<0.000	0.97	0.92	0.97	0.17	SC1	0.74	0.55
						SC2	0.90	0.80
						SC3	0.56	0.31
						SC4	0.93	0.87

Source: Amos 24.0 output on research data, 2019

The results of the goodness of fit indices indicated strong model fit to the data for one-factor model (chi-square (2df)=16.80, RMSEA=0.17, CFI=0.97, NFI=0.97, and TLI=0.92). However, the p value, p<0.000 indicated acceptable fit, as the model was over-identified with two degree of freedom. Table 4 summarized the goodness of fit indices, the factor loading estimates and the error variances. Factor loading estimates revealed that the four indicators were strongly related to latent factor structural capital and were statistically significant. The indicators SC1-SC4 had factor loadings of 0.74, 0.90, 0.56 and 0.93 respectively and error variances of 0.55, 0.80, 0.31 and 0.87 respectively. The average variance extracted (AVE) from the construct is 0.64. Thus, AVE=0.64> 0.5. These parameters show that adding a covariance between the error terms for

SC1, SC2, SC3 and SC4 improved the fit. These parameters are consistent with the position that these are reliable indicators of the construct of structural capital.
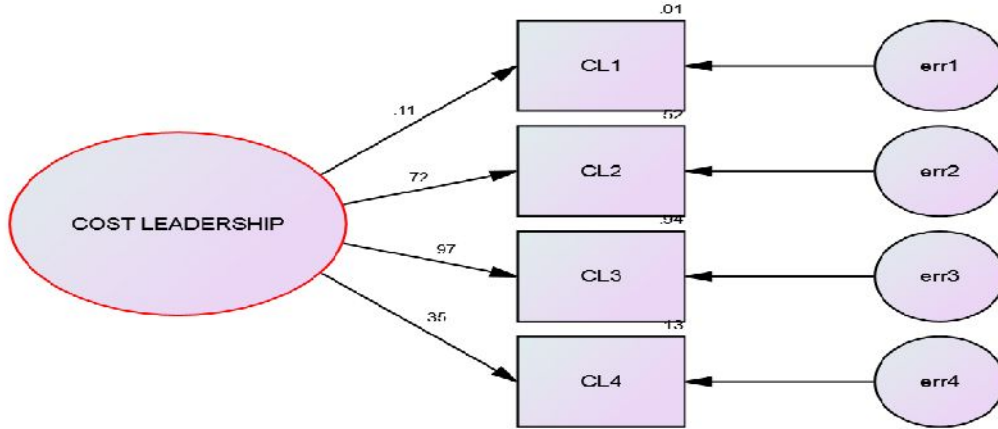

Figure 4: First Order Measurement Model of cost leadership

Table 5: First Order Measurement Model Analysis of cost leadership

Model	Chi-Square(df), Significance	NFI	TLI	CFI	RMSEA	Variable	Factor Loading Estimates	Error VAR
Cost Leadership	(2df) =10, P<0.005	0.95	0.87	0.95	0.13	CL1	0.11	0.01
						CL2	0.72	0.52
						CL3	0.97	0.94
						CL4	0.35	0.13

Source: Amos 24.0 output on research data, 2019

The figure 4 above, depicts the complete specification of the one factor model. The measurement model contained no double-loading and all measurement error was presumed to be uncorrelated. The model was overidentified with two degree of freedom (2df). Each of the goodness of fit indices suggested that one factor model fit the data, (chi-square (2df) =10, p<0.005, CFI=0.95, NFI=0.95, TLI=0.87, RMSEA=0.13).

Factor loading estimates revealed that the four indicators were strongly related to latent factor cost leadership and were statistically significant. The indicators CL1-CL4 had factor loadings of 0.11, 0.72, 0.97 and 0.35 respectively and error variances of 0.01, 0.52, 0.94 and 0.13 respectively. The average variance extracted (AVE) from the construct is 0.40. Thus,

AVE=0.40<0.5. These parameters are consistent with the position that these are reliable indicators of the construct of cost leadership.

Test of Hypothesis
Table 6: Result of standardized and unstandardized regression estimate of the model.

S/N	Mediation Stage	Relationship	Std. Beta	Actual Beta	S.E	C.R	P	Remark
1	RC CL (Hypothesis 1)	Relational Capital and Cost Leadership	-0.20	0.84	0.27	3.62	0.000	Not supported
2	HC CL (Hypothesis 2)	Human Capital and Cost Leadership	0.80	0.73	0.20	3.07	0.000	Not supported
3	SC CL (Hypothesis 3)	Structural Capital and Cost Leadership	0.25	0.64	0.19	2.51	0.000	Not supported

Source: Amos 24.0 output on research data, 2019

The hypothesized relationship was postulated in the study; stated in the null form of no relationship. The analysis was based on significance criteria of >0.3 (Brown, 2015); r>0.7 (Hair, Hult, Ringle & Sarstedt, 2016) and p<0.05.

Hypothesis One
H_{01}: There is no significant relationship between relational capital and cost leadership.

Table 6 illustrates the analysis for the association between relational capital and cost leadership of DMBs in Rivers State, Nigeria, where =-0.20, r=0.84 and p = 0.000. The findings show a positive and significant association between both variables (where <0.3, r>0.7 and p < 0.05). Thus, based on the criteria for null hypothetical statement acceptance (<0.3, r<0.7 and p > 0.05); or rejection (>0.3, r>0.7 and p < 0.05), the null hypothesis is rejected and restate that there is a positive significant relationship between relational capital and cost leadership of DMBs in Nigeria. Therefore, Ho1 was not supported. This means that the presence of relational capital in deposit money banks in Rivers State will lead to cost leadership with other banks. Statistically, it shows that when relational capital goes up by 1 standard deviation, cost leadership goes up by -0.20 standard deviation. In other words, when relational capital goes up by 1, cost leadership

goes up by 0.84. The regression weight for relational capital in the prediction of cost leadership is significantly different from zero at the 0.005 level (two-tailed). Thus, it can be stated that the great focus of banks on customers' feedback drives their ability to compete favourably by bringing down its service charges. These results indicate that relational capital impacts significantly and is critical to the sustainable competitive advantage of deposit money banks in Rivers State, Nigeria, and implies that relational capital drives the banks' ability to effectively function with feedbacks gotten from customers. This position is corroborated by De Clereq and Sapienza (2006) posit that relational capital could reduce costs by increasing an organization's information processing capacity. Thus, trust in relationships among employees and with suppliers and customers facilitate both productive trade of data by decreasing the requirement for tedious and expensive observing and the compelling trade of data by expelling the apparent need to cover or conceal delicate data.

Hypothesis Two
H_{02}:   There is no significant relationship between human capital and cost leadership.

Table 6 shows the analysis for the association between human capital and cost leadership of DMBs in Rivers State, where =0.80, r=0.73 and p = 0.000. The findings show a very positive and significant association between both variables (where >0.3, r>0.7 and p < 0.05). Thus, based on the criteria for null hypothetical statement acceptance (<0.3, r<0.7 and p > 0.05); or rejection (>0.3, r>0.7 and p < 0.05), the null hypothesis is rejected and restate that there is a positive significant relationship between human capital and cost leadership of DMBs in Nigeria. Therefore, H_{02} was not supported. This means that surge in human capital is associated with increase in cost leadership. This finding agrees with Intan-Soraya and Chew (2010); Baer (2007); Romijn and Albaladejo (2002), that individuals/ organizations who are more open to new encounters and dangers have been appeared to contribute more to developing radical ideas which can influence the generation and implementation of such idea leading to incremental and radical cost leadership

Hypothesis Three
H_{03}:   There is no significant relationship between structural capital and cost leadership.

Table 6 illustrates the analysis for the association between structural capital and cost leadership of DMBs in Nigeria, where =0.25, r=0.72 and p = 0.000. The findings show a fair and significant association between both variables (where <0.3, r>0.7 and p < 0.05). Thus, based on the criteria for null hypothetical statement acceptance (<0.3, r<0.7 and p > 0.05); or rejection (>0.3, r>0.7 and p < 0.05), the null hypothesis is rejected and restate that there is a positive significant relationship between structural capital and cost leadership of DMBs in Nigeria. Therefore, H_{03} was not supported. This implies increase in structural capital is associated with increase in cost leadership. This finding agrees with Sofian, Rasid, Zaleha, Mehri and Muhammad (2011) who found that income and cost of value in a literature review that demonstrates that "enhancement and improvement in nature of data related to significance of profit through acknowledgment of structural capital leading to reduction of information asymmetry (information risk), and concurrently increases the investor's willingness to invest by eventually leading to reduction in cost of equity. Organizations seeking after a methodology of

cost initiative will profit more from the utilization of influence as far as the expanded managerial productivity which compares to be monitored by lenders. Porter (1985) proposed that cost initiative firms need to control costs firmly, avoid causing such a large number of costs from advancement or promoting and cut costs when selling their products/ services.

5.0   Conclusion
On the basis of its observations and the empirical evidence, this study observed that intellectual capital contributes significantly towards sustainable competitive advantage. The study affirms that dimensions such as relational, human and structural capital play significant and substantial roles in enabling cost leadership of deposit money banks in Rivers State, Nigeria.

5.1 Theoretical implications and Recommendations
The conclusions for this study reiterate the position of its adopted theoretical frameworks. The implications follow that the organizations market-base drive its potentials for sustaining competitive advantage. This aligns with the theoretical assertions and predictions of the market-based view. The evidence emphasizes on the adoption of orientations that seek out gaps and evident opportunities within the market, and through well-defined relational methods to initiate change.

Relational capital is necessary to sustain unwaveringness of clients and should be supported to mitigate negative threats and compete favourably with rivals; also, Deposit money banks should make effort to step up its standard of service so as not to suffer a negative perception in the psyches of customers, which may result in negating the gains from the cost leadership measure.

References
Adekunle, S. O., & Bontis, N. (2012). "Managing intellectual capital in Nigerian telecommunications companies". *Journal of Intellectual Capital*, 13(2), 262-282.

Akan, O., Allen, R. S., Helms, M. M., & Samuel, A. S. (2006). Critical tactics for implementing porter's generic strategies. *Journal of Business Strategy, 27*(1), 46-53.

Aliyu, A. A. & Tasmin, R. B. H. (2012). The impact of information and communication technology on Banks' Performance and Customer Service Delivery in the Banking Industry. *International Journal of Latest Trends in Finance and Economic Sciences*, 2(1), 80-90.

Apiti, C. U., Ugwoke, R. O., & Chiekezie, N. R. (2017). Intellectual capital management and organizational performance in selected food and beverages companies in Nigeria. *International Journal of Advanced Scientific Research and Management*, 2(1), 47-58.

Baer, M. (2007). "*Innovation in organizations: the generation and implementation of radical ideas*", unpublished, University of Illinois, Urbana-Champaign, IL.

Bain, J. (1968). *Industrial Organization,* John Wiley and Sons, New York.

Bontis, N., Crossan, M., & Hulland, J. (2002). Managing an organizational learning system by aligning stocks and flows. *Journal of Management Studies, 39(*4), 439–469.

Bradley, L., & Stewart, K. (2003). A Delphi study of Internet banking. *Marketing Intelligence & Planning*, 21(5), 272-281

Bukola, K. (2019). *Nigeria's Tier 1 Banks assets hit N24.6trn*. Accessed on 09th September, 2019 from https://naija247news.com/2019/04/16/nigerias-tier-1-banks-assets-hit-n24-6trn/.

Byrne, B. M. (2010). S*tructural Equation modeling with Amos*: Basic concepts, applications and programming. Ottawa, Ontairo, Canada: Taylor & Francis Group.

Capello, R., & Faggian, A. (2005). "Collective learning and relational capital in local innovation processes", *Regulation Studies*, 39(1), 75-87.

Caves, R. E., & Porter, M. E., (1977). 'From entry barriers to mobility barriers: conjectural decisions and contrived deterrence to new competition', *Quarterly Journal of Economics*, 91(2), 241–261.

Choo, C. W., & Bontis, N. (2002). *The Strategic Management of Intellectual Capital and Organizational Knowledge*. New York: Oxford University Press.

De Clercq, D., & Sapienza, H. J. (2006). Effects of relational capital and commitment on venture capitalists' perception of portfolio company performance. *Journal of Business Ventures*, 21(3), 326-47.

Doyle, M. (1994). 'Organizational transformation and renewal: A case for reframing management development', *Personnel Review*, 24(6), 6-18.

Economic Commission for Europe of the United Nations (UNECE), (2000)."Terminology on Statistical Metadata", Conference of European Statisticians Statistical Standards and Studies, No. 53, Geneva.

Fernstrom, M., Tonkonogi, M., & Sahlin, K. (2004). Effects of acute and chronic endurance exercise on mitochondrial uncoupling in human skeletal muscle. *Journal of Physiology*, 55(4):755–763.

Frambach, R. T., Prabhu, J., & Verhallen, T. (2003). The Influence of Business Strategy on New Product Activity: The Role of Market Orientation. *International Journal of Research in Marketing*, 20(4), 377-397.

Grant, R. M. (2005). *Contemporary Strategy Analysis* (5thed.). New York: Blackwell Publishing.

Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K. C., Taboada, A., & Davis, M. H. (2004). "Increasing Reading Comprehension and Engagement Through Concept-Oriented Reading Instruction", *Journal of Educational Psychology*, 96(4), 403- 423.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.

Hoskisson, R. E, Hitt, M. A, Wan, W. P., & Yiu, D. (1999). 'Theory and research in strategic management: swings of a pendulum', *Journal of Management,* 25(3), 417-456.

Hsu, D. H. (2006). 'Experienced entrepreneurial founders, organizational capital, and venture capital funding', *Research Policy*, 36(3), 722–741.

Huang, G., & Hsuen, S. (2007) "A study on the relationship between intellectual capital and business performance in the engineering consulting industry: a path analysis", *Journal of Civil Engineering and Management*, 13(4), 265-271.

Ireland, R., Hokisson, R., & Hitt, M. (2011). *The Management of Strategy* - International Edition (9th ed.). South-Western, Cengage Learning.

Isaac, R., Herremans, I., & Kline, T. (2010). Intellectual capital management enablers: A structural equation modeling analysis. *Journal of Business Ethics, 93*(3), 373–391.

Jaruwachirathanakul, B., & Fink, D. (2005). Internet banking adoption strategies for a developing country: the case of Thailand. *Internet Research*, 15(3), 295-311.

Johansson, J. M. (2002). Continuous GPS measurements of postglacial adjustment in Fennoscandia: 1. Geodetic results, *Journal of Geophysical Research*, 107(8):ETG 3-1–ETG 3-27.

John-Akamelu, R. C., & Iyidiobi, F. C. (2018). Intellectual capital and performance of Nigerian Banks. *International Journal of Innovative Finance and Economics Research,* 6(1), 60-74.

Lev, B. (2001). *Intangibles: Management, measurement, and reporting*. Washington, DC: Brooking Institution Press.

Li, W., He, A., Lan, H., & Yiu, D. (2006). Political connections and corporate diversification in emerging economies: Evidence from China. *Asia Pacific Journal of Management*, 2(1), 12-25.

Low, J. (2000). The value creation index. *Journal of Intellectual Capital*, *1*(3), 252–262.

Malhotra, P., & Singh, B. (2009). The Impact of Internet Banking on Bank Performance and Risk: The Indian Experience. *Eurasian Journal of Business and Economics*, 2(4), 43-62.

Marr, B. (2004). Management consulting practice on intellectual capital: Editorial and introduction to special issue. *Journal of Intellectual Capital*, 6(4):496-473.

Mavondo, F., & Farrel, M. (2003). Cultural Orientation: Its Relationship with Market orientation, Innovation and Organizational Performance, *Management Decision*, 41(3), 241-249.

McElroy, M. (2002). *The New Knowledge Management*, Butterworth-Heinemann, United States.

Mintzberg, H., Ahlstrand, B., & Lampel, J. (1998). *Strategy Safari: a guided tour through the wilds of Strategic Management*, Free Press, New York.

Montgomery, C. A., & Porter, M. E. (2009). *Strategy: Seeking and Securing Competitive Advantage*. The Harvard Business Review, Boston, M. A.

Ogujiuba, K. (2013). The Impact of Human Capital Formation on Economic Growth in Nigeria. *Journal of Economics*, 4(2), 121-132.

O'Shannassy, T. (2006). Sustainable competitive advantage or temporary competitive advantage. Improving understanding of an important strategy construct. *Emerald Journal of strategy and management*, 1(2), 168-180.

Omari, H., & Bataineh, T. (2012). The Impact of e-Banking on Achieving Competitive Advantage for Banks in Jordan. *Interdisciplinary Journal of Contemporary Research in Business*, 4(7) 271-285.

Onyekwelu, U. L. & Ubesie, M. C. (2016). Effect of intellectual Capital on Corporate Valuation of quoted pharmaceutical firms in Nigeria. *International Journal of Business and Management Review*, 4(7), 50-59.

Peteraf, M. A., & Bergen, M. E. (2003). 'Scanning dynamic competitive landscapes: a market-based and resource-based framework', *Strategic Management Journal*, 24(10), 1027-1041.

Petrash, G. (2001). "*Gestión de los activos intelectuales*", en Sullivan, P.H. (eds.), Rentabilizar el capital intelectual. Técnicas para optimizar el valor de la organización, Barcelona, Paidós empresa.

Pike, S., Rylander, A. & Roos, G. (2002). "*Intellectual capital management and disclosure" in The strategic manage-ment of intellectual capital and organizational knowledge*, Choo, C.W. and Bontis, N. (Eds.), Oxford University Press, Inc., New York, pp657-671.

Polasik, M., & Wisniewski, T. P. (2009). Empirical analysis of internet banking adoption in Poland. *International Journal of Bank Marketing*, 27(1), 32-52.

Porter, M. E. (1996). 'What is Strategy?' *Harvard Business Review*, 74(6), 61-78.

Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, New York.

Porter, M. E. (1980). *Competitive Strategy: Techniques for Analysing Industries and Competitors*, Free Press, New York.

Prahalad, C. K., & Ramaswamy, V. (2000). "Co-opting customer competence", *Harvard Business Review,* 78(1), 79-87.

Roberts, C. (2003). Uniqueness in definite noun phrases. *Linguistics and Philosophy*, 26(3):287–350.

Rodríguez-Castellanos, A., García-Merino, J. D., & García-Zambrano, L. (2010). "*Conocimiento organizacional, recursos intangibles y resultados empresariales*". In Maximsev, I. A., Krasnoproshin, V. V. and Prado-Román, C. (Eds.): Global Financial & Business Networks and Information Management Systems. Madrid: European Academic Publishers, pp. 23-42 (CD format).

Romijn, H., & Albaladejo, M. (2002). "Determinants of innovation capability in small electronics and software firms in southeast England", *Research Policy*, 31(7), 1053-1067.

Roos, J., Roos, G., Dragonetti, N., & Edvinsson, L. (1997). *Intellectual capital: Navigating the new business landscape*. London: Mac Millan Press.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students*. Pearson, New York.

Schendel, D. (1994). 'Competitive organizational behavior: toward an organizationally: based theory of competitive advantages', *Strategic Management Journal*, 15(1), 1-5.

Sharabati, A., Jawad, S., & Bontis, N. (2010). Intellectual capital and business performance in the pharmaceutical sector of Jordan. *Management Decision*, *48*(1), 105–131.

Shih, K., Chang, C., & Lin, B. (2010). Assessing knowledge creation and intellectual capital in banking industry. *Journal of Intellectual Capital, 11*(1), 74–89.

Sofian, S., Rasid, S., Zaleha, A., Mehri, M., & Muhammad, A. (2011). "A Moderating Effect of Intellectual Capital on Relevance of Earnings and Cost of Equity Relationship: Review of Contemporary Literature", *Australian Journal of Basic & Applied Sciences*, 5(9), 1633-1639.

Stewart, T. (1997). *Intellectual capital: The new wealth of organization*. New York: Doubleday Dell Publishing Group.

Taghizadeh, H., & Zeinalzadeh, A. (2012). Investigating the Role of Knowledge Management and Creativity on Organizational Intellectual Capital. *European Journal of Scientific Research*, 67(4), 532-542.

Van Buren, M. E. (1998). *A Yardstick for Knowledge Management, Training & Development*, 53 (5), May.

Wang, W.-Y., & Chang, C. (2005). Intellectual capital and performance in casual models: Evidence from the information technology industry in Taiwan. *Journal of Intellectual Capital*, 6(2), 222–236.

Vinayan, G., Jayashree, S., & Marthandan, G. (2012). Critical Success Factors of Sustainable Competitive Advantage: A study in Malaysian Manufacturing Industries. *International Journal of Business and Management*, 7(22), 29-45.