

Strategic Innovation and Firm's Survival of Deposit Money Banks in South-South, Nigeria.

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ABSTRACT

The study assessed the relationship between strategic innovativeness and firm's survival (measured by competitiveness and adaptability) of deposit money banks in South-South, Nigeria. The study adopted a cross-sectional survey, with positivism as the philosophical underpinning. The study population consists of all the branches of the systemically important Banks in Rivers, Bayelsa, Akwa Ibom and Delta States. The elements of the accessible populations comprise of 520 middle management staff of the Banks. The Krejcie and Morgan's sample size determination formula was utilised to determine the sample size of 221, which was adjusted by 20% to provide for attritions, non-responses and outliers. The sample was proportionally allocated to the banks, using the Bowley's formula, and the stratified random sampling was adopted with the aid of random numbers. Construct validity was assessed by estimating the convergence validity and discriminant validity. The Statistical Package for Social Science was deployed for descriptive statistics, while inferential Statistics involved the use of Structural Equation Modeling, by means of AMOS software, to test the hypotheses at 0.05 level of significance. The study further validates the resource-based view and the survival-based theory and concludes that strategic innovation boosts the measures of firm's survival. Thus, it is recommended that Management of deposit money banks should enhance strategic innovation by encouraging staff to understand the trends of external knowledge, developing channels to new knowledge, collecting external information from customers, suppliers, community or government, and creating effective ways of responding to

customers' complaint, while institutionalise appropriate policies to respond to competitors.

Keywords: Strategic Innovation; Firm's Survival; Competitiveness; Adaptability; Deposit Money Banks.

INTRODUCTION

Over the past decade, deposit money banks have continued to play pivotal roles in the Nigerian economy. Banks have continued to bridge the financing gaps for many business and have acted as the backbone for entrepreneurial development. However, deposit money banks have been bedeviled by several challenges including insecurity, inadequate social infrastructure, multiple taxation by the government, fraudulent activities by the bank staff, as well as inability to survive. Recently, some deposit money banks in Nigeria were not able to survive, and have been acquired by other banks. For example, Diamond bank was acquired by Access bank, while Union bank has just been acquired by Titan Trust Bank. Indeed, the importance of firm's survival, among banks, cannot be overemphasised. Moreso, firm's survival leads to higher growth rates in terms of sales and revenues, better or stable returns on investment, higher or sustainable market share, higher or consistent market access, and control of distribution as compared to homogenous competitive firms. Firm's survival has been measured using several financial indicators that include return on sales, return on assets, turnover (Sánchez-Gutiérrez, Cabanelas, Lampón, & González-Alvarado, 2019; Jibir & Abdu, 2021). Other studies have adopted the use of profit and market share as proxies to measure firm survival (Androniceanu, Kinnunen, Georgescu, & Androniceanu, 2020; Nzewi, Osisioma, Mgbemena

& Onwuzuligbo, 2016). Nevertheless, existing studies of firm survival have suggested that a whole host of factors may influence the extent to which businesses can continue as going concerns, with the most prominent underlying influences concern human capital (Gimmon & Levie, 2010; Rauch & Rijdsdijk, 2013), growth (North, Leigh, & Smallbone, 1992), as well as external environmental factors relating to the spatial location of the firms and the industrial structure within which firms operate (Renski, 2011; Pe'er, Vertinsky & Keil, 2016). Most studies have analysed firm's survival within or across nations and regions, and have generally indicated that the role of entrepreneurial capacity and orientation alongside locational and environmental factors play a stronger or weaker role on survival rates, contingent upon the types of firms considered and the contextual parameters employed by the researchers (Fritsch, Brixy & Falck, 2006; Helmers & Rogers, 2008). In this study the adapted measures of firm's survival are: competitiveness and adaptability (Mellat-Parast, & Spillan, 2014). According to Porter (1996), a firm can compete effectively if it generates a specific and durable differentiating factor and innovation is one of the key ways through which firms can create the differentiating factor; while Schumpeter and Nichol (1934) define innovation as "the introduction of a product which is new to consumers or one of higher quality than existing products, new methods of production, the opening of new markets, the use of new sources of supply and new forms of competition, that lead to the restructuring of an industry". At the other end of the spectrum, some scholars observed that innovation is an expensive exercise that would require sufficient capital and might affect the survivability of the firm (Ugur & Vivarelli, 2021; Hall & Williams, 2019; Radwan & Pellegrini, 2010). Accordingly, strategic innovation represents a very important factor that companies should have within their business, and which should have a significant impact on improving the competitiveness of companies. Furthermore, the traditional banks in Nigeria have not shown capacity to adapt and compete favourably with the fast growing financial technology (FinTech) companies in Nigeria. Banking in Nigeria remains an attractive sector, with over \$9 billion (Kola-Oyeneyin, Kuyoro & Olanrewaju, 2020) in value pools, but despite high levels of competition, the vast majority of consumers are underserved. Lack of access to services, especially in rural areas, issues of affordability, and poor user experience all contribute to the frustration consumers experience

right across the customer spectrum. This has created an opening that Fintechs have been quick to take advantage of, with many stepping up to develop enhanced propositions across the value chain to address pain points in affordable payments, quick loans, and flexible savings and investments, among others. Despite the preponderance of scholarly works on firm's survival, studies and have considered resolving the problem of inadequate firm's survival from the perspective of strategic innovation, are scant. Therefore, this study seeks to bridge the gap by critically assessing strategic innovation and how it affects firm's survival of deposit money banks in South-outh, Nigeria.

1.1 Objectives and hypotheses

The aim of this study is to examine the relationship between strategic innovation and firm's survival of deposit money banks in South South, Nigeria.

The specific objectives of the study are to:

- i. Assess the relationship between strategic innovation and competitiveness.
- ii. Examine the nexus between strategic innovation and adaptability.

The following research questions directed the investigation:

- i. What is the association between strategic innovation and competitiveness?
- ii. What is the link between strategic innovation and adaptability?

Accordingly, the following null hypotheses were formulated:

H₀₁: There is no significant relationship between strategic innovation and competitiveness.

H₀₂: There is no significant relationship between strategic innovation and adaptability.

LITERATURE REVIEW

1.1 Theoretical framework: The theoretical underpinnings for this study are the Survival Based Theory (Tengku, 2010) and the Resource Based View (Barney, 1991). The survival-based theory suggests that for a firm to survive, strategies need to be deployed to focused on managing and operating the firm efficiently, such that the firm can respond to changes in the competitive environment, based on the fact that it is only firms that survive the turbulent environment will be regarded as the fittest and the best to adapt and adjust to the ever demanding environment (Tengku, 2010). The survival based theory can be said to belong to the typology of emergent theories of strategic management. As emphasized in survival based theory, adapting to the ever changing business

environment to become efficient and effective is what is required to survive as a firm. According to Omolaja and Eruola (2011), the survival based theory centres on the concept that organizations need to continuously adapt to its competitive environment in order to survive. The relevance of the survival-based theory to this study is that it explains how Banks can adapt to the ever-changing environment, be competitive and ensure customer satisfaction, provides a useful insight on how to ensure firm's survival. Conversely, the resource based-view aims to provide specific features that can attract certain advantage to the organisation (Almarri & Gardiner, 2014). Furthermore, Ramon-Jeronimo, Florez-Lopez and Araujo-Pinzon (2019) postulated that the resource based-view explores capability and capacity building by organisation to improve and maximize performance. The resource based-view is relevant to this study as it identifies specific innovation procedures that puts the firm ahead of the competitors in the industry to bring about customer satisfaction, competitiveness and adaptability (Onuoha, 2015).

1.2 Conceptual framework: Strategic innovation was adopted from Chuang et al. (2010), as a single construct, while the measures of firm's survival-competitiveness and adaptability were adopted from Mellat-Parast and Spillan (2014) and Smikle (2009), respectively.

2.2.1 Strategic Innovation: Strategic innovation relates to how the organisation market its product(s) to the customer to gain recognition, increase market share or even, dominate the market by increasing the market share. According to Atalay et al. (2013), strategic innovation is the implementation of a new method involving significant changes in product design or packaging, product placement, product promotion or pricing. Atalay et al. (2013) further to asserted that strategic innovations are aimed at better addressing organisational needs, opening up new markets, or newly positioning a firm's product on the market, with the objective of increasing the firm's sale.

2.2.2 Firm's Survival: Firm's survival is the "conscious destruction" of strategies that have not served the firm's ability to withstand competition both within its immediate market and the global market environment (Tang, Park, Agarwal & Liu, 2020). Firm's survival is the subtle adoption of better strategies which lead to the creation and development of new ideas which are consequential to meeting new demands (Tang, Park, Agarwal & Liu, 2020). Indeed, innovation may increase chances of the firm survival by contributing to the development of appropriate strategies.

2.2.3 Competitiveness: Competitiveness is both a relative concept (i.e. how one firm manages compared to another) and a multi-dimensional notion (i.e. the attributes or qualities of competitiveness). Competitiveness is usually related to market performance and productivity. Competition ensures change in the way things are done and raise quality bar to international standard as well as help to achieve appropriate pricing level (Adelaiye, Adubasim & Adim, 2020).

2.2.1 Adaptability: The ability of organizations to survive is the ability to adapt and to thrive amidst these changes which in most cases may not be favourable. Adaptability is an aspect of resilience that reflects, learning, flexibility to experiment and adopt novel solutions, and the development of generalized responses to broad classes of challenges. According to Adelaiye et al. (2020) adaptability is the ability or inclination of individuals or group to maintain an experimental attitude towards new situations as they occur and to act in terms of changing circumstances.

1.3 EMPIRICAL REVIEW: The connection between strategic innovation and the measures of firm's survival has been assessed by few scholars. For example, For instance, Ayepa, Boohene and Mensah (2019) studied effects of innovativeness and firm resources on the growth of small enterprises in the Ga south municipality in Ghana. Adopting a cross sectional survey, questionnaire was used for data collection and Krejcie and Morgan's sample determining table was used. After the administration of the questionnaire, about fifty five percent of those administered were retrieved. The study adopted the simple random sampling method and standard multiple and hierarchical multiple regression were the statistical tools used in testing the hypotheses. The study revealed that innovativeness has high relationship with firm resources. That is, firms that do not have the right resources in terms of human and material resources cannot actually innovate. As such, innovation requires much human and material resource to come into existence and even become acceptable. Furthermore, Cefis and Marsili (2004) assessed innovation and survival: A matter of life and death. The study obtained data from the Central Bureau of Statistics Netherlands (CBS) concerning the Second Community Innovation Survey (CIS-2) in the Netherlands. Adopting the cross-sectional survey research design, models were formulated for the analyses of the research hypotheses. A sample of 3,299 firms were assessed, however, only 3,275 firms duly responded. The study found that process

innovation is the innovative characteristic that distinguishes firms with respect to their likelihood to survive. Similarly, it was found that there is a distinctive difference between product and process innovators. In essence, firms that can implement process innovation do benefit of higher survival likelihood.

RESEARCH METHODS:

The study adopted a cross-sectional survey research design, with positivism as the philosophical underpinning. The accessible population for this study, consists of all the branches of the systemically important Banks in Rivers, Bayelsa, Akwa Ibom and Delta States. The elements of the accessible populations comprise of 520 middle management staff of the systemically important Banks, consisting of branch managers, operations managers, internal control unit heads, commercial banking unit heads and retail banking unit heads. The Krejcie and Morgan's (1970) sample size determination formula was utilised to determine the sample size of 221, which was adjusted by 20% to provide for attritions, non-responses and outliers. Accordingly, the adjusted sample size of 265 respondents was proportionally allocated to the banks, using the Bowley's (1926) formula, and the stratified random sampling was

adopted with the aid of random numbers. Primary data was sourced using questionnaire. Construct validity was assessed by estimating the convergence validity and discriminant validity, based on the criteria of: standardised estimates ≥ 0.7 (Brown, 2010), Average Variance Extracted (AVE) ≥ 0.5 and the square root of the average variance extracted must be greater than its correlations with all other constructs (Fornell & Larcker, 1981), respectively. The Statistical Package for Social Science (SPSS version 25.0) was deployed for descriptive statistics, while inferential Statistics involved the use of Structural Equation Modeling (SEM), by means of Analysis and Moments of Structures (AMOS version 24.0), to test the hypotheses at 0.05 level of significance. The SEM demands for a priori specification of parameter, thus suitable for inferential statistics. Also, SEM provides explicit estimates for error variance parameters and the primary aim of SEM is to ascertain if the hypothesized model will fit the sample data. 214 copies of the instrument, representing 80.8% were retrieved and found to be completed and usable.

4.1. Demographic Analyses

In this section, the output of the demographic analysis were presented. The responses were computed using frequencies, percentages and charts.

Table 4.1. Gender Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	92	43.0	43.0	43.0
	Female	122	57.0	57.0	100.0
	Total	214	100.0	100.0	

The result shows that where the frequency for the male, n = 92 (43%), the frequency for the female, n = 122 (57%). The results suggest a highly female dominant organization and possibly the Banking industry as well. The implications could follow several assumptions given the significance

of the disparity in the gender distribution. One could pin-point such disparity to possible need for aggressive marketing staff, wherein females are afforded better opportunities rather than their male counterparts.

Table 4.2 Marital Status Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	131	61.2	61.2	61.2
	Single	70	32.7	32.7	93.9
	Separated	13	6.1	6.1	100.0
	Total	214	100.0	100.0	

The results on the distribution for the marital status of the respondents reveal that 131 respondents (61.2%) are married, 70 respondents (32.7%) are single and 13 respondents (6.1%) are separated. Our findings reveal that majority of the

respondents are married, followed by single and separated. This is not surprising, as the possible robust salary structures in the banking industry, suggest the reason why most of the respondents have chosen to get married.

Table 4.3 Age of Respondents Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25-35	77	36.0	36.0	36.0
	36-45	117	54.7	54.7	90.7
	46-55	20	9.3	9.3	100.0
	Total	214	100.0	100.0	

The result on the distribution for the age of the respondents demonstrates that a high proportion of the respondents are between the ages of 36-45(117 respondents) with a high percentage of 54.7%, while the next group with high proportion of the respondents are between the ages of 25-35(77 respondents), representing 36% of the respondents. Generally, the results suggest a stronger presence of workers within their 20s and

30s as being substantially dominant with regards to other age categories within the organisation. However, the age group for an older set (aged between 46 and 55) of respondents has a frequency of n =20. The evidence also indicates possible consistency or stability in the choice of recruitment age, and reflects possible policy on the working age in the Nigerian Banking industry.

Table 4.4 Number of years you have been a staff of the Bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-5	6	2.8	2.8	2.8
	6-10	84	39.3	39.3	42.1
	11-15	85	39.7	39.7	81.8
	16-20	39	18.2	18.2	100.0
	Total	214	100.0	100.0	

The result reveals that the highest figure is 85 respondents (39.7%) who have worked in a bank for between 11 and 15 years. This is followed by 84 respondents representing 39.3% who have used worked in a Bank 6 to 10 years. The next group is 39 respondents (18.2%) that have worked in a Bank for between 16 to 20 years. The lowest

score is 6 respondents representing 2.8% who have worked in a Bank for between 0 to 5 years. This implies that over two-third of the respondents have worked in a Bank between 6 to 15. Going by these figures, it means that most of the respondents have stayed long enough to have gained sufficient experiences to discuss the variables under study.

Table 4.5 Educational Qualification Distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B.Sc./HND	136	63.6	63.6	63.6
	Masters	78	36.4	36.4	100.0
	Total	214	100.0	100.0	

The analysis reveals that the majority of the respondents which are 136 representing 63.6% are B.Sc/HND. holders, while 78 representing 36.4% are M.Sc./MBA holders. This means that the majority of respondent have post secondary education and this reflect a deliberate effort by the managers of banks to hire mostly graduates. This

shows that the Banks need workers with sound intellectual background and to carry out Banking responsibilities. However, it is noted that non of the respondents, have doctorate degrees. This shows that doctorate degrees are less emphasised in the banking industry.

Table 4.6: Normality Statistics

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
Strategic Innovatio	214	34.17	4.092	-.624	.166	.968	.331
Competitiveness	214	34.23	3.847	-.560	.166	.999	.331
Adaptability	214	29.69	3.691	-.669	.166	.282	.331
Valid N (listwise)	214						

Source : Researcher’s data (2021)

Table 4.2 shows the mean, standard deviation, skewness and kurtosis values for each construct. This confirms that the dataset is approximately normally distributed. A distribution is highly skewed when the skewness value is < -1.0 or > 1.0 , moderate if the skewness value is within ± 0.5 and ± 1.0 (i.e between -1.0 & -0.5 , and 0.5 and 1.0), and fairly symmetrical if values are between -0.5 and 0.5 Bulmer (1979). All the items in the

dataset were found to be normally distributed with the skewness in each case in the range of ± 1.0 , with standard error of 0.166 , and kurtosis values in the range of ± 1.0 , with standard error of 0.331 . Furthermore, a review of the scatterplots of all the latent constructs, shows that there were indication of curvilinear relationships, thus the assumption of linearity was not violated.

		Levene			Sig.
		Statistic	df1	df2	
Strategic Innovatio	Based on Mean	5.590	2	211	.104
	Based on Median	5.247	2	211	.206
	Based on Median and with adjusted df	5.247	2	163.403	.106
	Based on trimmed mean	5.439	2	211	.085
Competitiveness	Based on Mean	8.967	2	211	.080
	Based on Median	9.613	2	211	.090
	Based on Median and with adjusted df	9.613	2	154.250	.070
	Based on trimmed mean	9.026	2	211	.400
Adaptability	Based on Mean	9.402	2	211	.530
	Based on Median	9.290	2	211	.650
	Based on Median and with adjusted df	9.290	2	149.380	.310
	Based on trimmed mean	9.257	2	211	.440

Source : Researcher’s data (2021)

The analysis confirms homogeneity of variance in the data. In this study, Levene’s test in SPSS 25.0 was used to determine the presence of homogeneity of variance in the dataset (see Tables 4.3) using Age of Respondents as a categorical

variable on the one-way ANOVA. The results of the ANOVA and Levene’s tests revealed that all of the latent variables were non-significant (i.e. $p > 0.05$). Therefore, the assumption of homogeneity of variance were not violated.

Table 4.8: Reliability Statistics

SN	CONSTRUCT	NO OF ITEMS	CRONBACH’S STATISTICS	ALPHA
1.	Strategic Innovation	6	0.822	
2.	Competitiveness	5	0.796	

3. Adaptability 5 0.819

Based on the cut-off point recommended by Nunnally and Bernstein (1994), the threshold of 0.7 was taken as the acceptable minimum Cronbach's Alpha value. These results suggest that the measurement instrument is reliable, as all scales exhibit reasonably high internal consistency above the recommended threshold of 0.70.

4.2 Measurement Model: The suggested goodness of fit indices provided in Hu and Bentler (1999), states that acceptable model fit is defined by the following criteria: RMSEA (≤ 0.6), SRMR (≤ 0.8), CFI (≥ 0.95), TLI (≥ 0.95), GFI (≥ 0.90), NFI (≥ 0.95)

PCLOSE (≥ 0.5) and AGFI (≥ 0.90) (Byrne, 2006). In the case of parameter estimates, standardised regression weight should be greater than 0.5 and preferably above 0.7 (Byrne, 2006). Where : RMSEA = Root Mean Squared Error of Approximation, CFI = Comparative Fit Index, TLI = Tucker-Lewis index, GFI = Goodness-of-Fit-Index, AGFI = Adjusted Goodness-of-Fit-Index, SRMR = Standardized Root Mean Residual and NFI = Normed Fit Index.

Table 4.9: Measurement Model Analysis of Strategic Innovation

Model	Chi-Square(df), χ^2/df Significance	NFI	TLI	CFI	RMSEA	Variable	Factor Loading Estimates	Error VAR
Strategic Innovation	(9df) =42.031 P=0.000	0.96	0.94	0.968	0.131	SRTI1	0.849	0.72
						SRTI2	0.856	0.73
						SRTI3	0.854	0.73
						SRTI4	0.915	0.84
						SRTI5	0.802	0.64
						SRTI6	0.755	0.57

Source: Amos 24.0 output on research data, 2021

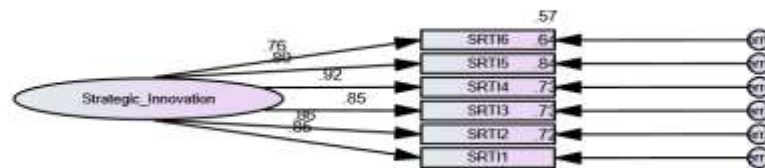


Figure 4.1: Measurement Model of Strategic Innovation

The results of the goodness of fit indices indicated acceptable fit to the data for one-factor model (chi-square (9df)=42.031, $\chi^2/df=4.670$, $p=0.000$, RMSEA=0.131, CFI=0.968, NFI=0.960 and TLI=0.947). Table 4.1.18 summarized the goodness of fit indices, the factor loading estimates and the error variances. Factor loading estimates revealed that the six indicators were strongly related

to latent factor -strategic innovation - and were statistically significant. The indicators STRI1-STR I6 had factor loadings of 0.849, 0.856, 0.854, 0.915, 0.802 and 0.755. All freely estimated standardized parameters were statistically significant. These parameters are consistent with the position that these are reliable indicators of the construct of strategic innovation.

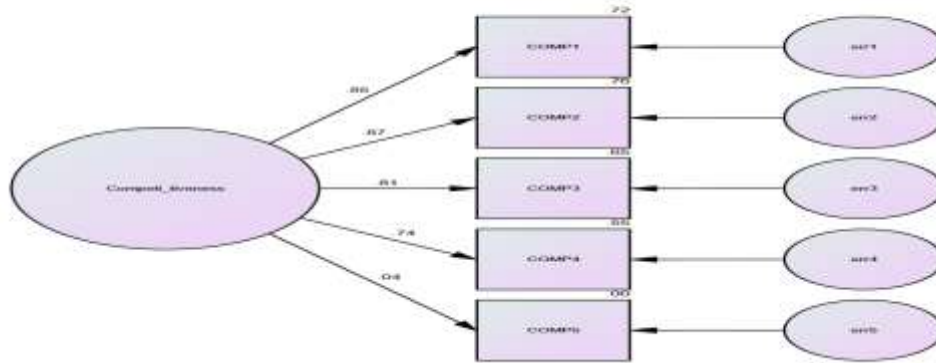


Figure 4.2: Measurement Model of Competitiveness.

Table 4.10: Measurement Model Analysis of Competitiveness

Model	Chi-Square(df), Significance	χ^2/df	NFI	TLI	CFI	RMSEA	Variable	Factor Loading Estimates	Error VAR
Competitiveness	(5df) =37.469 P=0.000	7.494	0.928	0.873	0.936	0.175	COMP1	0.847	0.72
							COMP2	0.872	0.76
							COMP3	0.806	0.65
							COMP4	0.745	0.55
							COMP5	0.038	0.038

Source: Amos 24.0 output on research data, 2021

The results of the goodness of fit indices indicated mediocre fit to the data for one-factor model (chi-square (5df)=37.469, $\chi^2/df=7.494$, $p=0.000$, RMSEA=0.175, CFI=0.936, NFI=0.928 and TLI=0.873). After addition of a covariance between the error terms for competitiveness, the result indicated improved fit of the first order measurement model (chi-square (5df)=65.624, RMSEA=0.230, CFI=0.96, NFI=0.98, TLI=0.97

and PCLOSE=0.58). Factor loading estimates revealed that the four indicators were related to latent factor -competitiveness- and were statistically significant. The indicators COMP1-COMP5 had factor loadings of 0.847, 0.872, 0.806 and 0.745. All freely estimated standardized parameters were statistically significant. These parameters are consistent with the position that these are reliable indicators of the construct of competitiveness.

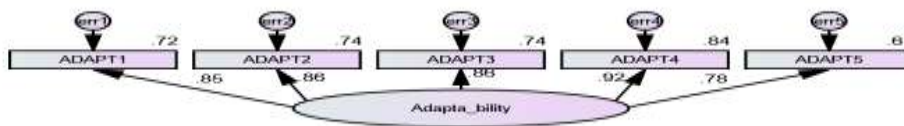


Figure 4.3: Measurement Model of Adaptability

Table 4.11: Measurement Model Analysis of Adaptability

Model	Chi-Square(df), Significance	χ^2/df	NFI	TLI	CFI	RMS EA	Variable	Factor Loading Estimates	Error Variance
Adaptability	(5df) =7.004 P=0.000	1.401	0.992	0.995	0.998	0.043	Adapt1	0.846	0.72
							Adapt2	0.863	0.74
							Adapt3	0.862	0.74
							Adapt4	0.919	0.84
							Adapt5	0.780	0.61

Source: Amos 24.0 output on research data, 2021

The model was overidentified with five degrees of freedom. Guided by suggestions provided in (1) Hu and Bentler (1999), acceptable model fit was defined by the following criteria: RMSEA (≤ 0.6), CFI (≥ 0.95), TLI (≥ 0.95), PCLOSE ≥ 0.5 , and NFI ≥ 0.95 ; (2) Hair (2006) who suggested the following indices to indicate acceptable fit: GFI > 0.90 ; NFI > 0.90 ; PNFI > 0.60 ; RMSR < 0.10 ; CFI > 0.90 ; AGFI > 0.80 ; RMSEA < 0.08 . Multiple indices were used because they provide different information about model fit (i.e. absolute fit, parsimony correction and comparative fit).

These indices provide a more reliable and conservative evaluation of solution; when used together. Table 4.1.23 summarized the goodness of fit indices, the factor loading estimates and the error variances. The results of the goodness of fit indices indicated reliable fit to the data for one-factor model (chi-square (5df)=7.004, $\chi^2/df=1.401$, $p=0.000$, RMSEA=0.043, CFI=0.998, NFI=0.992 and TLI=0.995). Factor loading estimates revealed that the five indicators were related to latent factor -adaptability - and were statistically significant. The indicators Adapt1-Adapt5 had factor loadings

of 0.846, 0.863, 0.862, 0.919, 0.780 respectively. All freely estimated standardized parameters were statistically significant. These parameters are

consistent with the position that these are reliable indicators of the construct of adaptability.

Table 4.12 Average Variance Extracted (AVE)

Sub-construct	Indicators	Estimates	Squared Estimates	AVE	Square Root of AVE
STRATEGIC INNOVATION	SRT1	0.849	0.721	0.706	0.840
	SRT2	0.856	0.733		
	SRT3	0.854	0.729		
	SRT4	0.915	0.837		
	SRT5	0.802	0.643		
	SRT6	0.755	0.570		
Sum	6		4.233		
COMPETITIVENESS	COMP1	.847	0.717	0.671	0.819
	COMP2	.872	0.760		
	COMP3	.806	0.650		
	COMP4	.745	0.555		
	COMP5	.Deleted			
Sum	4		2.682		
ADAPTABILITY	ADAPT1	.846	0.716	0.731	0.855
	ADAPT2	.863	0.745		
	ADAPT3	.862	0.743		
	ADAPT4	.919	0.845		
	ADAPT5	.780	0.608		
Sum	5		3.656		

Table 4.13: Correlations and Average Variance Extracted.

Variable	PDSI	PRI	SR TI	IOI	CUS AT	COM P	ADAP T	ORC	AVE	Sq. Root of AVE
SRTI	.191	.650	1.0	.426	.578	.773	.459	.358	0.731	0.840
COMP	.198	.650	.35	.396	.674	1.0	.323	.350	0.671	0.819
ADAPT	.153	.410	.45	.459	.670	.323	1.0	.323	0.731	0.855

Correlation is significant at the 0.05 level (2-tailed)

Source: SPSS 25.0 and Amos 24.0 output on research data, 2021

Note: SRTI = strategic innovation, COMP= competitiveness, ADAPT= adaptability, AVE= average variance extracted, Sq. Root of AVE= square root of average variance extracted.

4.3 Construct: Convergent Validity: In consonance with the prescription by Fornell and Larcker (1981), the results in table 4.8 show that all variables have average variance extracted (AVE) values exceeding the 0.50 threshold. The lowest AVE is 0.671 generated by competitiveness latent variable, while the highest AVE is 0.731 generated

by both strategic innovation and adaptability. Also, the degrees of freedom are greater than zero, meaning that all the models are over-identified. Therefore, we infer that the model has evidence of convergent validity.

4.4 Construct: Discriminant Validity: The adopted Fornell and Larcker's (1981) criterion for discriminant validity states that "the square root of AVE of each construct must be greater than its correlations with other constructs". The results in table 4.8 reveals that all the square roots of the average variance extracted are greater than the construct correlations. Thus, discriminant validity is evident in the theorised model.

4.5 Structural Model

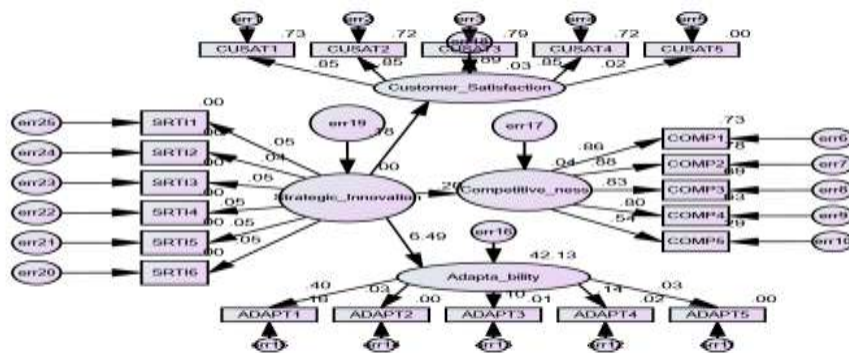
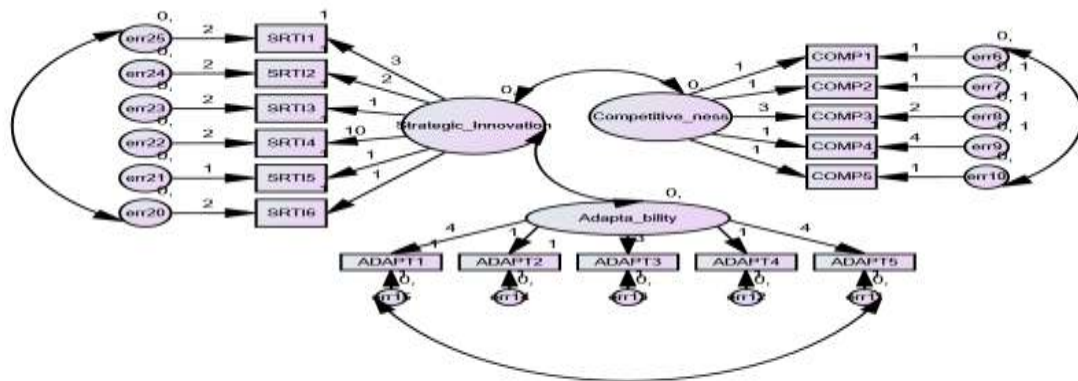


Figure 4.4 Structural model (linking the hypotheses)

This model, adopted the multiple-indicator measurement approach, using the reflective indicators, reflective measurement model and reflective structural model.

Table 4.14: Test of Hypothesis

S/N	Mediation Stage	Hypothesis	Standardised Estimate (Beta value)	Critical Ratio (C.R) the t-value	P-value < 0.05	Remark	Decision
1	STRI → Comp (Hypothesis 1)	There is no significant relationship between Strategic Innovation and Competitiveness.	0.803	2.22	0.001	Positive and Significant	Not supported
2	STRI → Adapt (Hypothesis 2)	There is no significant relationship between Strategic Innovation and Adaptability.	0.890	2.45	0.000	Positive and Significant	Not supported

4.6 Interpretation of Results (Inferential Analysis): The first hypothesis (H₀:1), states that there is no significant relationship between strategic innovation and competitiveness. However, table 4.8 also suggests that strategic innovation has a positive and significant relationship with competitiveness of deposit money banks in South-South Nigeria ($\beta=0.803$, $t=2.22$, $p=0.001$). Thus, H₀:1 was not supported. This means that the strategic innovation ability of deposit money banks in South-South Nigeria, will lead to competitiveness. Statistically, it shows that when strategic innovation goes up by 1 standard deviation, competitiveness goes up by 0.803 standard deviation. In other words, when competitiveness goes up by 1, strategic innovation goes up by 2.22. The regression weight for strategic innovation in the prediction of competitiveness is significantly different from zero at the 0.05 level of significance (two-tailed). The second hypothesis (H₀:2), states that there is no significant relationship between strategic innovation and adaptability. However, table 4.8 also suggests that strategic innovation has a positive and significant relationship with adaptability of deposit money banks in South-South Nigeria ($\beta=0.890$, $t=2.45$, $p=0.000$). Therefore, H₀:2 was not supported. This means that strategic innovation is a good predictor

of adaptability of deposit money banks in South-South Nigeria. Statistically, it shows that when strategic innovation goes up by 1 standard deviation, adaptability goes up by 0.890 standard deviation. In other words, when adaptability goes up by 1, strategic innovation goes up by 2.45. The regression weight for outcome focus in the prediction of customer retention is significantly different from zero at the 0.05 level of significance (two-tailed). The results from these relationships indicate that strategic innovation is a significant predictor and antecedent of firms's survival of deposit money banks in South-South Nigeria. Thus the two null hypothetical statements of no significant relationships between strategic innovation and the measures of firm's survival are rejected based on the lack of statistical evidence to show otherwise. Therefore, the alternate hypotheses are hereby accepted. In this vein, the study finds as follows: (i) Strategic innovation ensures that boosts competitiveness of deposit money banks in the South-south of Nigeria. (ii) Strategic innovation will lead to adaptability of deposit money banks in the South-South of Nigeria.

4.7 Discussion of Findings: In view of previous findings, theoretical underpinnings and the

interpretation of the findings of this study, this section contains the discussion of the findings:

4.7.1 Relationship between Strategic Innovation and Competitiveness: The first specific objective was to determine the relationship between strategic innovation and competitiveness and was captured by a research question and expressed under H0:1. This hypothesis stated there is no significant relationship between strategic innovation and competitiveness. The outcome of the data analysis did not support the hypothesis. The result shows that there is a strong and significant relationship between strategic innovation and competitiveness of deposit money banks in South South, Nigeria. This implies increase in strategic innovation is associated with increase in competitiveness. This finding agrees with Ayepa, Boohene and Mensah (2019) who found that innovativeness has high relationship with firm resources and that firms that do not the right resources in terms of human and material resources cannot actually innovate, while innovation requires much human and material resource to come into existence and even become acceptable. Also, this finding is in consonance with the resource based view which postulates that any organisation that intends to have an upper hand over its competitors should have a particular resource that must not be easily accessible by competitors as per being rare and cannot be replicated but upon it all, it must be valuable (Olanipekun, Abioro, Akanni, Arulogun & Rabi, 2015).

4.7.1 Relationship between Strategic Innovation and Adaptability: The second specific objective was to ascertain the relationship between strategic innovation and adaptability and was captured by a research question and expressed under H0:2. This hypothesis stated that there is no significant relationship between strategic innovation and adaptability. The outcome of the data analysis did not support the hypothesis. The result shows that there is a positive and significant relationship between strategic innovation and adaptability of deposit money banks in South South, Nigeria. This implies increase in strategic innovation is associated with increase in adaptability. This finding agrees with Cefis and Marsili (2004) who found that strategic innovation has higher innovative capabilities that enable a firm to adapt to more radical changes. Also, the finding is consistent with the survival-based theory which centres on the concept that organizations need to continuously adapt to its competitive environment in order to survive (Omolaja & Eruola, 2011).

4.8 Conclusion and Recommendations: The study indicates that strategic innovation, boosts the competitiveness and adaptability of deposit money banks in the South-South of Nigeria. Furthermore, the conclusion further validates the theoretical assertions of the resource-based view and the survival-based theory. Therefore, it is recommended that Management of deposit money banks should enhance strategic innovation by encouraging staff to demonstrate and understand the contents and trends of external knowledge, developing channels to new knowledge, collecting external information from customers, suppliers, community or government, and creating effective ways of responding to customers' complaint and institutionalise appropriate policies to respond to competitors.

4.9 Contributions to knowledge: The study contributes through its specific focus on the banking industry and as such, the findings can serve to enrich decision making and drive knowledge utility with regards to strategic innovation of banks in the South-south of Nigeria.

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