Financial Service Pricing and Profitability of Commercial Banks in Nigeria

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Abstract: *This study analyzed the effect of financial service pricing on the profitability of reporting Commercial banks in Nigeria using time series data from 1990-2017. The objective is to bridge the knowledge gap on the relationship between financial service pricing and profitability of financial institutions in Nigeria. Time series data was collected from Central Bank of Nigerian statistical Bulletin, financial stability reports and stock exchange factbook. Return on assets was proxy for dependent variable while prime lending rate, maximum lending rate, short term savings rate and long term savings rate was proxy for financial service pricing. Multiple regressions with econometrics view were used as data analysis techniques. The study found that prime lending rate, maximum landing rate and short term lending rate have positive and significant impact while long term lending rate have negative impact on return on assets of the reporting commercial banks in Nigeria. From the regression summary, we conclude that financial service pricing have significant impact on the profitability of Nigerian Commercial Banks. We recommend a penetrative pricing strategy to achieve profitability of the banking industry in Nigeria.*

Keywords: *Financial Service Pricing, Profitability of Commercial Banks Prime lending rate, maximum lending rate, short term savings rate and long term savings rate.*

INTRODUCTION

The most important objective in any business organization is to identify and satisfy customers and therefore, marketing is central in any business firm. Marketing in any organization is to identify the most profitable marketing services now and in the future and assessing the present and future needs of customers. It involves setting business goals; making plans to meet them and managing services in such a way that those plans are achieved (Nwite, 2011). Price is one of the marketing's 4Ps and plays an important role in marketing activities of any company. The price affects the customers from logical and psychological aspects and play important role in purchasing decision of the customers (Osuagwu,2004). Customers demand affordable price for high quality bank products and services. The way of drawing customers' attention to the products and services of the financial sector is to implement qualified and modified pricing strategy. Increased price may create a high-quality effect on customers' minds and indicates a higher state of owners of the products (McDonald, 2004). On the other hand the increased price levels decrease the loyalty of customers and clients due to decreased affordability.

The concept of pricing has not been such important in marketing strategy concept of finance service companies as it is for companies in other sectors. The competition has never been such deep in retail financial services. The competition through the price has become more tangible and significant part of marketing strategy of retail financial services, because the competition's itself has become intensified (Llewellyn and Drake, 1995). Estelami (2013) has expressed in his book that the key characteristics of financial market products apply pressure on financial service marketers. Prices mean the value of a commodity or service expressed in monetary terms. Price in banks includes: interest charges on loans and advances, interest paid on deposits, commission and fees charge as well in bank services. It is believed that banks fees and charges should not be exploitative but should reflect the true value of the service. Price as one of the marketing mix in banks is a major marketing strategy, because it has major impact on profit (Zethaml and Bittner, 2000).

A bank's ability to acquire funds at lower prices, interest rates, and loan them at the highest possible margins between asset and liability interest rates determines the profitability of banking operations. In addition to this, determining the price is also limited by certain external factors, such as the rate of statutory reserves, inflation, levels of development of the banking market, with the resulting degree of competition, and the risks immanent to banking operations. Pricing policy and regulatory conditions Regulation means new demands being placed on pricing policy at different levels; it can include, rules concerning calculation methods, permissibility of certain price components, the level or the depiction of prices. Marketing of banking services in any country lies on the hand of systematic and professional approach towards satisfying customer needs (Ojha 1997 in Uppal, 2010). The banking industry in Nigeria depends on the growth of interest rate that come from the services banks provide to maximize profit.

The difference between this interest rate, that is, the deposit interest, and that on loan which is the services bank provide becomes the interest rate margin. The bank thus, relies on the magnitude of this gap to make their profit. The application of marketing strategy cuts across all business ventures, financial institutions like commercial banks inclusive. Banks are profit-oriented service rendering organizations with customers/consumers to satisfying their needs. These needs come in various forms like accepting deposits, giving credits, money transfers. Profitability of Nigerian commercial banks expresses the gains made by banks from their operations, services or products. Profit is the essential prerequisite of a competitive banking institution and cheapest source of fund. The implication of the above exposition is that there are salient factors that influence the level of marketing of banking services and its impact on bank profitability which is has not been captured in studies on factors that determine commercial banks profit in Nigeria. Therefore this study examined the effect of financial service pricing on performance of commercial banks in Nigeria.

LITERATURE REVIEW
Pricing of Banking Services

Pricing a financial service is both an art and a science. The art of pricing is in choosing a combination of fees and charges acceptable to customers, that are fair and transparent, and in determining if the product has any unique attributes that deserve premium pricing. The art of

pricing is in careful and considered communication to and feedback from customers and staff to ensure that pricing messages are appropriately and correctly delivered (Lucky, 2018). Pricing in financial services includes the interest rate, loan fees, and prepayment penalties, prompt payment incentives and for savings products ledger and withdrawal fees as well as interest paid to the account holder (Cracknel and Messan, 2006).

Pricing Credit Products

Credit products facilitate the lending of funds to a customer as these would include credit cards, home equity lines of credit, home equity loans, automobile loans, home mortgages, and other forms of financing within both consumer and business settings. Credit products have two fundamental characteristics. The first relates to whether the lending activity is collateralized or not. Collateralized lending occurs when an asset possessed by the borrower is used as collateral, such that it could be repossessed by the lender in case of default. Collateralized credit therefore presents the lender with relatively low risk in giving out credit. For example, the collateral used for a home mortgage is typically the property itself. Therefore, if the homeowner fails to make the regular mortgage payments, the mortgage company may have the right to gain possession of the collateral (the house) and to place the property on the market in order to recover its own investment. This lowers the risk for the lender because it not only motivates the customer to ensure timely payment of the mortgage bills (or risk losing the house), but the collateral also serves as a safety blanket for recovering the funds loaned to the customer. On the other hand, non-collateralized credit such as credit card debt is not associated with any specific asset that could be repossessed, and therefore represents a higher level of risk to the lender. If a customer decides not to pay his credit card balance, the credit card company typically has no assets to rely on as a means for recovering its funds and must rely on the functions of a collection agency to recover its funds. Therefore, when it comes to the pricing of credit, higher interest rates apply to non-collateralized credit where the lending risks are higher. This is one of the reasons why home equity lines of credit receive significantly lower interest rates than credit cards, which are non-collateralized, and can therefore be a cost effective way for consumers to conduct debt consolidation. Credit can be extended to a customer in either revolving or non-revolving form. In the non-revolving form, there is a finite length of time in which the borrowed amount has to be repaid by the customer.

Two fundamental risk factors that influence the price of credit are performance risk and interest rate risk. Performance risk reflects the possibility that the customer is unable or unwilling to make the regular payments related to the loan. Customers with bad credit history represent higher levels of performance risk and are often charged higher interest rates. Performance risk is often assessed by examining a credit applicant's credit report. Interest rate risk, on the other hand, reflects speculations on interest rate trends in the near future. If the interest rates rise during the term of a loan, the lender suffers from a possible opportunity cost. The opportunity cost is presented by the fact that the lender could have realized higher interest earnings had it been able to lend out the funds using the higher rates. Interest rate risk, therefore, relates to the possibility that interest rates will increase during the term of a credit arrangement. Many factors must be considered when pricing loans aside from cost, competition and value the institution

needs to consider the pricing method, whether flat or declining balance, pricing for larger loans and whether there can be differential pricing to price for risk to reward good customers.

Flat Verses Declining Balance

There can be strong institutional and client preferences for calculating interest rates using either the flat rate or declining balance method. A flat rate is often considered transparent and easy for customers to understand, because it charges the same amount of interest every period (Cracknel and Messan, 2006). The declining balance method is often considered fairer because it only charges interest on the amount of the loan outstanding.

Pricing for risk

Financial institutions take into account perception of risk of the loan. Therefore, loans secured on property, or salaries are priced lower than loans secured against collateral substitutes and cash flow assessments. Often institutions providing individual loans to the microfinance sector include an appraisal and monitoring fee in addition to the interest rate on the loan. This covers the more extensive appraisal performed to reduce credit risk. The appraisal fee is usually collected prior to loan appraisal and the monitoring fee at the time of disbursing the loan. In theory this appraisal fee should be related to the cost of performing an appraisal, in practice, however, it is usually a flat charge or percentage charge regardless of the actual expenses incurred.

Pricing for reward

Often financial institutions reward regular customers who have repaid loans successfully, either through reduced interest rates, or through the cancellation of future appraisal or monitoring fees.

Joint products

Many microfinance institutions operate group based loan products, which insist on compulsory savings deposits. Compulsory savings significantly increase the cost of the loan to the client, and are universally unpopular, often because microfinance institutions use this money to cover loan default without informing customers (Cracknel & Messan, 2006). This institutional behaviour is frequently quoted in market research as a reason for the reluctance of clients to hold voluntary savings deposits with the microfinance programme.

Duration to individual lending

Many institutions graduate selected successful clients to new individual loan products. This is done in an attempt to meet the demands of excellent customers whose needs for credit have grown. In most cases these loans move to being secured on assets and collateral, and are priced at a much lower rate than group based loans. This change is usually motivated by a desire to retain successful clients and as a visible incentive to existing group-based customers.

Pricing Electronic Banking Products

Pricing complex products, such as Electronic Banking services is particularly challenging. This is due to a range of overlapping factors, which include the difficulty in setting realistic assumptions during the pilot test period; the absence of existing benchmark prices and the need to move to a volume rather than value based pricing model.

Pricing Savings Products

Savings products involve consumers depositing their money with a financial organization such as a bank or a saving and loan institution. The financial organization ensures the safekeeping of the customer's funds and possibly facilitates additional transactions related to the deposited funds. By depositing funds into a savings account, the customer has in effect passed on the responsibility of keeping the money in a safe place onto the bank that now has to keep the funds in a secure location and possess the necessary infrastructure to facilitate the safekeeping and associated financial transactions. .

Pricing Brokerage and Investment Services

The pricing of services provided by brokers and investment houses for the sale of financial products and securities can be customized at the individual customer level or set as a fixed price applicable to all customers. Often, prices are assessed based on the unique needs of individual clients, the total amount of assets being managed, and even at times negotiated on an individual basis. Brokers whose job is to facilitate the trading of securities for customers have a multitude of approaches available to them for earning income. One approach is to charge trading fees for the purchase and sale of securities on behalf of a client. Trading fees might be flat regardless of the Naira amount of securities traded, or they may be based on a percentage of amounts traded. The brokerage business is divided into two general categories called full-commission brokers (FCBs) and discount brokers. FCBs generally charge higher prices for their services, but also provide financial advice and portfolio planning services to their clients.

Effective Interest Rates

Total impact of fees, charges and compulsory deposits on the total cost of lending for a consumer can only truly be seen through the calculation of effective interest rates. Effective interest rate calculations take into account all cash flows around a loan (Cracknel & Messan, 2006).These include, the initial disbursement of a loan, the repayment installments, any compulsory deposit, application fees, monitoring fees and commissions

Penalty Fees

The pricing and application of penalty fees needs careful consideration. The reason for penalty fees is primarily to discourage certain types of customer behaviour that costs the financial institution. The most common penalty applies to late payment of loans, or insufficient funds in a deposit account payment. Other penalties are applied to cover the costs of additional monitoring visits, letters and legal fees or in the case of deposit accounts overdrawn balances.

Graduated Interest Rates

Graduated interest rates are a common way for institutions to offer higher interest rates for larger deposits. Graduated interest rates have a number of advantages for the financial institution. Firstly they minimize total interest expense for the institution, secondly, they allow a single savings account to appeal to customers with different motivations, thirdly, and graduated interest rates enable the institution to perform some attractive promotion and marketing based around the higher interest rates (Cracknel & Messan, 2006)

Bundled Fees: Few clients understand fees that encompass a range of services. A typical example of this type of charges is where financial institutions such as banks include loan insurance premiums in the interest it charged to customers.

Regulation of Pricing

There are many regulatory approaches to pricing financial services. In Nigeria the regulatory authorities such as CBN make provisions that are designed to prevent the application of very high interest rates. Interest rate ceiling is applied to loans to some sector of the economy such as loans to SMEs. Financial institutions such as banks are mandate to disclosure of fees and charges, which are reinforced by industry codes of conduct. Central Bank of Nigeria publishes comparative fees and charges of commercial banks on a quarterly and annually basis.

Pricing as a Tool for Marketing of Financial Services

Pricing is one of the most important decisions in the marketing of financial services. Price serves multiple roles for the financial services organization as well as for the individuals who use those services. To the financial services organization, price represents the sole source of revenues. Most activities that an organization undertakes represent costs and an outflow of funds. When advertising, for example, one has to spend money purchasing advertising space in a newspaper or media time on radio or TV. When employing staff in a sales department salaries and benefits need to be paid. All of these activities represent an outflow of funds, and the only way to recover these expenditures is through revenues obtained by charging prices for the financial services provided. It is critical not only to appreciate the importance of price, but also to be certain that one's prices are at optimal levels. Pricing too low or too high can have detrimental effects on profitability of financial services organizations. In addition, price is the most visible component of the marketing strategy of a financial services organization. Unlike advertising style, product strategy, or sales force incentives, which might be difficult to quantify precisely, price is always presented numerically, and can be observed and compared by consumers, regulators, and competitors. Therefore, a second function of price is to communicate to the marketplace the identity, market positioning, and intentions of a financial services organization. Lowering of prices or an upward movement of premiums might signal a shift in marketing strategy to competitors and may provoke reactions from them. This fact raises the strategic importance of price and highlights the great impact that price has been found to have in shifting the balance of power among competing financial services providers.

A third function of price is to serve as a signal of quality to customers. As mentioned in earlier chapter, the quality of a financial service may be highly elusive and vague. Determining whether one insurance policy is better than another or if an investment advisor will provide

recommendations that generate high returns on one's investment portfolio is difficult if not impossible for many. It has been well established in consumer research that in such situations where quality is not clearly evident, consumers tend to rely on price as a proxy for quality. They might therefore assume that higher-priced financial services are of better quality, and the lowering of prices may not necessarily be associated with more positive consumer impressions of the financial service.

Challenges in Pricing Financial Services

Financial services prices are unique in several ways. The unique aspects of price in financial services are important to recognize when developing marketing strategies and analyzing consumers' decision dynamics. Some of these unique aspects are listed below:

Financial Services Prices are often Multi-Dimensional

One of the most notable characteristics of financial services prices is that they are complex and often consist of multiple numeric attributes. For example, an automobile lease is often communicated in terms of the combination of a monthly payment, number of payments, a down payment, the final balloon payment, wear-and-tear penalties, and mileage charges for driving over the allowed number of miles. Therefore, unlike the sticker price for the cash purchase of a car, which is a single number, the lease price consists of many different numbers.

Elusive Measures of Quality

A second challenge in the pricing of financial services is the elusive and intangible nature of the quality of a financial service. In contrast to manufactured goods, which can be scientifically tested in laboratories and are often rated by well-established third party organizations such as Consumer Reports, J.D.Power and Associates, and the Insurance Institute for Highway Safety, the quality of financial services is far more difficult to determine. Objective levels of service quality as determined for example by the likelihood that a mutual fund will have good returns, the transaction processing accuracy and efficiency of a commercial bank, and the ability of a tax accountant to secure the highest possible tax returns, are difficult to assess. The fact that these measures of quality are difficult if not impossible to quantify often forces consumers to examine other pieces of information, in particular price, as an indicator of service quality. Therefore, while a high price may discourage some consumers from purchasing a financial service, it may also serve as a positive signal for others and may increase their desire to use the service.

Economic Forces

The pricing of financial services is further complicated by the fact that the attractiveness of a financial service may be affected by the general economic environment. For example, in order to appreciate the value of an investment option a consumer must compare the expected rate of return with the rates of return experienced in the financial markets. A change in the prime rate, Treasury rates might make an investment option look more or less attractive to the consumer. As a result, financial services providers need to take relevant economic indicators such as interest rates and stock market returns into account when setting prices for specific financial products and services.

Poor Consumer Price Knowledge

The pricing of financial services needs to take into account the fact that consumer memory for financial services prices is quite weak. The unexciting and complicated nature of financial services often results in poor recall of the prices of financial services. For example, many consumers have a difficult time remembering the cost of their financial institutions services, such as the monthly maintenance fees for checking account services and ATM transaction charges, or what yearly premiums they are paying for their automobile insurance. As a result, the general level of price knowledge with which consumers interact with financial services providers might be quite limited.

Common Approaches to Pricing Financial Services

The general approach to pricing can be visualized as a process of determining where on a continuous line one chooses to set the price charged to customers. At the one extreme, one could choose to freely provide services to consumers by charging nothing. While such an approach may result in a significant growth in one's customer base, it is typically financially unwise, as it will result in loss of significant amounts of profits. Such a pricing approach is only associated with short-term promotional objectives in which new customer acquisition is the primary objective. For example, an automobile road-side assistance policy might be freely offered to customers for a three-month time period in hopes that some of these customers will decide to continue the service by subscribing to it after the free trial period has ended. Alternatively, one could choose to price a financial service below cost or at cost. These price points may also serve the general objective of new customer acquisition, but may be catastrophic in the long-term due to their harmful impact on profitability.

Determining What Prices To Use

The pricing approaches discussed above are often used in combination. For example, one may use cost based pricing to arrive at a price. Parity-based pricing may be used to arrive at another price, and value based pricing could be used to arrive at another price. The task of determining the final price may involve managerial judgment as to which of the estimated prices should weigh more heavily in determining the price charged for a financial service. For example, in a market that is highly competitive, a parity-based price might have more weight than the other pricing approaches. Alternatively, in a market where customers might value the unique features of a financial service, value-based pricing might be most relevant. As a result, the task of setting prices is a combination of the science involving the numeric derivation of the price points discussed earlier, and the art of judging what the ultimate price should be. The ultimate price might take one of these computed prices more into account than the others, or it may reflect an average of these prices.

Category-Specific Pricing Practices

In this section, we will discuss unique aspects of pricing for several popular categories of financial services. In particular, tactics and approaches used in pricing credit products, savings products, investment and brokerage services, and insurance products will be discussed. These

categories account for a significant proportion of consumer spending in financial services, and the unique aspects of each of these services require particular pricing approaches to be utilized. It is critical for financial services marketers to have a full understanding of the underlying process for pricing these particular types of services.

Strategic Considerations in Pricing

In determining the price of a financial service, several strategic and tactical issues need to be taken into consideration. The long-term strategic framework of the service, as well as short-term profit and customer acquisition tactics that may be required can influence the final determination of price.

Environmental Forces Influencing Pricing

Several environmental considerations that are likely to influence the future of pricing in financial services also need to be taken into account. The first is the significant impact that the Internet has had on the price search behaviour of consumers. The Internet has made the process of looking for the lowest priced financial services provider easier for consumers, and it has also made detailed product information readily available to the masses. For example, it is estimated that seven out of every ten home buyers search the Internet for mortgage rates. Similarly, the Internet is now beginning to facilitate price shopping in other categories of financial services such as property and casualty insurance, term life insurance, and commercial financial institutions services. In addition, information available through the Internet is beginning to enable consumers to have a better assessment of the quality of financial services providers. For example, the Insurance Departments in most states often post the complaint rates that are associated with insurance companies operating in their state, on the Internet. Access to such information would allow consumers to have a more accurate assessment of the quality of an insurance company, and influence their reactions to the prices of the insurance policies offered in the marketplace.

The Future

Service marketing management through managing customer interfaces, providing value for money products; value pricing and product innovation will separate the also-rans from the best. The future technology road map (trajectory) will be full branch automation: networking and expansion of ATMs and the introduction of core financial institutions solutions in branches. The state of art technology which is to be provided has to be backed by a committed working force for its success - a work force committed to quality, single window delivery of service and in developing customer relationship by delivery of high quality personalized professional service.

Rising Importance of Customer Loyalty

The loyalty of customers has never been more important than today. Since gaining a new client is much more expensive than sustaining the relationship with existing customers, the companies need to establish and sustain the long-term relationships with especially the profitable customers. The level of importance to the people in targeted market or segment is an important question for the marketing professionals while setting the pricing strategies (Dibb et al., 2001).

But the calculation of the price of any financial service is generally very complex; understanding it may be very hard for many regular (maybe profitable also) customers. The service quality can be as complex as a puzzle for those customers. The memory of customers about the financial services is obviously weak, and it should be remember while preparing the pricing strategy for financial services (Estelami, 2005).Financial services have unexciting and complex characteristics, and it leads to poor recall of financial service prices (Estelami, 2013).In some cases, the customers may leave obtaining a service from a company or even being a customer of that company when they learnt that the financial service given has a price. This situation is very negative for companies seeking for long-term loyalty relationships.

Competition and Economic Forces

The competition between financial service institutions cannot be overlooked. The prices of financial services may lead companies to have and sustain the competitive advantages while efficient methods are implemented. Since the general economic conditions affect the attractiveness of financial services, it makes pricing the financial service more difficult. While determining the prices of certain financial product and services, the service provider institutions should pay attention to related economic indicators such as interest rates and stock market returns (Estelami, 2013).

Development of New Technologies and Internet

The institutions in modern era need to keep up with technology in order to survive. The human behaviors have been significantly altered especially by mobile technology development after 2000s. Nowadays, customers have more efficient and powerful instruments for comparing the companies from which they want to buy service or product. The technological instruments which customers have led to transparency among competitors and the typical customer of nowadays listen to his logic rather than senses. Financial service institutions have to be able to utilize newly developing technologies and internet properly and continuously, this is very important to keep their relationship with their customers. The customers of the organizations which have gained and sustained this skill are less sensitive to the price changes.

Comparing Pricing Strategies and Processes

As mentioned before, the banking and finance sector is a sector providing service. The bank products are deposit, borrowing or other product like credit card or foreign exchange transaction which is tangible and measurable whereas service can be such products plus the way/manner in which they are offered that can be expressed but cannot be measured intangibles (Uppal, 2010). Because the financial sector is a service sector, the marketing strategies in this field are different from tangible product marketing strategies. The marketing strategy for banking services include some components such as identifying financial requirements of customers, providing suitable banking outputs optimized for customer requirements, charging the affordable prices and fees for those products, introducing the developed product and services to customers both potential and existing, establishing the appropriate distribution structure consisting of channels and branch offices, and the constant focus on keeping up with market requirements changing in time (Popli, 2012).

Methodology

Research design can be described as the general plan relating the aforementioned research problem. Research design provides information on the framework of the research, methods of collecting data, instrument to be used in collection and specify the type of research in use. This study adopted quasi-experimental design. The sources of secondary data on which will be used for this research were Annual data from 1990 to 2017 was used for all variables on financial service pricing and profitability of deposit money banks which was obtained from the Central Bank of Nigeria statistical bulletin. The main tool of analysis is the Ordinary Least Squares (OLS) using the multiple regression method. The data are 28 years annual data covering 1990 – 2017.

The model specified below is base on theoretical assumption on the relationship between pricing and profitability. The models are specified in the functional form as;

$$ROA = f (PLR, MLR, STSR, LTSR)……………..……. 1$$

The regression model is specified as follows;

$$ROA = o + 1PLR + 2MLR + 3STSR + 4LTSR + \mu ………………2$$
Where:

ROA   =   Return on Assets

PLR   =   Prime Lending Rate

MLR   =   Maximum Lending Rate

STSR   =   Short Term Saving Rate

LTSR   =   Long Term Saving Rate

μ =   Error term

β_0 =   Regression intercept

$\beta_1 - \beta_2$ =   Coefficient of the independent variables to the dependent variables

Moreover, in order to undertake a statistical evaluation of our analytical model, so as to determine the reliability of the result obtained and the coefficient of correlation (r) of the regression, the coefficient of determination (r^2), the student T-test and F-test where employed.

(i).   Coefficient of Determination (r^2) Test – this measures the explanatory power of the independent variables on the dependent variables. For example, to determine the proportion of economic growth into our model, we used the coefficient of determination. The coefficient of determination varies between 0.0 and 1.0. A coefficient of determination says 0.20 means that 20% of changes in the dependent variable is explained by the independent variable(s).

(ii). F-Test: This measures the overall significance. The extent to which the statistic of the coefficient of determination is statistically significant is measured by the F-test. The F-test can be done using the F-statistic or by the probability estimate. We use the F-statistic estimate for this analysis.

(iii). Student T-test: measures the individual statistical significance of the estimated independent variables. At 5% level of significance.

(iv) Durbin Watson Statistics: This measures the colinearity and autocorrelation between the variables in the time series. It is expected that a ratio of close to 2.00 is not auto correlated while ratio above 2.00 assumed the presence of autocorrelation.

(v). Regression coefficient: This measures the extent in which the predictor variables affect the dependent variables in the study.

(vi) Probability ratio: It measures also the extent in which the predictor variables can explain change to the dependent variables given a percentage level of significant.

A-pirori Expectation of Variables Used

From the study parameter it is expected that the independent variables have positive effect on the dependent variables.

Therefore $\beta_1, \beta_2 > 0.$

Data Presentation and Analysis of Results.

To contribute to the existing body of knowledge on the effect of financial service pricing on the profitability of commercial banks in Nigeria, this study intends to x-ray the Nigerian context the relationship between price of savings and credit on the profitability of commercial banks. The analysis of the result will make us draw conclusion on the relationship that exists among them. The table below has detail of time series data of the variables as formulated in section three above.

Year	ROA	PLR	MLR	STSR	LTSR
1990	35.75	24.60	23.00	17.50	18.50
1991	45.50	27.70	20.10	15.00	14.50
1992	55.73	20.80	20.50	21.00	17.50
1993	44.88	31.20	28.02	26.90	26.00
1994	46.02	36.09	15.00	12.50	13.50
1995	46.72	21.00	14.27	12.50	13.50
1996	44.97	20.89	13.55	12.25	13.50
1997	44.20	20.86	7.43	12.00	13.50
1998	39.20	23.32	10.09	12.95	14.31
1999	56.84	21.34	14.30	17.00	18.00
2000	46.89	27.17	10.44	12.00	13.50
2001	37.57	21.55	10.09	12.95	14.31
2002	51.54	21.34	15.57	18.88	19.00
2003	62.24	30.19	11.88	15.02	15.75
2004	72.20	22.88	12.21	14.21	15.00
2005	93.31	20.82	8.68	7.00	13.00
2006	103.52	19.49	8.26	8.80	12.25
2007	113.59	18.70	9.49	6.91	8.75

2008	153.30	18.36	11.95	4.50	9.81
2009	132.10	18.70	12.63	6.13	7.44
2010	135.94	22.62	7.19	10.25	6.13
2011	172.67	22.51	6.30	16.75	9.19
2012	210.08	22.42	7.63	17.20	12.00
2013	118.03	24.65	6.72	13.34	12.00
2014	114.47	28.00	5.41	11.80	12.00
2015	9.89	10.00	10.00	8.50	10.00
2016	9.04	11.750	10.00	8.50	10.00
2017	11.66	12.00	15.80	11.75	12.75

Source: Computed by researcher from CBN Statistical Bulletin

PRESENTATION OF RESULTS

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PLR	1.587162	0.239590	6.624501	0000
MLR	4.035982	884.8974	4.560960	0.0001
STSR	2.073616	1468.266	1.412289	0.1689
LTSR	-9.157704	1767.143	-0.518221	0.6084
C	6.316135	2256533.	2.799044	0.0092
R-squared	0.988029	Mean dependent var		8321422.
Adjusted R-squared	0.986319	S.D. dependent var		11166424
S.E. of regression	1306099.	Akaike info criterion		31.14171
Sum squared resid	4.78E+13	Schwarz criterion		31.36846
Log likelihood	-508.8383	Hannan-Quinn criter.		31.21801
F-statistic	57.74447	Durbin-Watson stat		0.912178
Prob(F-statistic)	0.000000			

Profitability is a critical function of the banking institutions. It is determine by pricing of bank products such as credit and saving products. The estimated regression model reveal that 98.8% and 96.6% variation in return on assets of deposit money banks in Nigeria can be traced and explained by the independent variables in the regression model formulated in section three of this study which are: Prime Lending Rate, Maximum Lending Rate, short term savings rate and long term savings rate. The Durbin-Watson statistics of 0.912178 is less than 1.00 but greater than 0, this means the none presence of serial autocorrelation between the variables in the time series. The F-statistics of 57.7444 prove the significance of the independent variables in explaining changes on the dependent variable proxy by return on assets of the banking sector.

However, the regression coefficient and the variables shows that prime lending rate, maximum lending rate and short term lending rate have positive and significant relationship with the return on assets with the coefficient of 1.587162PLR and 4.035982MLR and 2.073616STSR while long term savings rate have negative and insignificant relationship with the return on investment with the negative value of and -9.157704LTSR.

This finding confirm the expectation of the result and the objective of interest rate deregulation in the last quarter of 1986 with the aim of strengthen the operational efficiency of the deposit taking institution for effective financial intermediation that will enhance realization of shareholders wealth. However, long term savings rate have negative relationship with return on assets of the deposit money banks in Nigeria. The negative effect of the variables is contrary to

the expectation of the result. It shows that high interest rate really crowd out investment as noted by investment theories. The implication is that the monetary policy objectives should be harmonizes with the operational motive of deposit money banks in relationship with lending rate to enhance return on assets through pricing policies.

Conclusion and Recommendations

Conclusion

From the findings, the study draws the following conclusion:

1. That prime lending rate has positive and significant relationship with the return on assets of deposit money banks in Nigeria. This finding confirms the a-prirori expectation of the results.

2. That maximum lending rate has positive and significant relationship with return on assets of deposit money banks in Nigeria. This finding confirms the a-pirirori expectation of the results.

3. That short term savings rate has positive and insignificant relationship return on assets of deposit money banks in Nigeria, this finding confirm to the a-pirirori expectation of the results.

4. That long term savings rate has negative and insignificant relationship with return on assets of deposit money banks in Nigeria, this finding contrary to the a-pirirori expectation of the results.

Recommendations

2. Maximum lending rate should be lower to encourage investment borrowings that will enhance return on assets.

3. Monetary policy framework and policy should be integrated with the operational motive of deposit money banks regarding lending and savings rate to enhance profitability.

4. Lending rates and interest rate should be deregulated and determine by the market forces of demand and supply for better performance of the deposit money banks.

References

Ahlswede, S. & J. Schildbach (2012). Poised for a comeback: Bank deposits. *Deutsche Bank Research. Current Issues*. Frankfurt is Main.

Capgemini (2012). World Retail Banking Report. Carlin, Bruce (2009). Strategic Price Complexity in Retail Financial Markets. *Journal of Financial Studies, 91(3), 278- 287*.

Colgate, Mark and Rachel Hedge (2001). An Investigation into the Switching Process in Retail Banking Services. *International Journal of Bank Marketing, 19(5), 201-212*.

Diller (2007). Preispolitik (4th edition). Kohlhammer Edition Marketing. ECB (2009). Housing Finance in the Euro Area. *Structural Issues Report*, ECB (March 2009), Frankfurt am Main.

Ernst & Young (2012). Global Consumer Banking Survey. Fischer, Karl - Hermann and Hannah Hempell (2006). Regional Markets, Oligopoly and Market Power in Banking. *Conference Paper.*

Fischer, K. & Hempell, H. (2007). Regional Differences in Banks' Interest Rate Setting –The Impact of Local Banking Competition and Local Economic Structure. *Conference Paper*.

Gilbert, A. (1986). Requiem for Regulation Q: What it Did and Why it Passed Away. Federal Reserve Bank of St. *Louis Review, (Feb. 1986). 22-37.*

Homburg, C. & Nicole, K. (2005). Behavioral Pricing Forschungim Überblick. Zeitschrift für *Betriebswirtschaft (parts 1 and 2), 4/383-423 and 501-524.*

Kahnemann, D. & Knetsch, J. & Richard T. (1986a). Fairness as a Constraint to Profit -Seeking: Entitlements in Markets. *American Economic Review, 76(4), 728-741.*

Kahnemann, D.,, Knetsch, J, & Richard, T. (1986a). Fairness and the Assumption of Economics. *Journal of Business. 5(9), 285-300.*

Matzler, K. Renzl, B. & Faullant, R. (2007). Dimensions of Price Satisfaction: A Replication and Extension. *International Journal of Bank Marketing. 25(6), 394-405.*

Northcott, C. (2004). Competition in Banking: A Review of the Literature. *Bank of Canada Working Paper* No.24.

Oliver Wyman (2012). Pricing at European Retail Banks. *Pricing in retail banking*

Zähres, Meta (2012). Capital market bank funding: (Not such a) brave new world Current Issues. Frankfurt is Main. Current Issues our publications can be accessed. *Journal of Financial Studies, 91(3), 278- 287.*