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Liquidity Management and Commercial Banks' Profitability in Nigeria

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Abstract

This study examined liquidity management and commercial banks' profitability in Nigeria. The major aims of the study were to find empirical evidence of the degree to which effective liquidity management affects profitability in commercial banks and how commercial banks can enhance their liquidity and profitability positions. Considering the nature of the survey, quantitative methods of research were applied. In attempt to achieve the objectives of the study, several findings were made through the analysis of both the structured and unstructured questionnaire on the management of banks and the financial reports of the sampled banks. The data obtained from the Primary and Secondary sources were analyzed through collection, sorting and grouping of the data in tables of percentages and frequency distribution. We formulated a hypothesis, which were statistically tested through Pearson correlation data analysis. Findings from the testing of this hypothesis indicate that there is significant relationship between liquidity and profitability. That means profitability in commercial banks is significantly influenced by liquidity and vice versa. The study concluded that for the success of operations and survival, commercial banks should not compromise efficient and effective liquidity management and that both illiquidity and excess liquidity are "financial diseases" that can easily erode the profit base of a bank as they affect bank's attempt to attain high profitability-level. Finally the study recommends): The Central Bank should be encourage maintaining a flexible Minimum Monetary Policy [MPR] or discount rate so as to enable the commercial banks take advantage of the alternative measures of meeting the unexpected withdrawal demands, and reduce the tendency of maintaining excess idle cash at expense of profitability, the monetary authority should as a matter of urgency encourage and legitimate the use of credit cards and enforce cheque usage for huge amounts in the day to day business transaction, finally , interested researchers should dwell on the same area of this research extensively using a wider data and area of coverage.

Key words: Liquidity Management, Profitability, Commercial Bank

Introduction

In every system, there are major components that feature paramount for the survival of the system. This is also applicable to the financial system. The banking institution had contributed significantly to the effectiveness of the entire financial system as they offer an efficient institutional mechanism through which resources can be mobilized and directed from less essential uses to more productive investments(Wilner,2000).

In the performance of this financial inter-mediation role, the financial institutions have proved to be an effective channel between savers and borrowers. Among the financial institutions that make themselves available for this all-important role are merchant banks, savings banks, the Central bank, development banks and commercial banks. Commercial banks have overtime become very important institutions in the financial system as they function as retail banking units facilitating the transfer of financial assets that are well desired from some part of the public (Fund Lenders) into other financial assets which are more widely preferred by greater part of the public (fund seekers). In view of this role and of the fact that the activities of the commercial banks affect the greater part of the society, commercial banks are selected as the main focus of this study.

Financial inter-mediation role of the commercial banks hence becomes the bed-rock of the two major functions of commercial banks namely deposit mobilization and credit extension. An adequate financial intermediation requires the purposeful attention of the bank management to profitability and liquidity, which are two conflicting goals of the commercial banks. These goals are parallel in the sense that an attempt for a bank to achieve higher profitability will certainly erode its liquidity and solvency positions and vice versa.

Practically, profitability and liquidity are effective indicators of the corporate health and performance of not only the commercial banks (Eljelly,2004), but all profit-oriented ventures. These performance indicators are very important to the shareholders and depositors who are major publics of a bank. As the shareholders are interested

in the profitability level, the depositors are concerned with liquidity position which determines a bank's ability to respond to the withdrawal needs which are normally on demand or on a short notice as the case may be.

Liquidity management is an important aspect of monetary policy implementation, while the other integral component of monetary policy, i.e. economic management, involves promoting sustainable economic growth over the long term by keeping monetary and credit expansion in step with an economy's non-inflationary output potential, liquidity or reserve management as a shorter time horizon. In order to maintain relative macro-economic stability, reliance is placed on liquidity management to even out the swings in liquidity growth in the banking system.

An important step towards market oriented policy procedures takes place when the Central bank assumes responsibility for evening out swings in demand relative to demand on its own initiative, rather than waiting passively for individual banks to come to it. Once it begins to supply or absorb liquidity through market intervention, the discount window plays an important, but subordinate safety valve role by providing the short-run reserve needs of the banking system for purposes of meeting short term liquidity obligations.

In the financial intermediation process, a bank collects money on deposit from one group (the surplus unit) and grants it out to another group (the deficit unit). These roles involve bringing together people who have money and those who need money.

Apart from the technical aspects of the CBN's responsibility discussed above, it is important in this section to highlight certain critical factors that are required to facilitate liquidity management in the context of autonomy. These include a stable macroeconomic environment, a sound and competitive financial system, adequate regulatory and supervisory framework, and capacity build up.

Stable Macroeconomic Environment to enhance liquidity management and ensure macroeconomic stability, there is the compelling need to insulate monetary policy from the pressure of financing the government fiscal deficit. Also, the monetary authorities should have freedom in the management of interest rate in order to sufficiently influence transactions in the intervention securities and enhance the effectiveness of instruments for liquidity management. Uncontrolled financing of the deficit by the CBN, either through ways and means advances or the absorption of unsubscribed government debt issues, increase bank liquidity thereby constraining the effectiveness of instruments for liquidity management(Amarachukwu Ona,2003)

Under the new dispensation, sustaining monetary stability will be achieved through greater coordination between the CBN and the Federal Ministry of Finance, in order to limit government borrowing from the bank to the level stipulated by law.

Statement of the Problem

Through the financial inter-mediation role, the commercial banks reactivate the idle funds borrowed from the lenders by investing such funds in different classes of portfolios. Such business activity of the bank is not without problems since the deposits from these fund savers which have been invested by the banks for profit maximization, can be recalled or demanded when the later is not in position to meet their financial obligations. Considering the public loss of confidence as a result of bank distress which has bedeviled the financial sector in the last decade; and the intensity of competition in the banking sector due to the emergence of large number of new banks, every commercial bank should ensure that it operates on profit and at the same time meets the financial demands of its depositors by maintaining adequate liquidity.

The problem then becomes how to select or identify the optimum point or the level at which a commercial bank can maintain its assets in order to optimize these two objectives since each of the liquidity has a different effect on the level of profitability. This problem becomes more pronounced as good numbers of commercial banks are engrossed with profit maximization and as such they tend to neglect the importance of liquidity management. However, the profit maximization becomes a myth as the resulted liquidity can lead to both technical and legal insolvency with the consequence of low patronage, deposit flight, erosion of asset base.

This research seeks to investigate other problems such as excess liquidity and the problem of establishing the proportion of the deposits that will be demanded by the depositors at any particular time.

There is also the problem of satisfying the two publics of the commercial banks simultaneously. While the accurate selection of the factors that influence the level of bank liquidity also poses some problems. All these problems are what the study intends to consider, find solutions and make recommendations where necessary.

Objectives of the Study

The competitive environment of the financial institutions is so tense that any commercial bank that aims to survive must be fully aware of the consequences of its liquidity and profitability obligations as both variables can make or destroy its future. This study is largely centered on liquidity management which enables the bank to determine its liquidity requirement and ensures its ability to meet up the depositors demand or its financial obligations, thereby maximizing its value.

Due to the fact that the value of the new deposit does not synchronize or correspond with the customers' withdrawal needs at any particular time, there are uncertainties in the asset management of the commercial banks. These uncertainties become complex as depositors make their withdrawals on demand or at short notice.

Consequently, this study will disclose how liquidity management will handle these uncertainties and determine their effects on profitability. The study is aimed at discovering the specific factors that are useful in enhancing the profitability and liquidity position of the commercial banks.

The study will also examine the cost of liquidity and illiquidity on the performance of commercial banks and the extent they are using their liquidity levels as competitive instruments.

The study will take a critical view of the adopted liquidity measures of the commercial banks and attempt to see how it has been achieved.

The study is also aimed at finding the effect of changes in liquidity levels on profitability.

Such information could protect commercial banks against failures and enhance their performances and also disclose what will happen to one factor as a result of a change in another.

The study is also aimed at disclosing the credit and portfolio polices of the commercial banks.

It will attempt to identify the basic causes of liquidity problems in Nigerian commercial banks and to recommend appropriate measures to solve such problems.

Research HYPOTHESIS

The Research Hypothesis is hereby stated to give more emphasis to the purpose of the Study.

H0: There is no significant relationship between liquidity and profitability of a commercial Bank. (Null Hypothesis)

H1: There is significant relationship between liquidity and profitability of a commercial Bank (Alternate Hypothesis).

Research Questions

The study is intended to answer the following questions amongst others relevant to the study topic.

1. What are the significant relationship between a bank's levels of deposit and liquidity?
2. Does the amount of loans and advances granted to customers significantly determine the profitability level?
3. Is there any significant relationship between liquidity situation in a bank and related profitability?
4. Do commercial banks in Nigeria keep the minimum liquidity ratio required by CBN at all times?

Literature Review and Theoretical Insight

This study reviews related literature on the relationship between liquidity management and commercial banks' profitability.

This chapter discusses the meaning and importance of liquidity and profitability to Nigerian banks; overview of Nigerian financial system; the role of commercial banks in the eco[nomy; the concept of liquidity; the concept of profitability; the relationship between liquidity, profitability, the impact of liquidity and working capital on the profitability and performance of quoted companies.

Relevance of Liquidity and Profitability to Nigerian Banks

Liquidity is the ability of a company to meet its short term obligations. It is the ability of the company to convert its assets into cash. Short term, generally, signifies obligations which mature within one accounting year. Short term also reflects the operating cycle: buying, manufacturing, selling, and collecting. A company that cannot pay its creditors on time and continue to fail its obligations to the suppliers of credit, services, and goods can be declared a sick company or bankrupt company. Inability to meet the short term liabilities may affect the company's operations and in many cases it may affect its reputation too. Lack of cash or liquid assets on hand may force a company to miss the incentives given by the suppliers of credit, services, and goods. Loss of such incentives may result in higher cost of goods which in turn affect the profitability of the business. So there is always a need for the company to maintain certain degree of liquidity. However, there is no standard norm for liquidity. It depends on the nature of the business, scale of operations, location of the business and many other factors.

Every stakeholder has interest in the liquidity position of a company. Supplier of goods will check the liquidity of the company before selling goods on credit. Employees also have interest in the liquidity to know whether the company can meet its employees' related obligations: salary, pension, provident fund etc. Shareholders are interested in understanding the liquidity due to its huge impact on the profitability. Shareholders may not like high liquidity as profitability and liquidity are inversely related. However, shareholders are also aware that non-liquidity will deprive the company from getting incentives from the suppliers, creditors, and bankers.

The Concept of Liquidity

The concept of Liquidity has been a source of worry to the management of firms of the uncertainty of the future.

Liquidity is a financial term that means the amount of capital that is available for investment. Today, most of this capital is credit, not cash. That's because the large financial institutions that do most investments prefer using borrowed money.

High liquidity means there is a lot of capital because interest rates are low, and so capital is easily available. Why are interest rates so important in controlling liquidity? Because these rates really dictate how expensive it is to borrow. Low interest rates mean credit is cheap, so businesses and investors are more likely to borrow. The return on investment only has to be higher than the interest rate, so more investments look good. In this way, high liquidity spurs economic growth.

Liquidity can be defined as the state or condition of a business organization which determines its ability to honour or discharge its maturing obligations.

These maturing obligations are composed of current liabilities and long-term debts.

Liquidity can also be defined as a measure of the relative amount of asset in cash or which can be quickly converted into cash without any loss in value available to meet short term liabilities.

Liquid assets are composed of cash and bank balances, debtors and marketable securities. Liquidity is the ability of a firm to meet all obligations without endangering its financial conditions.

Liquidity will help a firm to avoid a situation where a firm will be forced to liquidate with its attendant problems of selling assets at distressed prices and the extra fees paid to lawyers, trustees in bankruptcy and liquidators on liquidation. The definitions above imply that, as liquidity increases, the probability of technical insolvency is reduced. The definitions above went ahead to expand the views by recognizing two dimensions of liquidity namely the time necessary to convert an asset into money and the degree of certainty associated with the conversion ratio or price realized for the assets.

Liquidity Components

- Vault Cash
- Balances Held With CBN
- Balances Held With Other Banks In Nigeria
- Balances Held With Offices & Branches Outside Nigeria
- Money At Call In Nigeria
- Inter-bank Placement
- Placement with Discount Houses

- Treasury Bills
- Treasury Certificates
- Investment in Stabilization Securities
- Bills Discounted Payable In Nigeria
- Negotiable Certificates of Deposits
- Bankers Acceptances and Commercial Papers
- Investments In FGN Development Stock
- Industrial (Other) Investments

Elements of Liquidity

Liquidity is a complex concept as the rate of liquidity among different liquid assets differs. For instance, a savings or time deposit is more liquid than common stock and common stocks in turn are more liquid than real estate. Liquidity is a relative concept because there is no specific level of any balance sheet ratio that indicates that the firm is no longer liquid.

Liquidity involves three elements or characteristics namely Marketability, Stability and Conservatism. Liquid assets should be more marketable or transferable. That means, they are expected to be converted to cash easily and promptly, and are redeemed prior to maturity. All assets that cannot be redeemed at maturity are said to be illiquid.

Another quality of liquid asset is price stability. Based on this characteristic, bank deposits and short term securities are more liquid than equity investments such as common stocks and real estates due to the fact that the prices of the former are fixed and have lesser variability than the prices and value of the later that experience considerable fluctuation

Conservatism quality of liquidity refers to the ability of the holders of liquid assets to recover the cost of the asset on the time of resale. On the basis, common stocks are not considered highly liquid asset despite its ready marketability. This can be attributed to the fact that on certain periods, the current prices are lower than their initial or original prices. In consideration of these qualities, people and firms decide to hold cash which is the only perfectly liquid asset.

Double coincidence of wants was one of the problems that made trade by barter unpopular and caused for its replacement with money. For the fact that all other asset is converted into money before they are used and for the fact that money ensures that an asset is converted to any other asset, make money the most popular liquid asset with high rate of convertibility needed of any liquid asset.

The Management of Liquidity in Commercial Banks

Bank liquidity refers to the ability of the bank to ensure the availability of finds to meet financial commitments or maturing obligations at a reasonable price at all times. Put tersely, bank liquidity means a bank having money where they need it particularly to satisfy the withdrawal needs of the customers. The survival of commercial banks depends greatly on how liquid they are since illiquidity being a sign of imminent distress can easily erode the confidence of the public in the banking sector and results to deposit.

Equally important is the need for adequate income through interest on loan to ensure continued provision of productive resources and survival. It therefore becomes uneconomic and financially unreasonable for banks to allow excess idle cash in the vault or excess liquidity.

Hence, a need for effective liquidity management to maximize revenues while holding risks of insolvency to desired level.

Liquidity management refers to the planning and control necessary to ensure that the organization maintains enough liquid assets either as an obligation to the customers of the organization so as to meet some obligations incidental to survival of the business or as a measure to adhere to the monetary policies of the central bank. For a commercial bank to plan for or manage its liquidity position, it first manages its money position by complying with the legal requirement. Actually, management of money position is essential if a bank must avoid excesses or deficiencies of required primary reserves. Where there is a decline in market price of securities or where additional funds needed to correct the bank reserve position are for a very short time, it will be definitely expensive to sell securities than to borrow from another bank. Moreover, it may be more desirable to borrow for bank's liquidity needs than to call back outstanding loans or to cancel or place embargo on new loans, a situation that will reduce the existing and potential customers of a bank. Commercial banks are expected to maintain certain levels of reserves. These reserves are statutory requirements stipulated by the central bank specifying the cash reserves equal to certain fraction of the banks' deposits or loans and advances which bank must maintain.

Originally, the purpose of the reserve requirement is to compel banks to maintain a reasonable degree of liquidity in order to be able to meet cash demands. But currently, these reserves are used as control device through which the federal government can influence the monetary system.

Most commercial banks in their bid not to contravene the regulation specifying legal minimum reserve requirement and in order to provide against unforeseen large withdrawals, resolve to maintain reserves in excess of their legal requirements. For the fact that keeping excess reserve for the purpose of short run safety means to forgo income or earnings, commercial banks need to manage their reserves adequately. Effective liquidity management therefore involves obtaining full utilization of all reserves.

The primary reserves composed of vault cash, cash balances or excess reserves with the CBN, deposits with other banks both locally and aboard. They are maintained so as to satisfy legal and operational requirements and so do not yield any income.

The secondary reserves are those assets of the bank that can quickly be converted into cash on very short notice without risk of loss or material impairment of the principal sum invested.

Secondary reserves are characterized by short maturity, high credit quality and high marketability. The primary motive of holding secondary reserves is liquidity since they are used to meet both anticipated and unanticipated short term and seasonal cash needs from deposits withdrawals and loan requests.

Secondary reserve contributes to the attainment of both profitability and liquidity objectives.

Liquidity Measurement in Commercial Banks

Practically, liquidity management in commercial banks is surrounding both size of the prospective needs for liquidity at any giving time and the availability of sources of liquidity sufficient to meet them (as highlighted in 2.5.2). The importance of accurate liquidity measurement cannot be over stressed as it reveals the liquidity positions of the banks through which the operators of the financial market and other creditors adjudged the credit worthiness of the banks.

Liquidity can be measured as a stock or as a flow. From the stock perspective, liquidity management requires an appraisal of holdings of assets that may be turned into cash. The determination of liquidity adequacy within this framework requires a comparison of holding of liquid assets with expected liquidity needs. Stock concept of liquidity management has been criticized as being too narrow in scope.

The flow concept of liquidity measurement views liquidity not only as the ability to convert liquid to assets into cash but also the ability of the economic units to borrow and generate cash from operators. This approach recognizes the difficulty involved in determining liquidity standards since future demands are not known. It also recommends accurate forecast of cash needs and expected level of liquidity assets and cash receipts over a given period of time for there to be a realistic appraisal of a bank's liquidity position.

Between the two concepts, the stock concept is the widely used and involving the application of financial ratios in the measurement of liquidity positions of commercial banks. One of the popular financial ratios used in such measurement is liquidity ratios which measures the ability of the bank to meet its current obligations. The liquidity ratios are composed of current ratio and quick ratio.

Current ratio is a measure of a commercial bank's short term solvency and is calculated by dividing current assets by current liabilities incurred. The current assets are composed of cash and those assets which can be converted into cash in a short period which include marketable securities, receivables, inventories, and prepared expenses. Current liabilities consist all obligations maturing within a year. They include accounts payable, bills payable, note payable, accrued expenses and tax liability. A current ratio that is greater than one is adjudged satisfactory for most business firms even though it is difficult to authoritatively set one standard for all firms. The problem associated with the measure of liquidity with current ratio is that it is the test of quantity and not quality of the assets and hence, it does not reveal the true position of a firm's liquidity. Current ratio gives the rough idea of the firm's liquidity.

Another aspect of liquidity ratio is quick ratio, which indicates the relationship between liquid assets and current liabilities. Quick ratio is calculated by dividing the quick asset (current asset less inventories) by current liabilities. The quick assets are the assets that can be converted into cash immediately without losing their values. Inventories are subtracted from the current assets because they normally require some time for realizing cash and their value has a tendency to fluctuate.

Quick ratio is considered to be a better guide to the short-term solvency of a firm. A quick ratio is considered to represent a satisfactory current financial condition. However, each industry has its own operating characteristics which demands different financial standards.

Other ratios which have been developed to measure liquidity are liquid assets to total assets; liquid assets to total deposits; loans and advances to deposits. Calculating the ratio of liquid assets to total assets explains the importance of a bank's liquid assets among its total assets. It indicates the proportion of a banker's total assets that can be converted into cash at a short notice. The ratio of liquid assets to total deposits shows what percentage of a bank's deposits is held in liquid form. It relates liquid assets directly to deposit level. The principal limitation of these two ratios is the difficulty in ascertaining what should be the liquidity characteristics of cyclical secondary reserves.

The ratio of loan and advances to deposits reflects the quantity or proportion of the customers' deposits that has been given out in form of loans and the percentage that is retained in the liquid forms. The ratio serves as a useful planning and control tool in liquidity management since commercial banks use it as a guide in lending and investment, and to make a total evaluation of their expansion program. When the ratio rises to a relatively high level, banks are encouraged to lend and invest and vice versa, to take some benefit of profitability.

However, the limitation of the ratio is that it fails to indicate the maturity or quality of the portfolio. It is risky to characterize broad classes of balance sheet items as more or less liquid than others. Not all assets in any particular grouping have the same degree of liquidity or maturity". Another limitation of this ratio is that it measures only assets liquidity and excludes any measure of the ability of a bank to raise funds other than through the sale of the assets.

Cash ratio i.e. ratio of cash to total deposits or assets is another measure of bank liquidity. Its advantage over others is that liquid assets are related directly to deposits rather than to loans and advances that constitute the most illiquid of banks assets. Its drawback is that a substantial part of the cash assets is not really available to meet most liquidity assets.

Guidelines for the Development of Liquidity Management Policies

Liquidity is crucial to the on-going viability of any bank, as illiquidity can have dramatic and rapid adverse effects on even well capitalized banks.

Where a crisis develops in a bank as a result of other problems such as deterioration in asset quality, the time available to the bank to address the problem will be determined by its liquidity. Therefore, the measurement and management of liquidity are amongst the most vital activities of banks.

The importance of liquidity transcends the individual bank, as a liquidity shortfall in a single institution can have system-wide repercussions. Consequently, the analysis of liquidity requires bank's Managements to measure, not only the liquidity positions of their banks, on an ongoing basis, but also to examine how funding requirements are likely to evolve under crisis scenarios.

In view of the above considerations, a viable framework has been developed to guide banks' the management of their liquidity in line with international standards and best practices.

Banks are, therefore required to develop and implement their liquidity management policies, in line with the attached guidelines. The policies should limit liquidity risk to acceptable levels and clearly define managerial responsibilities for managing liquidity.

These policies and systems are to be observed at all times and further reviewed from time to time, to reflect changing circumstances.

The Importance of Liquidity in Commercial Bank Management

Liquidity is a term that measures the availability of cash whether direct or indirect. It also involves the rate and time of converting some current assets into cash to meet both ordinary and extra- ordinary demands.

Liquidity has been presented by several scholars as a tool for measuring the bank's bargaining power and strength. One of the popular views of these scholars concerning liquidity is that the more effective a commercial bank is in managing its liquidity, the stronger will his position be in the drive for loanable funds.

Adequate liquidity enables a bank to meet three risks namely: funding risk (the ability to replace net out flows of funds either through withdrawals of retail deposits or non-renewal of wholesale funds), Time risk (the ability to compensate for non receipt inflows of funds if the borrower fails to meet their commitment at a specific time), lending risk (ability to meet requests for funds from important customers).

Adequate liquidity helps a commercial bank to meet customers' withdrawal and or demand for loans. This reduces the possibility of providing financing under very unfavorable loan agreement restrictions and at relatively high interest costs.

Liquidity management helps a commercial bank to maintain stability in operations and earnings by serving as a guide to investment portfolio packaging and management.

Effective liquidity management serves as a veritable tool through which commercial banks maintain the statutory requirements of the central bank as it affects the proportion of deposits to liquid assets and deposits to loans and advances. Liquidity management reduces the incidence of bankruptcy and liquidation/

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failure which can be the later effect of illiquidity or insolvency, and help them to achieve some margin of safety for their customers deposits. In other words, adequate liquidity helps to generate and sustain public confidence of the depositors and the financial markets. If the financial market perceives a bank to have liquidity problems, the bank may find it difficult to raise further funds except at a premium.

Liquidity management assists commercial banks in trading off between risk and return; and liquidity and profitability. Liquidity management also serves as a tool through which commercial banks avoid over-liquidity and under-liquidity and their consequences.

It enables the commercial banks to avoid forced sales unfavorable and unprofitable venture of selling its assets to generate cash and to avoid non volitional or involuntary borrowing at CBN discount house, a situation that puts a bank literally at the mercy of the Central Bank.

Methodology

In order to obtain appropriate and adequate response from the respondents, a combination of fixed response and open-end type of questionnaire design was prepared in such a way that the opinions of the respondents were required on the subject of the research. There are no restrictions or tailored answers, to which the respondents' point of view was very essential. In the fixed response type of questionnaire design, there are tailored opinions of answers from which the respondents must choose while responding or answering to each question, the opinion of the respondents was just to tick his or her approval of the available options of answers. Most of the questions in the questionnaire were structured within the fixed response type.

Collection of Responses

The answered questionnaires were collected personally by hand on visitation to the Bank and the offices of the respondents.

Techniques of Data Analysis

The data collected from the questionnaire were presented in tabular arrangements and the different responses to each question were ascribed percentages accordingly. The research data were presented using tables and simple percentages. The hypothesized statements were tested using the Pearson correlation method of statistical analysis

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\{N\sum(x)^2 \ (\sum x^2)\}\{N\sum(y)^2 \ (\sum y^2)\}}$$

Test of Hypothesis

Hypothesis 1

Question 3 under Profitability table was used to generate variables that will be used to test the hypothesis. The hypothesis was tested using the co-efficient correlation.

5. Banks profitability affects liquidity significantly

Response	Frequency	Percentage
Strongly Agree	27	32
Agree	40	48
Undecided	5	6
Disagree	12	14
Strongly disagree	0	0
Total	84	100

Calculation of Correlation

Options	X	Y	XY	$(X)^2$	$(Y)^2$
Strongly agree	5	27	135	25	729
Agree	4	40	160	16	160
Undecided	3	5	15	9	225
Disagree	2	12	24	4	576
Strongly disagree	1	0	0	1	0
$\sum$	15	84	334	55	1690

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\{N\sum(x)^2 - (\sum x^2)\}\{N\sum(y)^2 - (\sum y^2)\}}$$

$$r = \frac{5(334) - 15(84)}{\{(5 \times 55) - (15^2)\}\{(5 \times 1690) - (84)^2\}}$$

$$r = \frac{410}{\sqrt{69700}}$$

$$r = \frac{410}{264.01}$$

r= 1.55

Table 4.4.1 Calculation of Correlation

Decision: Since r is 1.55 and it is greater than 0.5, we reject Ho and accept H1.

Findings

This study had attempted to investigate liquidity management and commercial banks profitability with focus on commercial banks .Findings from the testing of hypothesis indicates that there is significant relationship between liquidity and profitability. That means profitability in commercial banks is significantly influenced by liquidity and vice versa. This is indicated by 1.55 of Pearson correlation method, which confirmed the positive relationship between the two variables. In support of the findings, 84 percent of the respondents indicated that the effect of liquidity ratio on profitability is high while 16 percent indicated a moderate effect. It was also revealed that profitability will be optimized only when liquidity is effectively and efficiently managed i.e. when the commercial bank is able to meet its financial obligations and at the same time maximizes its profits. A situation where the commercial banks maintain more than the required liquidity level, the result will be huge stock of idle stock in the vault at the expense of profitability. This was exactly the situation for most of the studied commercial banks. One can then conclude that the declared profits after tax of these commercial banks within the period under study where below optimum level because of excess idle cash they maintained.

Conclusions

Liquidity management and profitability in commercial banks are two sensitive issues in the operations of commercial banks and of which information on them are seriously hoarded.

Consequently, a study on these two issues was not coming too easy.

The major concern of this study was to reconcile the conflicting requirements of bank liquidity and bank profitability arising from the conflicting desires of the two major providers of the bank resources namely the shareholders and the depositors. The shareholders desire maximum profitability as a return on their capital, while the depositors opt for a maximum liquidity as a guarantee for safety and ability to pay their money on demand.

Considering the findings of this study, the following conclusions can be drawn:

1. For the success of operations and survival, commercial banks should not compromise efficient and effective liquidity management. They are expected to maintain optimal liquidity level in order to satisfy their financial obligations to customers or depositors and maximize profits for the shareholders.

2. The optimal liquidity level is reached if the commercial banks religiously maintained the minimum liquidity requirement as stated by the Central Bank of Nigeria. This attempt helps to reduce cases of bank distress.

3. From the study, we can rightly conclude that both illiquidity and excess liquidity are "financial diseases" that can easily erode the profit base of a bank as they affect bank's attempt to attain high profitability-level. The pursuit of high profit without consideration to the liquidity level can cause great illiquidity, which reduces the customers' patronage and loyalty. Therefore, any bank that has the aim of maximizing its profit level must adopt effective liquidity management.

4. Effective liquidity management also requires adequate liquidity level which will help commercial banks to estimate the proportion of depositor's funds that will be demanded at any period and arrange on how to meet the demand.

It can finally be concluded that liquidity is inversely related to profitability. That means as liquidity increases, profitability decreases and vice versa.

Recommendations

Based on the critical evaluation of the above findings, I hereby make the following recommendations with the sincere conviction that they will help to reduce if not totally eradicate the problems associated with liquidity management and profitability in commercial banks.

1. Since the survival of commercial banks depend on liquidity management and profitability, they should not solely concentrate on the profit maximiza.io n concept but should also adopt measures that will ensure effective liquidity management. The measures will help to minimize or avoid cases of excessive and deficient liquidity as their effects.

2. Instead of keeping excessive liquidity as a provision for unexpected withdrawal demands of the customers, the commercial banks should find it reasonable to adopt other measures of meeting such requirements, which can include borrowing and discounting bills. In addition, the surplus funds of the commercial banks should be seasonally invested in short-term instruments of the money market.

3. For the fact that the monetary policies of CBN grossly affect liquidity management of the commercial banks, CBN should take the interest of the later into consideration while establishing and implementing these monetary policies in general and the liquidity ratio in particular. To achieve this feat, CBN is expected to create a forum whereby its policy makers and the management of commercial banks interact and dialogue for acceptable monetary policies.

4. The Central Bank should be encourage maintaining a flexible Minimum Monetary Policy [MPR] or discount rate so as to enable the commercial banks take advantage of the alternative measures of meeting the unexpected withdrawal demands, and reduce the tendency of maintaining excess idle cash at expense of profitability.

5. The monetary authority should as a matter of urgency encourage and legitimate the use of credit cards and enforce cheque usage for huge amounts in the day to day business transactions. This action will go a long way to remedy the problem of maintaining huge idle cash in vault in expectation of unprecedented withdrawal, as the movement of cash will be highly reduced. In addition, CBN should institute the most efficient and effective clearing system, which will play supporting and facilitating role for the use of credit cards and other electronic money transfer, as it is done in most advance countries.

6. Commercial banks should schedule the maturity periods of their secondary reserve assets to correspond to the period in which the funds will be needed.

7. The commercial banks should create a customer forum where their customers will be educated on varieties of deposits and the operational requirements of each of them. A situation where the customers operate any of the deposits as required, the commercial banks will be able to estimate the liquidity level to be maintained.

8. Further research is recommended on how to achieve the optimal liquidity level in commercial banks. The result will help to solve the problem of excess liquidity and its reducing effects on profits, and arbitrary high profitability with its consequent reduction of liquidity position. Also it is recommended that research should be launched on identifying better quantitative measures of profitability, liquidity, risk and managerial efficiency, which could lead to more satisfactory estimation of cause-effect relationship.

9. It is finally recommended that interested researchers should dwell on the same area of this research extensively using a wider data and area of coverage.

References

Amarachukwu Ona (2003), 'Obstacles In Liquidity Management', Business Day Newspaper of February 6, 2003.

Asika, N. (1991). Research Methodology in Behavioral Sciences. Lagos: Long Nigeria PLC

Asika, N. (2002). Research Methodology in Behavioral Science. Lagos: Longman Nigeria PLC

Avwokeni, A.J. (2007). Practical Research Methodology: Design, Analysis, and Reporting. Port Harcourt: Unicampus Books.

CBN Introduces new Liquidity Control Instrument Published in Business Day Newspaper on February 9, (2001).

Civelek, M.M. and M.W. Al-Alami, (1991), An empirical investigation of the concentration-profitability relationship in the Jordanian banking system.

Dr. Larry Uffot**,** (2002**)** 'The Nigerian Financial System and the Role of Central Bank of Nigeria – CBN Training Centre Faculty 1

Eljelly, A.M.A., (2004), Liquidity-Profitability Trade off: An empirical investigation in an emerging market. Int. J. Commerce Manager.

Emery, G .W. (1984), Measuring short-term liquidity. J. Cash Management.

Job A. Olorunshola, (2002), Financial System Regulation in Nigeria: Theoretical Framework and Institutional Arrangements –by CBN Training Centre Faculty

MD (Stanbic Merchant Bank) (2000), 'Managing Excess Liquidity Is A Problem, Business Day Newspaper of July 10, (2003).

Mayungbe Richard (2001), 'Dangers of Increased Liquidity Ratio', Business Day Newspaper of April 30, (2001).

Olu Ojo (2003), Fundamentals of Research Methods. Lagos.

P. Kehinde (2003), 'A Vital Issue In Bank Management', Business Day Newspaper of May 12,2003

Sanusi Lamido, (2010) 'CBN will reduce deficit budgeting' Business Day Newspaper of October 13.

Shin, H.H. and L. Soenen, (1998), Efficiency of working capital and corporate profitability.

Smirlock, M., (1985), Evidence on the (Non) relationship between concentration and profit ability in banking. J. Credit Banking.

Smith, K., (1980), Profitability Versus Liquidity Tradeoffs in Working Capital Management, Readings on the Management of Working Capital. West Publishing Company, New York, St. Paul.

Teruel, P.J.G. and P.M. Solano, (2005), Effects of working capital management on SME profitability Working Papers Series.

Wilner, B., 2000. The exploitation of relationships in financial distress: The case of trade credit.