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## Modern techniques of Bank administration

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# MODERN TECHNIQUES OF BANK ADMINISTRATION

## Introduction

In consonance with the objectives of the Structural Adjustment Programme (SAP) introduced by the Federal Government in 1986, the policy of licensing new banks was liberalised. Consequently, 80 banks (38 commercial and 42 merchant) were licensed during the period 1986 to 1992, thus increasing the total number of licensed banks from 40 (28 commercial and 12 merchant) in 1985 to 120 (66 commercial and 54 merchant) as at 31st December 1992. Apart from the rapid upsurge in the number of licensed banks which are under the direct supervision and regulation of the CBN, Government has in recent years created several specialised unit banks (e.g. Community Banks and the Peoples Bank of Nigeria) whose activities have had profound impact on the financial system. The upsurge in the number of banks increased the rate of staff turnover and mobility in search of higher positions and responsibility, leading in some cases to the installation of half-baked manage-



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ment teams, reminiscent of the colonial banking era of the 1950s.

Recent developments within the banking industry and indeed, the world at large, point to the urgent need to ensure professionalism and efficiency in the operation and management of banks. You are all aware of the current concerns in our financial system, such as incessant wave of frauds, large volume of non-performing assets, insider abuses, capital inadequacy, poor liquidity management, and weak or incompetent management. For instance, the dearth of experienced management in the financial system has led to a gradual decline in performance

standards as a result of stiffer competition among operators within the system. In addition, the emergence of several "predatory" borrowers who abandon their delinquent account in some banks only to establish new banking relationships in other banks has led to increasing volume of non-performing risk assets, while the growing complexities and sophistication in the financial services industry have continued to pose challenges for both supervisors and management of banks. The emergence of financial distress and the recent takeover of a number of technically insolvent banks is a clear signal to operators of banks that inefficiency and mismanagement of banks will receive appropriate regulatory response from the monetary authorities, and that banks found to be technically insolvent will be subjected to market discipline and allowed to fail, if all restructuring efforts prove unsuccessful.

This paper on bank administration (or management) will be divided into three parts. The first part deals with the framework for bank administration, while the second part exam-

ines the basic theories of bank credit and liquidity. The third part focuses on bank management techniques.

### 1. Framework for Bank Administration

A virile bank administration system requires a sound infrastructural base. The structure or administrative frameworks that are necessary and relevant within a banking context include the development of adequate and well-defined accounting standards; a system of independent auditing and arrangements for the public disclosure of financial accounts.

#### (a) Accounting System

The existence of an agreed set of accounting standards is a *sine qua non* to the operation of an efficient financial market. These are the rules all commercial enterprises, including banks, must follow in preparing their accounts. For instance, balance sheets, profit and loss accounts, cash flow statements, etc. communicate vital information about the enterprises to creditors, investors and commercial counterparts. Banks need dependable accounts from borrower to be able to perform adequate credit analyses. Uniform accounting standards enable a bank to compare the merits of one borrower to another. Similarly, bank su-

pervisors require dependable financial information not only to gauge the financial health condition of individual banks, but also to make comparisons between different banks.

#### (b) External Audit

Some form of external check is necessary to assure the user of published accounts that such financial statements were prepared according to proper accounting principles and conventions. This is why when an enterprise prepares its accounts for presentation to shareholders or creditors or even the supervisory authorities, it must submit them first to a recognised auditor, usually a chartered Accountant, whose duty it is to verify the accounts. The auditor's task is to examine the internal reporting and accounting systems, review documents and working papers used by the firm in preparing its financial statements, and checking to ensure that the accounting principles used are consistent with the required standards. Failure of the auditor to sign the accounts, or the insertion of a qualifying remark, is generally a warning signal to the users of the financial statements.

#### (c) Financial Disclosure Requirement

The level of public disclosures

has risen over the years as financial markets have demanded more and better information. Public quoted companies make more extensive disclosures, especially when issuing new shares or debt capital. Also, disclosure of financial information to current and potential investors, creditors and customers is another means by which the markets can discipline other participants. Today, Nigerian banks are required to submit a long list of various types of periodic returns as well as management reports to the supervisory authorities and in some cases disclosure requirements have extended to the so-called "hidden" reserves.

#### (d) Organogram/ Management

Lastly, attention should be paid to the type of organization structure in place, especially the assignment of line functions, competence, experience etc. of members of the board of directors and top management team. The formulation and implementation of sound and adequate policies by management in the areas of credit appraisal, expansion, and periodic review to prevent loan delinquency; investment composition, quality, maturity and review in order to match expenses with revenue, and liquidity policy

emphasising the types of deposits to be sought, types of credits to be granted and the relationship between liquid assets and deposit liabilities - are all very important factors in bank management. To ensure that the policy-making organs of licensed banks (board of directors and top management team) are in competent hands, the appointees to such positions are screened by the supervisory authorities. One way of finding out how efficiently a bank is run is by observing the frequency of board meetings and the proceedings of such meetings as revealed by the minutes. The main objective is to ensure that the broad policies are in line with public policies and that the bank is being operated in the interest of the depositors, creditors and the economy. Next, the implementation of board's policies by top management team headed by the chief executive of a bank is examined to ensure that there are no variances between the policies and actual performance of the management.

## 2. Theory of Bank Credit/Liquidity

The genesis of financial intermediation shows that bank lending took its root from the foresight and prudence of the London goldsmiths, the forerunners of modern banking.

Seeing that only a small proportion of the property kept with them for safe custody was usually demanded by the depositors at any one time, the goldsmith discovered that he could safely lend the rest or at least part of it, to borrowers for a fee. Since those early days of the London goldsmiths, a great deal of research has been carried out to evolve a "safety valve" in bank credit administration and the formulation of time-tested lending criteria.

It is believed that the development of the modern concept of bank lending started with "real bill" or "commercial loan" doctrine in the 10th century. The doctrine encouraged banks to grant short-term credit to industry and trade which were self-liquidating in nature. This made banks to shy away from financing fixed capital formation. Other theories of importance which followed the bill doctrine include the shiftability, the anticipated income and the liability management theories. We shall consider the last two theories because of their relevance, even today, to the bank lending function.

In 1949, Prochnow enunciated the "Anticipated Income Theory" after a comprehensive study of banks' term loans. The study revealed that: "In every instance, regardless of the nature and character of the borrower's business, the banker

planned liquidation of term loans from the anticipated earnings of the borrower. It (liquidation) is not sales of assets of the borrower as in the commercial or traditional theory of liquidity; not by shifting the term loan to some other lender as in the shiftability theory of liquidity but by the anticipated income of the borrower". Put in another way, that means that a decision to extend a bank loan involves earmarking a portion of the borrower's future production income from a banker's viewpoint. This theory formed the basis of what is today popularly referred to as the cash flow approach to bank lending which views an intending borrower's repayment ability in line with his income generating ability. Indeed, it has been argued that it was the lending that permitted banks to safely extend the longer maturity loans to business, real estate, mortgage loans and consumer instalment loans - that now constitute well over half of all commercial bank lending (Kreps and Wacht, 1972).

The liability management theory is a recent development. This doctrine argues that proper liquidity management should enable a bank generate enough liquid resources as and when desired, thus eliminating the constraints inherent in earlier bank lending concepts. Woodworth opined that "it was

unnecessary to observe traditional standard in regard to self-liquidating loans and liquidity reserves since reserve money can be borrowed or "brought" in the money market whenever a bank experiences reserve deficiency.

### 3. Bank Management

Simply put, the whole idea of portfolio management is to ensure that the investment portfolio is mixed in a manner that ensures maximum returns at minimum risks. Thus, the prudent investor ensures that his portfolio basket includes those securities whose returns and risks are not correlated with one another. In this way, the investor is assured that prices of the assets will not move together in the same direction, up or down, as well as reducing the fluctuations in returns and the risks on the total investment. This calls for the evaluation of securities on the basis of risk and yield.

The overall objective of bank asset and liquidity management is to obtain those assets which will maximize the present values of cash flows and to evaluate the sources of funds available to the bank that can be invested in earning assets. An important part of banking business consists of the transformation of low cost short-term liabilities into higher interest-bearing longer-term assets. The

higher the requirement to hold short-term liquid assets, the lower the profitability. However, the more maturity transformation permitted, the higher the risk that a bank will not be able to repay its deposits when they request their money. Therefore, liquidity requirements should be kept at a reasonable level to accommodate a normal pattern of withdrawals, taking into account such factors as payment practices and seasonal movements. Adequate liquidity is essential for the survival of all businesses, especially in the banking business where the tool of trade is money. Liquidity is a constant concept, valid in any set of circumstances. The usual questions that agitate the minds of Bank Managers include: What will be our future investment outlets (e.g. loan demand); will our bank have sufficient liquidity to satisfy the expected demand? Should the bank change the composition or maturity structure of its investment (e.g. loan portfolio)? What will different assets be yielding in the future? How will the size and mix of the bank's deposit change in future? Should the bank acquire additional funds? Where will such funds be obtained from - money or capital market - deposits mobilisation or borrowings? What is the effect of the bank's policy constraints on its profits and risks?

From the foregoing questions, it can be seen that the business of bank asset and liability management is not an easy one. Indeed, bank balance sheet management is always hampered by many factors, including risk, market, technology institutional and regulatory constraints (Ebong 1984).

### Bank Management Techniques

Funds management represents the core of sound bank planning and financial management. Simply put, assets and liability management involves determining the size and composition of a bank's assets, liabilities and capital that will best achieve the bank's twin but conflicting objectives of liquidity and profitability. In practice, these objectives usually involve a trade-off to arrive at a meaningful compromise.

Many methods of assets and liability management have evolved over the years. The commonest methods include forecasting, pool of funds or asset allocation, liability management, liquidity management, gap management, foreign exchange management and credit risk management (Rohlwink, A 1984). The only sound basis for risk evaluating a fund management strategy is

through a thorough understanding of the individual bank, its customer mix, the nature of its assets and liabilities, and the economic and competitive environment. The most popular methods of portfolio management are highlighted below:

**(a) Liquidity Management**

Liquidity represent the ability to most efficiently accommodate decreases in deposits and funds increases in the loan portfolio, that is, to meet customer's loan request, fund commitments and lines of credit. A bank has liquidity potential when it has the ability to obtain sufficient cash in a timely manner at a reasonable cost. The cost of obtaining liquidity, is a function of market conditions and the degree of risk, both interest rate risk and credit risk, reflected in the balance sheet. For example, if liquidity needs are met through holdings of high quality short-term assets, generally the cost is the income sacrificed by not holding longer-term and/or lower quality assets. In the same vein, if liquidity needs are not met through liquidity asset holding, a bank may be forced to acquire additional liabilities under adverse market conditions at excessively high rates. It should be borne in mind that

the adequacy of a bank's liquidity vary over time depending on the anticipated need for funds. Likewise, a liquidity position which is adequate for one bank may be inadequate for another institution.

In practice, the liquidity profile of a bank is closely monitored with the help of manual records or computer print outs that show the cash maturity agenda of a bank's various assets and liabilities for different periods. In addition, forecast of any changes in the regulatory environment, which might affect the bank's liquidity is taken into consideration. As a liquidity cushion, banks usually make interbank placements, invest on certificates of deposit and carry an investment portfolio that is easily realisable in case of need. The acid test which an individual bank may use as a formal measure of liquidity in comparison with other banks is the ratio between specified liquid assets and current liabilities. Liquidity needs may be met through asset management, liability management, or a combination of asset and liability management.

**(b) Asset Management**

Liquidity needs may be met through the sale or planned run off of readily marketable assets specifically set aside to meet liquidity needs. Liquid assets

enable banks to provide funds to satisfy increases in loan demands. Banks which rely solely on asset management focus on adjusting the price and availability of credit, and the level of liquid assets held, in response to changes in customers' asset and liability preferences. The amount of liquid assets a bank should maintain is a function of the stability of its deposit structure and the potential for rapid loan portfolio expansion. Generally, if deposit accounts are primarily composed of small stable accounts and loan demand is stable, a relatively low allowance for liquidity is necessary.

Asset liquidity in terms of both time and cost is of primary importance in asset management. Seasonal or other factors may often cause aggregate outstanding loans and deposits to move in opposite directions and result in loan demand which exceeds available deposit funds.

**(c) Liability Management**

The discretionary acquisition of funds on the basis of interest rate competition can be employed to fulfil liquidity needs. Conceptually, the availability of asset and liquidity options may result in a lower liquidity maintenance cost. This is done by comparing the alternative costs of available

discretionary liabilities to the opportunity cost of selling various assets. The liquidity potential of a bank indicates its ability to obtain additional liabilities over and above existing liabilities. The marginal cost of liquidity, that is, the cost of incremental funds acquired, is of paramount importance in evaluating liability sources of liquidity.

It is pertinent to stress that the ability of banks to obtain funds in the money market varies with the size and reputation of the bank. The older larger banks (excluding distressed banks undergoing restructuring) are able, to a greater degree, to control the level and composition of their liabilities in addition to deliberately designing the composition of the asset side of the balance sheet. When funds are required, such banks have a wider variety of options from which to select the least costly method of generating funds. However, the large banks' access to discretionary funding sources is a function of their position and reputation in the money markets. Changes in money market conditions may cause a rapid deterioration in a bank's capacity to borrow at a profitable rate. The scope and volume of the smaller banks' operations in the money market is somewhat limited.

#### (d) Forecasting

As an increasing number of banks are attracting funds on a cost competitive basis, the need for sound funds management policies increase. A good policy which provide for forward planning and which takes into account the unique characteristics of each bank, management goals regarding asset and liability mix, desired earnings, and margins necessary to achieve desired earnings must be put in place. Forward planning also takes into account anticipated funding needs and the means available to meet these needs.

Developing assumptions with regard to the future by forecasting is essential to liquidity planning. In planning for liquidity needs, management should consider the effect events are likely to have on funding requirements, as well as the probability of such events occurring. Without such planning, the bank will be run by the dictates of the economy rather than by its management. All banks are affected by changes in the economic climate. Therefore, management should have contingency plans in case its projections are not correct to identify alternative courses of action designed to meet those needs.

#### (e) Funds Allocation

The pool of funds approach to assets and liability management assumes that the liquidity side of the balance sheet, which is the pool of funds available for use, is fixed and through judicious use ensures that funds will always be available even during tight credit squeeze. Thus, funds are allocated in the following order of priority or liquidity:

- (i) Primary Reserves for reserve and transaction balances including cash balances with other banks and statutory cash reserve requirements by the Central Bank of Nigeria.
- (ii) Secondary Reserves to meet liquidity needs - highly liquid, short-term investments e.g. specified liquid assets - treasury bills and certificates etc.
- (iii) The Loan Portfolio consisting of loans and advances to customers.
- (iv) The remaining funds are regarded as residual amounts and are usually invested on interest-bearing securities-medium and long-term investments.

This method of portfolio

management is popular among small and new banks which have limited access to the money and capital markets.

#### (f) Foreign Exchange Management

The Central Bank of Nigeria is charged with the responsibility of managing Nigeria's external reserves in order to safeguard the international value of the naira. Two measures of external reserves adequacy are observed in Nigeria. One is the reserves/import ratio. In line with the recommendation of the International Monetary Fund (IMF) a minimum of foreign exchange reserves equal to the cost of four months imports is observed. The second measure is the ratio of external reserves to the Central Bank's total demand liabilities. Under current legislations, the Central Bank of Nigeria is legally required to maintain external reserves equal to 25 percent of its currency issue and other demand liabilities.

The techniques of foreign exchange management in Nigeria have been modified from time to time and have included external reserves diversification through a careful selection of assets of different currencies and foreign securities, external debt management administrative controls

(e.g. sectoral allocation), exchange rate adjustment as under SFEM.

On an individual bank basis, currency exposure is monitored with the help of manual records (norstro and vostro accounts) or computer printout of such records which reflects the bank's daily net trading position for each currency. An individual bank formulates its own foreign exchange management policy. For example, a bank can take a position on exchange rate movements and consciously maintain an open position with a predetermined ceiling in each currency. Currency exposure arising from transactions with individual customers may be covered forward by entering into forward exchange contracts.

#### (g) Gap Management

Gap management focuses on managing the interest rate risk that results from an imbalance between rate-sensitive assets and liabilities. A rate sensitive asset may be viewed as an asset which can be repriced at current market rates within a given time period (the actual time period selected will most probably depend on the frequency of interest rates movements). A rate sensitive asset/rate sensitive liability ratio of 1 indicates a balanced position, and a ratio greater than 1 indicates an assets sensitive position. A ratio

of less than 1 indicates a liability sensitive position.

#### (h) Credit Risk Management

This means the possibility that a borrower will not be able or willing to fulfil his contractual obligations. Some of the pointers are defaults on loan commitments, violations of the term in the written agreements, or the abuse of subordination conditions. Credit Risk can be viewed as the most important risk which Nigerian banks face bearing in mind the staggering size of their non-performing assets. For example, as at December, 1990, total classified (bad and doubtful) loans and advances which the licensed banks could not recover stood at about 11.9 billion or 44.2 percent of total bank loans and 343.8 percent of total bank shareholders' funds, indicating that some banks were technically insolvent as a result of their poor credit administration (Umoh, 1992). To minimize credit risk, banks check through the credit histories of all their customers and ensure that credit lines are willing to honour financial obligations.

In everyday life, one or a combination of three tactical options may be adopted to actively manage an investment portfolio. First and foremost, variation in the overall average

life of the portfolio responds to changing expectations about interest rates. Therefore, the timing of changes in average life critically affects portfolio performance. Next, the treasury manager could compare yield differences between different instruments. Yields on different instruments, often of equal maturity, can vary significantly over time, providing an opportunity to trade assets in order to enhance returns. The third strategy involves selling investments before maturity to take advantage of yield differences. For instance, when interest rates are constant or falling, it is sometimes possible to improve the returns earned over the holding period by selling investment instrument before they mature - an action referred to as "riding the yield curve".

Lastly, the ability of a particular bank to employ any of the foregoing techniques depends critically on its contact with the financial markets and its choice of investment agents and counterparts. Also, a good flow of market information and intelligence as well as analysing capability supported with streamlined decision making on investment must be assured.

### Summary

In this paper we examined the basic theories and concepts underlying bank management. We

learnt that portfolio management, especially the funds management aspect, represented the core of sound bank planning and financial control. The principal methods of assets and liability management including liquidity and asset management, forecasting, resource allocation, foreign exchange management and gap management were discussed. We saw that the twin concepts of overall bank liquidity and balance sheet interest rate sensitivity management.

Lastly, we learnt that portfolio management in banks being an intricate matter usually requires the setting up of management committees to take charge of the bank's asset and liability management. The number of such committees varies from one bank to another, but usually include loans and advances or credit and investment committees. They meet periodically, say monthly, to review performance in terms of loan volume as well as profitability for individual asset and liability categories, adjustments in regulatory framework, such as changes in reserve requirements, credit and prudential guidelines, interest and exchange rate positions.

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