NIGERIAN CAPITAL MARKET OPERATIONS

BY

DANLADI BORO
PGD/MCS/97/98/722

JULY 2001

NIGERIAN CAPITAL MARKET OPERATIONS

BY

DANLADI BORO
PGD/MCS/97/98/722

JULY 2001

NIGERIAN CAPITAL MARKET OPERATIONS

BY

DANLADI BORO
PGD – COMPUTER SCIENCE
REG NO. PGD/97/98/722

BEING A PROJECT SUBMITTED IN
PARTIAL FULFILMENT OF THE REQUIREMENT
FOR THE AWARD OF POST GRADUATE DIPLOMA IN
COMPUTER SCIENCE AT THE FEDERAL UNIVERSITY OF
TECHNOLOGY, MINNA – NIGERIA

SUPERVISOR: MAL. ISA AUDU

JULY, 2001

CERTIFICATION

This is to certify that, this research was carried out by Danladi Boro (PGD/ Reg. No. PGD/97/98/722) of the Department of Mathematics/ Computer Science is fully adequate in scope and qualify for the award of the Post graduate Diploma in Computer Science of Federal University of Technology, Minna.

MALAM ISA AUDU	DATE
DR S.A. REJU Head of Department	DATE
EXTERNAL EXAMINER	DATE

DEDICATION

This project is dedicated to my family members: Christie (Mrs), Danladi (Jnr), Yohanna, Gideon and Lois.

ACKNOWLEDGEMENTS

My sincere appreciation goes to the Almighty God whose infinite mercies, divine direction, protection and provision enriched me with wisdom to pursue this study and also complete it successfully.

I want to also appreciate the assistance of my Project Supervisor, Mallam Isa Audu and the attention given to me in ensuring that I complete this project. My thanks also go to Mallam Garba Abdullahi for his encouragement and support that enabled me finish this work.

My special appreciation goes to James Arinbola who word-processed the manuscript.

Finally, my Dear Wife – Christie, Danladi Boro (Jnr), Yohanna and Gideon for their encouragement and tolerating my absence as demanded by this course from time to time.

May God bless you all (Amen).

ABSTRACT

The Capital Market Operations has been a major source of funding for both Private Sector (quoted companies) as well as Public Sector in Nigeria. This marketing in Nigeria is developing fast and has no boundaries. For the purpose of understanding the operations and computerization of this market, this project is being designed and developed.

The system is designed for easy, effective and efficient record keeping of the capital market operations. This proposed system will ease the addition of new record, retrieval and access to record by authorized users. It also enhances speedy projection of reports (daily, weekly, monthly, quarterly and yearly).

dBase program language was used to develop the user's software and the program can run on both dBase III plus aid dBase IV program environment.

LIST OF CHARTS

CONTENTS

CHAPTER ONE

1.0 INTRODUCTION

Broadly, the term "Capital Market" includes the entire financial system, including the commercial banks and other financial institutions providing short, medium and long-term loans to finance both consumption and investment. In another sense, the capital market involves the problem and prospects of equity investment. This involves the issue and market of shares, bonds and debentures using the services of brokers, dealers and under-writers.

The Capital Market is not a single entity. It is rather a network of specialized financial institutions that in various ways bring together suppliers and users of capital. These institutions include Merchant Banks, Stockbroking Firms, Issuing Houses, Venture Capital Companies, Development Finance Companies, Unit Trusts, The Central Bank, The Securities and Exchange, which is the hallmark of the capital market.

In summary, a narrow definition, capital market (for stock market) today fulfills the following roles within an economy.

- It provides a means for raising long-term finance to assist governments and companies to execute their development projects, modernization and expansion;
- It provides a mean for allocating the nation's real and financial resources between various industries and companies;

- It provides liquidity for the investment funds from the standpoint of individuals for the economy;
- Through its pricing mechanism, it provides industrial management with some idea of the current cost of capital and this can be important in determining the level and rate of investment; and
- It can act as a reliable medium for broadening the ownership base from the erstwhile family dominated firms.

1.1 IDEAL ENVIRONMENT FOR AN EFFICIENT CAPITAL MARKET

The basic economic and social factors that promote successful securities market with different operations of stock market are:

- Enterprising private sector
- Inequality (in income and wealth)
- Interest rates
- Role of foreign investment
- Broadening ownership
- Savings structure
- Speculation and control

1.2 STATEMENT OF PROBLEM

The Nigerian capital market, like its counterparts elsewhere, plays a key role in national economic development. As a major player in the financial system, the capital market mobilizes and channels funds for the financing of long-term industrial projects.

The Securities and Exchange Commission (SEC), which is the main regulatory body charged with responsibility of overseeing the capital market among other developmental pursuits, in 1996, embarked on a nation-wide public enlightenment campaign, aimed at sensitizing the various tiers of Government, the Organized Private Sector (OPS), as well as indigenisation entrepreneurs towards taking advantage of the immense opportunities available in the capital market.

In achieving the above objective, the commission identified, and commenced a collaboration with the various City-chambers of Commerce and Industry spread across the nation, recognizing their position as the organized institution for the rallying of small and medium scale businesses. The collaborative effort has given birth to greater awareness about the market, as local entrepreneurs and Governments that, hitherto, benefits derivable from the market, are now better informed.

In this project, focus will be beamed on "opportunities in the capital market for industrial development" and the step-by-step approach towards accessing the capital market, as well as the roles of regulatory authorities and intermediaries in this process. Also, the seeming complexities shrouding understanding of the capital market (in terms of its nature and mode of operation) will be clarified, thereby, paving way for increased awareness and participation in the capital market, especially in the Second-tier Securities Market (SSM) which was established in 1985, with less-stringent requirements of listing for small-scale companies that are viable to meet the requirements of the main market (that is the first-tier market).

1.3 PURPOSE OF THE STUDY

Capital markets are primarily created to provide awareness for effective mobilization of idle funds from surplus economic units, to be channeled in the deficit units for long-term investment purposes. The suppliers of funds are basically individuals and corporate bodies as government rarely supply funds to the market. The deficit units by contrast, consist only of corporate bodies and governments. In other words, individuals (households) who are major suppliers of funds to the market are absent in the category of fund users. This is because conventionally, individuals cannot access the capital market for funds. Secondly, capital markets through their secondary arms, provide opportunities for the purchase and sale of existing securities among investors thereby encouraging the populace to invest in securities and fostering economic development.

Funding requirements of corporate bodies and Governments are often colossal, sometimes running into billions of Naira. It is therefore usually impossible for these bodies to meet such funding requirements solely from internal sources. Indeed when funds are needed for long term purposes, the capital market is the ideal source as it enables corporate entities and governments to pool monies from a larger number of people and institutions, or from a selected group of previously identified investors.

The socio-economic functions of the capital market are well established. It does not only encourage and mobilize savings but also

efficiently allocate such savings to areas of need. It also plays a very unique role in the financial system by providing non-refundable, non-interest bearing funds to companies through the issuance of equities (ordinary shares).

As at December 31, 1996, the total number of shareholders in quoted companies in Nigeria was about three (3) million, comprising mainly of individual and institutional investors. Regrettably however, a large proportion of the individual shareholders, who own 44.2 per cent of the outstanding shares on The Nigerian Stock Exchange are ignorant about the nitty-gritty of the market, and cannot evaluate with a good degree of accuracy the quality of the instruments they had bought, or are intending to buy from the market. The problem is that financial assets, unlike commodities are intangible and therefore, do not lend themselves to physical inspection or easy evaluation. The question then arises as to how investors and indeed other users of the market can be protected from the predatory activities of undesirable persons who might enter the capital market. Though one should emphasize that investors protection or regulation in the capital market is never intended to eliminate risks involved in the normal course of business or investment, as all investments, including capital market investment, necessarily entail some level of risk. The aim of protecting investors is to ensure that they do not become victims of unhealthy activities perpetrated by miscreants, and that such practices are minimized and seen as an aberration in society. This is necessary in

order to build confidence in the capital market and in turn, foster the spirit of enterprise and advance the wheel of economic growth and development.

In carrying out the mandate of safeguarding the interest of investors, the commission applies various tools in consonance with its enabling decree and global practices. Primarily, the purpose of SEC Decree No. 29 of 1988 is to protect the investing public against practices such as the issuance and distribution of fraudulent and worthless securities as well as ensuring fair, transparent and equitable dealings in securities. In this regard, section 6 of SEC Decree 1986, among others empowered the Securities and Exchange Commission (SEC) to:

- register all public offerings of securities;
- register all market operators and the secondary market place;
- maintain surveillance over the market place as well as the activities of operators;
- ensure fair and equitable dealings in securities;
- uphold the integrity of the capital market;
- act as the regulatory apex organization for the capital market and the stock exchange to which it shall be at liberty to delegate functions an
- create the necessary atmosphere for the orderly growth and development of the capital market.

The principal purpose of this project is to appraise and re-examine the current trend in the automation of the national capital markets and also specifically assess the possibilities of having an automated capital market in Nigeria. To do this, we shall first look at what automation entails and the

necessity for it. This will be followed by a brief discussion on the types of market system currently operating in Nigeria.

1.4 SCOPE OF THE STUDY

Automation can be defined as "any system or method that uses self operating equipment, electronic devices, etc to replace human beings in doing routine or repetitive works". In other words, automation refers to all processes in which machines are used to perform tasks that previously required manual skills. Automation within the capital market context therefore means considerably reduced manual execution of capital market transactions. Areas where automation is commonly practiced in the Nigerian Capital Market are:

I. Order collection and order routing;
II. Price determination process in the secondary market;
III. Order execution;
IV. Clearing and settlement;
V. Market Information system; and
VI. Market surveillance system.

1.5 SIGNIFICANCE OF THE STUDY

The basic motives for promoting securities market worldwide can be summarized as follows:

- To foster the mobilization of savings for the purpose of buying securities issued either by government or enterprises to finance development.
- To provide secondary market for trading securities thereby improving the efficiency of capital allocation through a competitive pricing mechanism.
- To facilitate the forum for all individuals to invest in a wide range of risk and reward opportunities.
- To provide an alternative source of revenue other than taxation for government.
- To promote an alternative source of revenue other than taxation for government.
- To promote rapid national information.

In addition to pursuing the above motives for national development, government has also the statutory responsibility to ensure that there is adequate level of protection for whoever decides to invest in her economy. To this end, government must ensure efficiency in the market, generate a high level of confidence in it and assure soundness and stability, if the motives mentioned earlier must be achieved. The question therefore is how can automation enhance the realization of the broad financial policy objectives. For instance, will automation of the capital increase its efficiency? Will it guarantee confidence or can it lead to soundness and stability in the market.

Automation of the securities market has the potential of improving the efficiency of the market from the point of view of reduced operational costs. Automation will reduce any processing error that are usually associated with manual system, if not totally eliminated.

The quality of the market, which is usually measured by visibility, liquidity and relative prices stability will also improve as a result of automation. This may be possible through timely and adequate market information (prices, volume and company information) dissemination among market professional and investors.

Better market integration can be achieved as a result of automation especially where there are many branches of the same stock exchange situated in different cities or where there are independent Stock Exchanges. As a result of automation, the usual physical presence of dealers will be minimized. To that extent, participants and investors will be integrated, no matter their geographical location to the screen-based quotation, order confrontation or price determination systems.

Moreover, automated securities market provides ample opportunity towards implementing policies that could enhance adequate protection of investors against price manipulation and negative effects of insider trading. This is because in an automated and integrated system, market progress and trading process can be monitored and any unusual movement in price or volume investigated. In addition, the effect of the release of company news on the behaviour of equity price of the same company before and

after the release can also be examined. To a large extent, this is a major tool for identifying cases of insider trading.

1.6 RESEARCH METHODOLOGY

This study of Nigerian Capital Market Operations will employ content analysis as a research technique.

Barelson (1952) defines content analysis as "a research technique for the objective, systematic and qualitative description of manifest content of communication" (in Sellitz et al 1977:335) Noted that content analysis is used for the analysis of common carbon documents, such as newspapers and magazines, official records, personal letters, diary and monitor of meting to obtain information to answer research questions. They contended that content analysis emphasizes the procedure of analysis rather than character of the data available in recommended communication (1979 : 340).

This research technique entails careful study of written communication to collect relevant data. It has been variously depending on the research problem and the objectives of study to acquire systematic data. The approach also combines both qualitative and quantitative analysis depending on the character and content of documents and the data collected.

The technique of content analysis will be used for this research because the technique is known for providing objective, systematic, valid and reliable data. Also, Content Analysis is a cheaper means of data collection than any other technique. It is highly economical without financial burden on researchers in comparison to other techniques like

survey method etc in the case of study. The method demands the researcher to read through written communication and obtain information.

The method allows for the establishment of trend over time due to its periodic nature. Content analysis is usually done periodically which permit researchers to know whether a regularity can be noted over years on any particular issue. Since it involves the analysis of communication content, it can be done at regular interval.

Further, content analysis does not require the co-operation of individuals about when information is sought. Since it deals with written communication and co-operation of individual concern with the research is secondary in contrast to other technique such as interview and questionnaires.

Furthermore, the technique is bias free since the researchers prejudice and interests are not likely to change the behaviour in which he is interested. The researcher is working on a material that can be cross-checked and therefore has little chances of manipulating the data.

Finally, content analysis is the most suitable technique for this work, because the study is historical and involves the topic of interest to scholars and students alike.

Then, the system design proper of the Nigerian capital market operations, the programming of the market and finally the summary and conclusion.

1.7 CAPITAL MARKET GLOSSARY

a. ALLOTMENT

The allocation of securities among various subscribers to a security issue. In Nigeria, preference is given to small subscribers in the allotment of securities in line with the widespread share ownership philosophy of the Federal Government.

b. ANNUAL REPORT

A document published yearly by a company and distributed to its shareholders showing its operations including financial performance during the fiscal year. The report, which is mandatory for public companies, contains the financial statement, auditors report, chairman's statement and directors' report, among others.

c. AUTHORIZED SHARE CAPITAL

The permissible number of shares a company may issue as stated in its memorandum and Articles of Association. The authorized shares are just to change only by a resolution at a general meeting of shareholders.

d. BONUS ISSUE

Shares distributed free to shareholders out of a company's reserve in proportion to the number of shares held, e.g. shareholders could receive one new share of every two held. Such shares add to the shareholder's holdings as well as the company's outstanding shares (paid-up capital) but does not generate additional fund for the company. It is also called share dividend because it is portion of post tax profit that is declared by a company and distributed to shareholders in form of shares already held.

e. BOND

Interest-bearing securities (i.e. debit securities) issued by corporate entities and governments. However, in Nigeria, Federal Government long-dated instruments are generally not called bonds but stock.

f. CAPITAL MARKET

Financial market which trades in medium or long-term financial instruments (stock and bonds) with maturity in excess of one year. It is a network of participants, instruments and facilities which function basically to facilitate efficiently, the flow of savings into long-term investment for socio-economic development.

g. **CAPITAL STRUCTURE**

The various components of a company's long-term capital such as debentures, ordinary and preference shares.

h. **DEBENTURES**

Interest-bearing securities of corporate bodies representing indebtedness by the issuer pays subscribers interest at stated intervals and redeems the principal on maturity.

i. **DEBT/EQUITY RATIO**

Indicates the extent to which shareholders' fund can absorb creditors' claims in the event of a company's liquidation; derived by dividing the long-term debt of a company by its equity capital (shareholders' funds).

j. **DEBT FINANCING**

The issuance of debt securities by a company to raise funds to finance a specific project, working capital and/or retire current indebtedness. A government could also issue debt securities to finance specific project.

k. **DEVELOPMENT LOAN STOCK**

Long-term, interest-bearing securities of the Federal Government of Nigeria traded on the Stock Exchange.

l. **EARNINGS PER SHARE**

Gross profit of a company (less taxes and obligations to preference shares and bond holders), divided by the company's paid-up capital. It shows how much a company had earned on its ordinary shares.

m. **EQUITY**

Ownership capital held by individuals, corporate bodies and sometimes government in a company. Also called ordinary shares.

n. **EX-DIVIDEND**

Without dividend. The buyer of a security marked ex-dividend will not be entitled to receive current or impending dividend on the company whose securities were bought.

o. **EQUITY CAPITAL**

Monies supplied to a company by persons and institutions having ownership interest in it.

p. **EQUITY FINANCING**

q. **FLOATATION**

Public offering of new securities by a company or government.

r. **FULL PAID-UP CAPITAL (SHARES)**

The proportion of a company's authorized share capital that has been issued and paid for by shareholders.

s. **GUILT-EDGE SECURITIES**

Securities issued by governments. They are usually considered high-grade and safe investment owing to the almost zero probability of default on interest and principal payments.

t. **ISSUED CAPITAL**

The portion of the authorized capital of a company which has actually been issued to subscribers (investors) which may or may not have been paid for. The issued capital may be equal to or less than the authorized capital but never greater than it.

u. **LIQUIDITY**

The ease of which financial instrument can be converted into cash. An instrument which can be quickly converted is said to be liquid while one which cannot be easily converted is regarded as illiquid. A stock market is considered liquid when it can absorb large volumes of trading without significant change in prices and when securities can be easily converted into cash.

v. **NEW ISSUES**

Securities of government or corporate entity newly created and offered for subscription to the public, or to a select group of investors, in the case of private placement, or to a company's existing shareholders as with rights issues. New issues are a means of raising funds for development financing, and do enlarge the paid-up capital of a company.

w. **ORDINARY SHARES**

Securities representing ownership in a business (i.e. equity participation in a company) which entitle the holder to dividends, voting right and the residual share of a company's assets in the event of liquidation i.e. after it has met all its liabilities. Non-voting ordinary shares, however, do not confer voting rights on the holder, although they entitle him to dividends when declared.

x. **PORTFOLIO**

The totality of the various types of securities and other financial instruments (stock, bonds, treasury bills, etc) held by an investor. Although it mostly refers to financial instruments, real estate investments are often included.

y. **PREFERENCE SHARES**

A class of shares whose have a prior claim over equity holders on the earning of the issuer but do not have a priority claim over obligations to creditors of the company. Dividend paid to preference shareholders, unlike equity holders are based on a predetermined rate. There are various preference shares.

z. **REGISTRAR**

A capital market operator appointed by a public company to maintain a comprehensive list of its bond/shareholders; dispatches annual report, dividend warrants and return monies and other documents to shareholders. He may also arrange annual general and extra-ordinary general meetings on behalf of the company and perform other related functions. Registrar's activities are not restricted to public companies but extend to government issues.

aa. **STOCK EXCHANGE**

An organization which provides facilities for trading in securities by its members and also sets rules for the admission and trading of existing securities as well as rules to guide the business conduct of members.

ab. **VENTURE CAPITAL**

Monies which are invested in a commercial venture with highly uncertain chance of success; hence such monies are called risk capital.

ac. **YIELD**

The rate of return on an investment.

ad. **ZERO COUPON BOND**

A bond which carries no coupon and thus pays no interest to the holder but is issued at a deep discount from its face value (i.e. the redemption price). To the issuer, the absence of interest payment is seen as an advantage while the investor usually benefits by way of capital appreciation.

CHAPTER TWO

2.0 LITERATURE REVIEW

The operations of the Nigerian Capital Market are governed by:

- The Securities and Exchange Commission Decree No. 29 of 1988 (The SEC is the apex body controlling the operators of the Nigerian Capital Market).
- The listing requirement of the Nigerian Stock Exchange.
- The Companies and Allied Matters Decree of 1990.

The capital market is concerned with long-term capital transactions. This relates to the issuance and marketing of shares, bonds and debentures, using the services of brokers, dealers and underwriters. The capital market is not a single entity but a network of specialized financial institutions that, in various ways, bring together suppliers and users of capital market for raising long-term finance to assist governments and companies to execute their development projects. Through its pricing mechanism, the capital market also provides industrial management with some ideas of the current cost of capital - an important guide for determining the level and rate of investment. In addition to the Central Bank and the Commercial and Merchant Banks, other key Securities and Exchange Commission (SEC), Stock-broking Houses, the Registrar/Issuing Houses, Companies and Investors.

The Securities and Exchange Commission and the Nigerian Stock Exchange have instituted several measures to strengthen the capital market and ensure its stability. These measures include:

I. Upward revision of the minimum paid-up capital of registered market operators;

II. Stipulation of mandatory fidelity insurance bond cover for all market operators;

III. Requiring issuing houses to underwrite new public issues except where an issuer objects to the underwriting of its issue;

IV. The establishment of Capital Market Committee (CMC) to deliberate on matters affecting the capital market thereby strengthening the stability of the market;

V. Up-grading the Commission's surveillance division to a department for effective and efficient performance of its functions.

VI. Review of some of the commission's rules to improve capital market operations; stem undesirable activities and strengthen confidence in the market.

VII. Revision of the registration guidelines in order to improve the quality of the commission's oversight activities in the market.

VIII. The establishment of the Administrative Hearing Committee in 1993 to ensure fair hearing of cases relating to allegations of violation of the securities laws, professional misconduct, manipulation and fraud.

IX. Establishment of Investors' Protection Fund to promote confidence in the market. The security deposit of each stockbroker is being substantially increased while the trustees of the funds are being enlarged to cope with the growth of the Nigerian Stock Market. Efforts are being made to complement the fund with an insurance cover;

X. Removal of names of distressed stock broking firms from the list of Stockbrokers qualified to serve as Receiving Agents for primary market issues; and

XI. Suspension of trading and distressed quoted bank's securities and de-listing them if their licenses are revoked. These action are taken by the Exchange in consultation with the CBN and NDIC with the protection of Investors being paramount in the process of de-listing.

2.1 INTRODUCTION

The Nigerian Capital Market commenced as Lagos Stock Exchange in 1960 as a non-profit making organization modeled after the New York Stock Exchange as a private initiative by some Nigerian businessmen. It received its legal backing with the enactment of the Lagos Stock Exchange Act of 1961, which was later transformed into the Nigerian Stock Exchange with branches in Lagos, Kaduna and Port Harcourt in 1977. Subsequently, branches were expanded to Ibadan, Kano and Onitsha. Although the decree establishing the Nigerian Shareholders Zonal Associations entitles Jos to have a trading floor that dream is yet to be achieved. Similarly, the new federal capital territory, Abuja, which is now fast becoming a center of business activities is yet to have an impact of the capital market operations in spite of the fact that it serves as the nerve center of most annual general meetings of companies listed on the Nigerian Stock Exchange. However, by April 2001, a new market on trading was opened, that is, Abuja Stock Exchange.

The primary function of the Capital market is to facilitate the buying and selling of shares by means of listing such companies securities on the official list of the Nigerian Stock Exchange through payment of registration fees and the relinquishing of part of the companies shares of such a company for public subscription which enables it to qualify for listing as a public limited liability company. Alabi M.L. (1987) CAMP (1990).

2.2 THE STRUCTURE OF THE NIGERIAN CAPITAL MARKET

The Nigerian Capital Market exists to provide facilities to the government and private sectors to raise long-term capital to execute their development programmes and also to finance expansion and modernization of industrial projects.

There are two markets within the Nigerian Capital Market for publicly held securities:

2.2.1 Primary Market

This operates when the initial capital raising takes place. Both Securities and Exchange Commission (SEC) and Nigerian Stock Exchange (NSE) are involved in primary market activities. The issuing houses and stock- brokers also play prominent roles. Methods used to raise such new issues include:

a) **Offer for subscription:** Sale of Shares, Debentures, Stocks or Bonds to investors. Proceeds of the offer to the company or Government, which offers the shares and/or Bonds.

b) **Offer for sale:** Sale of shares by existing shareholder(s) to the public, proceeds go to the seller of such shares. Most operations of the Technical Committee on Privatisation and Commercialisation (TCPC) are offers for sale and so the proceeds go to the Government who is selling such shares and not the companies.

c) **Right Issue:** Sales of new shares to only existing shareholders, proceeds go to the company.

d) **Private placement:** Shares are sold to few individuals and institutions.

2.2.2 The Secondary Market: Operates after the issue has been completed and the security listed on the stock market. Second market(s) are vehicle(s) for providing liquidity to Investors. In Nigeria, secondary market transactions are carried out by licensed stockbrokers on the six trading floors of the Nigerian Stock Exchange located in Lagos, Kaduna, Port Harcourt, Kano, Onitsha and Ibadan and of lately, Abuja. Buying and selling of shares and stocks are done by lincensed stock-brokers on behalf of their numerous clients. The transfer of shares ends with the delivery of certificates to the new buyers. Securities traded include the Federal Government stocks, debentures stocks, preference shares, state government bonds and equities (ordinary shares of quoted companies).

2.2.3 The capital market in Nigeria is regulated by the following bodies:

i) The Federal Ministry of Finance.

ii) The Central Bank of Nigeria.

iii) The Securities & Exchange Commission and

iv) The Nigerian Stock Exchange.

While the NSE supervises the operations of the formal quoted market, the SEC takes charge of the overall regulation of the entire capital market. Both the Federal Ministry of Finance and the Central Bank of Nigeria provide further regulation in terms of guidelines set in monetary policies and special directives.

2.3 THE ROLE OF THE NIGERIAN STOCK EXCHANGE IN THE NIGERIAN ECONOMY

The Nigerian Stock Exchange is not a government institution but a non-profit making organization limited by Guarantee, incorporated via the inspiration and support of businessmen and the Federal Government, but owned by 256 Shareholders made up of financial institutions, stock brokers and individual Nigerians of high integrity.

Dealing members of The Stock Exchange are stock broking firms lincensed by the Exchange to issue, buy and sell shares on behalf of the investing public.

The President and council members (Chairman and Board of Directors) of the Stock Exchange are elected at each Annual General meeting by members of the Exchange. The tenure of the presidency is limited to a three-year term. The Council is responsible for policy-making but the day-to-day affairs of the Exchange are administered by the Director-General and his team of Executives. The Council members, staff and stock brokers are subject to a stringent regime of codes of conduct which calls for a high degree of integrity, discipline and sacrifice.

With seven (7) branches, each located in Lagos, Kaduna, Kano, Port Harcourt, Ibadan, Onitsha, and Abuja, the Exchange which was established in 1960 opened its Lagos Trading Floor in 1961 with only 19 securities worth ₦80 million listed on it. Up to 1990, there are 241 securities quoted with a market capitalization in excess of ₦23 billion; 110 Stock-broking Houses, 60 Issuing Houses; over 200 floor dealers; more Share Registrars; more experienced and skilled staff and computerized communication systems.

The market has witnessed since 1994, a steady increase in the value of floatations. However, between 1990 and 1998 for instance, it provided 316 entities (mainly corporates) with a total of ₦45.5 billion to finance various developmental needs. On average therefore, about 31.6 issuers were in the market yearly for ₦4.55 billion. The market capitalization of securities on the Stock Exchange stood at ₦262.52 billion as at year end 1998 which were registered with a GDP at then market prices ₦2,721.51 billion.

The Nigerian Stock Exchange is adjudged by Datastream International as one of the 15 leading stock markets in the world so far in terms of performance and returns to investors.

A new Exchange has been established - Abuja Stock Exchange which has trading floors in Abuja and Lagos, though the concept will be floor less, that is trading through computers. This is a welcome idea in the capital market operations. Though a lot of their literature has not been made public, so little can be said about them.

2.3.1 CONTRIBUTION OF STOCK EXCHANGE TO CAPITAL FORMATION

Since 1961, the Federal Government of Nigeria through the Nigerian Stock Exchange has raised long-term loans to the tune of about ₦10 billion for on-lending to the Regional and later the State Governments for development projects. The Central Bank of Nigeria has always acted as the Issuing House, Underwriters and buyer of last resort in this regard. The stocks outstanding of the Federal Development stocks is put at about ₦2.9 billion.

In the last decade, the Federal Government has been encouraging the State Government to approach the stock market to raise long-term capital for projects on their own merit and in the process, subjecting their operations to market discipline. A few states have raised such funds, which includes defunct Bendel State - ₦20 million for housing project; Ogun State - ₦25 million for its water supply project; Oyo State for public market shops development, Kaduna State - ₦50 million for Ginger processing project and Lagos State - ₦90 million for New Town Development (Lekki - Peninsula) respectively.

Equity Finance means participating in the ownership structure of an establishment through the buying of ordinary shares. Equity is permanent finance without contractual repayment.

Debts that is, loans from banks, on the other hand, is for a fixed term, which is often relatively short, and the contractual fixed costs is high and, with floating rates, such costs are impossible to predict. From a banker's point of view, a certain amount of equity is a necessity before he is willing to provide loans. On the other hand, to the entrepreneur and shareholders, the flexibility of equity and the potentially greater return on equity is a reward for their risk-taking and initiative as protection against business downturn.

2.3.2 SECOND-TIER SECURITIES MARKET (SSM) AND THE PROMOTION OF INDIGENOUS INDUSTRIES.

The Nigerian corporate scene shows that many of our enterprises grow and die as closely held business when their promoters pass away. Over the years, the indigenous enterprises have been urged to widen the equity base of their firms not only to enable them to widen the scope of their operations but also to reduce the high mortality rate among otherwise successful Nigerian businesses which die soon after the demise of their founders. It cannot be over-emphasized that a closely held enterprise runs the risks of finding its expansion and modernization activities hampered by the limits of prudent debt financing. Going public is one sure way of injecting new and long-term equity capital into the enterprise.

The Nigerian Stock Exchange has given due recognition to the need to turn small and medium-sized companies into big ones when it introduced the second-tier securities market (SSM) in 1985 for the promotion of SMEs in the country. By making available the facilities at the stock market to viable small and medium-sized indigenous entrepreneurs to raise funds for the expansion and modernization of their businesses, the scheme has been contributing to the country's capital formation and the reduction of unemployment as small-scale enterprises world-wide are known to generate higher employment than large-scale companies. Quite a number of companies have been listed under the SSM sector of which some also have graduated to the main market. As an added incentive, the Federal Government to make the cost of going public by SSM companies tax-

deductible is a great incentive that will bring more indigenous enterprises to the stock market. The amount which SSM company can raise is normally N10 million.

3.2.4 BONDS MARKET

Due to the pressure on Governments to refinance/service verified domestic public debt, given the cashflow within the economy and the need to restore confidence. The Exchange has evolved a Bonds Market to specifically take care of the financial needs of the Federal, States and Local Governments. This was articulated in the 1988 budget speech of the President, General Ibrahim Babangida, authorizing State Governments to meet developmental needs.

2.3.5 DOMESTIC DEBT

While Government has done well in the management of external debt, the same cannot be said of the management of statement domestic debt. Over the years, these debts have been increasing and have remained largely unserviced. These are debts owned to banks, contractors and suppliers. It is heartening to note however, that Government intends to do something on these debts in 1992 as a bonds market is being proposed.

2.4 COMPOSITION OF THE NIGERIAN CAPITAL MARKET

The market is made-up of the following institutions:

1) The Nigerian Stock Exchange (NSE)
2) The Security and Exchange Commission (SEC)
3) Issuing Houses and Merchant Banks

4) Stock broking firms and share registrars

5) Development Banks and Development Financial Institution

6) Public debt office of the Central Bank of Nigeria

7) Institutional Investors such as Pension Funds and Insurance Companies.

8) Abuja Stock Exchange.

In the process of transferring funds from savers to users, various types of securities are created. These securities are the main instruments that are traded in the capital market. They are debt and equity.

Talking of the Nigerian Capital Market, the Nigerian Stock Exchange is perhaps the single most important, though a new market has been formed - Abuja Stock Exchange. The NSE comprise two main markets:

- The primary market and
- The Secondary Market

a) **<u>The Primary Market</u>**

This is also called the market for new issues. It is concerned with the offering of new issues or the initial issuance of securities in the exchange. Regarding a new issues the firm has to deal with:

i) The Regulators - NSE and SEC

ii) The Functionaires - Issuing houses, stock-broking firms, commercial and merchant banks.

iii) The Investors - Individuals and Institutions.

In the Primary Market, if new securities are sold to the public, the proceeds go to the firm to finance expansion and modernization.

b) **The Secondary Market**

This is also called the market for existing securities. The Secondary market properly constitutes the stock Exchange because it is a mechanism that gives liquidity to the securities listed on The Exchange.

2.5 PACKAGING A NEW ISSUE

Packaging a new issue involves eight (8) stages.

- Consultation Stage
- The decision making stage
- Documentation/Packaging Stage
- Quotation
- Completion Board Meeting
- Marketing Stage
- Allotment Stage
- Listing Stage

2.6 PARTIES TO AN ISSUE

- Issuing house (Investment Banker)
- Stockbrokers
- Registrar
- Reporting Accountants
- Solicitors to the Issue
- Underwriters
- Trustees

2.7 TYPES OF SECURITIES

Securities are primarily of two types:

Debt and Equity.

I. Debt:

- The Federal Government Development Stocks (FGDS);
- Industrial Loan, Preference Stocks and Bonds.

II. Equity:

2.8 METHOD OF OFFER

- Offer for subscription.
- Offer for sale.
- Introduction.
- Placing.
- Rights Issue.

CHAPTER THREE

3.0 CAPITAL MARKET OPERATIONS

The operations of the capital market include sourcing of capital and trading of financial instruments or assets. The operations are divided into activities in the primary and secondary market (see figure 1).

3.1 OPERATIONS IN THE PRIMARY MARKET

In this segment of the capital market, the company issues government or firm decides on the type of capital offer to make such as ownership, amphibole or debt capital or Investment fund. When a private company decides to source equity capital, through invitation to the general public, it must take steps to convert to a public company.

After consultations with the company's financial advisers, the company's board would pass resolutions to:

- Convert the company from private to public;
- Amend the Memorandum and Articles of Association to reflect the new status.
- Transfer assets to promoters or other private party's name to the company.
- Increase the company's authorized share capital (where applicable) to accommodate the proposed initial or additional issue.

- Make the offer of the needed capital.

Subsequently, the company's general meeting (annual or extra-ordinary) would be convened to approve these crucial positions after which the amended Memorandum and Articles of Association together with other resolutions and relevant documents, would be filed with the Registrar of Companies or Corporate Affairs Commission (CAC) in Nigeria.

The Company would thereafter appoint an Issuing House or Agent to:

- Package the offer,
- Obtain relevant authorities' (or regulators') approval,
- Market the offer including distribution,
- Deliver proceeds to the company,
- Get the security listed where applicable. (see figure 2)

a. Pre-Offer Activities

From the diagram on the above, the company:

- After due internal authorization.
- Decides to raise either initial or additional equity through offer for subscription of its ordinary shares.
- After due consultations, appoints an issuing house and gives it the mandate to package the offer.

- Then, the issuing house becomes the agent of the company - Issuer.

- Other parties are: Registrar, Broker/Dealer, Collecting Agents etc whose functions are crucial to the success of the proposed offer.

- The Issuing house convenes the all-parties meeting where every party is assigned duties and its consent sought and obtained.

- The regulators (such as SEC, NSE) are not parties to an offer.

- The Issuing House submits application to SEC for registration of the proposed security.

- It also delivers another application for listing, on the Stock Exchange, to the stockbroker to the offer for presentation to the Stock Exchange.

- Then, after due consideration by SEC, a letter of registration to the issuing house is sent.

- The Issuing House from time to time convenes all-parties meeting to update the parties and agree on the next step to take.

- The Issuing House arranges the completion board meeting (such as the last all-parties meeting) where members of the

board of the company approve the documents and all other parties sign relevant documents relating to the offer.

- The issuing house inserts a publication in respect of the offer in some national dailies for public awareness.

b. The Subscription:

The issuing house dispatches prospectuses to collecting agents who distribute them to the public. Members of the investing public returns their completed application forms, together with their cheques, to the collecting agents who, in turn, make returns largely to the Registrar and in some cases to the Issuing House. All these applications from various agents are submitted to the Registrar.

c. Post-Offer Activities:

The Registrar collates the applications and sends all cheques/payments to the receiving banker.

Thereafter:

- In case of over-subscription, where more funds come in than expected, the trio of the Issuing House, the company-issuer and the Registrar meets to formulate a basis for allotment of the shares, which must comply with SEC guidelines.

- The Issuing House would submit the allotment done by the trio to the SEC for clearance. After clearance, the SEC returns the documents to the Issuing House.

- Once the allotment schedule is cleared by the SEC, the Issuing House instructs the receiving banker to release proceeds of issue to the company Issuer.

- A copy of the allotment schedule to the news media for publication and the receiving banker releases the balance of money in the company's issue account to the Registrar for return to the subscribers.

- The money to be returned falls into two categories. First is surplus money such as money that arises as a result of subscribers being allotted shares less than the volume applied for and secondly, is money being wholly returned to subscribers because their applications were rejected.

- The Registrar dispatches monies direct to the subscribers.

- The Registrar then opens a register of members for the money if the offer is the initial public offer and enters the names of the new investors therein. Otherwise, for additional issue, the Registrar merely continues with the existing register.

- The public offer is concluded immediately, the names of the investors are entered in the company's register of members. However, if the prospectus for the offer states that the investment is cum-dividend, then, even if the certificates were not out, the investors would receive their dividends because their names are already in the register.

- It is the Register that keeps the register and also mails dividend warrants to members of the company at specified date(s).

- The Registrar thereafter prepares certificates for the new investors and send them to the company for signature and sealing (though, with full computerization of the capital market - this aspect is being phased out).

- After signature and sealing, the Registrar in turn dispatches them to the new investors.

d. Listing On The Stock Exchange

At the time the Issuing House submits the company's application for registration of the security to the SEC, it also delivers another application for listing to the stockbroker to the issue who, in turn, submits it to the Stock Exchange. The Stock Exchange would satisfy itself that the company meets its listing requirements. Even after the listing requirement had been satisfied of the stock exchange, the shares cannot be listed until the certificates had been dispatched to the shareholders.

The Registrar would inform the stockbroker that the certificates had been dispatched and the stockbroker would pass this same information, together with evidence, to the Stock Exchange. Thereafter, the Stock Exchange put the company's name on its daily official list which carries information about each company's name, price, quantity sold or bought, last dividend date, price earnings (PE) ratio, etc.

The Stock Exchange would confirm this listing to the stockbroker who, in turn, informs the company to trade his security when the need arises. This is made possible because the company's shares have been listed on a recognized secondary market that facilitates liquidity.

e. Offer of Debt Security

The transaction diagram (security offer process in the primary market) and the description that follows it, thus far, focus strictly on the public offer of equity ownership security. However, where the security to be offered, to the public, is a debit instrument, the process is the same as described in the case of ordinary or equity shares. In addition to this, the trustee would be involved as the representative of bond or debenture holders.

There can be a primary market without secondary market but there cannot be any secondary market without a primary market.

3.2 OPERATIONS IN THE SECONDARY MARKET

Immediately after the primary market offer, a shareholder may run into some needs which would necessitate the sale of all or part of his holding.

The shareholder, after consultation with friends or an investment adviser, would approach or appoint stockbroker for the disposal of all or part of his shareholding (B) in one or more companies. In the case of Nigerian experience, the transaction would be described pre and post the establishment of the Central Securities Clearing System in 1997.

A. Pre-CSCS Secondary Market Transaction Process

The transaction process in the secondary market, before the introduction of the central securities clearing system, can be illustrated diagrammatically as seen in figure 3.

1) Pre-Sales Activities:

- The investor submits his certificate to the Broker/Dealer with a mandate to sell at a price or at the discretion of the stockbroker.
- The stockbroker deposits the certificate with the Registrar for verification.
- Once it is satisfied that the certificate is genuine and that the signature corresponds to that in the record.

- The Registrar certifies so and returns the certificate to the stockbroker for trading.

- From the record in the Registrar's office will be:

  (a) If the security being disposed of is the one purchased in the primary market, the record in the Registrar's office is the initial application form, which the investor completed and signed.

  (b) At the time of approach, the investor could open an account with the second stockbroker and deposit money for the purchase.

- At about the time the Registrar returns the certificate to the first stockbroker for trading, another investor could approach another stockbroker to buy that type of security.

- At the time of approach, the investor could open an account with the second stockbroker and deposit money for the purchase.

2) Transaction Process:

Thereafter, the first stockbroker takes its clients security to the floor of the Stock Exchange for trading on the floor, the first stockbroker offer the security (for sale) and the second stockbroker or any other stockbroker bids for it. Once the price is settled, the stockbrokers exchange relevant documents and the

Stock Exchange "notes", authenticates or certifies the transaction.

The second or buying stockbroker pays for the shares and the selling stockbroker delivers the certificate and other papers to the buying stockbroker who lodges them with the Registrar.

The selling stockbroker is expected to deliver proceeds of sale to the selling investor.

The Registrar, once again, examines the lodged documents for genuineness and completeness. Once the lodgement is in order, the Registrar cancels the name of the selling member and substitutes the name of the new investor in the register of members.

With the cancellation of the name of the seller in the register and substitution of entity of the name of the new buyer, the delivery is done and transaction concluded.

Delivery in the capital market means "delivery of the assets" or ownership security to the buyer and not "delivery of certificate as many people misunderstand it. As clearly explained in the transaction process under the primary market operations. Once the name of the investor is entered in the register of members, the investors cannot miss any benefits accruing thereon unless there is a lapse on the part of the Registrar. Issuance of

certificate is not part of the transaction and it is done by the company which was not party to the transaction at the time it was being consummated.

The Registrar cancels the old certificate, prepares a new one in the name of the new buyer and sends them together with the transfer-form and other documents of evidence to the company for sealing and signature.

The company's board or officials have no choice but to sign and seal the certificate and return to the Registrar for delivery to the investor. Once a computer goes public and seeks listing on a recognized market, it cannot restrict the transfer of its shares that had been validly traded on the stock market.

When the Registrar receives the certificate and other documents back from the company, it dispatches the certificate to the stockbroker that lodged it. The broker, finally delivers the certificate to its clients i.e. they buying investor.

During the pre-CSCS transaction, many activities took place in the Registrar's office and the stockbroker was the prime mover of the network. Many of these activities were manually executed.

They system was highly vulnerable to undue delay and disappointments because the clearing and settlement process were manually and severally executed.

The result was that a transaction that was expected to be concluded within two weeks lasted up to three months and the certificate, the evidence ownership of the bought shares, was not delivered until after an average of about six months.

The effect of such delays were that:

I. The market became illiquid because the investor could not turn his security to desired cash easily.

II. The market was lack of "free entry, free exit" from the market which is a corollary to the deficiency in (i) above.

III. The market was unattractive to foreign investors generally and foreign fund managers in particular because of (i) and (ii) above.

IV. The market was not ready for internationalization because it demonstrated great infrastructural and systemic deficiencies, which must be put right.

In effect, the market yearned for spectacular developmental changes if it were to join the league of international financial markets.

3.3 A CROSSDEAL TRANSACTION

A shareholder who wants to dispose off his holding in a company would approach a broker/dealer and give him a sale mandate. Coincidentally, another investor who desires to buy shares of the same

company may approach the same broker/dealer and give him a purchase order.

The broker/dealer would go to the trading floor of the Stock Exchange where he would, on behalf of the buyer bid for the same shares. This is referred to as crossdeal. The broker would have the shares for the client with the purchase order. The same broker/dealer is an agent of two principals.

In effect, while on the exchange trading floor, the same stockbroker wears two different caps i.e. the cap of a seller and the cap of a buyer.

3.4 FREE ENTRY, FRE EXIT MAXIM

In the capital market, there is the "free entry, free exit" maxim. This means free entry into the market and free exit from the market.

Generally, for transactions in the securities of public listed companies, in the capital market, entry of the buyer or exit of the seller is expected to be free. This means that, at the time of purchase, there should be no hindrance or restriction to an investor and also at the time the investor wants to dispose of the security, there should be no hindrance or restriction. It should be possible to run the shares of stocks into cash readily.

This is the reason why a public company's articles of the country's company law or securities act should not contain any restrictive clauses

on the transfer of shares and stocks validly transacted on recognized capital markets.

At the time transactions are embarked upon in the securities of quoted companies, in the secondary market, the company issuer is not involved. The company would not be involved until after the transaction had been concluded with the transfer of securities from the seller to the buyer.

In a system where certificates are issued to evidence share ownership, the issuance of certificate, by the company should be automatic at the conclusion of transactions that are properly executed or recognized markets.

It is true that as a limited liability enterprise, a private company restricts the transfer of its shares. However, immediately the company changes its status by going public, it ought to amend its Articles of Association to remove such restriction(s).

It often takes a long procedure and time to amend a country's company laws. Although it takes a shorter procedure and time to amend a country's Memorandum and Article of Association, a company may hesitate to expunge such restrictive clauses.

Therefore, it is mandatory for the regulatory authorities i.e. the self regulatory organization (Stock Exchange) as well as the government regulatory agency (Securities and Exchange Commission) to vet a

company's Memorandum and Article of Association meticulously so as to detect restrictive and other offensive clauses. The regulatory authorities should insist that such restrictive clauses are expunged before the initial security (and if this escapes their expected eagle's eyes) or additional securities are registered and listed.[0]

Why Should There Be Free Entry, Free Exit

When a company - issuer, offers its securities to the public, subscribers freely put in their funds and hence the free entry. After some time, the investor may need money to meet any emergency like financing medicare, school fees, mortgage purchased, automobile purchase etc.

The investor would mandate his stockbroker to dispose of part of or all his stockholding urgently so that he would get money to take care of the emergency need.

Ordinarily, the stockbroker would take the shares to the Stock Exchange where they are sold to another stockbroker whose client needs the shares. At the time of the sale, the company-issuer is not involved.

After the conclusion of the transaction, i.e. after payment had been made and security delivered, the cancelled old certificate and the newly issued certificate is sent, by the registrar, to the company for finalization. It, at this point in time, the board of directors, which earlier on, had no say in the transaction, refuses to sign, seal and deliver the new certificate, then it had inhibited the conclusion of the transaction cycle.

The implications of the company's board action are as follows:

I. The buyer of the shares is denied free entry.

II. The seller is denied free exit.

III. The seller of the shares would have to make a refund of the money he had been paid.

IV. The confidence of both buyer and seller, in the capital market, would want if not get completely eroded.

V. Before any investors transact business on the recognized secondary market, they must obtain the company - issuer approval.

In the ultimate analysis, any inhibition of security transfer renders the operation of a stock exchange a nullity.

The technical point here, is that a country's company law may contain provisions that accommodate restrictions on transfer of shares. It is likely that such provisions are salient in private companies. Such assumptions could be dangerous and, therefore, detrimental to secondary capital market transactions in public companies' securities in a system where the judiciary is not familiar with the transaction process in the market.

Once a transaction is concluded on a Stock Exchange, in line with the approved guidelines, no board of directors of any company can stop the transfer of the security.

Capital market thrives generally on public and particularly investors' confidence. However, if any investor pumps his savings or funds into a company's shares but later, finds it a Herculean task to run the shares into cash when the need arises, he feels he had been tricked. Thereon, he feels disappointed with the result that his confidence wanes.

Once the public loses confidence in the market, the market loses desired patronage and this could spell disastrous consequences for the market and, indeed, the economy as a whole.

CHAPTER FOUR

4.0 INTRODUCTION

This project examines dBASE, the language, and tools that let you build a complex object oriented (o-o) database system. The dBASE is an excellent database manager and one of the best programming languages in the market today. This is in view of its connections to windows. My main objective this project is to share and give a clearer picture of dBase as is applicable to the capital market operations and in the process to help make work and make life easier.

This chapter contains an introduction to database (dBASE), reasons for choosing dBASE, algorithm and flowchart of the program written, implementation of the program.

The introduction of computers in organizations and the ever-increasing sophistication of data processing system have highlighted the importance of data as one of the most valuable organizational resources. It is from the manipulation and interpretation of data that information is generated and in turn used in the decision making process. The realization of the importance of data has meant that there is a need for proper management and efficient organization of the data. It is also important that data are not locked away so that they can easily and efficiently be accessible by the software used.

A database can be defined as a mechanized shared and centrally controlled collection of data used in an organization. It is regarded as any collection of useful information organized in a systematic and consistent

manner. A database can also be regarded as an organized databank where data are stored. A telephone directory, library catalog, capital market trading or enquiries are all examples of database, just to mention a few.

4.1. REASONS FOR CHOOSING dBASE

Dbase has evolved from a simple database programming language, supporting two work areas (just a few years ago), to a robust worldwide industry standard for personal computer (pc) database applications. It is considered the most widely used database application product today, both licensed and unlicensed.

Since dBASE II days, it has gone from a simple programming language to a complete database application development environment. Computer professionals, as well as users who simply have to get information from their databases enthusiastically use it. It is a language development environment, developer tools, and end-user tools all in one package. When dBASE IV first came out, the press suggested it even had the kitchen sink thrown into the package somewhere. Visual dBASE, is a second generation of a window's application, is a world-class object oriented development environment.

4.2 DATABASE AND DATABASE MANAGEMENT SYSTEM

A database is a collection of data used for the purpose of supplying information.

A database management system is the process of collecting and maintaining data collected using some sort of standardized system. Suffice to mention that even in the computer age, a large number of organizations

and people still use the old reliable paper filling system. This usually consists of forms to collect the data (now typically performed on a word processor such as Microsoft word), physical folders to hold the forms, and a large filling cabinet to hold the folders. Although the paper filling system still works for some organizations. Many establishments are realizing that managing data on a computer makes sense. In order to successfully implement a computerized database, many database management systems have been developed by vendors such as Oracle Corporation, Centura, Microsoft, and IBM etc. Most of the computerized database management systems use either a FLAT-FILE database structure, RELATIONAL database structure or OBJECT ORIENTED database structure. The various database structures used are the method of capturing, storing and maintaining data with a system.

In order to successfully develop and complement a system within an organization, a database management system will be used to store, manage and manipulate the organization data. Database management systems are the backbone to most business systems and are used to hold the most important business asset, DATA.

4.2.1 Types of Databases

A) FLAT FILE:

A flat-file database is a collection of data gathered into a single table. It usually describes one object (such as customer, vendors, or orders) and is two-dimensional in scope. This means that no other databases are related to the single table, even though, they may share

identical information. If you want to collect data for more than one object, you will need to create more than one database. A typical implementation of a flat-file database include:

- Maintaining data on your CD collection;
- Collecting all your favourite website addresses;
- Keeping log of all medical laboratory test results.

Whenever an organization has used a CARDFILE, SINGLE PAPER SHEET or any SPREADSHEET such as Microsoft Excel/Lotus 123 then the organization is using a FLAT-FILE database management system.

B) NETWORK DATABASE

Network databases, uses the network theory in modeling databases. Centura Software Corporations has used network database method in its VICOCIS Database server engine. The VICOSIS database server engine combines both the relational and network data modeling methods in implementing a database management system. Network databases are generally very fast with high performance. They are also usually used in implementing real-time applications (such as the capital market applications), traffic control and flight simulation).

C) RELATIONAL DATABASE

A relational database is a collection of data that is stored not in a single table but in any number of tables which could be related to each other. A relational database has the following characteristics:

- Each table describes only a single object or event; such as suppliers, purchase orders, customers and so forth. This allows data to be registered in the system only once.
- Tables are related to each other through the use of shared fields hence data can be compiled and processed from more than one table at a time.
- Each record in a table is unique from every other record within the table, so redundant data is kept minimal.
- Duplicate fields are kept to a minimum. Eliminating all unnecessary duplicate fields not only allows the data to be stored efficiently, but also helps to eliminate data redundancy.
- The physical order of records or field within a table is irrelevant. In a relational database, you can retrieve data in any manner you want to regardless of its physical location in the table. Relational databases have been used in complex applications such as Banking, Financial, Insurance, Inventory management, customer billing and Web (Internet) business-to-business systems. This also can be applied to Capital Market Operations.

D) OBJECT-ORIENTED DATABASE

Object-oriented database is a new concept in modeling and storing data. It uses the object-oriented design and modeling techniques to store, manage and maintain data. The concepts of inheritance, pdymorphism, and abstractions are used in modeling an object-oriented database. Research and development is being

carried out on this method. Some database management system vendors such as Oracle Corporation have implemented object orientation concepts in the interest version of oracle database server version 8i.

E) OBJECT/RELATIONAL DATABSASE

Object/Relational database combines both the relational and object methods to store, manage and maintain data. Oracle Corporation has implemented an Object/Relational method in its new Oracle Database Server version 8i.

4.2.2 WHAT IS A RELATIONAL DATABASE MANAGEMENT SYSTEM (RDBMS)?

A Relational Data Base Management System is a software program designed to create, maintain, store and manage a relational database. In a nutshell, Relational Data Base Management System software has several characteristics. Some of the key characteristics include:

- Allows users to store in table format;
- Make data easily accessible in a logical manner;
- Enforces data integrity rules that prevent users from deleting improper entering and corrupting data;
- Does not require changes to application programs when data integrity rules are added, modified or deleted;
- Prevents its programming languages (if not exists) from overriding or by passing any integrity rules; or
- Security imposed in the database.

4.2.3 DATABASE CATEGORIES

A) PC DATABASE

Examples of PC on Computer Desktop databases are:

- Microsoft Access
- dBase
- Foxbase
- Fox Pro and
- Paradox

This category of databases is used to develop small-scale applications, which run on computer desktops and do not require heavy multi-user/concurrent access.

B) CLIENT/SERVER DATABASES

Examples of Client/Server databases are:

- CENTURA SQL Base
- CENTRURA RDM
- CENTURA Velocis Server
- ORACLE Database Server
- SYBASE Database

Server, Informix Database Server, IBM DB2 and Microsoft SQL server. This database category is for heavy-duty multi-user, high concurrency data manipulation/retrieval, critical data integrity, high data security applications. Each Database Vendor has implemented the Relational Database model in a slightly different way with emphasis on a chosen aspect, be it performance, security, integrity, consistency or concurrency.

Most mission critical applications/systems in organizations today rely on a Relational Database Management System.

C) EMBEDDED DATABASE

The way users want to access and manipulate their data is changing rapidly. Embedded databases are becoming very important today due to the increasing number of Hands Held Devices (HHD) acting as Information Appliances (IA). With the existence of Wireless Application Protocol (embedded databases are very useful in storing, managing and maintaining organizational data locally with possibility of real time updates). Pocket PCs smart phones and many more information appliances, devices can take great advantage in the existence of the WAP and Embedded Databases.

Examples of embedded databases are:

- CENTURA db.star (small footprint database for the mBusiness (mobile business);
- CENTURAL RDM
- CENTURA vglocis Database Server.

4.3 CONTROLS

With computerization of any process, especially the ones that involves the use of funds or money or otherwise has attached value to it, this has tendency of intrusion from fraudsters from all nuke and crannies. Therefore, this process will require a lot of fire walls built around it.

Most software of computer system today are user friendly. This let you create and work with user-defined interface objects, custom controls

are simply custom classes for control objects like pushbuttons, entry-fields, and text objects. Once customized, redefining their appearance as behaviours, you can use them in the form designed when creating forms.

The custom controls are used in favour and when building forms using the form Designer. Using custom controls can simplify and shorten the process of building forms. These custom controls are pre-enlisting sensible objects with their characteristic properties, event properties, and methods preset to your specified values. They are simply predefined classes or Visual Basic Control. A Visual Basic Control written in C, C++ or pascal or even any software for that matter, is a special type of DCC.

A control is the visual interface object contained in a form object. Visual D/BASE has many types of control objects - Tent, Entry fields, push buttons, checkboxes, Listboxes, and others.

4.4.1 WHY USE CUSTOM CONTROLS?

Custom controls can be used for a wide range of purposes:

- Maintain appearance standards;
- Build in additional functionality;
- Offer additional visual controls for the user;
- Specify new default property values for controls.

4.4.2 SETTING UP CUSTOM CONTROL LIBRARIES

To sep up Customs Control Libraries and place them in the dBASE file follow these steps:

- Create your Customs control in a procedure file, name it with the extension CC.

- Open the form designer with any form active or blank form.
- In the form Designer, select file >> set up customs control ... menu;
- Select the ADD button from the set-up custom control dialog box.
- Select the custom control file (*cc) that you want to set up from. Choose custom controls dialog box (or change directory to the location of the control file that you want to load).

4.4.3 UNLOADING Dbase CUSTOM CONTROLS

Once a custom library is loaded, it can be unloaded using any of these commands:

- CLOSE PROCEDURE
- CLOSE ACCOUNT
- SET PROCEDURE TO

Any of these commands can remove custom control libraries from memory - one at a time or all of them at once. You can remove custom control libraries that were loaded automatically be dBASE or loaded using the SET PROCEDURE TO command.

4.5.1 **MAIN MENU**

Show the Main Menu

Receive the User's Choice

If the choice is

1. - Call the Client Update subprogram
2. - Call the Deposit Update subprogram
3. - Call the Transactions Update subprogram
4. - Call the Settlements Update subprogram

4.5.2 **CLIENTS UPDATE**

Show the Update Client Menu

Receive the User's Choice

If the choice is

1. - Call ADD A CLIENT subprogram
2. - Call the VIEW/MODIFY CLIENT subprogram
3. - Call the DELETE A CLIENT subprogram

Return to the Main Menu

4.5.2 DEPOSITS UPDATE

Show the Update Deposit Menu

Receive the User's Choice

If the choice is

1 - Call the ADD A DEPOSIT subprogram

2 - Call the VIEW/MODIFY DEPOSIT subprogram

3 - Call the DELETE A DEPOSIT subprogram

Return to the Main Menu

4.5.3 TRANSACTION UPDATE

Show the Update Transaction Menu

Receive the User's Choice

If the choice is

1. - Call the ADD A TRASACTION subprogram

2. - Call the VIEW/MODIFY TRANSACTION subprogram

3. - Call the DELETE A TRANSACTION subprogram

Return to the Main Menu

4.5.4 **SETTLEMENT'S UPDATE**

Show the Update Settlements

Receive the Update Settlements

Receive the User's Choice

1 - Call the ADD A SETTLEMENT subprogram

2. - Call the VIEW/MODIFY SETTLEMENTS subprogram

3. - Call the DELETE A SETTLEMENT subprogram

Return to the Main Menu

4.5.5 **ADD A RECORD**

Open the relevant Database

Receive the information.

Return to the last menu.

4.5.4 VIEW/MODIFY

1. Initialize all variables
2. Receive the Deposit/Client/Transportation/Settlement Code.
3. If the code to Exit, return to the last Menu.
4. Else
5. Open the Database.
6. Search for the Code.
7. If not found, go back to step 1.
8. Else
9. Display the record found.
10. Ask if the user wants to view another record.
11. If yes, go to step 1.
12. Else
13. Return to the last Menu.

4.5.5 DELETE

1. Initialize Variables.
2. Receive the Client/Deposit/Transaction/Settlement code.
3. If the Code is to exit, return to the last menu.
4. Else
5. Open the Database.
6. Delete the record with code.
7. If the code was not found, go to step 1.
8. Else
9. Display that Deletion was successful.
10. Ask if the user wants to delete another record.
11. If yes, go to step 1.
12. Else
13. Return to the last menu.

4.5.6 **PRINT REPORTS**

Display the Reports Menu

Receive the User's Choice

If the choice is

1. - Open the Client's Database

   Print the list of Clients

2. - Open the Deposit Database

   Print the list of Deposits

3. - Open the Transaction Database

   Print the list of Transactions

4. - Open the settlements Database

4.5 LIST OF CLIENTS REPORT

CLIENT CODE	00001
CLIENT NAME	SAMUEL
OTHERNAMES	SANI
MOTHER'S NAME	SARAH SAMUEL
CLIENT TYPE	R
SECURITY NAME	NESTLE FOODS
BROKER NAME	TRUST SECURITY
SHARE QUANTITY	7878
REGISTRAR	JOHN OKORO

CLIENT CODE	00002
CLIENT NAME	DELE
OTHERNAMES	DOTUN
MOTHER'S NAME	JOY DELE
CLIENT TYPE	A
SECURITY NAME	ASHAKA
BROKER NAME	TRUST SECURITY
SHARE QUANTITY	1000000
REGISTRAR	JOHN OKORO

CLIENT CODE	00003
CLIENT NAME	SUNDAY
OTHERNAMES	KOLO
MOTHER'S NAME	KOLO AMINA
CLIENT TYPE	R
SECURITY NAME	CASH
BROKER NAME	GOLD VENTURES
SHARE QUANTITY	2000
REGISTRAR	SAM GARBA

DEPOSIT NUMBER	D00001
SECURITY NAME	CASH
CLIENT NUMBER	000001
SHARE QUANTITY	7878
REGISTRAR	JOHN OKORO
DATE	12/11/00
BROKER'S NAME	IIA BROKERS

DEPOSIT NUMBER	D00002
SECURITY NAME	ASHAKA
CLIENT NUMBER	000002
SHARE QUANTITY	1000
REGISTRAR	JOHN OKORO
DATE	11/11/00
BROKER'S NAME	COMET LTD

DEPOSIT NUMBER	D00003
SECURITY NAME	BANK OF THE NORTH
CLIENT NUMBER	000003
SHARE QUANTITY	2000
REGISTRAR	ALI ZUMA
DATE	11/11/00
BROKER'S NAME	COMET LTD

TRANSACTION NUMBER	0000000011
DEPOSIT NUMBER	22112
SECURITY NUMBER	ASHAKA
CLIENT NUMBER	0000000001
SHARE QUANTITY	1000
REGISTRAR'S NAME	GOLD SECURITIES
DATE	11/11/00
SHARE PRICE	20.00
SHARE VALUE	230909.00

TRANSACTION NUMBER	0000000002
DEPOSIT NUMBER	20022
SECURITY NUMBER	NESTLE FOODS
CLIENT NUMBER	0222220222
SHARE QUANTITY	500
REGISTRAR'S NAME	AHMED AND CO.ES
DATE	11/11/00
SHARE PRICE	12.00
SHARE VALUE	1002.00

TRANSACTION NUMBER	0000000003
DEPOSIT NUMBER	200033
SECURITY NUMBER	BCC
CLIENT NUMBER	0322222022
SHARE QUANTITY	3000
REGISTRAR'S NAME	COMET LTD
DATE	12/11/00
SHARE PRICE	14.00
SHARE VALUE	32002.00

SETTLEMENT NUMBER	SET-000001
TRANSACTION NUMBER	0000000001
SETTLEMENT BROKER	DELE AND CO
BROKER'S BANK	AFRI-BANK
BANK'S EMPLOYEE NUMBER	PO909
PAYMENT EFFECTED?	N
TRANSACTION DATE	11/11/00

SETTLEMENT NUMBER	SET-000002
TRANSACTION NUMBER	0000000002
SETTLEMENT BROKER	COMET LTD
BROKER'S BANK	UBA GARKI
BANK'S EMPLOYEE NUMBER	PO9898
PAYMENT EFFECTED?	Y
TRANSACTION DATE	12/11/00

SETTLEMENT NUMBER	SET-000003
TRANSACTION NUMBER	0000000003
SETTLEMENT BROKER	DELE AND CO
BROKER'S BANK	UNION BANK
BANK'S EMPLOYEE NUMBER	1122
PAYMENT EFFECTED?	N
TRANSACTION DATE	10/11/00

SETTLEMENT NUMBER	SET-000004
TRANSACTION NUMBER	0000000004
SETTLEMENT BROKER	AMANI BROTHERS
BROKER'S BANK	UBA GARKI
BANK'S EMPLOYEE NUMBER	20039
PAYMENT EFFECTED?	Y
TRANSACTION DATE	12/11/00

CHAPTER FIVE

5.0 SUMMARY AND CONCLUSION

This is the final chapter of this thesis or project. It quickly explores the Tools of dBASE and will build a complete object-oriented application. It will attempt to cover all of the tools and build an application from scratch. It will accomplish this building on the knowledge you have gained throughout this project.

5.1.0 THE dBASE SYSTEM

The purpose of the dBase system (Capital Market) is to track stocks traded in the market. This section builds the system, taking you through building the tables, forms, menus and reports. It builds the major portions of this system, leaving some of the personalized portions for you to complete. At the conclusion of this project, there shall be a good working system that relies both on good database principals and object-oriented programming techniques.

5.2 THE PRIMARY COMPONENTS

The primary components of the programming or computerizing the Capital Market Operations using dBASE for instance are:

- A switchboard (splash) screen with a graphic on;
- A main menu system using pulldown menus;
- Forms for viewing various stocks/shares, market price, quotation prices, number of shares traded, volume;
- A popup menu (speed menu) attached to the customer form;
- A form for adding new customers (fresh shares in the market);

- A form adding new deposits (that is interested in new shares to buy and which sector);
- A form describing the sector;
- A form for finding specific shares by sector;
- Customer search box;
- Two complete reports;
- Ability to set user preferences.

Now on the creating and trying the system together. It will lack any further reports that you may want to build, as well as any other forms for adding, viewing or working with the underlying tables - for instance, statistical reporting as easily updating existing records as stocks/shares are introduced in the market. Also the number of shares/stocks, that are off-loaded in the market for trading as the case may be. This system can be easily modified or adjusted to use for tracking any type of sold or loaned information.

5.3 CREATING THE TABLES

Before an application can be created, you need to decide what type of information that you want to track and create your tables.

5.3.1 The Tables Needed By The System

This system will need the following tables:

- CUSTOMER .dbf

Holds customer specific information like name, address, credit information, date of birth, next of kin, place of birth, type of business and so on.

- ORDERS.dbf

Holds visit specific information like date of visit, number of shares bought, types of shares.

- SECURITY.dbf

Holds records for each book borrowed per visit. Holds a security, reference number, the due date, and if it (the single security) has been returned.

- INDUSTRY.dbf

Act as a lock-up for the security table. Holds the actual security in a particular industry. Each security, although unique as a physical item, can be a copy of the same industry.

- MANAGEMENT.dbf

Acts as a lock-up for the industry table. It holds the actual management name(s).

5.3.2 Understanding How The System Works

To decide what tables will be needed, you need to consider how the actual security are traded:

- Customers can go to the trading floor any number of time, generating a new order (or visit) record each time they go and trade in securities.
- Every time customers decide to buy/sell, they can buy/sell one or more securities.

- Each security can be traded by many different customers many different times, however, the physical security can only be bought/sought by one customer at a time.
- Each time, a security can be introduced by a company.

Additionally, there can be any number of securities of the same type of security that are traded in the stock exchange.

Finally, each security is introduced by a specific company (through its management) or group of companies. Each company or group of companies can introduce more than one type of security in the market.

5.3.3 Setting Up The Table Relationships

With this understanding, the following relationship begins to materialize.

- Each (1) customer = many orders
- Each (1) order = many securities traded
- Each (1) security borrowed = 1 specific security
- Each (1) security = 1 company

Now, you have a working knowledge of the system. The time has come to create the tables.

The easiest way to create them is using the Table Designer. To create the customer table, go to the navigator and double click on <untitled> choice in the Table Container.

5.3.4. The Customer Table

While in the Table Designer, type in the field names, types and widths for the customer table. The following is the structure for the customer table.

THE CUSTOMER.dbf

Field	Field Name	Type	Length	Dec	Index
1	CUST_NO.	CHARACTER	4		Y
2	CUST_NAME	CHARACTER	35		N
3	ADDRESS 1	CHARACTER	25		N
4	ADDRESS 2	CHARACTER	25		N
5	CITY	CHARACTER	15		N
6	STATE_PROV	CHARACTER	12		N
7	ZIP_POSTAL	CHARACTER	10		N
8	TELE1-NUM	CHARACTER	10		N
9	TELE2_NUM	CHARACTER	10		N
10	CREDIT	LOGICAL	1		N
11	TOTAL CREDIT	NUMERIC	12	2	N
12	NOTES	MEMO	10		N
TOTAL			**170**		

5.3.5 Selecting And De-Selecting Tables

You will need to bring all the tables into the query. The order you want to bring the tables in will be:

1) Customer
2) Orders
3) Securities
4) Industry(ies)
5) Management

REFERENCES

Adetunji, Wole, "Foreign Investment Opportunities, Potentials And Barriers In African Capital Markets." SEC Journal, Securities Market Journal Nigeria, Special Edition.

Akamiokhor, George A, (1975), "Building Capital Market Regulatory Institutions in Developing Countries. The Nigerian Experience." Securities & Exchange Commission Journal, Securities market Journal Nigeria, Special Edition.

Akingbohungbe, Sola S., (1996) "The Role of Money and Capital Markets in Corporate Finance." Lecture Advanced Corporate Finance & Banking Course of FTIT, July 1996.

Akinsanya, Olufemi A., (1996), "Capital Market Operators As An Indispensable Link in the Financial Intermediation Process." SEC Securities Market Journal - Speciation. pp 44-47.

Alile, Apostle H.I. (1992), The Structure And Role of Nigeria's Capital Market." The Nigerian Stock Exchange, National Seminar or Financing Public Projects Through Nigerian Capital Market and Securitization of Domestic Public Debt.

Amedu, Samson (1996), "Packaging and Marketing an Issue in Practice. The Role And Responsibilities of Relevant Institutions." The Nigerian Stock Exchange, Yola International Hotel (11-12 July 1996).

Asinobi, Onyewuchi C, (1998), "The Role of Central Securities Clearing System In An Internationalized Stock Market In Nigeria." Organized by The NSE Kaduna/Kano Branch At Arewa House Kaduna, Thursday April 22, 1998.

Bankole, A.G.O. (1996); "Benefits Of The Capital Market To The Small Indigenous Enterprises In Nigeria." SEC Securities Market Journal, Special Edition pp 70-73.

Baum, W.C. and Tolbert, S.M. (1985), "Investing In Development, Lessons of World Bank Experience, Oxford University Press.

Bayero, Salisu A. (1996), Benefits Of The Capital Market To Indigenous Enterprises In Nigeria." SEC Securities Market Journal, Special Edition pp 74-77.

Behling, John H, (1979), "Guidelines For Preparing The Research Proposal." University Press of America pp.48-67.

Birma, Mohammed Shehu (1989), "Listing On The Nigerian Stock Exchange: The Rights And Benefits To Shareholders." The Nigerian Stock Exchange Held In Kano, 28th & 29th September 1989.

Chukwujama, F.N. (1996); "Step by Step Approach To Raising Funds In The Capital Market." SEC Securities Market Journal, Special Edition." pp 62 - 69.

Claessens, S., Doodley, M.P. and Warner, A., (1995) "Portfolion Capital Flows: Hot or Cold?" The World Bank Economic Review Vol. 9, No. 1.

Dangana, Aminu (1996); "Step By Step Approach To Raising Funds In the Capital Market." SEC, Securities Mrket Journal, Special Edition pp 59-61.

Ekineh, Daisy (1996); "The Securities And Exchange Commission And Investor Protection In The Capital Market." SEC, Securities Market Journal - Special Edition pp 52-58.

Federal Republic of Nigeria (1987), "Privatization And Commercialization." Federal Government Press, Lagos.

Federal Republic of Nigeria (1990), "Companies And Allied Matters Decree No. 1990." Federal Government Press, Lagos.

Federal Republic of Nigeria (1999), "Investment And Securities Decree No. 45, "Federal Government Press, Lagos.

Federal Republic of Nigeria, (1973), "Capital Issues Decree." Federal Government Press.

Federal Republic of Nigeria, (1979), "Securities And Exchange Commission Decree." Federal Government Press, Lagos.

Francis, J.C., (1980) "Investment Analysis And Management." Mc Graw Hill Company, New York.

Greene, J. & Villaneuva D., (1991), "Private Investment In Developing Countries: An Empirical Analysis." IMF Staff Papers No. 38.

Kasomo, Olugbemiga O., (1998), "Benefits of Public Quotations For Private And Public Enterprises As veritable Means For Economic Development." The NSE at Arewa House Kaduna, 27th May 1998.

Modigliani, F. & Miller, M., (1958), "The Cost of Capital, Corporate Finance And The Theory of Investments" America Era Review, June 1958, pp. 261.

Munga, Chris (2001), "Database And Database Management System." MCL Africa Operations (Jan/Feb. 2001), CNNIA.

Okereke-Onyuike, Ndi, (1998), "Packaging of Public Offer Of Securities By Government And Corporate Entities. The Requirements Of The Stock Exchange." National Workshop Organized By The Nigerian Stock Exchange. Arewa House, Kaduna, Wednesday 27th - Thursday 28th of May 1998.

Oladejo, Rasaki, (1996), "Capital Market Reforms And Internationalization Under Deregulated Financial System." At 8th Annual Banking Conference In Durbar Hotel (Festac 77 Hotel Plc).

Onyekuru, Uzoma (1996), "Requirements for Listing On The Nigerian Stock Exchange." SEC, Securities Market Journal - Special Edition pp 48-51.

Oyebadejo, O.A. "The Role Of The Registrars In The Capital Market And The Delivery Process/System." Head at Lagos.

Securities And Exchange Commission, (1998), Report And Accounts.

Securities And Exchange Commission (1988), "Automation And The Nigerian Capital Market." SEC Quarterly 1985-1988.

Solimano, A. (1989), "How Private Investment Reacts To Changing Macroeconomic conditions: The Case of Chile." Pre Working Paper 212, World Bank, Washington D.C.

Stores, Lawal Sani (1993), "Shares, Stocks And Debentures: What Is The Difference." The Workshop On Going Public; How To Market Your Shares And Securities Successfully, Organized by NSE, ABC Merchant Bank Ltd & NACCIMA.

"The Nigerian Stock Exchange, yesterday & Tomorrow".

Wandelt, Mabel, (1970), Guide For The Beginning Researcher," Appleton Century.

.....1983, "Purposes And Structure Of Financial Markets Regulations in Nigeria." Issues in Capital Market Development." Securities & Exchange Commission, June Tray 1989 pp 8-15.

.....1993, "Reliability Of Companies' Profit, Forecasts." Issues In Capital Market Development Securities & Exchange Commission. June 1991 pp 70-78.

.....1993, "The Concept of Investor Protection In The Securities Industry." Issues In Capital Market Development. Securities & Exchange Commission, March 1991 pp 66-69.

CAPITAL MARKET ACTIVITIES AT A GLANCE

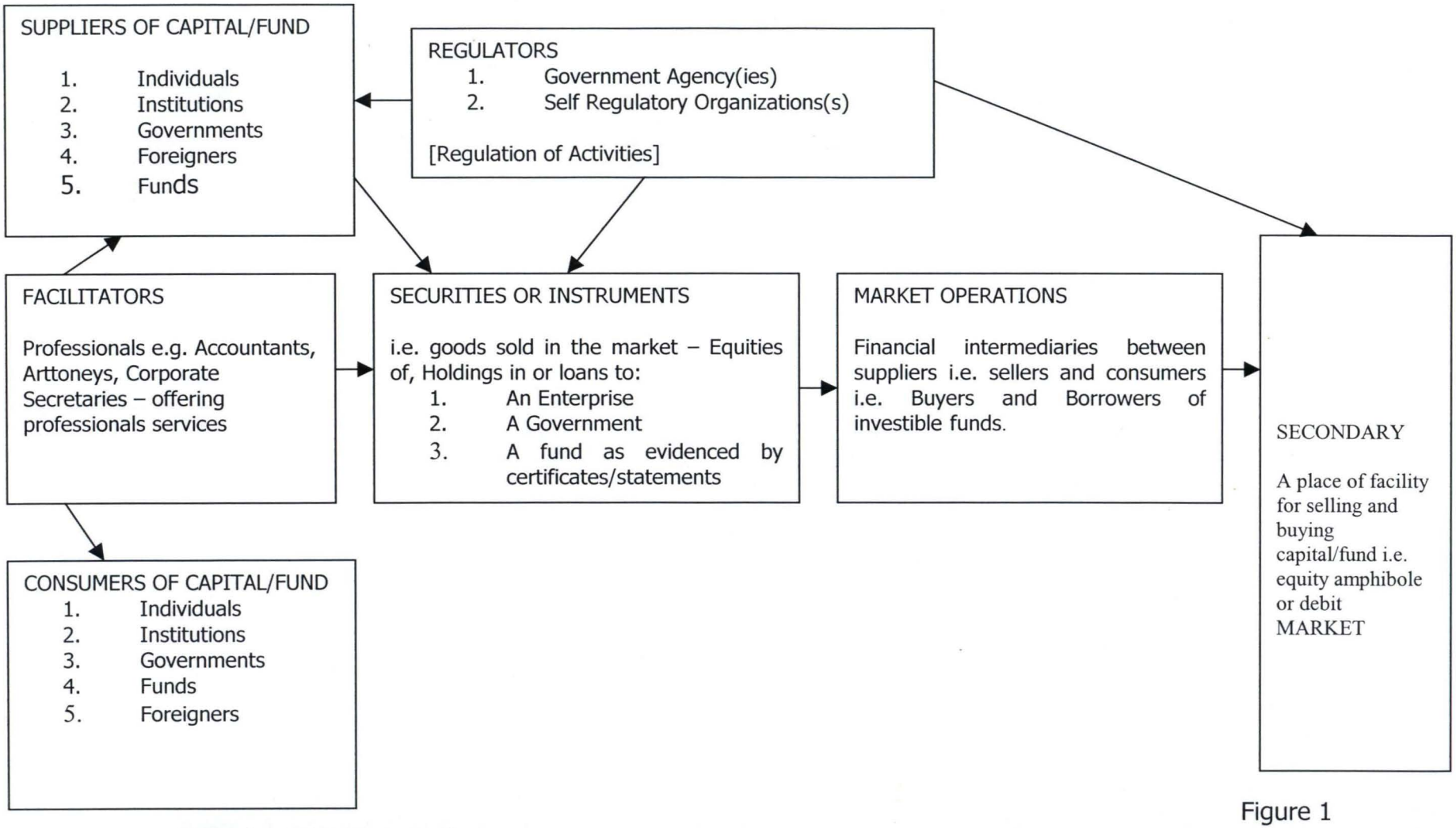
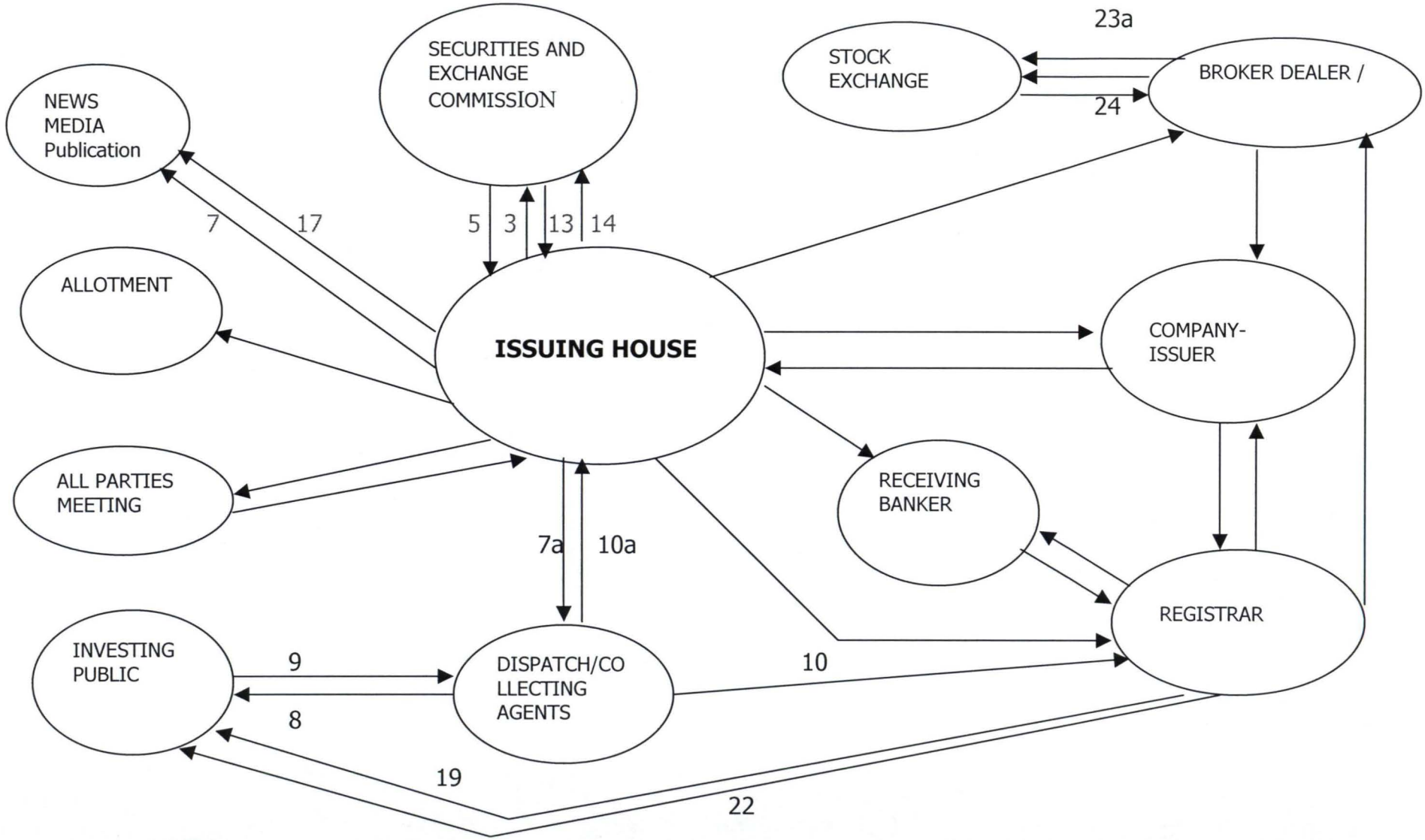


Figure 1

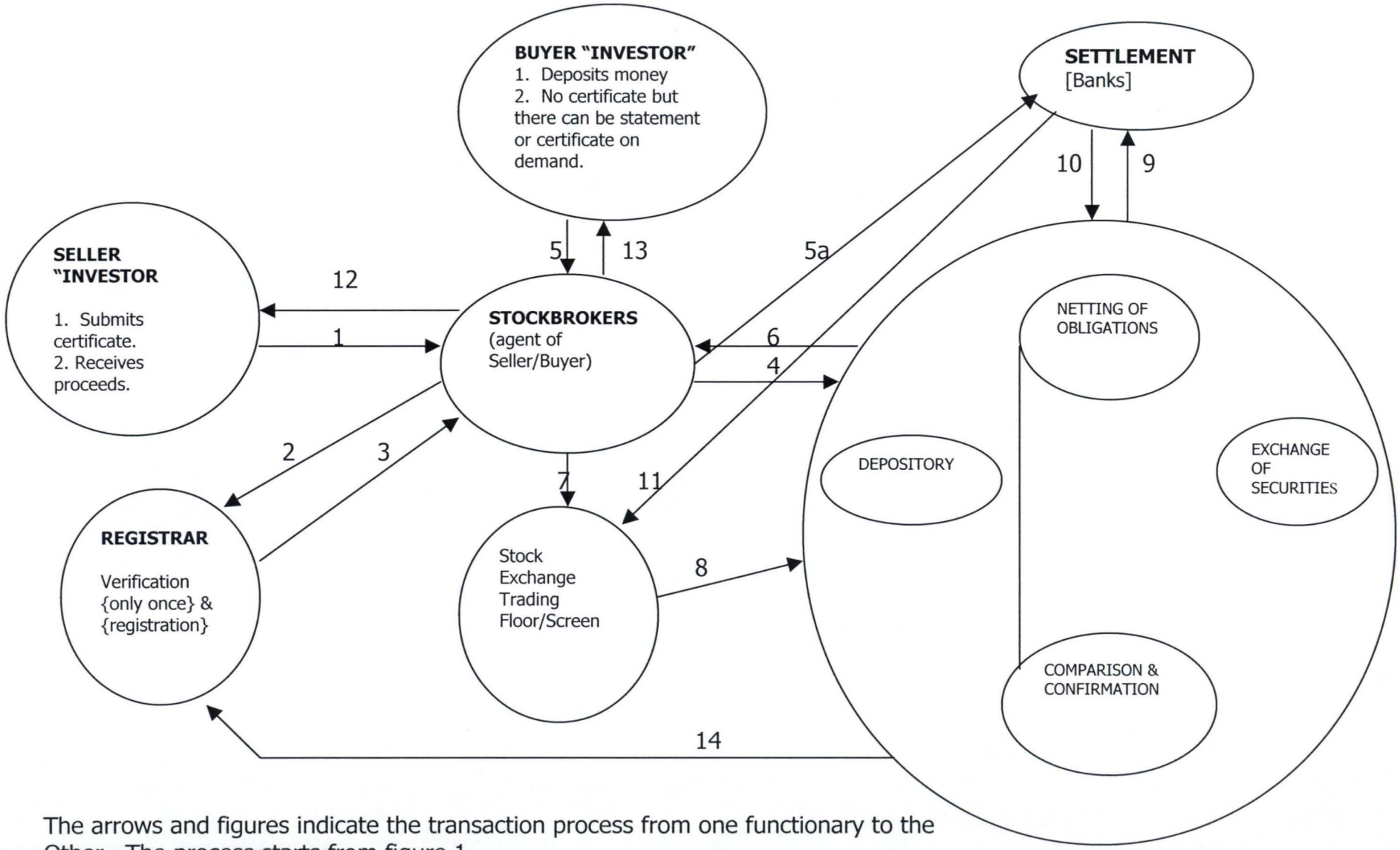
Capital Market Operations

SECURITY OFFER PROCESS IN THE PRIMARY MARKET



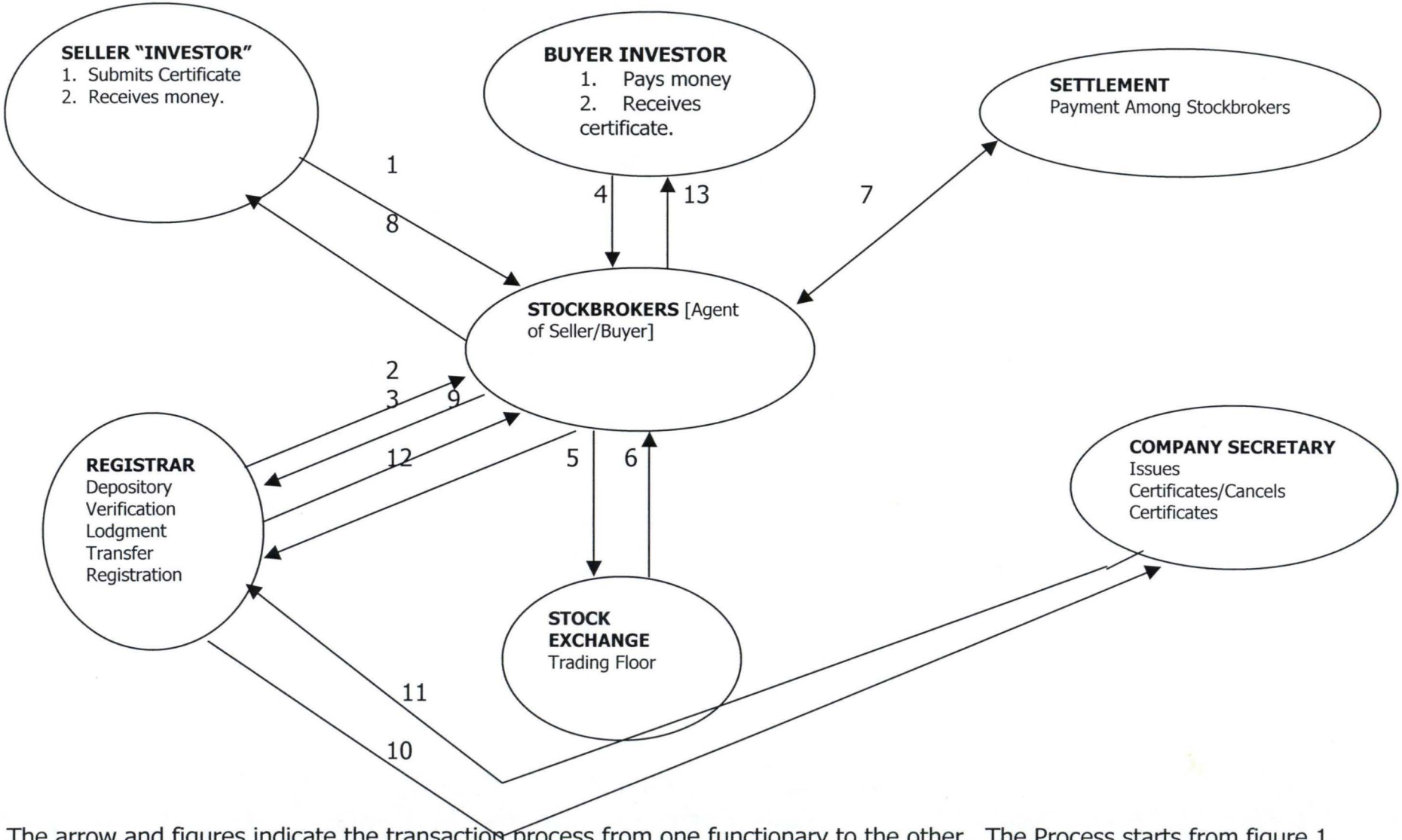
The arrows and figures indicate transaction/issue process from one participant to the other. The process starts from figure 1.

POST-CSCS SECONDARY MARKET TRANSACTION PROCESS



The arrows and figures indicate the transaction process from one functionary to the Other. The process starts from figure 1

PRE CSCS SECONDARY TRANSACTION PROCESS



The arrow and figures indicate the transaction process from one functionary to the other. The Process starts from figure 1.

MAIN MENU

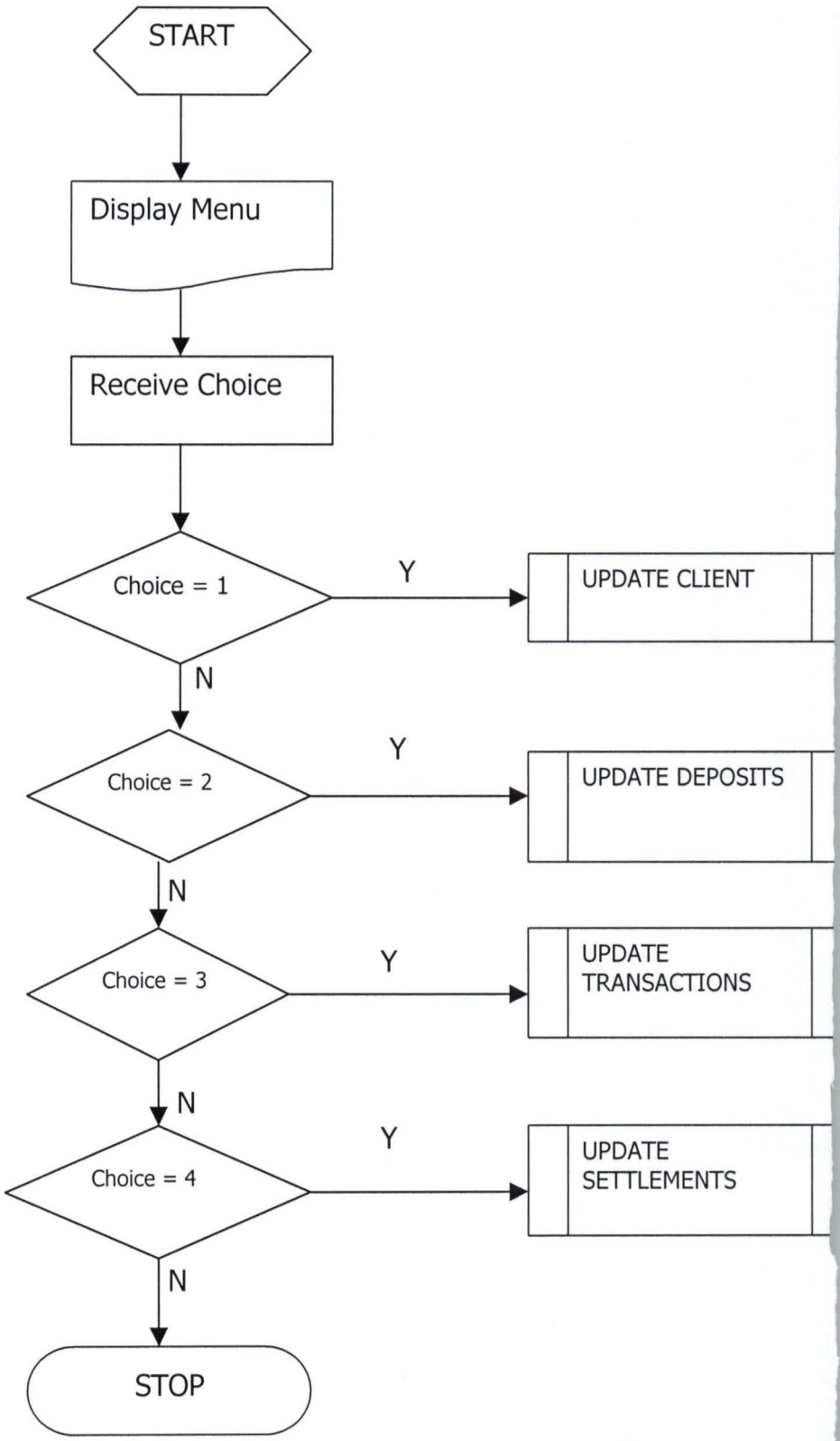


Figure 5

CLIENTS UPDATE

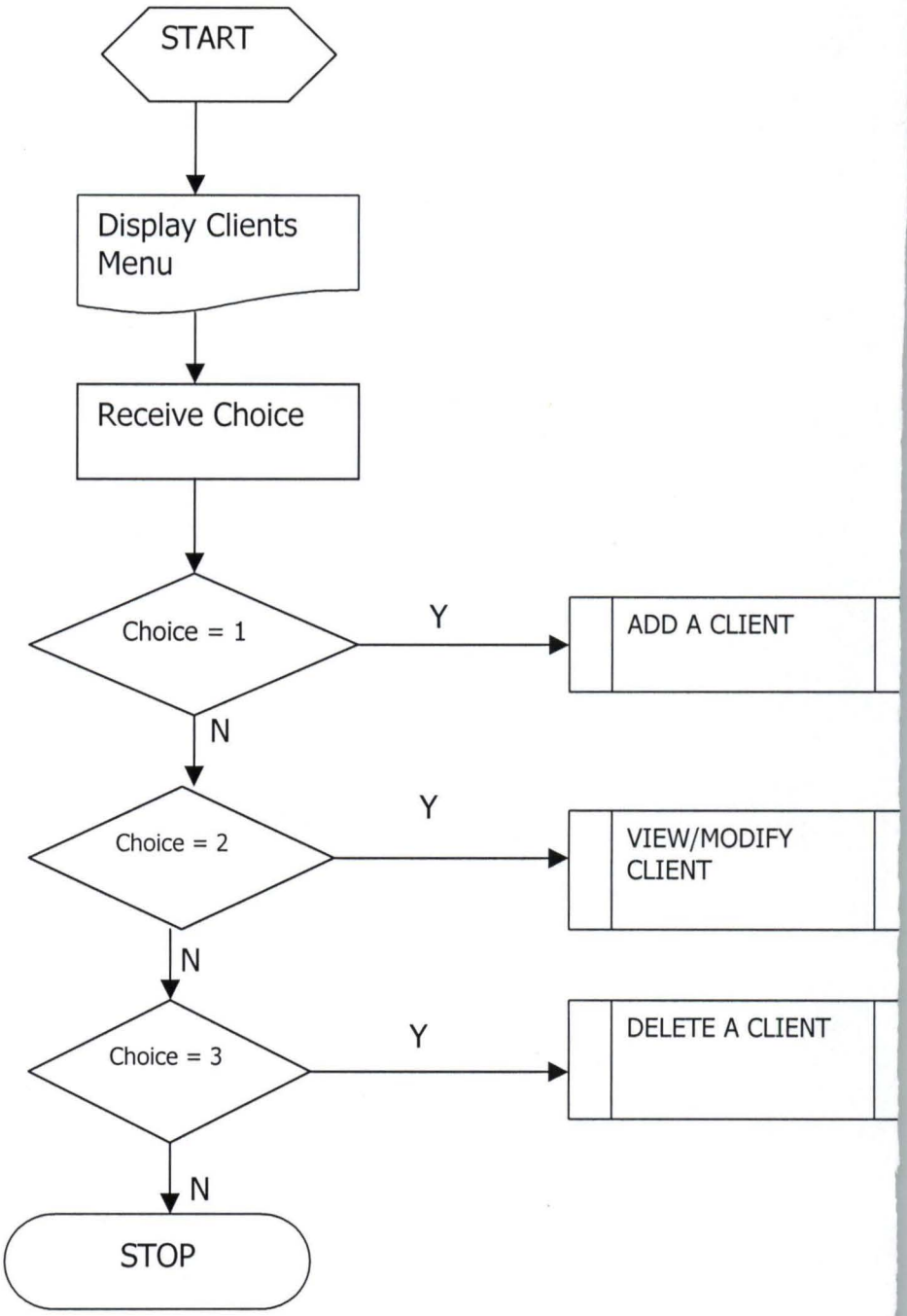


Figure 6

DEPOSITS UPDATE

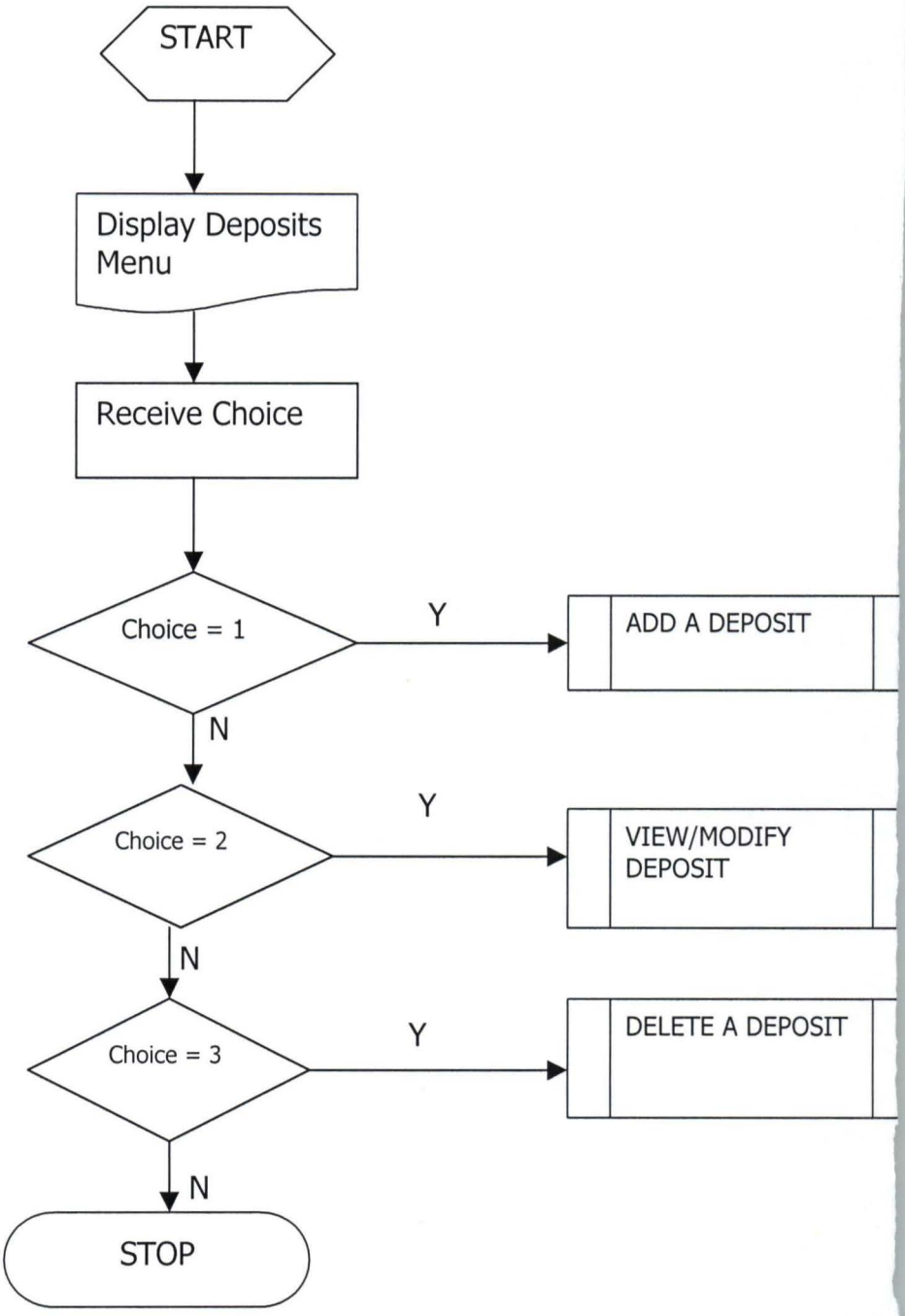


Figure 7

SETTLEMENT'S UPDATE

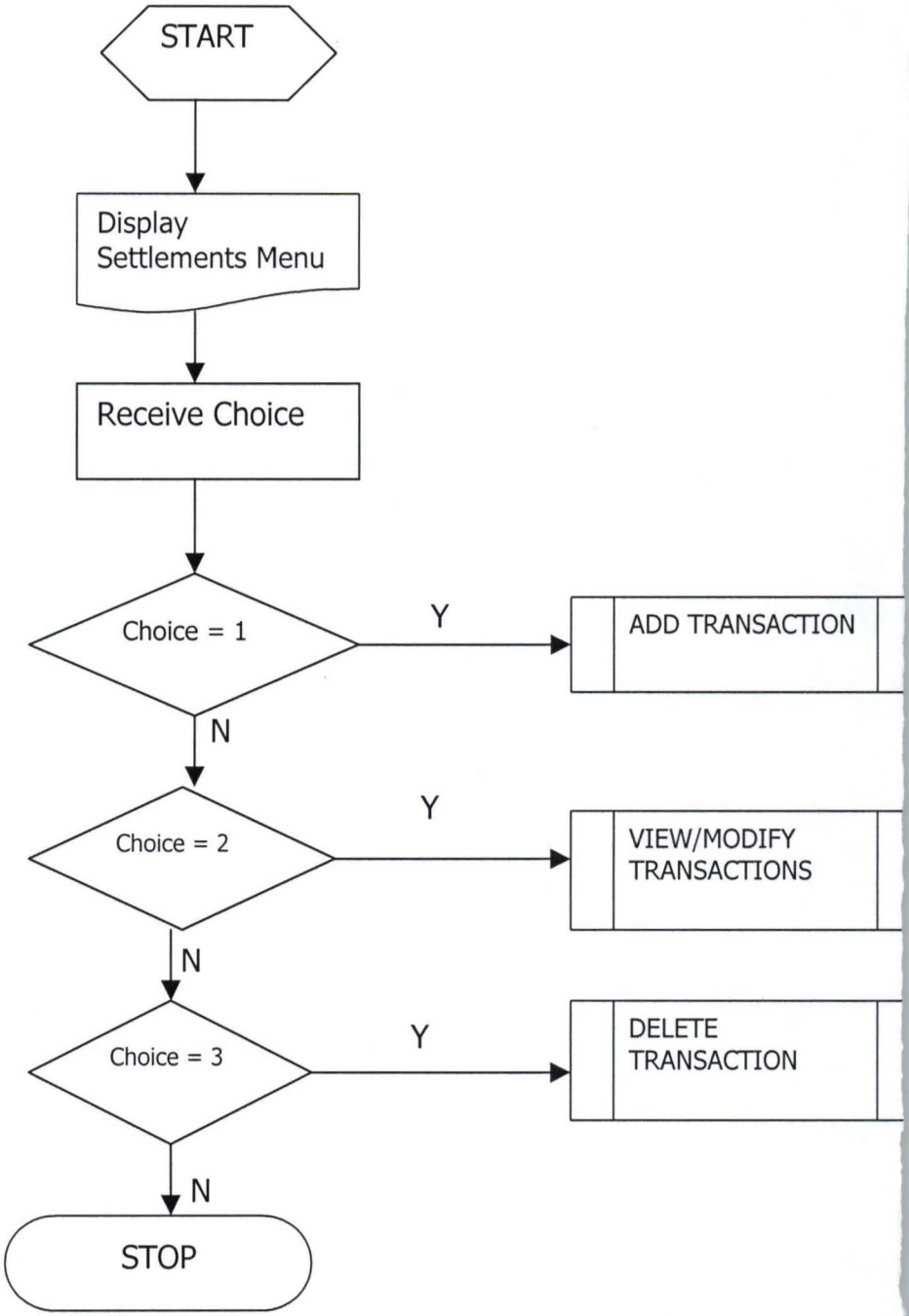


Figure 8

SETTLEMENT'S UPDATE

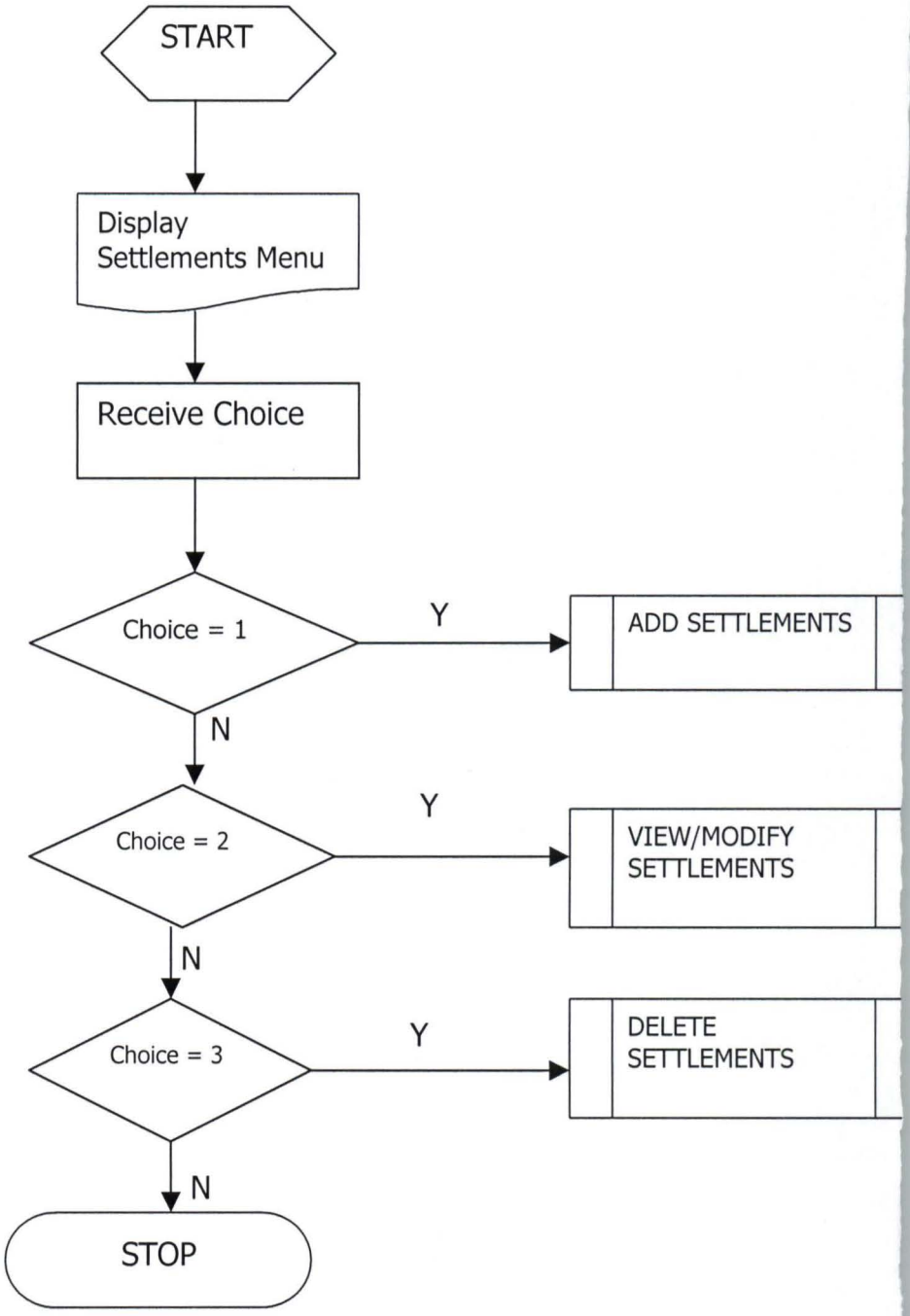


Figure 9

ADD RECORDS

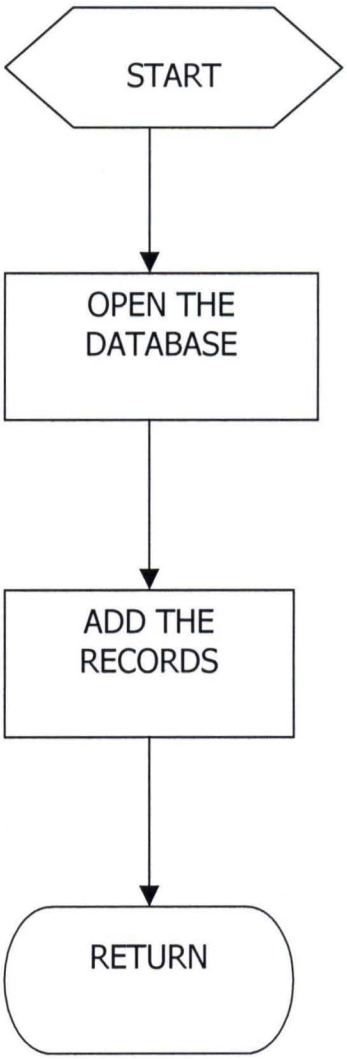


Figure 10

VIEW/MODIFY

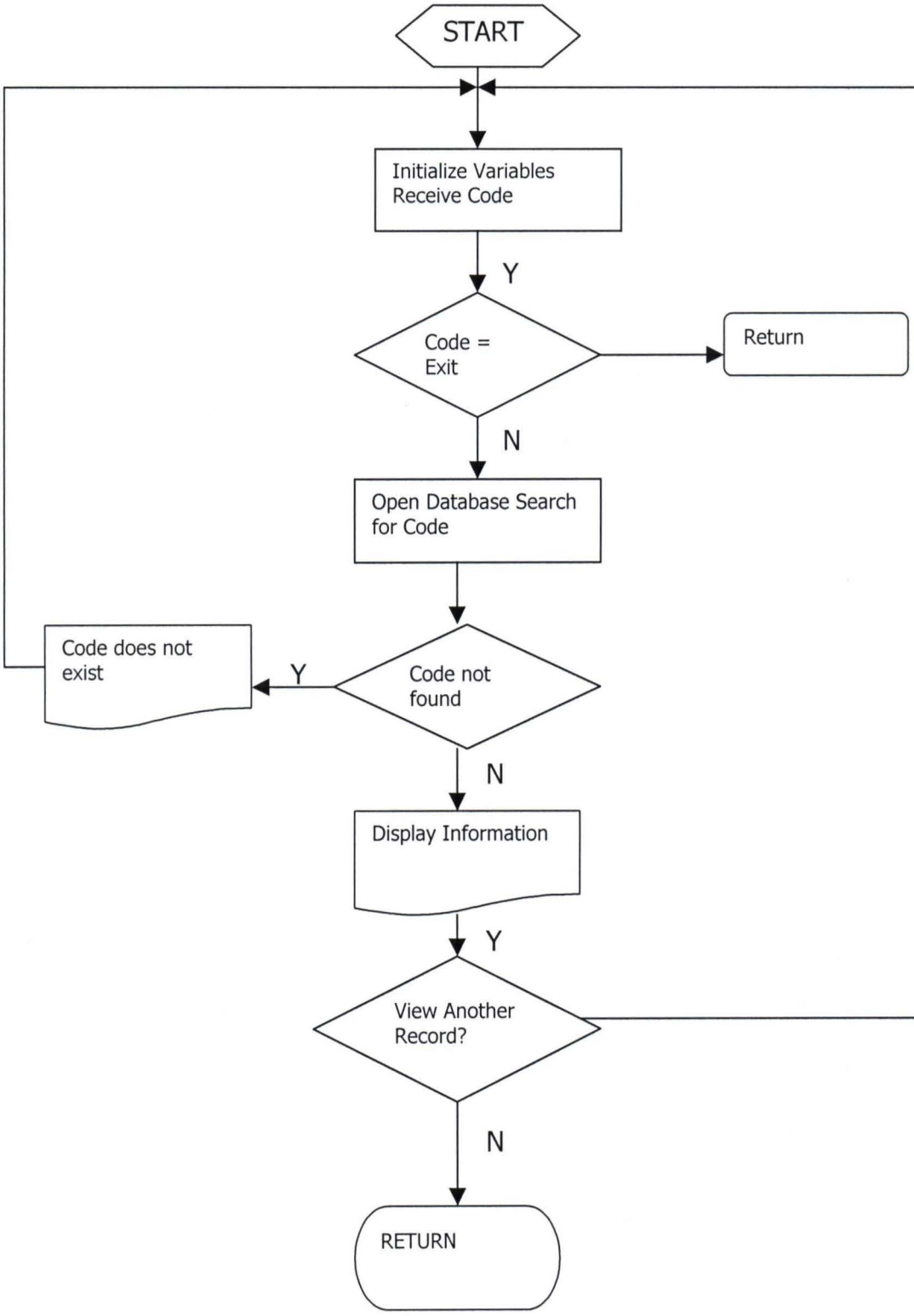


Figure 11

DELETE

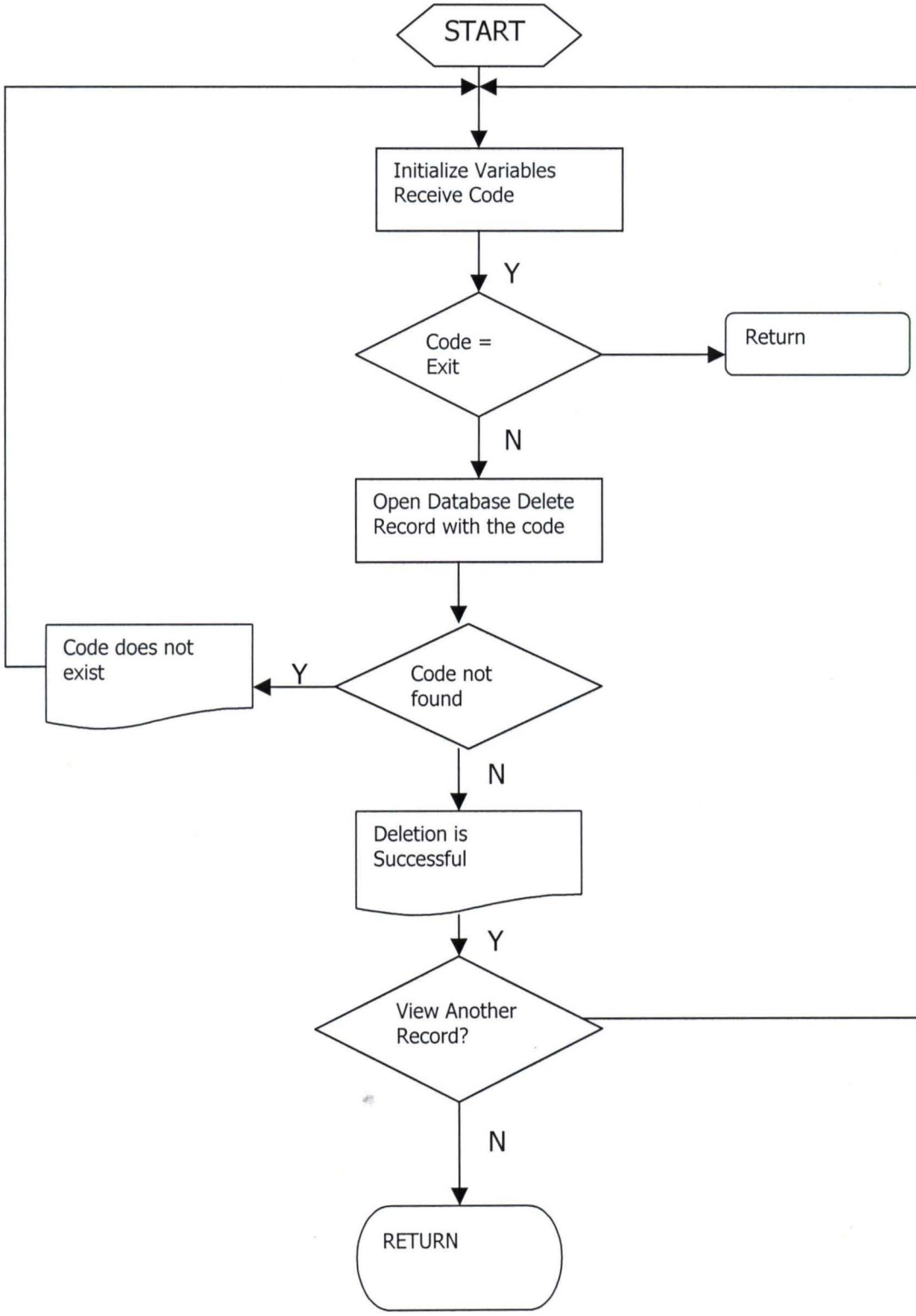


Figure 12

PRINT REPORTS

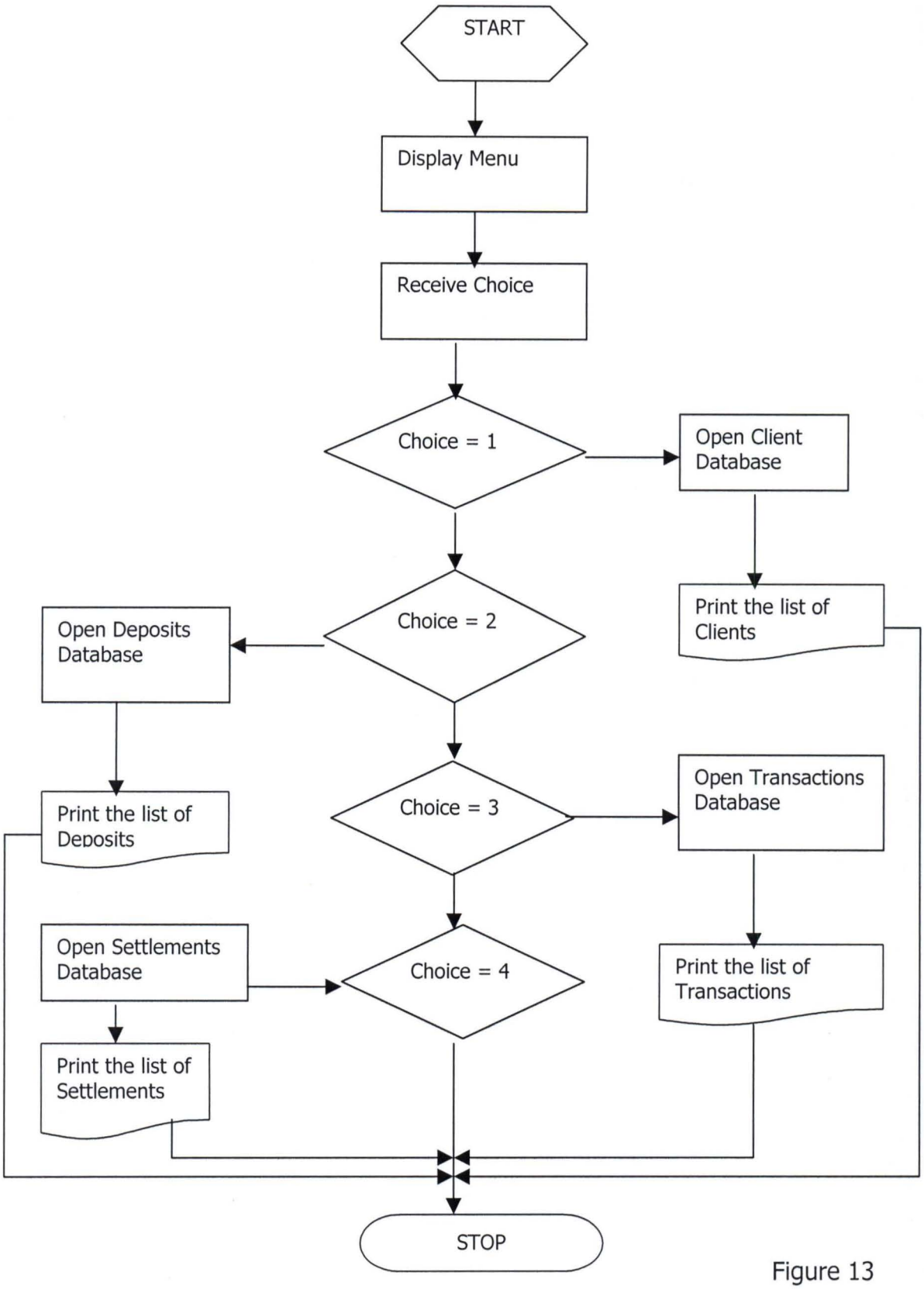


Figure 13

PROGRAMMING - NIGERIAN CAPITAL MARKET

```
set take off
set echo off
set scoreboard off
set status off
clear
cho=9
set colo to b
@2,16 to 4,34 double
@1,6 to 20,40 double
@17,9 to 19,38 double
set colo to w+/g+
@3,18 say "DATA PROCESSING"
set colo to r/w+
@6,10 say   "[1] ADD BROKERS RECORD"
@9,10 say   "[2] DELETE BROKERS RECORD"
@10,10 say "[3] CHANGE BROKERS RECORD"
@12,10 say "[4] RETURN"
set colo to g+
"18,10 say "ENTER YOUR CHOICE ====>
set colo to
   @18,36 get cho picture  "9"
    read
do case
    case cho=1
        do addrec
    case cho=2
         do delrec
    case cho=3
         do charec
    case cho=4
         close all
         do dbprg
    endcase
return
```

□

```
set talk off
set echo off
set scoreboard off
set status off
clear
cho=9
set colo to b
@2,16 to 4,34 double
@1,6to 20,40 double
@17,9 to 19,38 double
set colo to w+/g+
@3,18 say "DATA PROCESSING"
set colo to r/w+
@6,10 say  "[1] ADD CLIENTS' RECORD"
@8,10 say  "[2] DELETE CLIENTS' RECORD"
@10,10 say "[3] CHANGE CLIENTS' RECORD"
@12,10 say "[4] RETURN"
set colo to g+
@18,10 say "ENTER YOUR CHOICE ====>"
set colo to
  @18,36 get cho picture "9"
  read
do case
  case cho=1
     do addrec
   case cho=2
     do delrec
   case cho=3
     do charec
   case cho=4
     close all
     do pjprg
   endcase
return
```

```
set status off
set scoreboard off
set talk off
set echo off
clear all
cho=9
@1,20 to 4,37 double
@1,3 to 24,50 double
@20,6 to 22,40 double
set colo to r+/b+
@10,7 say "[1] DEPOSITS DATA CAPTURE"
@14,7 say "[2] CLIENTS' DATA CAPTURE"
@16,7 say "[3] TRANSACTIONS DATA CAPTURE"
@18,7 say "[4] ACCOUNTS DATA CAPTURE"
@20,7 say "[5] SECURITIES DATA CAPTURE"
@22,7 say "[6] BROKERS DATA CAPURE"
@24,7 say "[7] BANK DATA CAPTURE"
@26,7 say "[8] REGISTRARS DATA CAPTURE"
@28,7 say "[9] RETURN"
set colo to g+
@21,7 say "ENTER YOUR CHOICE ====>"
set colo to
do while cho=0
@21,6 get CHO PICTURE "0"
read
enddo
Do case
  case cho=1
       do depo
  case cho=2
       do clie
  case cho=3
       do tran
  case cho=4
       do acco
  case cho=5
       do secu
  case cho=6
       do brok
  case cho=7
       do bank
  case cho=8
       do regi
  case cho=9
       close databases
do pjmenu
endcase
Return
```

→

```
set status off
set scoreboard off
set talk off
set echo off
clear all
cho=9
@1,20 to 4,37 double
@1,3 to 24,50 double
@20,6 to 22,40 double
set colo to r+/b+
@10,7 say "[1] DEPOSITS DATA CAPTURE"
@14,7 say "[2] CLIENTS' DATA CAPTURE"
@16,7 say "[3] TRANSACTIONS DATA CAPTURE"
@18,7 say "[4] ACCOUNTS DATA CAPTURE"
@20,7 say "[5] SECURITIES DATA CAPTURE"
@22,7 say "[6] BROKERS DATA CAPURE"
@24,7 say "[7] BANK DATA CAPTURE"
@26,7 say "[8] REGISTRARS DATA CAPTURE"
@28,7 say "[9] RETURN"
set colo to g+
@21,7 say "ENTER YOUR CHOICE ====>"
set colo to
do while cho=0
@21,6 get CHO PICTURE "0"
read
enddo
Do case
  case cho=1
       do depo
  case cho=2
       do clie
  case cho=3
       do tran
  case cho=4
       do acco
  case cho=5
       do secu
  case cho=6
       do brok
  case cho=7
       do bank
  case cho=8
       do regi
  case cho=9
       close databases
do pjmenu
endcase
Return
```

```
        CLEAR
    do pjncmo
Endcase
CLEAR
Do pjncmo
Return
```

```
set talk off
set echo off
set scoreboard off
set status off
clear
cho=9
set colo to b
@2,16 to 4,34 double
@1,6 to 20,40 double
@17,9 to 19,38 double
set colo to w+/g+
@3,18 say "DATA PROCESSING"
set colo to r/w+
@6,10 say "[1] ADD ACCOUNTS RECORD"
@8,10 say "[2] DELETE ACCOUNTS RECORD"
@10,10 say "[3] CHANGE ACCOUNTS RECORD"
@12,10 say "[4] RETURN"
set colo to g+
  @18,10 say "ENTER YOUR CHOICE====>"
  read
do case
   case cho=1
     do addrec
   case cho=2
     do delrec
   case cho=3
     do charec
   case cho=4
     close all
     do pjprg
   endcase
return
```

```
*PROGRAM : TRANS
*DESCRIPTION:TRANSACTION DATA CAPTURE
*CALLING PROGRAM  :PGD-DB
*AUTHOR   :  DANLADI BORO PGD/97/98/722
Set take off
Set status off
Set scoreboard off
Set echo off
Clear
Cho=9
Set colo to G+
@2,16 to 4,34   double
@1,6 to 20,40   double
@17,9 to 19,38 double
Set colo to w+/g+
@3,17 say "TRANSACTION MENU"
Set colo to r
@6,10    say  "[1]   ADD TRANSACTION INFORM."
@8,10    say  "[2]   VIEW/MODIFY INFORMATION"
@10,10   say  "[3]    DELETE INFORMATION"
@12,10   say  "[4]    RETURN"
Set colo to g+
@18,10 say "ENTER YOUR CHOICE====>"
Set colo to
Do while cho=9
@18,36 get cho picture "9"
Read
Enddo
    Do case
        case  cho=1
          do addtrinf
        case cho=2
          do vmtrinf
        case cho=3
           do deltrinf
        case cho=4
            close all
         do dbprg
Endcase
Return
```

□

```
*PROGRAM :  VMCLINF
*DESCRIPTION:  VIEW/MODIFY CLIENTS' INFORMATION
*CALLING PROGRAM  :CLIENT
*AUTHOR  :  DANLADI BORO PGD/97/98/722

Set take off
Set status off
Set scoreboard off
Set echo off
Do while .T.
Store space (5) to MCCODE
Store .T. to MREP
Clear
Set colo to g+
@5,3 say "ENTER THE CLENTS' CODE" get MCCODE
Set colo to w+/r
@22,1 say "ENTER CLIENTS' CODE OR Z TO EXIT"
Read
If MCCODE=space  (7)
Loop
ENDIF
IF RTRIM (UPPER  (MCCODE))=`Z'
Close all
Do clien
EndIF
Use clinf
Locate for CCODE=MCCODE
If .NOT. found()
@23,0 say "THE CODE DOES NOT EXIST"
??CHR(4)
WAIT
EndIF
Set colo to gb/w+
@7,6   say "CLIENTS' CODE" get CCODE
@8,6   say "CLIENTS' SURNAME" get SNAM
@9,6   say "CLIENTS' OTHER NAMES" get CONAM
@10,6 say "CLIENTS' MOTHERS'  NAME" get CMNAM
@11,6 say "CLIENTS' SIGNATURE" get CSIGN
@12,6 say "CLIENT TYPE" get CTYPE
@13,6 say "SECURITY NAME"  get  SNAM
@14,6 say "QUANTITY OF SECURITY" get SQTY
@15,6 say "REGISTRARS' NAME" get RNAM
@16,6 say "BROKERS' NAME" get BRNAM
Read
Set colo to b+/w+
@23,0 say "DO YOU WANT TO VIEW ANOTHER "Y/N" get MREP picture "Y"
read
if  .NOT.  MREP
Close all
Clear
Do clien
EndIF
Enddo
Close all
Return
```

□

```
*PROGRAM  :  VMDEINF
"DESCRIPTION:  VIEW/MODIFY DEPOSIT INFORMATION
*CALLING PROGRAM  :DEPOSIT
*AUTHOR  :  DANLADI BORO PGD/97/98/722
Set take off
Set status off
Set scoreboard off
Set echo off
Clear
Do while .T.
Store space (6) to DNUM
Store .T. to MREP
@3,1 to 20,60 double
Set colo to g+/wt
Found=.T.
@5,3 say "DEPOSIT NUMBER" get DNUM
Set colo to w/r+
@23, 1 say "ENTER DEPOSIT NUMBER OR Z TO EXIT"
Read
If DNUM=Space (7)
Loop
ENDIF
IF RTRIM (UPPER(DNUM))='z'
Close all
Do Deposit
EndIF
Use deinf
Locate for DNUM=DNUM
If .NOT. found()
@23,1 say "NUMBER DOES NOT EXIST"
??CHR(4)
WAIT
Loop
EndIF
Set colo to gb/w+
@7,6   say "DEPOSIT NUMBER" get DNUM
@8,6   say "BROKERS' NAME   " get SNAM
@9,6   say "CERTIFICATE NUMBER" get CNUM
@11,6  say "SECURITY NAME" get SNAM
@12,6  say "REGISTRARS' NAME" get RNAM
@13,6  say "DATE OF DEPOSIT" get DDATE
Read
Set colo to w+/r+
@23,1 say "DO YOU WANT TO VIEW ANOTHER Y/N" get MREP picture "Y"
Read
IF .N. MREP
Close all
Clear
Do deposit
EndIF
Enddo
Close all
Return
```

□

```
*PROGRAM  :  VMSEINF
*DESCRIPTION:  VIEW/MODIFY SETTLEMENT INFORMATION
*CALLING PROGRAM   :SETTL
*AUTHOR  :  DANLADI BORO PGD/97/98/722
Set take off
Set status off
Set scoreboard off
Set echo off
Clear
Do while .T.
Store space (10) to SENUM
Store .T. to MREP
@3,1 to 20,60 double
Set colo g+/w+
Found=.T.
@5,3 say "SETTLEMENT NUMBER" get SENUM
Set colo to w+/r+
@23,1 say "ENTER SETTLEMENT NUMBER OR Z TO EXIT"
Read
If SENUM=space (10)
Loop
ENDIF
IF RTRIM (SENUM)='Z'
Close all
Do Settl
EndIF
Use seinf
Locate for SENUM=SENUM
If.NOT. found ( )
@23,1 say "NUMBER DOES NOT EXIST"
??CHR(4)
WAIT
Loop
EndIF
Set colo to g/w+
@7,6    say "SETTLEMENT NUMBER" get SENUM
@8,6    say "TRANSACTION NUMBER" get TRNUM
@9,6    say "SETTLEMENT BANK" get SEB
@10,6  say "BROKERS BALANCE" get BRB
@11,6  say "BROKERS EMPLOYEE NUMBER" get BEN
@12,6  say "PAYMENTS EFFECTED (Y/N)" get PE
@13,6  say "DATE OF TRANSACTION" get TRDATE
Read
Set colo to w+/r+
@23,1 say "DO YOU WANT TO VIEW ANOTHER Y/N" get MREP picture "Y"
Read
IF .NOT. MREP
Close all
Clear
Do settl
EndIF
Enddo
Close all
Return
```

□

```
*PROGRAM  :  VMTRINF
*DESCRIPTION:  VIEW/MODIFY TRANSACTION NFORMATION
*CALLING PROGRAM   :TRANS
*AUTHOR  :  DANLADI BORO PGD/97/98/722
Set take off
Set status off
Set scoreboard off
Set echo off
Clear
Do while .T.
Store space (10) to TRNUM
Store .T. to MREP
@3,1 to 20,60 double
Set colo g+/w+
Found=.T.
@5,3 say "TRANSACTION NUMBER" get TRNUM
Set colo to w+/r+
@23,1 say "ENTER TRANSACTION NUMBER OR Z TO EXIT"
Read
If TRNUM=space (10)
Loop
ENDIF
IF RTRIM (TRNUM)='Z'
Close all
Use Deinf
Locate for DNUM=DNUM
ENDIF
If.NOT. found ( )
@23,1 say "NUMBER DOES NOT EXIST"
??CHR(4)
WAIT
Loop
EndIF
Set colo to gb/w+
@7,6    say "DEPOSIT NUMBER" get DNUM
@8,6    say "BROKERS' NAME" get BRNAM
@9,6    say "CERTIFICATE NUMBER" get CNUM
@10,6  say "SECURITY NAME" get SNAM
@11,6  say "QUANTITY OF SHARES" get SQTY
@12,6  say "REGISTRARS' NAME" get RNAM
@13,6  say "DATE OF DEPOSIT" get DDATE
Read
Set colo to w+/r+
@23,1 say "DO YOU WANT TO VIEW ANOTHER Y/N" get MREP picture "Y"
Read
IF .NOT. MREP
Close all
Clear
Do TRANS
EndIF
Enddo
Close all
Return
```

□

```
*       ADD CLIENT INFORMATION PROGRAM
*       THIS ADDS A CLIENT TO THE CLIENT DBF USING FORM CLINF
CLEAR
USE CLINF
SET FORMAT TO CLINF
APPEND
SET FORMAT TO
DO CLIENT
*RETURN
```

□

```
*       ADD CLIENT INFORMATION PROGRAM
*       THIS ADDS A CLIENT TO THE CLIENT DBF USING FORM CLINF
CLEAR
USE DEINF
SET FORMAT TO DEPINF
APPEND
SET FORMAT TO
DO DEPOS
*RETURN
```

□

```
*       ADD CLIENT INFORMATION PROGRAM
*       THIS ADDS A SETTLEMENT TO THE DBF USING FORM
CLEAR
USE SEINF
SET FORMAT TO SETTINF
APPEND
SET FORMAT TO
DO SETTL
*RETURN
```

□

```
*       ADD CLIENT INFORMATION PROGRAM
*       THIS ADDS A TRANSACTION TO THE DBF USING FORM
CLEAR
USE TRINF
SET FORMAT TO TRINF
APPEND
SET FORMAT TO
DO TRANS
*RETURN
```

□