COMPUTER AS A TOOL IN FINANCIAL MANAGEMENT (A CASE STUDY OF FEDERAL MORTGAGE BANK OF NIGERIA)

BY

GYIPO ANTHONY GOWEN PGD/MCS/496/97/98

DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA. NIGER STATE - NIGERIA.

MARCH, 2000

COMPUTER AS A TOOL IN FINANCIAL MANAGEMENT (A CASE STUDY OF FEDERAL MORTGAGE BANK OF NIGERLA)

.

BY

GYIPO ANTHONY GOWEN PGD/MCS/496/97/98

A PROJECT WORK PRESENTED IN PARTIAL FULFILMENT FOR THE AWARD OF POSTGRADUATE DIPLOMA IN COMPUTER SCIENCE

DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA. NIGER STATE - NIGERIA.

MARCH, 2000

,

CERTIFICATION

This is to certify that this work was carried out by GYIPO ANTHONY GOWEN in the Department of Mathematics /Computer Science, Federal University of Technology, Minna. Niger State - Nigeria.

MALLAM ISAH AUDU SUPERVISOR

.

DATE

DR. S. A. REJU HEAD OF DEPARTMENT

.

DATE

EXTERNAL EXAMINER

•

DATE

.

•

DEDICATION

This work is dedicated to the ALMIGHTY GOD, who at this approved time has made it possible for me to achieve one of my life's ambitions.

.

My late Parents, NDE GYIPO DAMADUN and MRS. L.

JUWUNA for their love and care.

.

.

· ;

ACKNOWLEDGEMENT

The successful completion of this thesis cannot be attributed to the Author alone. Many individuals contributed to it.

I am greatly indebted to my Supervisor Mallam Audu Isah whose continue guidance constructive criticisms and encouragement has a significant impact on the final form of this work. Thanks to be given to the Head of Department and other lecturers of the Department.

I am also indebted to the staff of Federal University of Technology Library for their co-operations and avenues through which I got the necessary materials needed for this work.

Finally, I must not fail to mention my staff in the Federal Mortgage Bank of Nigeria who provided me with finance and moral support that carried me through the problems faced in this investigation.

While expressing indebtedness to the above mentioned persons, the Author absorbs them for any short comings of this study. The errors are inevitably mine.

May God bless, protect and guide them always.

iii

ABSTRACT

The study identified the uses and the application of computers in day - to - day activities of Federal Mortgage Bank of Nigeria. The program is written in dBase IV to ease employer/employees record on the National Housing Funa.

.

TABLE OF CONTENTS

Certification	••••	i
Dedication		ii
Acknowledgement		iii
Abstract	••••	Iv

CHAPTER ONE

- 1.0 Introduction
- 1.1 The Federal Mortgage Bank of Nigeria
- 1.2 State of the Problem
- 1.3 Aims and Objectives
- 1.4 Scope and Limitation
- 1.5 Definition of terms

CHAPTER TWO

- 2.0 Literature Review
- 2.1 Computer Awareness
- 2.2 Why Computers ?
- 2.3 Computer Applications

CHAPTER THREE

a i	· · · · · · ·	
3.1	Introduction	

- 3.2 Appraisal of the Nigerian Economy
- 3.3 The Federal Mortgage Bank of Nigeria and its Mission
- 3.4 Contribution to the Fund
- 3.5 Securing Compliance
- 3.6 Management of the Fund
- 3.7 Computerisation of Federal Mortgage Bank of Nigeria

CHAPTER FOUR

- 4.1 Introduction
- 4.2 Programming Language and its Features
- 4.3 Software Development and Testing
- 4.4 Operational Manual
- 4.5 Menus Description
- 4.5.1 Open Menu
- 4.5.2 Sub-Menu
- 4.6 Quitting the Program

CHAPTER FIVE

- 5.0 Recommendations and Conclusion
- 5.1 Recommendations

ŧ

5.2 Conclusion

CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

The financial sector plays a catalytic role in capital formation and provides a major institutional mechanism for the mobilization of resources from surplus units for use by deficit units through extension of credits.

The efficiency of a country's financial markets is instrumental in the allocation of savings to the most promising investment opportunities and in the development and growth of a viable economy. Investment in all spheres of economic activities are important in fostering a balanced development. Such activities include infrastructure, different modes of transportations, utilities, agriculture and industry.

The establishment of specialized financial institutions in the early stage of Nigeria's economic development was motivated by the need to provide development finance to priority sectors (namely Industry, Agriculture and Housing Construction) as prospects for raising long term capital remained low. The institutions whose operations involve the use of their capital and reserves as well as loans and subventions from the government include Nigerian Industrial Development Bank, Nigerian

Bank for Commerce and Industry, Nigerian Agricultural and Cooperative Bank and Federal Mortgage Bank of Nigeria.

Efforts were also made by the authorities to formally nurture the financial markets to facilitate the intermediation of the much needed financial resources for development purposes.

In particular, advances in information and communication technology had facilitated the globalisation of financial markets, products and institutions. Consequently, international financial markets are being rapidly transformed by the elimination of geographic restrictions through trade liberalization and financial deregulation, expansion of functional frontiers through technological innovations which permit the creation of complex webs of contractual instruments increased trading of financial contracts and steady growth in derivative activities.

In any developing economy, the financial sector evolve with the development in the economy. The productive sector stimulates the financial sector and because of the dual nature of the developing economy, the informal financial sector has developed as part of the second economy.

Consequently, it is suggested that :-

i) More research be devoted to the study of informal sector particularly the financial informal sector. Most developing economies have under-gone reforms and the globalisation

waves definitely demands that the financial markets and financial intermediates be developed in response to the global development. It would be true to say that financial market development in Africa is weak. The major emphasis now is the development of money market which is believed would assist the direct monetary policy management. It is therefore suggested that :-

- ii. There is need to develop more money market instruments to deepen the market and encourage the idle funds to be polled into the system for efficient utilization and allocation for investment rather than through informal financial market. One of the object of the extension of the money economy and financial development must be to reduce the fragmentation of the financial market and to unify the interest rate structure.
- iii. It is suggested that efforts should be made to forge a strong promoting links between the informal and formal financial sectors for a number of reasons. The high interest rates charges in the informal sector add to costs and add to household debt, and these could be reduced if the informal sector could be limited for more competition

from the formal sector by establishing semi-formal financial market.

iv. Develop support mechanisms to guarantee loans from the informal sector and provide insurance against risk.

MORTGAGE FINANCE INSTITUTIONS

One of the areas of glaring inadequacy in the existing institutional framework in developing countries is housing, despite the existence of mortgage tied saving schemes operated by commercial banks and housing finance provided by insurance companies. The failure of the financial markets in developing countries to mobilise adequate investable funds for the housing sector has motivated the establishment of government owned building societies to bridge the finance gap in that sector. To complement these efforts there is dire need to develop a system which will mobilise individual and institutional savings to fulfill the growing housing need of the populace. In advanced financial systems, licensed building societies (in the United Kingdom) and saving and loans associations (in the United States of America) cater for the needs of small savers and compete with banking institutions in attracting funds that are channeled to national and socially desirable housing policies, while an apex Mortgage Institution plays regulatory role.

Primary Mortgage Institutions (PMIs) are licensed depository institutions engaged in retail mortgage finance. They lend to individuals

and corporate bodies on long term basis and this makes their functions more relevant to the capital market than the money market.

1.2 FEDERAL MORTGAGE BANK OF NIGERIA (FMBN)

PRIMARY MORTGAGE INSTITUTIONS (PMI)

Federal Mortgage Bank of Nigeria (FMBN) was created essentially to serve as a wholesale and Apex Institution under Decree 7 of 1977. However, other institutional components of finance market in terms of primary mortgage institutions such as Building Societies. Housing Associations and credit Unions into existence under Decree 53 of 1989.

In this regards, one of the major achievements of the National Housing Policy is its institutional reform which resulted in the establishment of two-tier housing finance system following the promulgation of the mortgage institution Decree No. 53 of 1989. Under this arrangement the Federal Mortgage Bank of Nigeria has been restructured as the country's Apex Mortgage Institution with a supervisory role over a network of Primary Mortgage Institutions (PMIs) which now operate as the second-tier housing finance institution. It is in consonance with this restriction that the trifocal responsibility of the Federal Mortgage Bank of Nigeria as retail lending institution, Apex lending agency and regulatory body in the housing finance sector has been consolidated into two, namely, the Apex and Regulatory Functions to be managed by the Federal Mortgage Bank of Nigeria (FMBN) and the retail functions to be the responsibility of a new autonomous entity now called Federal Mortgage Finance Ltd. FMFL).

Within the context of its regulatory and Apex functions the Federal Mortgage Bank of Nigeria is to promote and support responsive credible housing services to all segments of the Nigerian population as well as promote awareness of the socio-economic benefits of housing. In this regard, the Federal Mortgage Bank of Nigeria has a responsibility to ensure the national evolution and continuous survival of housing finance institutions. The Bank has therefore been re-organised into three divisions as follows:-

- i] The National Housing Fund Division charged with responsibility for the arrangement of the National Housing Fund.
- ii] The regulatory and Inspectorate Division charged with responsibility of monitory and regulating housing finance sector operations.
- iii] Corporate services Division to provide administrative accounting and management information services the core division.

In general, the functions of the divisions are based on the management and administration of the Fund as stipulated in the Decree. Moreover, the functions are directed towards the

6

· ·

achievement of the aims, objectives and mission of the Decree that is, facilitation of continuous flow of low-cost funds for long-term investments in housing to the benefit of Nigerians.

The Mortgage Institutions in this country have in no small measure contributed immensely towards the provision of adequate shelter for Nigerians. Year-in – year – out loans are being approved for individuals and corporate bodies for construction and purchase of shelter.

In concomitant with the Federal Government interest and full support for housing programmes the Mortgage Institution, the FMBN is making its best to see to the attainment of the housing policies objectives, that is provision of houses of affordable prices.

Thus the government is trying to entrust through the Federal Mortgage Bank of Nigeria a watch dog of the current Nation Housing Fund (NHF) programme.

Major technological innovations have helped human race to attain a more comfortable and higher of existence than before. This technology serves some vital beneficial purposes. Presently, we have the current technology which led to the development of the computer. It would be naïve of us to believe that this technology would be all good or all bad.

1.2 COMPUTERS

There is no doubt that nearly in every field of life, computers are needed not only in the study of science but also to human needs.

Computer was invented for its high speed automatic nature of computation and processing of data, large storage facilities and it is difficult to find an area of business, finance, industry, government, agriculture, education, health care, sports or our personal lives that the computer has not influenced.

The concise Oxford Dictionary in its sixth edition (1972) tends to imply that computers are "*electronic calculating devices*". This definition is not complete looking at its main operations. Today, we are in the era of information generation, collection and processing. The continual existence of an organization depends on the volume of information generated and processed. This implies that for any organization to continue to exist it must possess the current generated information which aid its operations and decision to achieve the set objectives. Computers perform four basic or fundamental operations.

i] Input and Output operations are important since these allow information (data or program instructions) to be placed inside the central processing unit (CPU) or allow program results to be produced. Without this basic facility, the CPU which is at the heart of a give computer would not be able to perform a given task.

- ii) Since there is an arithmetic unit it makes sense that a computer can perform the four functions of arithmetic.
- iii) A computer can compare two elements and decide which of the two possible courses of action to take.
- iv) Finally, data or program instructions must flow into and between the arithmetic unit and the control unit. The simple fact is that any computer no matter how complex, how large or how small can perform only these four basic operations. That is why the instructions required by computer must be for more detailed than those which as human beings, we tend to use when communicating with each other. Neither does it matter which programming language we use. But if you examine any single instruction in any programming language you will find that it is simply one or more of these four basic operations.

1.3 COMPUTERS IN FINANCIAL INSTITUTIONS

Financial Institutions are making ever increasing use of computers. The Banks could not function without them today because of the volume of transactions and customers' enquiries that have to be dealt with daily.

Computers play a vital role in every facet of the financial system and indeed in the national economy. Some primary function of computers in financial institutions include :-

- i] Provision of an up-to-date and quick services to customers.
- ii] Facilitation of competitive efficiency among Banks and other financial institutions within the system.
- iii] Ensuring fraud free banking operation.
- iv] Stimulating competitions among the operators, thereby enhancing efficiency in the use of resources.

v] Equipping the operators with internal strength, especially in terms of appropriate technology needed not only to compete with other operators but also compete with other emerging markets of the world.

vi] Processing of cheques at the clearing bank is one task totally dependent on computerization, sound corporate financial institutions should be adequate or required computers in order to ensure that transactions with related parties should be scrutinized and managed with high degree of care in order to avoid undue concentration of risk and reduce the risk abuse and imprudent practices. With globalisation and competition among the financial institutions, information technology, computerization and telecommunications have become important in facilitating the development of the financial sector.

1.4 AIMS AND OBJECTIVES

, **.**

The aims and objectives of this study is to investigate the problems and prospects of computerization in the Federal Mortgage Bank of

10

٩,

Nigeria and in addition to find out whether FMBN and other related firms have intention to go on computers and level of such conversion plans.

Other aims and objectives are to find out the level of computer awareness among the staff of Federal Mortgage Bank of Nigeria to find out if there are enough computer and services at the Zonal or State Office.

- To find out what the result should be after putting all the problems enumerated above into correct shape and to further find out the future prospect of the study.

At this juncture, one may be poised with questions as to the effectiveness and efficiency of the Federal Government Housing Programmes. How much has been invested and how much has been the achievement and for whose benefits. How far has this programme succeeded and how far will they still strive ?

It is therefore believed that if the findings of this research is complete, it is going to benefit FMBN in the sense that it will enable the management to identify their own contribution to develop interest in the use of computers.

On the part of computer manpower more FMBN staff would have a better opportunity for computer training.

This revelation is also relevant to the computers vendors that may make use of this opportunity to market their products with easiness. It is

also apparent that the result of the research will help in introducing the use of computer in other related organizations.

It is also believed that many potential customers or loan borrowers would the principal functions of the Apex Bank and the primary Mortgage Institutions. They are the main suppliers of the long-term finance. Besides it all, the research will serve as a direct source of furnishing some future researcher that may be interested to consider some further occurrences after the completion of this research not only in Federal Mortgage Bank of Nigeria but any other organizations in this country with sound and reliable information.

1.5 STATEMENT OF THE PROBLEM

The list of unsuccessful computer installations is a long one and there is no doubt that many organizations are disappointed with the way their computer project have developed. It is for this reason(s) that this project work is set out and to find out problems of computerization and to appraise the computer system in the Federal Mortgage Bank of Nigeria (FMBN) as well as to suggest possible solutions that will enhance and sustain.

In trying to assess the impact of computers on any society or organization, there are two points worth noting.

The first is that of the incredible speed with which this form of technology has made itself felt in so many are of every day life. It is just

about fifty years ago that this first computer was built yet today there are many millions of computer being used. Although, there is no enough statistics on number of computer installations in Nigeria. It is generally believed that since the mid 80s till now almost all the business firms have drastically took to the use of computers in the running of their daily transactions.

So entrenched in our society are computers that if they could be swept away overnight, the entire financial world of the West would collapse. This may serve to illustrate the second point, that is computers have penetrated our society for more deeply than the average person realizes. Never-the-less for better or worse industrial societies have become dependent upon computers in a similar degree to their dependence upon electricity and telephone system.

As noted by Shelley and Hunt in their book titled "*Computer and Common Sense*". The objective of introducing computer or of extending existing computer facilities may be to increase productivity to attain a consistently high quality of production to improve a service and to gain knowledge, it may be to extend any existing manual system, perhaps to increase the speed and efficiency of operation.

Their observation could not and cannot under any circumstance be turned as un-applicable to Federal Mortgage Bank of Nigeria.

I consider it quite commendable for FMBN to make use of computers in their transactions to achieve the said set goals. Hence, there is need to investigate that effective use of computers and the extent of computerization, highlighting its problems and to suggest some possible prospects.

1.6 <u>RELEVANCE OF THE STUDY</u>

The relevance of this study is to find out the roles or the impact of computers and also to appreciate the benefits of computers to the commercial world especially in our financial management. It would be naïve of us to believe that this technology would be all good or all bad, hence it is important for one to be able to assess the extent of the technology in the financial sector which evolves with the development economy.

The study has attempted to discuss the problems of computerization in Federal Mortgage Bank of Nigeria and other financial institutions. There is need to encourage computerization in our financial sector and the Federal Mortgage Bank of Nigeria in particular, effort should be made by the management staff to forge a strong policy for timely decentralization of the computer department of the Bank within the branches to facilitate and quicken the services of customers.

It is also believed that the functions of the Federal Mortgage Bank of Nigeria (Apex) clearly defined with the primary mortgage institutions.

The research discussed the need for a sound corporate financial institution to require computers in order to ensure that their transactions with related parties should be scrutinized and managed with high degree of care.

1.7 SCOPE AND LIMITATION

The research on the computers as tools to financial management are attractive because of the oscillating usefulness and significance of their nature in general have attracted serious demands from several financial institutions and organizations.

In light of these, I intend to analyse the various functions and applications of computers in these financial institutions and other related firms.

The research work covers the problems and the effectiveness of computerizations in Federal Mortgage Bank of Nigeria. The contributions made by Federal Mortgage Bank of Nigeria towards housing development in Nigeria.

Some positive suggestions and solutions are recommended to achieve significant improvements in its economic performance.

The major constraints of this project is the time allocated to it, it does not allow a full comprehensive work on such a very wide range of activity. As it may appear that the problems of computerization is a national problem. It would be worth while to find a lasting national solution to it. But it is an extremely difficult task to conduct a thorough

investigation that would embrace the whole country. Hence this research work has its investigation confined to a manageable size by restricting itself to Federal Mortgage Bank of Nigeria and related firms where relevant data could be easily secured.

1.8 **DEFINITION OF TERMS**

- FINANCE: This refers to the science of management of money financing, therefore refers to the employment or commitment of funds.
- MORTGAGE: This refers to the process of giving somebody a claim of title documents on property as security for payment of a loan or debt.
- MORTGAGEE: The mortgagee is the person to whom property is mortgaged while the mortgagor is he who gives a mortgage or title document (claim) on his property.
- MORTGAGE FINANCING: This therefore may be seen as a way of allocating and utilization of fund for the purpose of developing landed property.

APEX: The top or highest point.

APEX INSTITUTION: This however, refers to the top over other mortgage institutions. Other institutional components of finance market in terms of primary mortgage

institutions such as Building Societies or Housing Association and Credit Unions.

- DATA-COLLECTION: A process of collecting raw data together prior to input to computer system.
- DATA-BANK: A collection of databases.
- INFORMATION: Relevant knowledge produced from data by data processing system for a specific purpose.
- INFORMATION RETRIEVAL: This is the name given to the process of recovering specific information from stored data.
- HARDWARE: The physical units which made up a computer system.
- SOFTWARE: In its broadest sense any program which runs on a computer, more specifically programs provided by manufacturers or software houses.
- HUMANWARE: This refers to the manpower within the computer establishment. They include analysts, programmers and technicians.

SOFTWARE-HOUSES: A specialist which produces software.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This important and worthwhile to investigate the extent of computer awareness and literacy in Nigeria for centuries. Many people lived on earth without keeping records (COAN Journal, 1993). But as social organizations, adjustments became necessary with the complexities of tribal life and in view of the potential magnitude of business transactions manual record keeping techniques continued to develop through the centuries with such innovations as computer and information technology.

At the 11th annual conference of the Computer Association of Nigeria (COAN) held in October, 1994 at Abeokuta, the members of the association revealed that, they were still not through with this individual expectation. The expectations expressed at the conference ranged from the need to regulate computer education in the country. The need for promulgation of decree to deal with computer crimes and criminals. I believe that the need for computer education is to boost computer awareness and literacy. The fact that for the 16 years of existence and no establishment decree for the Association reveals its low level of awareness indicates a lower literacy level at the conference the president of Computer Association of Nigeria, Mr.

Tunde Njoku revealed that Computer Association of Nigeria (COAN) is seriously on, except for something they expected the last regime to accomplish. He revealed his fear over the fact that COAN has not been given regulatory power to accredit computer school and that this should not mean that the Association is not functioning. What people are getting now in terms of computer education is what is available. What matters more is the awareness and that COAN is doing very well in that area.

On 20th November, 1993 the same president Mr. Tunde was on NTA programme of "*TO NIGHT AT NINE*" with two others to discuss computer awareness and literacy in Nigeria. All the discussants agreed that the awareness is not all that low but really not very high and that the literacy is seriously below the awareness level. They discussed the paper works on computers even in some tertiary institutions where in even if there are computers, the students do not have access to its operation. This is very common in our tertiary institutions in Nigeria even some foreign countries.

Ray Hammond (1984) interviewed a rural dweller in a country of England about a computer. The response was "there were no computers in my school. I did not know what they were. I had heard and read about these great machines that governments and corporations use to speed up accounting etc. But if my graduation had depended on my

description of what a computer was I would have failed. I had never even seen one."

Consequently, a conclusion may be reached that there is a little awareness of computer but the literacy is very low.

2.2 WHY COMPUTERS

This has been discussed under my introduction the four basic operations any computer can perform not to examine art of programming but precisely to demonstrate why computers are of such values to man kind. This section of the literature review is intended to examine those characteristics of computers which make them a useful as problem solvers. The characteristics are discussed under the following headings :-The rational for the speed is because computer travel at the SPEED: speed of electricity which is roughly that of light 1,000,000,000 metres per second. This is capable of responding to everyone simultaneously, timely and efficiently. It is also this speed which enables the computer to perform many thousands (even millions in the larger machines) of calculations per second. There are some larger ones that can perform up to 3 million per second, working on the equivalence of 15 decimal digits. Such speed are beyond the comprehension of the human brain rather like our inability to appreciate the vast reaches of hire and space within the universe.

STORAGE AND RETRIEVAL OF INFORMATION

Computer can store vast amount of information on magnetic media such as magnetic tape and magnetic disk. Equally important is that information held on such media can be sifted through and accessed within a few milli-seconds more and more details are being amassed not just by administrative departments.

The important fact of computers thus is that they not only store information in a very compact form but they can also retrieve any item within seconds.

Shelley and Hunt (1984) in their book titled "Computer Studies". A first course gave an example of the British Library. They suggested that if the information were on computer storage devices in a database, then it will be a simple matter for researchers anywhere in the world (via telecommunication) to find all recorded details about a specialized subject within a matter of minutes. They further argued that with the manual system, a researcher may well spend a year or more simply trying to find out what others have discovered and even then could not be certain of having come across all known facts. If everything were to be recorded by computers then researchers would have many years of work.

<u>CONSISTENCY</u>

Computer unlike frail human beings do not become bored tired or loss concentration when performing highly repetitive work. If computer has to compute a million numbers, it will compute each one with equal diligence. This is something we cannot attribute to human beings because if human being has to add up 100 numbers and did so three times, there are chances that three different answers may be obtained. But computer will get the answer correct first time and the same answer all the times. This means that we can frequently give a credence to the output produced by computers which we would not and could not give to human beings.

ACCURACY

However, if the program and the date are correct, there is no reason for a computer to produce erroneous results. It can only do so when the human element involved makes a mistake. Of course a computer is a machine and like all machines it can go wrong. But if the proper precautions are not taken, any hardware error is reported and the results ignored a further investigation of the application is then required.

2.3 COMPUTER APPLICATIONS

The early computers were built at Universities and Scientific establishments to carry out specific tasks for example ENIAC to undertake in numerable calculations in the field of ballistics. Later it was demonstrated that computers could be designed for use as aids to general business and office administration for example in accounting and payroll,

once this was appreciated the future of the computer industry and of computers are guaranteed.

Bhatnagar and Ramani (1989) in their book "Computers and Information Management". A primer for practicing managers, categorized the evolution of the use of computers in organization into three.

Data Processing represented the first stage. It enable organizations to perform efficient transaction processing to produce summary reports. The second stage of the evolution has focus on the management information system (MIS)/ Through the MIS it was possible to provide useful information to managers such information was generally integrated with functions and provided facilities for enquiry and report generation from databases. The third stage of evolution is the emergence of application system which are interactive and aims at helping decision maker to utilize data and models to solve unstructured problems. This section is intended to discuss this third stage of evolution of use of computers in organizations.

Most computer applications today fit into one or other of these three broad classifications. However, there are far more computers used and more people employed in computing activities in the field of business and administrative computing than in scientific, engineering and industrial application. On a much smaller scale the computer is used in the

humanities and its is beginning to be used in homes in the stage of a small personal computer for such application as domestic accounting, game playing and learning.

Let us now consider the applications of computer into the various works of life.

The retail trade is making increasing use of computers in the process of sales of goods.

Typically a terminal is situated on the shop or super market floor at the cash point or point of sale with a communication link to an in-house mini-computer or in the case of a Branch store, the terminal may be linked to Head Office district office. The terminal acts as a cash register but also transmits sales data to its central database, thereby maintaining automatic stock control, ordering replacement when the level of nay item in stock reaches a specified point and providing valuable information about buying trends computers are used in industries in an administrative role for example payroll, personnel records etc. Stock Control is another important application, particularly in those industries in which the products are assemble using pre-manufactured parts. It is not usual for computer terminals to be fund on the factory floor to record data at source and to obtain information from the system.

In some industries, machine tools driven by computer programs which control all their action.

In some industries computers are used to control processes without human intervention. The application is classified as process control, when the controlling action partly depends on monitoring the progress of the process and taking action according to the observed conditions.

Production of various chemical products and oil refining, paper manufacturing rolling and cutting steel to customers requirement and load control of electricity power stations are examples. In general terms process control is likely to lead to greater efficiency and in such application as chemical processing to improve safety standards.

The computer is an invaluable tool and in design, using programs or rather packages stored in the system, the designer can create images of a design and display them for visual application, typically at a graphics VDU.

Financial institutions are making ever increasing use of computers. The Banks could not function without them today because of the volume of transaction and customer enquiries that have to be dealt with daily. Processing of cheques at the clearing Bank is one task totally dependent on computerization. Typically, a Bank's branch is linked by one or more terminal devices to a large national or regional centre.

In the modern world, computer plays very important role to goods, rail and air traffic communication. This is improving the way in which they are organized for example efficient time tabling, route planning and

scheduling of stock and vehicles. In traffic control application by varying the timing of lights to perfect the flow a bigger volume of traffic can be kept moving. In the case of the Airways, computers are important to organizations on the ground and are used to provide measure of in-flight control. With space flights and exploration in space computers make it all possible. Satellite communication are being increasingly for data communication. They provide significant benefits.

The medical profession benefits from the ability that computer system have to file and maintain vast amounts of information, and to retrieve information from the files at speed. Complete records can be built upon patients so that all the facts are available for scrutiny when decisions have to be made. Doctors can search through data banks of medical information to examine various cases histories and to seek up-todate knowledge.

The computer can be used to assist in the diagnosis of a patients condition and to watch over the progress of a patient under intensive care. In medical search the computers role is invaluable.

In government departments, computers are also widely used. These are essentially administrative bodies which function smoothly rely heavily on repetitive clerical type effort. This is just the sort of application for which computers are ideally suited. The volume of information generated and processed is so great that it would be

impossible to deal with it all without using computers. Water, electricity and telephone bills are computer generated.

Educational sector computers are beginning to be used more and more, just like any business. Computer can plan an important administrative role behind the scene. As an aid to time tabling, one big advantage is the ease with which the computer can provide print outs of all or part of the time table to suit individual needs. In many subjects it is helpful to make use of a computer to carry out lengthy or complex calculations. In others, it is valuable to be able to build up large data banks of information, which like an encyclopedia can be tapped and referenced when required.

The computer can also be used to assist in the actual teaching and learning processes. There are essentially three methods or techniques involved.

Computer Assisted Instruction (CAI)

Computer Assisted Learning (CAL)

Computer Managed Learning (CML)

The process of recovering items of information previously stored in the system is know as information retrieval.

In many applications the retrieval of information is the main or only activity that is actual computation involved is little if any. The value of using computer is that a great mass of information can be retained and

that any individual items can be found very quickly. Of particular note is the idea of an information service for the general public using the television screen in the home as an output device making it possible at the flick of a switch to find out about such things as travel conditions, weather prospects, tropical news, shopping details, sporting events and financial news.

CHAPTER THREE

3.1 INTRODUCTION

The focus of this chapter is to examine computer as a tool in Financial Management with specific reference to Federal Mortgage Bank of Nigeria. The chapter will also look at the constraints that business encounter in the struggle to survive before the introduction of computer and the present options available today to existing business.

3.2 APPRAISAL OF THE NIGERIAN ECONOMY

There has been tremendous change in the economy of Nigeria. The possession of industrial capabilities by an economy is considered an important potential for improved economic growth and development. Indeed one of the distinguishing factors between developed and developing economies is the acquisition of industrial know-how.

The benefits of appropriate industrial base for an economy lies in its combination of suitable technology, management techniques and other resources in order to move the economy from a traditional and low level of production to a more automated and efficient system of mass processing and manufacture of goods and services. This explains why every economy seeks to acquire appropriate industrial base or to expand it if the economy is already industrialised.

3.3 <u>THE FEDERAL MORTGAGE BANK OF NIGERIA AND ITS</u> <u>MISSION</u>

"To increase Nigeria's housing stock on a continuous basis through a loan financing mechanism and create and nurture a mortgage industry for the country that will make the acquisition and ownership of houses by all Nigerians cheap and easy".

Although the private sector was and it still continues to be responsible for the bulk of housing finance and delivery in Nigerian economy, its ability become constrained by inadequacies. For several reasons the housing finance system had remained under developed and ill-equipped to mobilise the channel savings adequately into the sector. Due to paucity of long term loanable funds. Financial institutions were unable to lend adequately for housing development, while high cost of borrowing made housing loan un-affordable to most people. The situation was exacerbated by an inadequacy of housing finance institutions for expansion of services. This was in spite of measures taken by government at various times to improve housing facilitation.

Such measures included massive housing construction programmes at subsidized cost. The public sector under the third and forth National Development Plan, the establishment of the Federal Housing authority in 1973, the functional transformation and re-designation of the Nigerian Building Society to the Mortgage Bank of Nigeria (FMBN) in 1977;

directed credit from financial institutions at below market rates of interest and direct transfer to housings.

Infact, by mid-80s FMBN had become virtually the only mortgage institution at both the state and national levels. As the flow of savings into the lending system suffered the operations of the Bank had relied significantly on government patronage. Over the period from 1974 to 1993 the mortgage assets of the Bank rose from N20,823 million to But this was largely financed from public sector ₩802.09 million. investment, for instance, long term loans from government as a percentage of mortgage assets had oscillated between 88.36% and 46.48% suggesting that the mortgage expansion undertaken by the Bank might not have been possible without government intervention. The interest rates had been made concessionary at below market levels, deliberately to make loan affordable. The cumulative effort of these interventions by government was significantly enlarged exposure of the public sector, a situation which nurtured the perception of housing as a social responsibility of government regardless of the ability by either the government or individual to pay for it. With increasing demand and growing backlog of housing services in the face of harsh fiscal realities it became necessary to review the respective roles of both the public sector and private sector for the creation of a sustainable housing delivery system.

Under this arrangement the primary mortgage institutions (PMIs) are to mobilise voluntary savings from the public to enable them grant housing loans to individuals, while FMBN is to mobilise capital funds into the Primary Mortgage Market.

The National Housing Fund (NHF) Decree No. 3 of 1992 established the NHF as a mandatory contributory scheme to provide a pool of cheap and long term loanable funds for housing credits. Its primary objective to address the problem of inadequacy of long term funds for housing development in the economy as well as the high cost of borrowing for the same purpose. This was to ensure that every Nigerian has access to housing at affordable rates of interest.

3.3 CONTRIBUTION TO THE FUND

Contribution to the fund is made compulsory for :-

- every Nigerian earning an income of №3,000.00 or more per ear as
 either a paid employee or a self-employed person,
- commercial and merchant banks as well as insurance companies.

In addition, the Federal Government is to make adequate financial contributions to the fund. The Decree also mandates FMBN to collect manage and administer all the contributions to the fund.

Each individual is required to contribute two – and – half $(2 \frac{1}{2})$ percent of his monthly income to the fund.

Commercial and Merchant Banks and Insurance companies are to invest prescribed proportions of their loanable funds in the scheme on an annual basis. The contribution by each bank is prescribed as 10 percent of its loans and advances, while insurance company is to contribute no less than 10 percent of its non-life and 20 percent of its life funds.

Individual contributions by employed persons are to be deducted by their employers and remitted to FMBN monthly. Self-employed persons are to remit their contributions directly to the Bank. The Decree makes the Central Bank of Nigeria (CBN) responsible for the collection and remittance to FMBN of the aggregated annual contribution from the Banks, while FMBN is to issue a demand notice at the end of each year for the contribution due from each insurance company.

It should be noted, however, that all contributions except those from the Federal Government, are compulsory loans made to the Fund at prescribed rates of interest and are to be repaid by the fund.

An aim of these combined measures is to encourage a multiplication of housing finance institutions, which would enhance the mobilization and growth of long term funds and make loans affordable to more borrowers. An inference from these measures is that the savings mobilized by PMIs would be augmented by the resources of the fund to induce an expansion of lending services. The over all objective is to insulate the housing finance system from the fluctuation that had characterized its past reliance on government intervention. By implication, this is to also relieve the government of the burden of intervention, through government will yet remain an active participant in the system, but in the context of the role defined for it in the policy that of a facilitator.

3.4 SECURING COMPLIANCE

The enhance effective collection and minimize any tendency to evasion of the National Housing Fund contributions, FMBN is authorized to have access to documents in the ordinary course of obtaining information for the purposes of the Decree the Bank has a unit that is responsible for surveillance. Recognising that the enlistment of all potential sources of contribution is essential for the establishment of a comprehensive database for the moiblisation of contributions, the surveillance function is to ensure the identification and registration of all such sources as well as regular remittance of contributions.

Identification of potential contributory sources in the initial stage, is ordinarily through information derived from the records at the corporate affairs Registry, the directories of employers, trade groups and associations as well as other informal published documents. As the initial database relies on information volunteered by contributors and employers. The emphasis of performance monitoring on contributions so far has been to check and minimize such practices as refusal its either

register or make appropriate deductions, and failure to remit deduction made.

With the progressive consolidation of the database for mobilization of contributions, the surveillance function is to extend to the regular inspection of books of records at the sources of document to ensure that appropriate amounts are being deducted and remitted.

As the scheme matures and expands contributors will be registered from their houses, market stalls and other places of business.

3.5 MANAGEMENT OF THE FUND

The fund shall be managed and administered by the FMBN and FMBN shall ensure that :-

- a) The proceeds from the fund are utilized to finance the housing sector of the economy through wholesale mortgage lending to primary mortgage institutions.
- b) The aims, objectives and functions of the fund are effectively carried out by the FMBN and Mortgage Institutions.

A mortgage institution duly licensed under the mortgage institutions Act shall qualify for loans from the fund on such terms and conditions as the Minister may from time to time by regulations published in the gazette specify, and any loan obtained from a mortgage institution shall be made available to contributors wishing to build, purchase or renovate houses. Any loan obtained by a first mortgage and

any loan granted by FMBN to a mortgage institution shall be secured by a block of existing mortgages, under cover of sales and administration Agreement to be executed between FMBN and Mortgage Institution.

The loan made by FMBN to PMIs shall be at interest rates slightly lower than the prevailing commercial rates in Nigeria and the interest for each loan shall be fixed for the duration of the loan. Mortgage Institutions shall be allowed a maximum spread of four percentage points above the rate charged by FMBN. The summary status report table on outstanding applications for NHF facilities as well as approved and disbursed cases as at 31st August, 1999. Any contributor who has not obtained a housing loan from the Bank and has :-

a] attained the age of 60 years or

b] retired from his employment and become incapable of continuing the contribution to the fund as specified in this Decree shall be eligible to a refund of his contribution within 3 months of the application at the rate of interest prescribed by the Minister.

Mortgage Institution which has obtained a loan from FMBN shall render quarterly returns to the Bank in such form and manner as the Minister may from time to time specify. In the same way FMBN shall render annual returns (statement of accounts) to all contributors showing amongst other things, total contributions accrued interest and balance to date.

3.6 CAPITALISATION OF FMBN

A part from its grossly inadequate for the magnitude of responsibilities that the Bank is obliged to undertake the share capital of $\mathbb{N}100$ million prescribed in the Decree establishing the Bank has remained unpaid. In consequence, a memorandum has been submitted to government for an increased share capital to a level commensurate with the anticipated scope of operation and the release of the funds. This enables the transmission of data between offices promptly and without loss of quality. An advantage is that contribution may be accepted or paid at any office and electronically processed in favour of a contributor or borrower in another office.

The system configuration for the registration of all contributors and borrowers is modeled on the social insurance registration scheme in other countries like UK, US, Brazil and Germany. This is to avoid duplication of registration.

The computerization programme is being implemented in phases. The Abuja and Lagos Offices are equipped with ESCALA MODEL D-201 computer system with 8 GB Hard-Disk Drive which provides a very fast processing and memory capacity. Small capacity systems are to be installed in other Zonal Offices, Micro Computers in the State Offices.

3.7 COMPUTERISATION OF FMBN

In view of the potential magnitude of transaction in terms of the sheer number of contributors and the monthly frequency of contributions as well as the borrowership and need for the system to anticipate and be capable of responding to every one simultaneously, timely and efficiently the underlying operating philosophy is for the full computerization of NHF operations. Such comprehensive data storage and retrieval system enhances also the quality and timeliness of management information and the reporting obligation of the Bank. In that regard, the Bank has acquired a computer system with a large configuration such that its offices are to be networked for multi-user on wide area operations with mini computers at the Head Office and the Zonal Offices and micro computers at the other Field Offices.

A preliminary study within the Bank at the inception of the National Housing Fund (NHF) has established the corporate "Architecture" of the information system that would be needed for operation. An essence was to provide an indication of the database that would be required and how each aspect of the operation would work with any and all of the others. This had quite clearly revealed that there was no off the shelf software that could meet or be adopted to the required operating system. Hence a customized information technology system was to be procured. As this would take some time to be developed and installed, data processing was

undertaken with micro computers using off-the-shelf software to minimize a building of data backlog.

With take-off grant of \$250 million for government in 1993, the Bank had embarked on the computerization project in phases. Systems development was to cover several software modules for the recording, processing, retrieval and tracking of registration contributions defaults, appropriateness of deductions, PMIs transactions, lending and repayment etc.

The initial phase located at the Lagos Office was commissioned in the third quarter of 1994 as a central information services (CIS) centre that would meanwhile take up data from the field until other phases were commissioned in turn.

The second CIS centre was commissioned in the last quarter of 1996 in Abuja. So far, government has aided the NHF scheme to the tune of N500 million by releasing another N25 million in 1996 all of which was virtually committed to the computerization project.

Due to financial constraints the implementation of the remainder phases has been delayed.

Technological constraints has been addressed following management approval for the up-grading of all NHF computer systems at both Lagos and Abuja computer centers.

The up-grading are as follows and successfully completed in June, 1999.

- a] Memory to 512MB
- b] Hard Disk to 36GB

The National Housing Fund scheme despite the constraints and short comings remains the cheapest source of housing finance in Nigeria with the potential of mobilization and harnessing huge amounts of capital for effective housing delivery. But it has to be stream lined and liberalized and the vehicles of its implementation FMBN and PMIs adequately funded, legally empowered and operationally strengthened.

CHAPTER FOUR

SOFTWARE DEVELOPMENT AND IMPLEMENTATION

4.1 INTRODUCTION

This chapter will focus on the development of the software and the way it is implemented.

The programming language used and its features will be discussed, the software developed and how is tested will also be discussed. Other areas of discussions will be the operational manual of the developed software and how to quit the program.

4.2PROGRAMMING LANGUAGE AND ITS FEATURES

The dBASE Programming Language was used for the purpose of this study. In particular the dBASE IV compiler was used because of the following features :-

- 1] The control centre advantages; though the control centre without the use of command language database can be designed records and files can be manipulated and edited databases can be browsed and data verified automatically as they are entered into fields.
- 2] Programs and procedures can be compiled and saved as object codes for faster execution, and
- 3] dBASE IV allows for pop-up menus and windows to be designed.

4.3 SOFTWARE DEVELOPMENT AND TESTING

To develop a software one must first of all know the requirements of the user and then try to develop the software in such a way that will meet the requirements of the user. To do this, one must write a set of coded instructions for the computer to obey (i.e. programs).

In developing the software for this project the principle of modular programming was used. The principle allows for easy detection and correction of errors. For the purpose of this study six different programs were written and linked together with the DO command.

The first program is called MAIN.PRG displays the opening message and is also the main menu.

The second program is the sub-menu used for the selection of various alternatives. The third program (IVIEW.PRG) is used to view the contents of the database.

The forth program (IADD.PRG) is used for the addition of more files into the database. The fifth program (IMODIFY.PRG) is used to modify the various files on the database and finally (IDELETE.PRG) is used for the deletion of files on the database.

4.4 OPERATIONAL MANUAL

Any software written is usually accompanied by an operational manual to ease the learning process by the user. To run the program successfully the following stops are taken :-

FEDERAL MORTGAGE BANK OF NIGERIA

COMPUTERISED NATIONAL HOUSING FUND SCHEME

MAIN MENU

1. CONTINUE

2. QUIT

Designed by Mr. Anthony Gyipo (PGD/MCS/496/98)

Enter your choice (Q or 1) = = =>) -

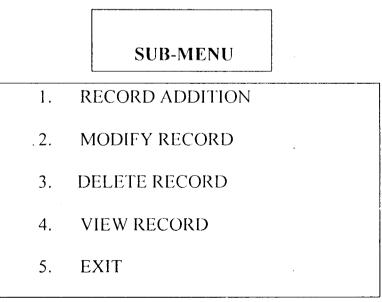
The cursor continues to blink on the bottom R.H.S. of the screen

until a choice is made and enter key pressed.

4.5.2 <u>SUB-MENU</u>

The sub-menu now appears on the screen after the main menu.

The sub-menu is shown below:



Enter your choice (Q, 1, 2, 3, 4, 5) = = =>-

This sub-menu allows the other programs to be run. The cursor continues to blink on the bottom RHS of the screen until a choice is made and the Enter key pressed.

4.6 **QUITTING THE PROGRAMS**

To quite the program, all the user has to do is to select the option Q and press the enter key. This carries the user to the DOS prompt.

CHAPTER FIVE

4.6 RECOMMENDATIONS AND CONCLUSION

This chapter focuses on the summary of research findings, make conclusion and necessary recommendations on the ways or methods that may be adopted to encourage computer uses in financial management with specific reference to Federal Mortgage Bank of Nigeria.

It appears that there has been tremendous changes in the economy of Nigeria since the adaptation of computer option. There is indeed an improved economic growth and development.

The management techniques and other resources have moved the economy from a traditional and low level of production to a more automated and efficient system of mass processing and manufacture of goods and services. The computerization system in Federal Mortgage Bank of Nigeria has so many advantages.

The programme is being implemented in phases with 8GB Hard Disk drive which provides a very fast processing and memory capacity. In view of the potential magnitude of transactions in terms of the steernumber of contributors and the monthly frequency of the contributions as well as the borrowership and need for the system to anticipate and be capable of responding to everyone simultaneously, timely and efficiently, the Bank has acquired a computer system with a large configuration such that its offices are to be networked for multi-user on wide area operations with mini computers at the Head Office and the Zonal Offices are micro computers at the other field offices. An essence was to provide an indication of the databases that would be required and how each aspect of the operation would work with any and all of the others.

It is pertinent to finally note that the introduction of computers have improved the economy and facilitate the problems of traditional system of productions.

The application of computer greatly increase speed and flexibility and promote a rational expansion of the lending system as well as a multiplication of loanable funds.

5.2 <u>RECOMMENDATIONS</u>

Having examined the roles of computers as tools in financial management and after identifying the problems associated with them, the following recommendations are made which could, to a very large extent ameliorate the present situation.

i] With globalisation and competition among the financial institutions information technology computerization and telecommunication have become important in facilitating the development of the financial sector. Also for FMBN in particular the need for adequately trained manpower to handle the variety of activities and adopt to innovations and changes in

technology occasioned by competition cannot be overemphasised.

- ii] There is need to ensure macro-economic stability as how and stable inflation favours financial sector development moderately positive real interest rates are desirable as extremely high real rates can cause distress among financial institutions as well as constrain investment spending. This interest rate management will have to go hand in hand with prudent fiscal and monetary policies which will ensure price stability and positive real rate of return on financial assets.
- iii] Furthermore, there is need to harmonise and coordinate the effort of all the Apex regulatory organs in the financial system for orderly growth of the system. Timely and comprehensive rendition of monetary and financial data and other relevant information to monetary authorities this is to assist policy prescriptions for efficient and effective financial sector.
- Interest rate reform necessary to reduce the incursion and encourage borrowers to obtain mortgage loans through the Primary Mortgage Institutions.
- v] Governments in developing countries should make it possible and affordable relevant documents required for land property, example,

certificate of occupancy (C of O) or Right of Occupancy (R of O) this will assist borrowers to obtain mortgage loans.

Vi] There is need for government to develop or establish more function-able Primary Mortgage Institutions to deepen in the sector and to encourage the idle funds to be pooled into the Primary Mortgage Institutions for efficient utilization through mortgage loans.

Finally, government in developing countries can facilitate the growth of contractual savings as a source of long-term corporate finance thereby can lend it out to citizen or build houses and let them out for purpose of mortgage loan assistance whereby the beneficiaries will gain.

5.3 <u>CONCLUSION</u>

In the conclusion, the author considered the various roles and applications computer effectively be needed for the operation in the financial management, how each aspect of operation would work with any and all of the other.

This had quite clearly revealed that there was no how a customized information technology system be used due to its various functions. Computers have played a key role in the provision of efficient and quality services in the financial sector.

Different institutions in Nigeria's financial sector with strong bearing to these tasks include the Central Bank, the money market (comprising

the commercial and Merchant Banks), the Capital market development and investment banks, the Insurance Companies and the finance and lease finance companies.

As earlier stated in my chapter two computer unlike frail human beings do not become bored, tired or loss concentration when performing highly repetitive work. This means that we frequently give a credence to the output produced by computers which we would not and could not give to human beings.

Most computer applications today fit into one or other of these activities:- Business, Administration, Scientific, Engineering and also Industries.

Computer can be applicable into our various works of life. These are just the sorts of applications for which computers are ideally suited.

In Federal Mortgage Bank of Nigeria, the volume of work and information generated and processed is so great that it would be impossible to deal with it all without using computers.

BIBLIOGRAPHY

1. AKINNOLA, Y.(1	993)	<i>Mortgage Banking - Key Elements</i> (Falyom Associates Limited), Lagos, Nigeria).
2. ANDERSON, R.G	.(1984)	Data Processing Management Information System (M E H. Books, London).
3. CENTRAL BANK VOLUME 22 NO.3 JUL		Regulation and Supervisory Imperatives in Globalised Financial System (By G.A. Oguntoye).
4. CENTRAL BANK VOLUME 22 NO.3 JUL		An effective Monetary Policy for National Building. (By Dr. Paul Ogwuma – Former CBN Governor).
5. FEDERAL MORT BANK OF NIGER <i>REPORT ON IMPLEMEN</i> <i>NATIONAL HOUSING FU</i>	IA. tation of the	Five year of the National Housing Fund (1992 – 1997).
6. FEDERAL MORT BANK OF NIGER		<i>Quarterly In-House Journal.</i> December, 1998.
7. KOLA A.		Database Management System and Step by Step Guide to Programming in Basic, Fortran and Pascal.
8. ONYIDO B.C.	s S	Financial Sector.
9. WORLD BANK		<i>Financial System and Development</i> <i>Policy and Research Series.</i> (Washington D.C. 1990).

t j



. .

.

.

.

,

.

SUB MENU

[1]. Record Addition [2]. Modify Record [7]. Delete Record [4]. View Record ([0]. [xit Enter your choice (0.1.2.3 & 4) ==> اليہ

Ø

ENTER NAME OF APPLICANI (PLEASE INCLUDE IIIIL i.e. H., Mrs, etc.)

Enter address Enter state Enter name of next of kin Enter Address of next of kin Enter employment status as at the date of completing this form (01 for full time employment, 02 for part time employment and 03 for self employment) 0

Has employment status changed γ (y/n)

Enter Date received / / enter Participation Number issued/ verified 0 Acknowledgement sent Checked by

DELETE MORE? (Y/H)

IDELETE C:\dbaseiv\FMBN Rec 1/11 File

ENTER NAME OF APPLICANT(PLEASE INCLUDE TITLE i.e Mr. Mrs. etc)

Enter address Enter state Enter name of next of kin Enter Address of uext of kin Enter employment status as at the date of completing this form (01 for fu time employment, 02 for part time employment and 03 for self employment) 0 Has employment status changed 7 (v/n)

Enter Date received / / enter Participation Number issued/ verified @ Acknowledgement sent Checked by ENTER NAME ENTER NAME OF APPLICANT(PLEASE INCLUDE IIIILE i.e.Mr. Mrs. etc) Enter address Enter state Plateau Enter name of next of kin Madam Enter Address of next of kin Bosso Enter employment status as at the date of completing this form (01 for full time employment. 02 for part time employment and 03 for self employment) 1 Has employment status changed ? (y/n)

Enter Date received 12/12/99 enter Participation Number issued/ verified - 1 Acknowledgement sent good Checked by Segun

```
Page # 1
clear
set talk off
set scoreboard off
set status off
set colo to GR+
use fmbn
Do while .I.
Ioption =0
@ 2.35 say "SUB ~ MENU"
@ 10.15 to 23.60 double
@ 12.18 say " Itl. Record Addition"
@ 17.18 sav "ft). Record modifio
@ 14.18 sav " [2]. Modify Record"
@ 16.18 sav " [3]. Delete Record"
@ 18.18 sav " [4]. View Record"
@ 20.18 sav " [0]. Lxit"
0 22,22 say "Enter your choice (0,1,2,3,3,4) \rightarrow -2" get loption
 Read
 Do case
     case loption = 4
        Do Iview
      case loption =1
        Do Iadd
      case Ioption = 2
        Do Imodify
      case Ioption = 3
        Do Idelete
      case Ioption = 0
        Do main.prg
  Endcase
 Enddo
set talk on
set scoreboard on
clear
 Return
```

Page #). set talk off clear Use fmbn.dbf Do while .T. Append blank STORE NAME TO NAMS store dateb to dobirth STORE address TO addres store state to stat store nnok to nno store annok to anno store employstat to employsta store enam to ena store newemstat to newemsta store newenam to newena store dr to drd store phy to ph store as to acd store obyname to obynam @ 2.2 SAY "ENTER NAME OF APPLICANI (PLEASE INCLUDE FITTLE i.e Mr. Mis. etc)" det @ 4.2 sav "Enter address " get addres @ 5.2 say " Enter state " get state @ 6.2 say "Enter name of next of kin " get nuck @ 7.2 say "Enter Address of next of kin "get annok @ 8.2 say "Enter employment status as at the date of completing this form (01 det employstat If employstat = 03 0 9.2 say " Enter Employer's name " get enam Fndif question = space(2)@ 10.2 say " Has employment status changed ? (y/n)"get question If question="Y" @ 11.2 say "Enter new employment status " get newemptat @ 12.2 sav " Enter new employer's name " get newenam Endif @ 13.2 sav " Enter Date received" get dr @ 14.2 say " enter Participation Number issued/ verified" get PNV @15.2 sav "Acknowledgement sent"get as @16.2 say "Checked by get obyname read replace name with namS.dateb with dobirth, address with addres, state with stat replace nnok with nno, annok with anno, employstat with employsta, enam with ena, r replace newenam with newena.dr with drd.pnv with pn.as with asd.cbyname with ck choice=space(1) @18.2 say "Continue? (Y/N)"det choice read if choice="Y" 1000 else do individu endif enddo close databases set talk on return

```
Page # 1
set talk off
clear
Use fmbn.dbf
Do while .I.
GO 10P
STORE NAME TO NAMS
01.2 SAY "ENTER NAME" GET NAME
READ
LOCATE FOR NAMSENAME
IF FOUND ()
store dateb to dobiith
STORE address 10 addres
store state to stat
store nnok to nno
store annok to anno
store employstat to employsta
store enam to ena
store newemptat to newempta
store newenam to newena
store dr. to drd.
store pnv to pn
store as to acd
store obviame to obviam
@ 2.2 SAY "ENTER NAME OF APPLICANT(PLEASE INCLUDE TITLE i.e Mr, Mrs, etc)" ge
@ 4.2 say " Enter address " get addres
           Enter address "get addres
@ 5.2 say "Enter state " get state
0 6.2 say "Enter name of next of kin " get nnok
@ 7.2 say " Enter Address of next of kin "get annok
@ 8.2 say "Enter employment status as at the date of completing this form ( 0
get employstat
If employstat = 03
0 9.2 say "Enter Employer's name "get enam
Endif
        question = space(2)
0.10.2 say "Has employment status changed ? (y/n)"get question
If question="Y"
@ 11.2 say " Enter new employment status " get newemstat
@ 12.2 say " Enter new employer's name " get newenam
Endif
@ 13.2 say " Enter Date received" get dr
@ 14.2 say "enter Participation Number issued/ verified" get PNV
@15.2 say "Acknowledgement sent"get as
@16.2 say "Checked by"get obyname
read
replace name with namS.dateb with dobirth, address with addres, state with stat
replace nnok with nno, annok with anno, employstat with employsta, enam with ena,
replace newenam with newena, dr with did, pnv with ph, as with asd, obyname with o
choice=space(1)
018.2 say "Continue? (Y/N)"get choice
read
      if choice="Y"
          loop
         else
            do individu
      endif
ENDIF
  enddo
 close databases
set talk on
return
```

```
Page # 1
set talk off
clear
Use fmbn.dbf
Do while .T.
GO 10P
STORE NAME TO NAMS
LOCATE FOR NAME=NAMS
IF FOUND()
store dateb to dobirth
STORE address IO addres
store state to stat
store nnok to nno
store annok to anno
store employstat to employsta
store enam to ena
store newemstat to newemsta
store newenam to newena
store dr to did
store phy to ph
store as to asd
store obyname to obynam
@ 2.2 SAY "ENTER NAME OF APPLICANT(PLEASE INCLUDE TITLE i.e Mr, Mrs, etc)"ge
@ 4.2 say " Enter address " get addres
0 5.2 say "Enter state " get state
0 6.2 say "Enter name of next of kin " get nook
@ 7.2 say " Enter Address of next of kin "get annok
0 8.2 say "Enter employment status as at the date of completing this form (
get employstat
If employstat = 03
@ 9.2 say "Enter Employer's name " get enam
Endif
        question = space(2)
0.10.2 say " Has employment status changed ? (y/n)"get question
If question="Y"
@ 11.2 say "Enter new employment status " get newemstat
@ 12.2 say " Enter new employer's name " get newenam
Endif
@ 13.2 say " Enter Date received" get dr
@ 14.2 say " enter Participation Number issued/ verified" get PNV
015.2 say "Acknowledgement sent"get as
@16,2 say "Checked by get cbyname
DELETE
CLEAR GETS
PACK
CHOICE=SPACE(1)
@18.2 say "DELETE MORE? (Y/N)"get choice
read
      if choice="Y"
          loop
         else
            do individu
      endif
ENDIF
 enddo
 close databases
set talk on
return
```

```
set talk off
use individual
 clear
Do while
Go top
Name = space(30)
0 2.3 say "Enter name" get name
 Read
Locate for mname = name
If found ()
0 2.2 sav "Name:"
@ 2.35 sav "Address:"
@ 3.2 sav "State:"
@ 3.12 sav "Name of Next of kin."
@ 4.2 say "Address of Next of Kin:"
endif
enddo
return
```

Page # 1