COMPUTERIZATION OF REVENUE GENERATION IN LOCAL GOVERNMENT COUNCIL

(A CASE STUDY OF BIDA LOCAL GOVERNMENT COUNCIL)

BY

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PGD/MCS/96/98/230

A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE, FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE POST GRADUATE DIPLOMA IN COMPUTER SCIENCE

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CERTIFICATION

This project work has been read and certified by the undersigned as meeting the requirements of the Department of Mathematics/computer science, Federal university of Technology Minna.

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EXTERNAL EXAMINER	DATE

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DEDICATION

For

My Grand mother

LATE HAJIYA NANA FATIMA MUHAMMADU NDAYAKO

ABSTRACT

Finance can be said to the issuance of the distribution of and the purpose of generating revenue and producing assets.

In this era of modern technology, the financial sector has made considerable efforts in embracing the use of computers as regards their operations.

The focus of this project work centers briefly on the various avenue of sourcing revenue for the local government. This is achieved by employing the extensive facilities of Data Base Management System in bringing about a computerised accounting aspect of the revenue System which greatly eliminates problems associated with the manual mode of operation associated with the day – to – day accounting records of the local council.

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CHAPTER ONE

1.0 INTRODUCTION

The use of computers is now so widespread that there are very few people who are not affected by their use. Bank statements, bills for electricity and gas payments for rates and other services are handled by the system. The continued substitution of electronic data processing for manual operation is due to increase activities throughout the world. This has gone to such an extent it is obvious that human efforts alone can no longer cope with the increased pace of these activities. As a result of this computer operation has been introduced in so many spheres of life. It is conveniently use in banks, Parastatals, private carry out calculations and provision of management information.

However, a computer can be defined as an electronic device that accepts input, process the input according to the instructions programmed in order to generate output.

Specifically, the benefits of using computer include accuracy, speed and efficiency. This is because computer has the capacity of processing a large data within a very short period of time and with the most possible accuracy.

Given the above, it is necessary to point out that computer application is of great relevances and importance in accounting profession. This accounts for why today's accountants, whether in industry, commerce, or governmental units cannot shy away from accounts department of the organisation. The problem is

so pronounced that most of these parastatals rely on government to subsidise their income at regular intervals.

This, therefore, led, to the introduction of privatisation and commercialisation of some government Parastatals. The government hope that the introduction of this policy will lead to increased revenue generation by these Parastatals that will in turn reduce the amount of monetary allocation to them.

How ever, it was later discovered that the gross mismanagement in the eighties could be traced to lack of good accounting system in the public sector. This is largely attributed to lack of management information system of which the fundamental problem is difficulties in keeping and retrieval of information. The net effect of this is the inability to balance up the necessary book of accounts and delay in the production of accounting reports.

1.1 OBJECTIVES OF THE STUDY

The main objective of this study is to provide an in-depth analysis and need for a computerised revenue generation process in local Government Council.

Specifically, the main objectives are as follows: -

a. To study and analysis the activities of the accounting department of the council.

b. To observe the problems associated with the existing revenue generation procedures in the council and provide the need for a computerised operation in the council.

c. To examine the source of local Government fund and the way it is spent.

d. To examine the extent to which the local revenue, State Allocation and Federal Grant affect the operation of the local Government.

1.2 RELEVANCE OF THE STUDY

The year 1955 to 1963 saw the take off of Business computing throughout the world. Today computer is more relevant in all spheres of business world, which include accounting activities, storage of sales information, stock inventory, keeping personnel records etc.

In the past five years, there has been a boost in the utilization of information technology for the running of business enterprises in Nigeria. Much of this has come about as a result of the advent of micro or personal computers. The application of computer therefore, enables business to meet up with the demand of increased economic activities nation wide. It also aids business in making decisions from other firms.

However, many businesses are beginning to realise that computer systems can help them keep ahead of the competition, perhaps by providing new delivery systems for services, or by supplying accurate and up to date

information on which immediate decision can be based. This is because th information derives form the use of computer is more reliable and efficient tha manual system. Many Accountant Found in playing their roles as financia advisers, auditors or financial custodians, they have to be re-educated in the nev technology and methodologies.

Having realised the need for the introduction of computer within th accounting profession, one must also not that the advent of office automation wil lead to less utilization and movement of paper within the office. Vouchers, Journals and many of the accountants tradition source or primary documents would probably not exist as everything would have been entered directly into the computer.

The Nigeria Accountants in the future therefore, would have to learn to do without this traditional documents and report and instead, relate and work with the computer. He would need to be as knowledgeable as many computer specialists with the expertise to write, debug and run his own programs.

It is against the aforementioned points that it is necessary to design a computerised procedure for a part of the operations of the finance department of Kontangora Local Government Council. It is therefore hoped that all other operations will have to be automated too.

1.3 METHODOLOGY OF THE STUDY

The main task of the finance department of Kontangora Local Government Council are stated below:

i) Recording of assets, liabilities, income and expenditure of the council in such away as to comply with legal and other requirements.

ii) Provision of timely and adequate management of information reports to assist management in running the affairs of the council on a daily basis.

iii) Aiding in the preparation of annual budget and long-term plan thus providing a basis for effective budgetary control measures.

The mode of operation of the existing system in the department covers the following area: recording of accounting activities in the form of transaction within the organisation, generation of accounting reports such as ledger, Trial balance etc., preparation of Bank reconciliation statement, preparation of monthly payroll control of items of stock within the council etc. All the above activities are done purely on manual basis..

For instance, the recording of accounting activities is done with the use of cashbook, ledger and trial balance. The postings of the transactions are done and at the end of the month, the reports are generated based on the transactions entered. However, the transactions are immediately entered into a ledger before other processing follows.

The nominal or main ledger is the principle book of account of the council. It is the central accounting record into which flow all accounting transactions either in details or in summary totals.

However, given the above posting, the various reports are produced. The reports are General ledger and Trial balance on monthly basis. In addition, the finance department is expected to produce the financial statement and reconciliation statement.

The council's finance department is currently faced with some problems, which hinder its smooth discharge of its duties. Specifically, the problems are as follows:

i) The department is short of staff and the few once available are not equipped to handle above responsibilities.

ii) There is the problem, which stem as a result of poor record keeping in the council.

iii) The proper accounting principle of the council is not strictly adhered to. For instance, the accounting codes are not properly utilized and this generate into mixing up of different transactions.

Given the above problems, it is therefore discovered that a computer based accounting system will help to ensure proper and reliable record keeping, speedy processing of transactions and reports generation.

However, the application of the computer to the council's Accounting department will aid the department in achieving efficiency in performing its

duties. This is obtained as result of the basic features of computer, which include speed efficiency, flexibility, accuracy, economical, etc.

1.4 SCOPE AND LIMITATION OF THE STUDY

This study will examine and analysis the need for a computerised operations in the Accounting Department which will replace existing manual operation. The Accounting department of the organisation is expected to perform various accounting activities like preparation of the necessary accounting reports, preparation of monthly payroll for the council's employees, advising the council on its monetary position etc.

However, this study will be limited by time factor, as there is no enough time to carry out a study on all the operations the department. It is also limited by lack of finance, which will be needed to meet the requirement of the research. Another important limitation is the department operates fully on manual basis as the department is not yet thinking of computerised operations.

1.5 DEFINITION OF TERMS

(1) **Recurrent expenditure:** - This is expenditure that is made on personnel and over head cost of an organisation which includes salaries and wages, staff claims and allowances.

(2) **Bureaucracy:** - This refers to a formal organization structure built on a high degree of specialization and delegation, authority rules and procedures and a "Role culture"

(3) **Local Government:** - This is also referring to Native Authority, which represents the basic unit through which any nation administers her people at the grass root level. The theory of local Government therefore, is that must be an administrative agency through which central government governs the people in their respective homes.

(4) **Finance:** - Is derived from the Latin word "Finis" which means contract involving money or monetary credit. Finance is defined as the "Issuance of, the distribution of, and the purpose of generating revenue and producing assets. Is also concerned with where to get cash and how to use cash for the benefit of such entity.

(5) **Accounting procedure:** - This are steps taken in the collection, identification, processing, analysis measurement and recording of financial data about an organization and the reporting of that information to decision makes.

(6) **Recurrent Revenue:-** This means the internal revenue and the external sources from the Government or individual to an organization.

(7) **Computer:-** Is a machine, which accepts data processing and supplies result, under the control of a stored program.

(8) **Data:-** Anything to be processed by the computer or any piece of information to be process.

CHAPTER TWO

2 LITERATURE REVIEW

In its very simplistic version, accounting is defined as the language of business. This derives from the fact that very business undertaking will seek to ensure periodically its ability to stay on in operation through sustained profit – making and management of its various assets both liquid and otherwise. Accounting techniques constitutes a means of easy measurements of these and other relevant parameters, which relate to the business world.

When viewed in a broader perspective, the meaning of the term "business undertaking" will include any kind of organisation be it commercial, religious or any other non-profit making institution, and of course even government. This is so because all have various transactions the bottom-line of which is financial and as such share a number of common problems with the ordinary business concerns. Therefore accounting is a very pervasive subject transcending several boarders and affecting the economic pulse of all organisations.

In an ever changing world, accounting has been adapted to a number of special roles, apart from the traditional role of historical record keeping leading to the preparation of various books of accounts, accounting and its tools are employed in financial and management plans, production of various specialised report which aid their user (investors, shareholders, tax authorities etc.) to a more informed position and action.

Accounting has also aided development in technological and many other diverse fields by its direct impact on the overall financial progress of organisation pursuing these goals.

Generally, the objectives of accounting and financial reporting are as follows: -

(i) To provide financial information useful for determining and predicting the flows, balance and requirements of short-term financial resources of the organisation.

(ii) To provide financial information useful for determining and predicting the economic condition of the organisation and changes there in.

(iii) To provide financial information useful for monitoring performance under terms of legal, contractual and fiducially requirements.

(iv) To provide financial information useful for planning and budgeting and for predicting the impact of the acquisition and allocation of resources on the achievement of operational objectives.

(v) To provide financial information useful for evaluating managerial and organisational performance through:

(a) The determination of costs of programme, functions and activities in a manner which facilitates analysis and valid comparisons with established criteria among time periods.

(b) The evaluation of the efficiency and economy of operations of organisational units, programmes, activities and functions.

(c) The evaluation of the results of programmes, activities and functions and their effectives in achieving their goals and objectives.

(d) The evaluation of the equity with, which the burden of providing resources for government operation is imposed.

Given the above objectivities, accounting is considered so important to an organisation such that without it, the immediate pecuniary will be experienced by the organisation. Accounting functions procedures and activities are carried out almost immediately transaction taken place. All forms of fraud committed can be more readily exposed by accounting system and procedures and activities, if a good accounting system and practice is installed in the business organisation.

Furthermore, the accounting functions provide the working materials with which the audit functions provide the working materials with which the audit function commences. In other words, without accounting function being carried out (whether by an Accountant or an Auditor) the audit function cannot

commence because it is the accounts (i.e. financial statements) prepared that is being re-examined and reported on by the auditor.

Accounting in business, business, basically consists of management and financial accounting Management costing inclusive accounting takes care of the day – to – day management information need and is so basic to the profitability and viability of any business. It makes use of business events in the past as well helps to provide information on which to take immediate decisions and helps in planning and projecting operations in the future in the form of budgeting and profit planning.

Financial accounting is rather move traditional and historical record of business events and the preparation of various books of accounts and financial statements such as Ledger, Trial balance, profit and Loss accounts and Balances sheets for use by various parties (both within and outside the business). It is essentially the financial accounting reports that are subject to auditing.

Accounting is a basic functional and indispensable to business progress and prosperity. It takes care of business assets and liabilities, their safety, proper recording, efficient use and adherence to management policies. It combines the three phases of the context of business events past, and future. A good accounting system ensures that errors and fraud are thrown open as soon as possible. This is more so because the accounting function is part of the management responsibilities. When properly designed and implemented accounting contributes immensely to business progress and profitability.

2.1 IMPORTANCE OF FINANCE LEVELS

It generally believed that after Federal Government grants which most of the local levels depend on couldn't employ more sources to meet up their pressing demands in the locality. In view of this, need arises to Borrow from financial institutions to help in eradicating the problem labour force and further industrialization. Like so many things in the contemporary world, the subject matter of finance have undergone significant function of finance was obtaining funds.

Later on, more attention was given to the use of funds, and one of development of the 1950s was a procedure for systematically analysing the internal management of the firm with a focus of flows of fund within the corporate structure. As procedure for using financing control in the internal management process develop, financial management became in increasingly important part of the firm's general management, obtaining the best mix of financing in relation to the over all valuation of business enterprises, and local government levels, is one of the activities to be undertaken for a sound financial management.

For Local Government s to succeed, it needs to understand and apply basic economic financial principles, which are important and useful in practical daily routine. However, Local Government in Nigeria posses inadequate knowledge of accounting concepts and principles of financial management. And

also for a good liquidity position, local governments should be to take appropriate financing decisions. Financing decision is aspect of Administration to be put into consideration.

It is concerned with determine the best financial mix or structure for his business. In order to produce and sell, there must be adequate finance to acquire fixed assets, raw materials and other supplies. In addition, there should be enough cash or credit to meet obligations for wages, salaries, miscellaneous supplies and other necessities.

2.2 COMPUTER APPLICATION TO LOCAL SOURCE REVENUE GENERATION

A computer application especially microcomputers are widely used in practically all aspects of our daily life.

The computer application in accounting area, which is our area of concern in this project, has benefited a lot from the used of computers today. Before the computer age, the ledger, which is a book of spreadsheet, was the accountant's main tool for keeping records of finances. But then came electronic nature to the bookkeeper's ledger. All accounting jobs, such as payroll, source of income and expenditure records, profit and loss statements, personnel profiles and budget summaries etc. are better with computerised accounting software.

There are two main sources of local government revenue. They are firstly statutory allocations grants, contributions and subventions. Secondly, internal generated revenue. The fourth schedule of the 1979 constitutions stipulated that Local Government shall be entitled to statutory allocation from the Federal Account and from the state Government but leaves the determination of the amount to the legislative.

Since 1st June 1992, 20 percent of the federation Accounts has been allocated to local governments. In addition, the constitution provides that each state government shall pay to the local government councils in its area 10 percent of the state total internally generated revenue.

The second broad source of our local government fund is through internally generated revenue the lists of areas ranges from local rates to miscellaneous, including shopping centres motor fuel stations and dealer licences. The generation of revenue in this category depends very much on the location of each local government in terms of prosperity and level of development and the financial acumen of the local Government financial managers and planners.

2.3 ACCOUNTING OPERATION IN LOCAL GOVERNMENT COUNCIL

The following are the accounting operations maintained in council: -

(1) **CASH BOOK:** - The council keeps cashbook, which is in the form of receipts and payments. All related receipts are posted to the credit side of the cashbook. On the other hand, all payments made are posted to the credit side of this account from the payment vouchers. Other posting to this account include bank interest and commission, bank direct debits, transfers etc. Lodgement into the bank is posted from bank tellers. Other posting of receipts is usually received from bank advice which include bank direct credit, returned cheques, interest on bank deposits etc. All items in the cashbook (excepting balances and contra entries) are posted into the ledger accounts.

(2) **GENERAL LEDGER:** - The council also the cash prepare general ledger in which all the transactions in the cashbook are entered. All receipts on the debit side of are posted to the credit side of ledger accounts affected and all payments on the credit side of cashbook are posted to the debit side of the ledger concerned. This account forms the basis of extraction of ledger balances for the purpose of compiling the Council final accounts. The general ledger is divided into sections as provided in the draft code of the accounts. The general ledger is kept among the other thing in the final account section. At the end of the month, section receives copies of the following:

a. All paid vouchers from cash office section.

b. Monthly returns from outstations

For accuracy, the paid vouchers are usually, checked to the cashbook and monthly summaries. Thereafter, posting are then made to the accounts in the general ledger from the checked and greed.

(3) **TRIAL BALANCE:-** This is extracted from the accounts in the ledger ignoring those accounts in which the amount on one side corresponds with the amount on the other side. With trial balance the posting in the ledger since in this account, the total debit must equal the total credit. It is also used for the preparation of balance sheet.

(4) **FINANCIAL STATEMENT:-** The council also prepares financial statement that is concerned with the most general form of final account, which is generally presented in conjunction with a balance sheet. The profit and loss accounts (income and expenditure statement) is the account in which all gains and losses accrued to the Authority are recorded, if the gain exceed losses the excess is net gain to the Authority and if on the other hand, losses exceed gain, the difference is net loss. All the assets and liabilities of the Authority are recorded in the balance sheet including all allocation received from the federal department of water resources Abuja.

(5) **BANK RECONCILIATION:-** Among the accounting operations in the organization is bank reconciliation. This account is used to check whether the cashbook is in agreement with the council bank accounts.

This account is prepared by picking the balance as per bank statement from which all unpresented cheques, receipts by bank not in cash book e.g bank charge are added.

(6) **PAYROLL:** - This is concerned with the salaries and wages of the council staff. It contains the basic salary the basic salary of each staff as specified in the variation order including all allowances such as over time housing, allowance, transport allowances meal subsidy, leave bonus etc all added to the basic salary. All necessary deductions are also carried out from the basic salaries of each staff. In addition, the organization also stresses the need to trace all addition and subtraction to the salary analysis book and ensures that the amount paid into individual accounts is the net amount of salaries while ensuring that resignation, termination and dismissal are reflected in wages and salaries sheet; variation order are also usually checked if there is new employment.

(7) **GENERAL STOCK:** - Stocks are consumable materials and a goods constituting a part of the working capital of the Authority, which are acquired, produces, used and could be sold in the ordinary business of the council all the council materials are kept in the store under the supervision of Executive Director (Finance and Administration).

2.4 BENEFITS OF COMPUTERIZED ACCOUNTING SYSTEM

The following benefit could be accrued in keeping accounting records under a computerised system.

Time saving: - The main time an average person spend, waiting for transaction business can be considerable reduced thereby putting that letter and productive use since the necessary verification are speeds.

Ability to perform complex task: - Under centralised computer system, which can verify accounts, which maintains somewhere else thousand of kilometres away from your location.

Accuracy: - Accurate and faster computation of entries and bank charges are available.

Councils account: - Can be accurately maintained overall figures or annual or quarterly operation can be easily and quickly obtained and returns can rendered at a fast rate.

Less manpower is employed: - Resulting in reduction of salary and other expenditure for the organisation.

Compact information storage: - And ease of retrieval it has ability to store a very large amount of data in a very small space.

CHAPTER THREE

3.0 SYSTEMS ANALYSIS AND DESIGN

3.1 INTRODUCTION: -

In systems design, the analyses formulate exactly the procedures and sub-systems that will operate in the new or modified system.

After the collection and analysis of information on the existing system, the next phase is the transformation of the information into logical and physical design of the new system.

Indeed, this section considers the logical design of the proposed system, which contains the design specification of the system. It focuses on the features of the system in relation to the output specification, input specification, files and procedures.

3.2 TESTING THE PROJECT FEASIBILITY

For any project feasibility, the following have to be undertaken

a. **Relevance Feasibility:** - Indeed, computerized system has been the most outstanding contribution to preparation of information all the world-over particularly, with the approach of the next millennium, automation will be one singular enormous but unavoidable facility. The relevance of the automated system based on tested and trusted network will make the jobs and functions of the account personnel a little but interesting and most importantly it will reduce the

number of files and "Hit rate" ratio appreciable to the delights of the conservatives.

b. **Operational Feasibility:** - This relates or is concerned with the workability of the proposed information system when developed and installed.

c. **Technical Feasibility:** - This test seeks to clarify if the proposed project can be done with current equipment, existing software and available personnel.

d. **Economical Feasibility:** - This relates to the financial feasibility of the project.

All in all, the proposed system can be carried out based on the main testing project feasibility.

3.3 SYSTEM DESIGN

Design is the process whereby the systems analysis applies his judgement, skills and knowledge to interpret the requirements specification that provides detailed documentation of the new system.

For effective design to be accomplished, certain relevant basic factors must be considered: -

(1) Production of required information at the right time, and amount with an acceptable level of accuracy.

(2) The need to minimise cost and time spent on data preparation

(3) Effects safeguards for prevention of frauds and practices.

(4) Effect security measures to avoid loss of data stored in files.

(5) Efficient design of documents and reports

3.4 COST AND BENEFITS ANALYSIS OF THE NEW SYSTEM

(1) Operating cost	₦	K
Supplies for lyear (Diskettes, Stationeries)		100,000, = 00
Equipment maintenance		25, 000, = 00
Program Maintenance		25, 000, = 00
Labour Cost (60 operators)		60, 000, = 00
Utilities		45, 000, = 00
2 ALC (2HP)		85, 000, = 00
Miscellaneous Expenses		50,000, = 00
		390,000, = 00

(2) Development cost	₦	K
System Analysis & Design For 4weeks		40,000 = 00
Software Development		20, 000 = 00
5 PCS (Pentium)		280, 000 = 00
Installations		50, 000 = 00
2 printers (Laser Jet)		80, 000 = 00
Stabilizer		15, 000 = 00
UPS		20, 000 = 00

Miscellaneous	25, 000 = 00
	₦ 530, 000 = 00

Grand total = ₦ 920,000 = 00

BENEFITS OF THE PROPOSED SYSTEM

(1) Reduction in the use of Stationaries (paper work)

(2) Sorting and arranging of information in various ways can be done easily and quickly.

(3) Automatic updating of record and maintenance

(4) Elimination of money repetitive work of bookkeeping.

(5) Ghost – workers eliminated and fraudulent practices wiped out.

3.5 INPUT REQUIREMENT

The input is designed to suit the need of the output.

Input is data entered into a system. The input of the proposed computerised system is designed to reduce errors and allow for easy data entry.

In addition, the input is designed to reject non-existing and inappropriate data entered. This is always accompanied by a massage which gives instruction to the users. However, the input data into system are mainly details of the transaction in the form of the date, account codes, amount and whether it is a debit or credit entry which will be contained in a source document. Each

transaction is entered into the source document, which will in turn be keyed into the system by the user.

3.6 OUT FORMAT

In designing a new system, the first consideration is the determination of the types and nature of the report to be generated. The reports from a computerised system are required primarily to communicate the results of processing to users, or other system or more importantly to reference. It is therefore necessary for the reports to be intelligible so that it will be meaningful to the user.

CHAPTER FOUR

4.0 SOFTWARE DEVELOPMENT/ IMPLEIMENTATION

4.1 INTRODUCTION

Programming can be defined as an act of writing program. A program is a set or sequence of instruction, which informs the computer of the steps required for achieving a defined task. This section focuses more at providing the users with the necessary information needed on how to install and run the system effectively and efficiently.

Indeed, all aspects of the system were operationally tested prior to their use. This thereby allows the software designed to be accepted.

4.2 CHOICE OF LANGUAGE

The language chosen is Dbase IV.

Some of the criteria used for the choice of software packages and programming language are: -

(i) The effectiveness and efficiency of the packages with regard to the functions of the programs;

(ii) The facilities for different types of file processing;

(iii) The security of the records in the file;

(iv) The facilities for maintaining of the files e.g. adding new records, adding, modifying and easy retrieval of record

(v) Users friendliness quality of the package.

4.3 EATURES OF LANGUAGE CHOSEN: -

i. **Data redundancy is eliminated:** - This occurs in file processing system when the data cannot be arranged to suit the entire options program accessing the data. This results in the same data appearing in more than our file.

ii. **Data shareability is increased:** - The sharing of compatible data by different applications allows the user to again valuable information by picking data from right across the organisation. The data are no longer "owned" by particular applications but instead all the users share them.

iii. **Easier, logical access to data:-** The increasing use of telecommunication by many organisation and the conversion of many data processing mode meant that users have better access to the computer.

iv. **Facilities to add, delete and amend records:** - When new sets of data are added data are already stored for other purpose.

The data items in Dbase are honked or chained to each other so that any required relationships can be changed and new relationships can be established, hence saving a great deal time.

v. **Data are Centrally Controlled:** - In a Dbase environment, data and operations are centrally controlled and this can lead to better management of data by enforcing standards for all the users.

4.4 THE HARDWARE/SOFTWARE REQUIREMENTS

I. THE HARDWARE REQUIREMENTS

(a) Personal Computer 836 Processor

(b) RAM 32MB or 64MB

(c) Floppy Disk Drive – 3.5/ 5.25

(d) Colour Monitor

(e) Laser jet Printers (6L model)

(f) Stabilizer 1000 KVA

(g) Ups 5000 Viva

(2) **SOFTIVARE REQUIREMENT**

a. Ms – Dos _ 6.0 /6.1 Version

b. Window 2000

c. Text Editor (Ms – Dos)

d. Dbase IV /FoxPro/ Clipper.

4.5 STAFF TRAINING

Training is very essential for the computer staff. The amount of training required for various categories of personnel will depend upon the complexly of the system and the skills presently available.

The software package is easy to understand and as such the period of training should not be more than 4 weeks

Within the specified period of training the staff should be given proper access to the new system. Possible problems that are likely to arise should. Be resolved within this period. Training should involve the use of test data.

4.6 IMPLEMENTATION REVIEW

Implementation follows on form the details design stage. This involves the co-ordination of the effort of the user department and the data processing department in getting the system into operation; the systems analysis is an important member in participation due to his thorough knowledge of the system.

Indeed, the main aims of the system implementation review are as follows: -

(a) To check whether the system goal and objectives have been achieved or not.

(b) Determining whether user service requirements have been met, while simultaneously reducing errors and costs.

(c) Determine whether personal procedures, operating activities and other control have been conformed.

(d) To check whether known and unexpected limitations of the system need attention.

4.7SYSTEM TESTING

This is a very vital stage in system implementation. It has to do with the use of tested data on the new system to ensure its accuracy and efficiency before the real operation commences. At this point of system testing, the logical design and physical design are properly examined to make sure that it can work

4.8 CHANGEOVER /SYSTEM CONVERSION

File Conversion into Database file and changeover is not completed until the actual changeover from the existing system to the new system takes place. This can be done in any of the following four ways namely: -

(a) Direct change over

(b) Parallel changeover

(c) Pilot running

(d) Staged changeover

However, the most appropriate for the organisation is the PARALLEL CHANGEOVER. This method allows the processing of data by both the existing system and the new system concurrently. This allows for the comparison of activities of the new system and existing system thereby promoting the confidence of the user on the new system.

4.9 POST IMPLEMENTATION REVIEW

With the system implementation and Conversion Completed, there is the need also for system review VIZ –a – VIZ maintenance of the system against environment changed which may affect the computer or other parts of the computer – based system. It equally involves the improvement of the system functions and correction of mistakes that are likely to arise in the operation of the system.

Summarily, the objectives of the post implementation review are as follows

1. To know if the system goals and objectives have been achieved.
2. To know if the various activities and order control have improved.
3. To know if the user requirements (i.e.top management decision makers) are met, while errors and cost is reduced.
4. To identify areas of unexpected and known limitations in the system that requires attention.

4.10 STARTING THE PROGRAM

A computer program was developed to keep track of the income versus the Expenditure in the Local government under study.

The program was written in Dbase IV. To execute program, the user must run the Dbase IV program.

C:/ > CD Dbase Press ENTER

C:/ DBASE/) DBASE Press ENTER

After getting to dot prompt in the Dbase iv environment, then the user can now execute the program by typing thus: -

. DO LOCAL

When the program starts executing, the main Menu is displayed. The Menu consists of the following: -

(a) Add Records

(b) Delete Records

(c) Modify Records

(d) View Records

(e) Report summary

(f) Exit

ADD RECORDS

The records option is used to add new records to the database file. The user is prompted for the operation code, operation data, description, Expenditure or income and the amount. When these data are supplied the record is added to the database.

DELETE RECORDS

Delete option is used to remove records from the database file. When a user wants to delete a particular record, he simply chooses the delete option then enters the operation code of the record to be deleted.

MODIFY RECORDS

The modify records option is selected wherever the user wishes to make an Amendments to already existing records in the database. The user supplies the operation code and the record is displayed on the screen to allow the user make necessary amendments.

VIEW RECORDS

The user may wish to know the content of a particular record. The view option is used to implement this. This user enters the code and the record is displayed if it exists in the database

REPORT SUMMARY

The report option presents a submenu to the user: -

INCOME REPORT EXPENDITURE REPORT BOTH REPORT

The income report is a list of records that have to do with income, the expenditure is a list of records that have to do with expenditure and the both report option is a combination of the income and expenditure.

EXIT

The exit option is used to close the program.

CHAPTER FIVE

3 SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY

Kontagora local Government Council is currently using manual procedures in performing the council accounting activities.

There activities include keeping of accounting records as well as the preparation of accounting reports such as cash book, general ledger, trial balance, financial statement, Bank reconciliation statement, and the maintenance of general stock control system and the monthly payroll preparation.

Specifically, the finance department of the council has been performing these tasks with some associated problems such as time wastage in retrieving information loss of data, inaccurate computation of results and a lost of other problems. These are becoming more prominent these days because of the increased activities in the organisation with the net effect of pressures on the staff of the department. It then becomes obvious that the manual procedure can no longer cope with the need of the organisation. This then necessitated the need to propose a computerised system for the organisation.

However, the proposed system was designed based on the analysis of the existing system carried out as well as to meet the requirement of the users. Because of the feature of database management system dBASE IV was used to develop the system.

5.2 CONCLUSION

The presence of computerization of operations is done because of the expected benefits. Indeed, the world is going into computer age and any organisation that wants to be relevant needs to be computerised. Similarly, a professional without a computer touch will also not be considered relevant in this present world.

However, it dose not only require for an organisation to be computerised that matters, but in addition, the efficient operation of such computerised procedures needs to be pursued with all the necessary efforts. This is important so that the expected benefit of a computerised system will be fully maximized.

In realisation of this, the proposed system when finally in operation will in no doubt bring the establishment immeasurable benefit in its present and future day– to– day activities.

5.3 RECOMMENDATION

The proposed computerised revenue generation system in Kontagora local Government is expected to bring some benefits to the council in addition to solving the current problems. However, for proper execution of the new system, the following recommendations need to be adopted.

(a) The organisation needs to create a computer section under the accounts department, which will see to the day-to-day operations of

the computer usage. This section is expected to be head by a supervisor whose qualification should be at least a graduate in computer science or an accounting graduate with knowledge of computer science. The supervisor should be vested with the responsibility of maintaining the computer as well as designing and developing software for local use in the organisation.

(b) A training requirement is also recommended for the staff that would be working directly with the computer-training course on computer Appreciation and operation for a duration of 2 to 3 months.

(c) Computer workshop on regular basis should be organised for the management and semi-management staff of the organisation.

(d) Furthermore, there is need to install a good security measure on access to computer and its usage. Unauthorised persons should not be allowed into the computer room. This is expected to safeguard the information contained in the system.

(e) Finally, there should be a strict adherence to the application software required and the hardware configuration in order to achieve the efficient implementation of this newly design system.

REFERENCE

1. French C.S. (1989): Computer Science, International Study Edition, Third Edition, DP Publications LTD, London

2. John W. Y. & David .H. (1989): Selecting Business Software Word Processor, Richard D. Irwin, Publishers U.S.A.

3. Lawrence S.O. (1986): Computers and Information System – (Third Edition) Mcgraw – Hill Book Company.

4 Lawrence S.O. (1979): Introduction to Business Data processing (First Edition) Mcgraw – Hill Book Company.

5 Perry .E. & Bruce .B. (1982): Data processing – Computers in Action (Second Edition), Wadsworth Publishing Company

```
*************************************
* LOCAL GOVERNMENT INCOME/EXPENSES
*************************************
SET TALK OFF
SET SAFETY OFF
SET SCORE OFF
SET CONFIRM ON
SET ESCAPE ON
SET MESSAGE TO ""
SET DEVICE TO SCREEN
SET STATUS OFF
CLEA ALL
SET COLOR TO GR+, G, G
CLEAR
DO MAINBUD
STOPPER = ' '
DO WHILE STOPPER = ' '
DO DEFIN
DO MAIN
CLEAR
ENDDO
RETURN

PROCEDURE DEFIN
IF ISCOLOR()
   SET COLOR OF BOX TO GR+/BG
   SET COLOR OF NORMAL TO W+/B
   SET COLOR OF HIGHLIGHT TO GR+/BG
   SET COLOR OF MESSAGES TO W+/N
   SET COLOR OF TITLES TO W/B
   SET COLOR OF FIELDS TO N/BG
   SET COLOR OF INFORMATION TO B/W
ENDIF

SET BORDER TO DOUBLE

*  SET BORDER TO DOUBLE
DEFINE POPUP MAINMENU FROM 1,25
DEFINE BAR 1 OF MAINMENU PROMPT " M A I N   M E N U " SKIP
DEFINE BAR 2 OF MAINMENU PROMPT "====================" SKIP
DEFINE BAR 3 OF MAINMENU PROMPT "ADD RECORD(s)";
   MESSAGE "Addition of record(s) to the database file"
DEFINE BAR 4 OF MAINMENU PROMPT "DELETE RECORD(s)";
   MESSAGE "This option allows deletion of record(s)"
DEFINE BAR 5 OF MAINMENU PROMPT "MODIFY RECORD(s)";
   MESSAGE "This option allows modificatio of record(s)"
DEFINE BAR 6 OF MAINMENU PROMPT "VIEW RECORD(s)  ";
   MESSAGE "This option allows you to view records"
DEFINE BAR 7 OF MAINMENU PROMPT "REPORT SUMMARY";
   MESSAGE "This option allows Generation of reports"
DEFINE BAR 8 OF MAINMENU PROMPT "E X I T ";
   MESSAGE "You want to Shutdown"
ON SELECTION POPUP MAINMENU DO MAIN_PARA

*-----------> Popup for Report
DEFINE POPUP REPOM FROM 6,45
DEFINE BAR 1 OF REPOM PROMPT " R E P O R T   M E N U" SKIP
DEFINE BAR 2 OF REPOM PROMPT "--------------------" SKIP
DEFINE BAR 3 OF REPOM PROMPT "EXPENDITURE SUMMARY";
   MESSAGE "Generate report of expenditure "
DEFINE BAR 4 OF REPOM PROMPT "INCOME SUMMARY ";
```

```
PROCEDURE EXIT_PARA
DO CASE
   CASE BAR() = 3
        STOPPER = 'O'
        CANCEL
   CASE BAR() = 4
        QUIT
ENDCASE
RETURN

Procedure ADDREC
 store 'Y' to ans
 set stat off
 use local
 do while ans ='Y'
  clear
  store space(7) to mcodeno
  @1,10 Say "Enter Operation Code: " get mcodeno Pict "!!-9999"
  read
  locate all for codeno = mcodeno
  if found()
    @8,20 say 'Record already exist'
  else
  store 0 to mamount
  store space (25) to mdescrip
  store space(11) to moptype
  store space (10) to mopdate
   DO GETDATA
   READ
    clear
    append blank
    replace codeno with mcodeno
    replace descrip with mdescrip
    replace amount with mamount
    replace optype with moptype
    replace opdate with mopdate
 endif
   @10,10 to 12,50
   store 'N' to ans
   @11,12 say 'Are there more records? (Y/N)' get ans pict '!';
               valid ans $ 'YN' error 'Invalid entry !!!'
   read
 enddo
 CLEAR
 close databases
 return


Procedure DELREC
   store 'Y' to ans
   use local
   do while ans= 'Y'
     clea
     @2,15 to 4,55
     @3,20 say 'Deletion of record'
   store space(7) to mcodeno
   @1,10 Say "Enter Operation Code: " get mcodeno Pict "!!-9999"
   read
     locate all for codeno = mcodeno
     if found()
```

```
    @10,10 to 12,50
     store 'N' to reply
    @11,12 say 'Are you sure? (Y/N)' get reply pict '!';
         valid reply $ 'YN' error 'Invalid entry!!!'
    read
    if reply = 'Y'
        dele
        pack
    endif
 else
    @8,20 say 'Record does not exist'
    endif
    @10,10 clea to 12,50
    @10,10 to 12,50
    store 'N' to ans
    @11,12 say 'Delete more records? (Y/N)' get ans pict '!'
    read
 enddo
 CLEAR
 close data
 return


 Procedure MODREC
   use local
   store 'Y' to ans
   do while ans = 'Y'
     clea
   store space(7) to mcodeno
   @1,10 Say "Enter Operation Code: " get mcodeno Pict "!!-9999"
   read
     locate all for codeno = mcodeno
     if found()
     store descrip to mdescrip
     store amount to mamount
     store optype to moptype
     store opdate to mopdate
    DO GETDATA
    READ
    clear
     replace codeno with mcodeno
     replace descrip with mdescrip
     replace amount with mamount
     replace optype with moptype
     replace opdate with mopdate
 else
    @8,20 say 'Record does not exist'
 endif
    @10,10 to 12,50
    store 'N' to ans
    @11,12 say 'Modify more record? (Y/N)' get ans pict '!';
            valid ans $ 'Y/N' error 'Invalid entry!!!'
    read
 enddo
 CLEAR
 close databases
 return

 Procedure VIEWREC
   use local
   store 'Y' to ans
```

```
    do while ans = 'Y'
      clea
    store space(7) to mcodeno
    @1,10 Say "Enter Operation Code: " get mcodeno Pict "!!-9999"
    read
      locate all for codeno = mcodeno
      if found()
      store descrip to mdescrip
      store amount to mamount
      store optype to moptype
      store opdate to mopdate
     DO GETDATA
     WAIT
     clear
  else
      @8,20 say 'Record does not exist'
  endif
      @10,10 to 12,50
      store 'N' to ans
      @11,12 say 'View more record(s)? (Y/N)' get ans pict '!';
               valid ans $ 'Y/N' error 'Invalid entry!!!'
      read
  enddo
  CLEAR
  close databases
  return

  Procedure REPEXP
  define window user from 1,1 to 22,78 none color W+,B
  activate window user
  set stat off
  set alternate to 'exp.out'
  set device to screen
        set alternate on
        set space on
        DO HEADING with 1
        use local
        go top
        ct = 1
        mtot = 0
  do while .not. eof()
  if left(optype,1) = 'E'
    ? '|',str(ct,3),' | ',codeno,' |',opdate,' | ',descrip,'  |',amount,'|'
    ct = ct + 1
    mtot = mtot + amount
    ? replicate ('-',77)
  endif
    skip
  enddo
  ? space(56),'TOTAL = ',str(mtot,9,2)
  ?
  set alternate off
  wait
  close data
  deactivate window user
  return

  Procedure REPINC
  define window user from 1,1 to 22,78 none color W+,B
  activate window user
  set stat off
```

```
set alternate to 'inc.out'
set device to screen
      set alternate on
      set space on
      DO HEADING with 2
      use local
      go top
      ct = 1
      mtot = 0
do while .not. eof()
if left(optype,1) = 'I'
  ? '|',str(ct,3),' | ',codeno,' |',opdate,' | ',descrip,'  |',amount,'|'
  ct = ct + 1
  mtot = mtot + amount
  ? replicate ('-',77)
endif
  skip
enddo
? space(56),'TOTAL = ',str(mtot,9,2)
?
set alternate off
wait
close data
deactivate window user
return

Procedure REPBOTH
define window user from 1,1 to 22,78 none color W+,B
activate window user
set stat off
set alternate to 'both.out'
set device to screen
      set alternate on
      set space on
      DO HEADING with 3
      use local
      go top
      ct = 1
      mtot1 = 0
      mtot2 = 0
do while .not. eof()
  ? '|',str(ct,2),'| ',codeno,' |',opdate,' |',descrip,'|'
if left(optype,1) = 'I'
  ?? space(9),'|',amount,'|'
  mtot1 = mtot1 + amount
else
  ?? amount,'|',space(9),'|'
  mtot2 = mtot2 + amount
endif
  ct = ct + 1
  ? replicate ('-',83)
  skip
enddo
? space(50),'TOTAL = ',str(mtot2,9,2),' ',str(mtot1,9,2)
?
set alternate off
wait
close data
deactivate window user
return
```

SUMMARY OF INCOME

S/NO	OPERATION CODE	OPERATION DATE	DESCRIPTION	AMOUNT
1	IN-1021	11/06/2000	SALES OF PRODUCT	45,650.00
2	IN-2455	22/07/2000	STAFF TAX DEDUCTION	18,450.00
3.	IN-4322	05/02/2001	SALES AND SUPPLY	958,755.00
4.	IN_3244	01/01/2000	BANK OVERDRAFT	7,500.00
5.	IN-2212	02/01/2001	LOANS	8,045.00
6.	IN-1533	03/10/2001	RATES	5,466.00
7.	IN-5423	01/11/2000	SUBVENTION	534,445.00
			Total	1,578,311.00

SUMMARY OF EXPENDITURE

S/NO	OPERATION CODE	OPERATION DATE	DESCRIPTION	AMOUNT
1	EX-1001	10/02/1999	PURHCASE OF STATIONERIES	25,000.00
2.	EX-2300	21/07/1999	PAYMENT OF SALARIES	60,000.00
3.	EX-2339	30/12/1999	PURCHASE OF VEHICLE	350,000.00
4.	EX-2900	04/02/200	PURHACSE OF RAW MATERIALS	55,000.00
			TOTAL	490,000.00

SUMMARY OFINCOME/ EXPENDITURE

S/NO	OPERATION CODE	OPERATION DATE	DESCRIPTION	AMOUNT
1.	EX-1001	10/02/1999	PRUCHASE OF STATIONARIES	25,000.00
2.	IN-1021	11/06/2000	SALES OF PRODUCT	45,650.00
3.	EX-2300	21/07/1999	PAYMENT OF SALARIES	60,000.00
4	IN-2455	22/07/2000	STAFF TAX DEDUCTION	18,450.00
5.	EX-2339	30/12/1999	PRUCHASE OF VEHICLE	350,000.00
6.	EX-29000	04/02/2000	PURCHASE OF RAW MATERIALS	55,000.00
7.	IN-4322	05/02/2000	SALES AND SUPPLY	958,755.00
8.	IN-3244	01/01/2000	BANK OVERDRAFT	7,500.00
9.	IN-2212	02/01/2001	LOANS	8045.00
10.	IN-1533	03/10/2001	RATES	534,445.00
		TOTAL	490,000.00	1,578,311.00