

**FUNDING AND UTILIZATION OF FUNDS IN NIGERIAN
RESEARCH INSTITUTES: A STUDY OF SELECTED INSTITUTES**

BY

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DEDICATION

This work is dedicated to my wife, Ruth and to my children, Joshua and Rachel.

FUNDING AND UTILIZATION OF FUNDS IN NIGERIAN
RESEARCH INSTITUTES: A STUDY OF SELECTED INSTITUTES

DECLARATION

I hereby declare that this research work was carried out by me independently. That all materials and ideas borrowed from various sources are duly acknowledged. And that, to the best of my knowledge, the work has not been submitted to any institution or university for the award of a degree or any certificate.



ODUBU, John Emma

CERTIFICATION

This dissertation entitled Funding and Utilization of Funds in Nigerian Research Institutes: A study of selected institutes by ODUBU, John Emma meets the regulations governing the award of the degree of M.Sc. Accounting and Finance of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.


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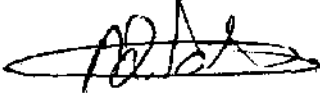
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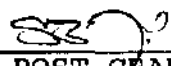
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ABSTRACT

Nigeria, like most third world countries gets supply of industrial goods, raw materials and equipment for her industries from Europe and Asian countries. The implication of this is that her economy depends heavily on other countries. During this period of economic austerity, importation of goods is expensive. Besides, no nation is considered developed until it can assess its materials and human resources and harness these resources towards its security, sovereignty and improved standard of living for its citizens. And success in the sustainable economic development of any nation is practically impossible today outside the context of the development of science and technology capacity and the practical application of it to the required extent.

Based on the recognition of the vital role research and development (R & D) play in economic development, since Nigeria gained her political independence many research institutes (R.Is) have been established to carry out research in various fields covering agriculture, chemical, leather technology, engineering, construction etc. Successive governments have always financed these R.Is and incorporated in their Governing Boards men with wealth of experiences in Science and Technology and business management.

Though the R.Is have recorded some break-throughs in terms of inventions which have been commercialised or hold reasonable promise of commercialisation, casual empiricism seems to suggest that there is far greater potential than the R.Is have output to show for. Various discussions in seminars, journals and newspapers shew that the poor performance of R.Is have been due to inadequate funds for meaningful research work and purchase of equipment. In some discussions, the poor performance has been attributed to mismanagement of R.Is.

The purpose of this study therefore, is to examine the funding and utilization of funds in six sampled research institutes, with a view to determining the adequacy of funds allocated to R.Is and how such funds are being used.

The investigation revealed that the R.Is are not adequately funded. On the utilization of funds at their disposal, the R.Is were found to have performed fairly satisfactory. The study concluded by giving some suggestions on what can be done towards increased allocation of funds to R.Is and how the use of such funds can be improved upon.

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ABBREVIATIONS

R.Is.	Research Institutes
R & D	Research and Development
NARICT	National Research Institute for Chemical Technology
NAPRI	National Animal Production Research Institute
OAU	Organisation of African Unity
GDP	Gross Domestic Product
FR	Civil Service Financial Regulation.
NASENI	National Agency for Science and Infrastructure
PRODA	Projects Development Institute.
PPBS	Planning Programming Budgeting System
UN	United Nations

CHAPTER ONE

GENERAL INTRODUCTION

1.1. INTRODUCTION

Research institutes or centres occupy a very important position in the life of a nation. They are established to engage mainly in research and development which are indispensable in national economic development. Through the performance of their tasks a country is enabled to participate meaningfully in competition with other nations in equitable sharing of earth's limited resources and thus become self-reliant. Commenting on the role of scientific and industrial research in a nation's economic security, Vagtborg (1976) said:

Those in closest touch with the trend of events in our modern world have become convinced that the extent to which each nation is alive to the importance of scientific research and its practical application will determine largely the degree of its economic security. And the degree of its economic security will, in turn, determine the measure of its goodwill with the rest of the world.¹

Nations that are research-conscious in scientific and industrial fields enjoy a measure of economic security. The high level of material well-being of people in Europe

and North America and their ability to create new wealth through greater production and productivity have been due largely to their appreciable investments in Research into Science and technological development. Research centres are therefore indispensable to economic growth and development.

The establishment of each research institute is based on the recognition of this vital role and the desire to solve a particular problem that may be facing a nation. For instance, the establishment of Agricultural Research Institutes in Ibadan, Samaru (Zaria) and Umudike dates back to the colonial era when the colonial administration's emphasis was on boosting cash crop so as to provide the much-needed raw materials for British industries.

With time, research activities started to extend to cover other fields such as chemical and engineering. The Federal Institute of Industrial Research, Oshodi (FIIRO) was established in 1956 "for the purpose of research and development of our local raw material for industrial utilisation, upgradation of indigenous technology and adaptation of imported technology, routine technical and consultancy services to industries, government establishments, private organisations and individuals".² Projects Development Institute (PRODA) was also

established in 1958 to undertake local research and development for the production of machines and equipment, products and processes or technology. For chemical industry research and development, the activities of Leather Research Institute of Nigeria which was established in 1976 were extended and it became National Research Institute for Chemical Technology in 1987.

The Nigerian Building and Road Research Institute was established in September 29, 1977 by the National Science and Technology Development Agency Decree (No. 5) 1977 to conduct research generally on building, road and allied construction materials and methods.

There are all together twenty-six research institutes in the country. They carry out research on a specific subject, commodity or problem on which they were founded. Their role has been brought to a sharper focus with the country's current economic situation. Their success will mean that the country will depend less on other nations for raw materials for its industries, finished goods and reduce unemployment. This will not only make it possible to save some foreign exchange which can be used for things the nation cannot produce, but will also assist in putting the nation back on the path of economic recovery.

To achieve these objectives, successive Governments in this country have always financed Research Institutes

(RI). Besides, men with wealth of experiences in science, technology, industrial development and administration have been incorporated into the administration of the supervising ministry and the governing boards of the Research institutes (R.Is).

The institutes have recorded some break-throughs in terms of inventions which have already been commercialised or hold reasonable promise of commercialisation. A list of some of them are given below:

FEDERAL INSTITUTE OF INDUSTRIAL RESEARCH OSHODI (FIIRO)

- a) Design and fabrication of cassava grater
- b) Design, fabrication and commercialisation of alcohol distillation Unit - FIIRO still.
- c) Development of protein - fortified food, "soy-Ogi" for infants and adults.
- d) FIIRO/Newell Dunford Gari production plant."³

NATIONAL RESEARCH INSTITUTE FOR CHEMICAL TECHNOLOGY ZARIA (NARICT)

- a) Dye stuff (production of textile colours, presently consisting of blue, green, yellow and red)⁴.
- b) The production of fat-liquor for leather processing, from groundnut oil.

- c) Developing *Acacia nilotica* (Bagaruwa) pods into a commercial vegetable tanning material.⁵

PROJECT DEVELOPMENT INSTITUTE ENUGU (PRODA)

"Food processing systems, including Palm-fruit digester and oil expeller, alcohol distillating plant, maize silo dryer, mechanised and cottage-level gari processing plants, catering steam cooker, kero-heated grain dryer, corn shellers and grain mills, a prototype of a Nigerian indigenous car (1989) etc."⁶

NATIONAL VETERINARY RESEARCH INSTITUTE (VOM)

Development and production of different kinds of vaccines for use against diseases.

COCOA RESEARCH INSTITUTE OF NIGERIA

- (a) Developed cocoa wine, cocoa butter, cocoa crumb.
- (b) Developed kola-wine, chocolate and cashew nuts."⁷

Inspite of the above however, casual empiricism seems to suggest that there is far greater potential than the RIs have output to show for. This implies that what has been done so far leaves much to be desired relative to what can be done. This poor performance has been attributed by some to inadequate funding of the RIs and by

others to poor management of Nigeria R.Is. This study sets out to investigate what really is responsible for the under-achievement of our R.Is and how the situation can be improved upon.

1.2. STATEMENT OF THE PROBLEM

For many years now, inadequate funding of the Nigerian research institutes has been a subject of discussion in seminars, journals and newspapers. A lot has been written to point out that the research institutes lack the financial support required for meaningful research work. For example Koleoso and Olunloyo (1982) in a paper presented at the Research Management and Administration Workshop in Africa, listed funding as one of the problems that inhibit the performance of the institutes.⁸ According to them, this has made the purchase of equipments and provision of facilities for research and development difficult. In an article titled: "Steps necessary to achieve indigenous technology - the only assured basis for sound industrial development", Ette (1988) pointed out that the nation's research institutes need more financial support both from the Federal Government and private sector.⁹ This article highlighted some of the resources at the disposal of the institutes, the level of success enjoyed by them as at the time of

publication as well as the factors that limit their success.

In discussing commercialization of technological research and development results in Nigeria, Kumuyi and Igwe (1989) recommended that the government and its agencies should improve their allocation to research and development efforts, that the nation's research institutes are not adequately funded.¹⁰ In a similar manner, Godwin Ezekwe who was once the Minister of Science and Technology mentioned, in his press briefing, inadequate funding as one of the problems facing the institutes.

When National Agency for Science and Engineering Infrastructure (NASENI) which controlled some of the research institutes was established in 1992, inadequate funding was pointed out as its major problem. In an article titled, "Toast for Success of NASENI", Njoku (1992) said:

With the establishment of NASENI, Ezekwe and his men believed that the right step has been taken, even if belatedly. But there is still an important catch: Funding which we earlier mentioned in this piece as one great odd against the success of NASENI. Funding is vital because no matter how efficient and dedicated the NASENI's team might be there is no way they can achieve results without adequate finances.¹¹

There is no gainsaying the importance of adequate funds, bearing in mind the volume of activities the nation's research institutes are expected to embark upon. However, inadequate funding may not necessarily be the only problem having to do with finance of the research institutes.

It is not enough to recommend for more funds when an organisation is observed to be facing financial crisis or has less funds than it should have. If the little it gets is invested in wasteful and unproductive ventures by its management, including poor management of available resources, increase in allocation may not yield the desired results. Like Onerhime (1990) observed, lack of finance is a major handicap for most business establishments in this period of economic austerity but that the situation is usually aggravated in government owned companies due to poor financial management.¹² This is the general impression about government owned establishments as there are usually allegations of financial imprudence against public officers who manage them.

In view of this, a question arises as to whether the nation's RIs deserve increased allocation of funds since there are cases of financial mismanagement in government owned establishments. Do the research institutes really

lack funds they require to carry out meaningful research work? Answers to these questions must be provided for two reasons: first of all, literature on the activities and problems of the research institutes only highlight the need for more funds as can be seen from the above. No detailed work seems to have been done to prove the inadequacy of funding. Besides, there is also an apparent lack of literature on the use of funds in the institutes. Secondly, the institutes are non-profit making organisations. As a result there is the tendency of looking at them as not performing when compared with private business organisations.

1.3. PURPOSE OF THE STUDY

The purpose of this study is to examine the funding and utilization of funds in six selected research institutes. The study will focus on the following:

- i) Investigation of the adequacy or otherwise of funds allocated to RIs.
- ii) Examination of funds utilisation in RIs.
- iii) Determination of the degree of efficiency in funds management process.
- iv) Make recommendations base on the outcome of the study.

1.4. SIGNIFICANCE OF THE STUDY

It is hoped that the study will be meaningful to the Federal Government who is solely financing the research institutes. It will enable the government to have an insight into how funds it allocates to the institutes are being used. This might encourage it to increase allocation to the institutes or take necessary action to correct any lapses if any.

The study will be useful to the Nigerian private sector, particularly those industries that do not have research facilities and will like to patronize an efficient and reliable research centre. The outcome of the study might help to build their confidence in the institutes. This might also help the institutes to generate funds instead of depending solely on the government for their needs.

It will also be useful to business men and the public as it will provide information on the activities and state of affairs of the institutes. This will help to dispel rumours if the outcome of the study reveals that stories about the institutes are false or confirms them if they are true.

Lastly, the outcome of the study could also encourage workers, management and members of the governing boards of

the institutes to put in their best for the following reasons:

- (1) they will be conscious of the fact that they are under surveillance and hence work harder towards improvement;
- (2) application of suggestions the study will offer, especially in areas they have not been doing well will in all probability enhance their performance;
- (3) appreciation for their efforts in areas they have been doing well might serve as an encouragement and also motivate them to work harder.

1.5. METHODOLOGY OF RESEARCH

This study is partly descriptive and empirical. It therefore required the use of primary and secondary data. The primary data were collected mainly by means of interview and responses to questionnaires that were administered to members of staff of the six R.Is. The members of staff interviewed included accountants and very senior research officers who were in a position to give meaningful comments on funding, utilization of funds and various research activities their institutes undertake.

The secondary data was gathered from numerous journals and publications of the research institutes and

accredited institutes such as Institute of Chartered Accountants of Nigeria, Chartered Institute of Management Accountants (CIMA), Federal Office of Statistics, Daily Times, Guardian, Concord etc. By the use of graphs, funds allocated to the R.Is as per the Nigerian Government's annual budgets for eleven years were considered vis-a-vis the recommended minimum percentage of her gross domestic product she is supposed to expend on research. This has helped to shed some light on the situation with funding. On the other hand, on the spot observation and oral interview enable a first hand knowledge as well as posing of follow-up questions to clarify matters especially with regard to the use of funds.

1.6. SCOPE AND LIMITATIONS OF THE STUDY

1.6.1 Area of Coverage

A research into the funding and utilization of funds in Nigerian Research Institutes looks broad and might be too generalised, considering the number of research institutes in Nigeria. Therefore, for a detailed study and meaningful research work, the focus is on a few specific R.Is.

For the purpose of this study, the Nigerian R.Is. refers to R.Is. whose mandates cover research into fabrication of machines, construction, agriculture and

chemicals. This choice is informed by the fact that these different areas are very vital to economic development. Within the R.Is., a comparative study of six R.Is will be undertaken and these will constitute the sample size. The six R.Is chosen which are located in various parts of the country include the following:-

- (1) Project Development Institute, Enugu (PRODA)
- (2) Federal Institute of Industrial Research,
Oshodi (FIIRO)
- (3) National Research Institute for chemical
Technology, Zaria.
- (4) Rubber Research Institute of Nigeria, Benin
- (5) National Animal Research Institute, Ahmadu
Bello University, Zaria.
- (6) Building and Road Research Institute, Lagos.

The study of these R.Is will be concentrated on the evaluation of their funding and utilization of funds by them.

Availability of Data

The data required for this study are available within each R.I. headquarters and their supervising ministry, Federal Office of Statistics and National Planning Commission. As a result, no obstacles are being envisaged in the way of obtaining such data.

Limitation of the Study

The most significant limitations to the scope of this study are the number of the R.Is in the country and lack of adequate funds. The study was originally intended to cover most of the R.Is so as to have a wider knowledge of their activities, problems etc. But considering their number and the distance between them, it would have cost a colossal sum of money and taken more than the time within which the report of the study must be ready. This explains why a few of them were chosen for the study.

The financial limitation can be better appreciated when one considers the high cost of transportation in the country and that of materials for the project report itself. However, these limitations will in no way affect the outcome of the study.

In the next chapter it is intended to discuss the theories of utilization of funds and what is considered to be adequate funding of research and development in the literature.

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CHAPTER 2

THEORETICAL FRAMEWORK

This Chapter highlights what is generally regarded as adequate funding of R & D and judicious use of funds. The Chapter also focuses on the role of management with respect to budgeting and various control in utilization of funds.

2.1 ADEQUATE FUNDING OF RESEARCH AND DEVELOPMENT

What is considered to be adequate funding of R & D in the literature is based on recommendations of some international economic and political organisations. For instance the 1980 Organisation for African Unity (OAU) Lagos Plan of Action, urged member states to invest at least 1% of their GDP in R & D. At the fifth general conference of Third World Academy of Sciences (TWAS) held in Abuja in September 17th through 22nd, 1995, it was agreed that: "funding commitment should be measured in terms of percentage of GDP devoted to R & D activities".¹ Pointing out a recommendation very similar to that of OAU, Kumuyi and Igwe (1989) stated that, "one of the recommendations of the United Nations is that, in order to reduce their dependence on the industrialized countries, the developing nations

should allocate at least one per cent of their GNP to R & D".² The one per cent of GDP or GNP represents a measure of adequacy, a minimum investment that is required for a meaningful research work in all R.Is.

In this instance, what is considered to be adequate for one country in monetary value may not be for another as GDP and GNP vary in size from one country to another. The one per cent of GDP or GNP spent on R & D shows the position a country placed R & D in its priority list relative to other things she spends her income on.

The ratios of investment on R & D to GNP of developed countries are also looked at as standards in funding research institutions. In his comments on financing of the national Programme, Ezekwe (1993) stated:

While the minimum commitment to R & D which the OAU recommend to member states is 1% of GDP, it has to be noted that industrially successful third world countries finance R & D at an average rate of about 2% of GNP, more than twice the OAU minimum, while the highly industrialised countries employ 2 to 5% of GNP. The rates for some of the countries are:

Malaysia	0.6	-	1%	GNP
Tanzania	1.5	-	3.5%	GNP
Taiwan	1.35	-	2.25%	GNP
India			2%	GNP
South Korea			2%	GNP
United Kingdom			2.3%	GNP

Germany (FRG)	2.8% GNP
United States	2.8% GNP
Japan	2.8% GNP
USSR	5% GNP ³

According to Mosbacher (1985), Executive Editor of Research and Development Journal, the United States spent 2.7% of GNP on R & D in 1984.⁴ The standard recommended for developing nations above, both by the OAU and United Nations must have been based on the standards set by the developed nations. This is not unconnected with the level of success in science and technology enjoyed by them.

It is true that what a country devotes to R & D determines the amount of success she can make in creating more wealth. But this is dependent also on the utilization of funds made available, a factor that must not be ignored.

2.2 SCOPE OF UTILIZATION OF FUNDS

Utilization of funds is one aspect of financial management. Its focus is on how funds acquired by a business or an organisation are used. This can be seen from the way Financial Management has been defined in the literature. For example, Brockington (1983) defined Financial Management as "that part of the total management function which is concerned with the effective and efficient raising and use of funds".⁵ According to Weston

and Brigham (1977), Financial Management involves the acquisition and use of assets and to a large extent these actions are reflected in the firm's balance sheet.⁶ Schall and Haley (1980) defined Financial Management as "a body of facts, principles and theories dealing with the raising and using of money by individual businesses and governments".⁷ Shapiro (1990) has expressed a similar view to those of the above-mentioned authors. To him, Financial Management deals with the acquisition and allocation of resources among the firm's present and potential activities and projects.⁸

Financial Management as an activity is not only applicable to business firms. Non-profit oriented organisations such as research institutes, universities, churches and etc., that need funds for their operations also practice financial management. Financial Management as defined by Bradley (1974) "is the area of business administration devoted to enabling the spending unit to achieve its goals. It is applicable to such spending unit as governments, universities, churches, labour unions and business firms."⁹

Utilization of funds as shown by these definitions involves the allocation and expenditure of funds at the disposal of an organisation on its various activities. Like Weston and Brigham pointed out above, actions

involved in the utilization of funds are reflected on the firm's balance sheet. It is possible to see this when a balance sheet of one year is compared with that of the preceding year. The things an organisation used its funds for in any financial year are also reflected on a sources and uses of funds statement which is prepared annually. According to Pritchard (1977), "uses of funds may also be classified into several groupings:

- (1) a net decrease in any liability (such as paying off a debt);
- (2) a net increase in any asset other than cash (such as buying a new machine);
- (3) retirement or repurchase of stock;
- (4) cash dividend"¹⁰

As clearly shown here by Pritchard, funds are utilized to pay creditors, to pay dividends to shareholders, buy assets and stock. Funds are also expended on employees' salaries and wages, electricity and water bills, travelling expenses, repairs, printing and stationery and so on. Besides these expenses which are common to most business and government owned organisations, the nature and goal of each organisation determines what it is expected to use its funds for. For instance, a trading company will stock goods for sale and expend money on expenses associated with that. A

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manufacturing company will buy raw materials for use while a research institute will acquire research materials and equipments. An organisation with surplus funds may invest them in bonds, common stock and even open a fixed deposit account that will yield upfront interest.

One of the things the definitions of Financial Management given above have in common is the utilization of funds acquired by a business or an organisation towards the achievement of its goal. It shows that every organisation has an objective or goal that prompted its formation. It is the pursuance of the goal that necessitates the acquisition of funds. To achieve this purpose of its existence, the use of funds acquired by an organisation cannot be left to chance. There must be a measure of control to ensure that funds are judiciously used. Control of use of resources is one of the vital roles of management.

2.3 THE IMPORTANCE OF CONTROL IN UTILIZATION OF FUNDS

Control is one of the management functions which includes those activities designed to compel events to conform to plans. As Richman and Farmer (1975) wrote in their book on Management and Organisation, "Management in simple terms involves decision making about what goals to pursue and how to attain them. Once the decision is made,

control, another basic managerial function, becomes important."¹¹ Organisational control can be classified into the following three groups:¹²

2.3.1 Administrative Control

Administrative control refers to the use of formal rules and standard procedures to regulate the behaviour of subordinate managers and employees so as to work towards the attainment of the overall goal of the organisation. As pointed out by Hopwood (1976):

Formal administrative controls are designed to structure the process of decision making in large and complex enterprises. By specifying preferences and limiting alternatives, they enable some of the uncertainty to be removed from the minds of subordinate managers and employees. By being so closely related to the structure of power within the enterprise, they also try to ensure that subordinates' individual goals are subservient to the interest of more senior managers.¹³

Administrative controls include the provision of organisation manuals which prescribe the division of activities that is thought to promote the optimal use of the expertise and resources at the disposal of the enterprise or organisation. Besides the organisation

manuals, schedule of duties should be written out by managers for their subordinates. This will enable them to know the tasks they are expected to perform and how to go about them.

Administrative controls also include the establishment of proper internal control system that will help management in judicious use of resources. In an article captioned "Understanding the role of your Internal Auditor", Nwankanna (1994) pointed out that "top management's duty is to run a company effectively and efficiently thereby safeguarding the assets entrusted in its care. Effective internal control system assists management in performing this task well."¹⁴

This goes to show how vital is internal control to proper use of funds.

The term internal control is all-embracing. The American Institute of Certified Public Accountants in an official pronouncement, Statement on Auditing Standard No. 1, has defined it as follows: "Internal Control comprises the plan of organisation and all of the co-ordinate methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency and encourage adherence to prescribed managerial policies."¹⁵

It involves a system of procedures and cross-checking whereby in the absence of collusion minimizes the likelihood of misappropriation of assets or misstatement of the accounts and maximizes the likelihood of their detection if any occurs. As defined by Horngren (1982),

Internal control refers to both administrative control and accounting control: (1) Administrative control comprises the plan of organisation (for example the formal organisation chart concerning who report to whom) and all method and procedures that facilitate management planning and control of operations. (2) Accounting control comprises the methods and procedures that are mainly concerned with the authorization of transactions, the safeguarding of assets, and the accuracy of the financial record.¹⁶

He added that, good accounting controls help maximize efficiency, minimize waste, unintentional error and fraud. To guard against fraud the following must be done:

- (1) Responsibilities related to handling any business transaction should always be divided among two or more persons. When responsibility is divided, any attempt to defraud a company in handling a transaction necessitates the collusive assistance of two or more persons, thereby greatly decreasing the possibility of fraud.

- (2) All cash received should be deposited with the bank intact and no payment should be made from receipts.
- (3) All disbursements should be made by cheque except for petty cash.
- (4) Vouchers and supporting data should accompany cheques when they are submitted for signature.
- (5) Supporting data and documents attached to vouchers should be cancelled to prevent subsequent reuse.
- (6) There should be an internal audit unit. Its job includes the following: (a) determining that internal controls over company operations are functioning properly and effectively; (b) verifying that company policies are being carried out as established; (c) determining that adequate protection and safeguards exist over company assets.

As already pointed out above and as shown in the definitions, it is the management's responsibility to ensure that the necessary control measures are put in place. It is to make sure that the organisation's assets are protected against unauthorised use or theft and seeing that adequate insurance is provided. This includes control over cash, stock and management of capital assets such as motor vehicle, machinery, building, furniture and fittings. It also includes making sure that the situation

in which they operate is a good one, so as not to jeopardise the organisation's operations.

The management should also ensure that funds are used in the most economic and efficient ways. In referring to how public service organisations make capital expenditure, Lapsley (1986), pointed out that "as public sector institutions, they have an explicit obligation to ensure that public funds are spent with due regard to economy and efficiency."¹⁷ An organisation's financial resources are used in the most economic way when the acquisition of material resources of quality and quantity is done at the lowest reasonable cost (Chandler 1984).¹⁸ The concept of economy is abused and therefore violated when resources are purchased at inflated prices, when wrong quantity or inferior ones are purchased. This can be prevented when the management purchases things in bulk and requests suppliers to submit quotations and samples which will form the basis of choosing who supplies those goods and services the organisation wants to buy.

On the other hand, an efficient organisation is one where the activities being undertaken are well managed and consume the minimum quantity of resources (Fielden and Robertson 1980).¹⁹ To consume minimum resources in the course of their operations, government and business organisations must avoid or reduce wastage to the bearest

minimum. Improper keeping of perishable materials including chemicals and lack of control over water and electricity consumption can cause wastage of resources. According to Bentley (1978), "Cost control means minimising the resources used to achieve a given objective." What we are concerned with, therefore, is basically the prevention of waste. There are three things which we can and do waste: (a) time; (b) materials; (c) energy."²⁰ Judicious utilization of funds demands the exercise of the above controls; moreso as resources are limited, whereas needs are infinite. So the task before managers of business and government organisations is how best to allocate scarce resources so as to maximise aggregate satisfaction. It calls for a strenuous effort on their part to reduce unnecessary expenditure and improve cost efficiency.

2.3.2 Social Controls

To make employees to conform to the norms of their organisation is not only achieved by the use of administrative controls. In fact effective control is a much more complex and subtle process than the limitation of behaviour by administrative devices but also by pressure exerted by individuals over one another. For any situation, the controllers (managers and supervisors) and

potentially controlled (subordinates) have a social relationship with one another. The motivations, expectations and personal relationship of all the members of the enterprise or organisation exert a significant effect on the outcome of the control process. The personalities of the managers and subordinates, their approach to their job and the subordinates' acceptance of the legitimacy of managerial roles are also important factors that determine the effectiveness of the control process.

Thus organisational environments which are conducive to high performance and human satisfaction is dependent on the pattern of social relationships which prevail within the enterprise. The very essence of social control according to Hopwood (1976) is that:

It is exercised by individuals at all levels of the enterprise over one another. Indeed the means which small groups within the enterprise use to regulate the performance of their own members and to bring them into line when they deviate from group norms are often much more effective controls on behaviour than almost any of the control procedures which can be used by senior managers.²¹

One thing about social controls is that they emerge from the shared values and the mutual commitments of a

group to one another hence they are effective means of regulating the performance of employees in an enterprise.

2.3.3 Self Control

Self-control as defined by the Oxford Advanced Learner's dictionary of current English "is the control of ones own feelings, behaviour, etc."²² By this definition, control is personalised. The exercise of self control by employees in an enterprise therefore refers to their personal control of their behaviour to be in conformity with the norms of the enterprise. If the needs and desires of individual members of the enterprise are in conflict with the requirements of either senior managers or the members of the group, self-control is lacking and this will be counter-productive. Self-control is therefore very vital in employee's performance and achievement of organisational goals.

Like Hopwood (1976) observed, the design of many strategies for control shows that the administrative and social controls have either directly or indirectly to be internalised by members of the enterprise and are operated as personal controls over behaviours. He added that, it is for this reason that many administrative controls attempt to elicit personal needs for material well-being and social acknowledgement.²³ It is also for the same

reason that many of the management oriented theories of social control of enterprises in the literature stressed the need to promote personal satisfaction and development.

2.4 BUDGET AND BUDGETARY CONTROL

To an economist, there are many wants while the resources to satisfy them are limited and have alternative uses.²⁴ To judiciously utilize the limited resources require proper planning of expenditure vis-a-vis the expected income. When what to spend is planned, things to be done are listed in their order of priority. This will ensure that the most important things or projects are executed first. Business and government-owned organisations draw up estimates of anticipated income and expenditure for their financial year which is normally a period of twelve months. Such estimates are known as the annual budget.

2.4.1 Budgetary Planning

A budget may be defined as a plan showing how resources are to be acquired and used over a specified period of time. It is a plan that has been carefully prepared for all phases of operations of a business for a specific future period of time. Johnson (1992) defined budget as "a statement that expresses future plans in

financial terms."²⁵ He added that the plans become firm commitment for which funds have been allocated. 'It is the job of the management to allocate funds to operations so as to produce the best possible result for the organisation. And since funds are limited and have to be divided in one way or another, the budget becomes a mechanism for making choices among alternative expenditures.

A budget serves as a means for achieving the objectives of an organisation which as already indicated above have alternative ways of achieving them. It also serves as a communication device. The management's plan will not be carried out unless the organisation understands what the plans are. Adequate understanding includes not only a knowledge of programs and objectives (for example how many units are to be manufactured, what techniques and machines are to be used, how much materials are to be bought and etc.) but also a knowledge of policies and restrictions to which the organisation is expected to adhere to.

The budgeting process is a powerful force in motivating Managers to work towards the overall goals of the entire organisation. This happens when heads of responsibility centres understand that top management regards the process as important and when they participate

in the formulation of their own budgets. Besides, a carefully prepared budget is the best possible standard against which to measure actual performance.

Considering these vital roles that a budget plays, it is therefore very crucial to optimum utilization of funds; moreover, as finance is a scarce resource. Managers of every organisation, be it a profit seeking or non-profit making one should endeavour to have a budget.

There are various systems of budgeting. In most of the literature, three different systems which include the following are mentioned:

2.4.2 Incremental Budgeting System

The incremental budgeting system, otherwise referred to as the traditional system of budgeting makes room for various items of expenditure which form the basis of fund allocation usually in incremental fashion from year to year. It does not define the objective of the organisation nor its program of activities.

2.4.3 Zero Based Budgeting System

In zero-based budgeting, each manager is required to justify his entire budget in detail each year. In his comments on the zero-based budgeting system, Pyhrr (1973)

said "customarily, the officials in charge of an established program have to justify only the increase which they seek above last year's appropriation. In other words, what they are already spending is usually accepted as necessary, without examination."²⁶ As the zero-based budgeting system requires managers to justify any increase which they seek above that of the previous year, substantial savings could be realised. The system therefore helps in judicious use of funds and proper allocation of limited and scarce funds.

2.4.4 Planning Programming Budgeting System

Planning Programming Budgeting System (PPBS) involves the identification of the goal of each unit in an organisation for the coming year and the most effective and least costly alternative of achieving them is sought. Pointing to the objectives of the planning programming budgeting system, Novick (1973) stated:

This program is designed to achieve three major objectives: it will help us find new ways to do jobs faster, to do jobs better, and to do jobs less expensively. It will insure a much sounder judgement through more accurate information, pinpointing those things that we ought to do more, spotlighting those things that we ought to do less.²⁷

The purpose of the system is to help managers or decision-makers allocate limited resources more effectively. According to a publication by the United Nations, the PPBS which has been adopted in national planning by Iraq, Nigeria, Sri Lanka and Zaire, lays emphasis on programmes instead of categories of expenditure.²⁸

In budgeting in this case, emphasis is placed on forecasting the cost of the output rather than on the cost of operating a particular segment of the organisation. Such a budgeting format is useful when an organisation has very limited resources and there is need to decide which programs should be embarked upon. By comparing the anticipated cost with the anticipated benefits on the program by program basis better allocation of scarce resources will be made.

While the function of a budget as indicated above is to record in monetary terms what realistic goals or objectives of the organisation are in the coming year, properly monitoring of budget is essential. It helps in controlling the utilization of funds in a way that will ensure efficiency and economy. Such control measure is referred to as budgetary control.

Budgetary Control

Budgetary control is the comparing of the actual operation with the budget to determine if the plans are being carried out and if not to ascertain the reasons for deviations so that corrective measures can be taken by the management. The budgetary control system covers the preparation of the budget, co-ordinating the various departments of the organisation and establishing responsibilities, comparing actual performance with that budgeted and acting upon these results to achieve maximum profitability. It helps to control expenditure because of its monitoring nature. In defining budgetary control and what it entails, Johnson (1992) pointed out that:

The control stages of the management planning and control cycle begin with the budget and also included controlling and measuring and reporting, analysing and feed back. These stages are often referred to collectively as budgetary control. Budgetary control is concerned with ensuring that actual expenditure is in line with budgeted amount and that the objective and levels of activity envisaged in the budget are achieved.²⁹

Budgetary control system provides a yardstick against which actual results can be compared and enables management to know where action is needed to remedy a situation that will affect the budget. It helps to direct

capital expenditure in the most profitable direction. It relates expenditure to the person responsible for each function, thus affording an effective method of control. It is an important principle of the system that an executive is held responsible only for expenditure within his control.

Productive efficiency of a government establishment that deals purely on research work may be difficult to measure annually like it is applicable to a profit making and business organisations for two reasons. Firstly, some research projects may take more than a year to be completed. Secondly, R.Is are non-profit making organisations. According to Balogun (1980) "while productive efficiency could be measured to an appreciable extent in input - output terms in most profit-making and business organisations, such measure is impracticable in non-profit making and general civil service organisations."³⁰ But the budgetary control system helps to measure performance by comparing actual results with the budget. With proper planning and the necessary controls funds will be judiciously utilized and the enterprise or organisation can achieve its goals.

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CHAPTER THREE

RESEARCH METHODOLOGY

3.1. INTRODUCTION

This chapter discusses the sample size of the population studied, the type of data required for the purpose of the research as well as the methods used for its collection i.e administration of questionnaires and personal interviews. The chapter also discusses how the secondary data used were collected.

3.2. SAMPLE SIZE

Six R.Is, namely; Federal Institute of Industrial Research, Oshodi, Project Development Institute, Enugu, National Research Institute for Chemical Technology, Zaria, Nigeria Building and Road Research Institute, Lagos, Rubber Research Institute of Nigeria and National Animal Production Research Institute, Ahmadu Bello University, Zaria have been chosen for the purpose of the study. These R.Is were chosen, bearing in mind two things:

- (1) their area of specialization i.e industrial research, Chemical, construction and agriculture.
- (2) the availability of data.

3.3. TYPE OF DATA NEEDED

Both primary and secondary data were required for this study. The primary data requirement was that relating to the adequacy of funds available to the institutes and their utilization. The secondary data required was for the assessment of the adequacy of funds available to the R.Is and their sources have been mentioned in chapter 1.

3.4. QUESTIONNAIRE

The collection of primary data was done through a questionnaire survey. Refer to Appendix B. The questionnaire contained thirty-five items meant to elicit from members of staff of the R.Is studied information on the following:

- (1) Funding of R.Is (questions 6 - 10).
- (2) Daily takings and payment - cash office (questions 11 - 17).
- (3) Salaries and wages (questions 18 - 21).
- (4) Purchases and contract for supply and repairs (questions 22 - 25).
- (5) Management of fixed assets (questions 26 - 29).
- (6) Expenses incurred on members of the Governing Board (questions 30 - 33).
- (7) Retirement of special Imprest and Touring Advances (questions 34 - 35).

The remaining items in the questionnaire were meant for collection of data on respondents' personal identification with respect to their status in their Institutes and departments.

The questionnaire only had one open ended question, while the remaining were closed ended. The closed or fixed responses questions consisted of items with a fixed number of choices. The respondents were asked to tick the response that best represent the situation in their institutes. The only open ended question made room for the respondents to corroborate their point or answer given previously to another item in the questionnaire.

Though the open ended questions enable respondents to elaborate their opinions about things in varying detail, the nature of the research topic and pilot study carried out preparatory to this research, informed the decision to use mostly closed ended questions. Moreover closed ended or fixed response questions have the following advantages:

- (1) Fixed - response items are easy to score and code. Responses obtained are coded a, b, c, or V_1 , V_2 , V_3 and so on, in order to distinguish them from one another in subsequent data analysis. This permits easier tabulation and interpretation by the investigator.

- (2) It helps respondents to complete the questionnaire with ease as no writing is required. The respondent simply checks the response which applies to him.
- (3) Closed ended questionnaire with multiple choice response structures the concept under study and minimises the risk of misinterpretation.¹

3.5. ADMINISTRATION OF QUESTIONNAIRES

A total of 53 questionnaires were personally distributed and accepted by the staff of the research institutes who could provide the required data for the research work. Distribution was therefore targeted on Assistant directors, research officers, accountants, cashiers, internal audit staff, staff in maintenance or Engineering Department and Laboratories.

3.6. COLLECTION OF QUESTIONNAIRES

Out of the 53 questionnaires distributed, 50 which represents 94.34%, were returned. Collection of questionnaire from respondents was at an agreed date which was not more than a day or two after they had been administered.

3.7. ORAL INTERVIEWS

Extensive interviews were also conducted to augment the questionnaire. This was done so as to overcome the limitations that could result from sourcing of data by the use of questionnaire. Items in the questionnaire could be subject to misinterpretation, depending on the perception of the respondent but this could be minimised if oral discussions are held between the researcher and the respondent.

The role and advantages of oral interview has been explained by Asika (1991) in his definition of personal interview:

This is a survey method of research involving a person seeking the information called the interviewer and another giving the information, called the respondent, the interviewer armed with an interview schedule, meets the respondent, asks questions of the respondents and completes the interview schedule himself. In effect, personal interview uses questionnaire which is completed by the interviewer himself. Unlike in mail questionnaire, the interviewer often goes beyond what is contained in the interview schedule to ask question for clarifications in order to enrich the response.²

Consequently, a uniform approach to the conduct of interview was adopted in all the six R.Is. The discussion was held with the sectional heads and heads of departments in the following order:

1. Head of accounts
2. Higher Executive Officer or E.O. (Accounts) - Cash Office.
3. Store Officer
4. Research Officers
5. Directors and Assistant Directors
6. Head of Internal Audit
7. Head of Planning Unit.

3.7.1 Accounts Department

The accounts department receives subvention and makes payments on behalf of the institute. Heads of accounts department were interviewed specifically, to solicit information on:

- (a) the various sources of funds available to their institutes.
- (b) whether government annual budget allocations were adequate.
- (c) what the funds available were being used for.
- (d) whether their institute used the civil service financial regulation.

(e) the procedures adopted in awarding and executing contracts.

(f) some suggestions on how their institutes finances can be improved upon.

The cashiers were asked to comment on how often they lodge daily takings and on what internal control measures are followed for cheque or cash payments.

3.7.2 The Stores

The Head of Stores Unit in each R.I. was also given the questionnaire to fill and afterwards interviewed to explain the types of stock the Institute keeps. He was also asked to explain the procedure followed when goods are to be received into the store and when requisitions are made.

3.7.3 Research Activities

Each research institute has various sections or departments with very experienced research officers. The research officers were asked the following questions:

- (1) What are the various research activities your institute engages in?
- (2) Does your institute have the necessary equipment for this research work? Respondents were asked to name the

ones they lack if their response indicated that they lack equipment.

- (3) Is the lack of equipment due to lack of funds?

3.7.4 Director of the Institute

A director is the overall head of each institute. As the Chief Executive, he is responsible for his institutes smooth operation. Unfortunately no director accepted the questionnaire, but two were interviewed. Questions touching on the following areas were asked:

- (1) On what specific areas or subjects does his institute carry out research?
- (2) In what area of the institute research activities have the researchers recorded some break-through in terms of inventions which have already been commercialized or hold promise of commercialization?
- (3) Has there been any problem inhibiting the institute from the realization of its objective?
- (4) What does he feel about the funding of research institutes in the country?

3.7.5 Internal Audit

It is the Internal Audit Unit that makes sure that internal control over institute's operations are functioning properly and effectively and ensures that the

institute's policies are being carried out as established. It also makes sure that there are adequate protection and safeguards over institutes assets.

The head of this unit was asked the following questions:

- (1) How does the unit ensure that internal control over the institute's operations are functioning properly and effectively?
- (2) What role does the internal audit play when goods ordered are to be received into the store?
- (3) Has there been any case of irregularity with regards to the use of funds?

3.7.6 Head of Planning Unit

The planning unit prepares the annual budget and writes performance report that highlights variances on quarterly basis.

The head of the Unit was asked the following questions:

- (1) What system of budgeting is practised by your institute?
- (2) What process is followed in preparing your institute's budget?
- (3) What is done by the management when quarterly expenditure is more than the amount budgeted?

- (4) Have there been quarters or years where the variance between the budget figures and expenditure are high and unfavourable?

3.8. DATA ANALYSIS

The data collected were statistically analysed by the following methods.

- (1) Percentage
- (2) Frequency distribution
- (3) Bar Chart.

Specifically, the secondary data collected in relation to funding were tabulated. Percentage of annual budget allocations to R.Is in relation to the GDP for eleven years was worked out and compared with 1% of GDP for the same period.

The items in the questionnaire were coded manually. Items 6 through 35 were coded as V_1 , V_2 , V_3 through V_{29} , with numbers 1 to 4 assigned to the responses provided per item. Letter V represents the word variable. These were fed into the computer that gave the frequency distribution per variable.³ Frequency distribution helps to communicate to readers of the report the overall impression of pattern of variation that characterise the response received in connection with the questionnaire

administered. Commenting on the usefulness of frequency distribution, Poister (1978) said, "It is usually convenient to obtain an overall impression of the pattern of variation characterizing any measure of interest by organising the data into frequency distributions. A frequency distribution is a classification of cases by their values on a scale (whatever the level of measurement) that shows the number of cases (the frequency) that take on the different values."⁴

The frequency distribution is usually presented in form of a table generated by computer. Tables are devices for organising research finding and communicating them to readers of the report. They tell us about the distribution of the cases under study in terms of one or more dimensions called variables. As pointed out by Caplovitz (1983):

the tables that researchers present in their report are generated in the modern world by computers. Researchers instruct the computer to print out the tables that they want. The computers have been programmed to generate the maximum possible information for the researcher and the tables that are printed out by the computer contain much more information than the researcher want to communicate to readers. The good researcher knows how to study the computer's output and extract from it the appropriate information for a table.⁵

In line with the view expressed above by Caplovitz, there are research works where frequency distribution and tables were used in data analysis. For example, Ogunjimi (1991) used frequency distribution and tables in data analysis in his research work on the problems of inadequate accounting records in Co-operative Thrift and Societies.⁶

Having described the methodology of the research, it is intended to analyse the data so obtained in the next chapter.

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CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In this chapter, a systematic presentation and analysis of the data collected from the six research institutes selected would be made. This would be followed by a summary of the findings of the research based on the analysis.

In line with the objectives of this research work which is that of investigating the funding and utilisation of funds by the Nigerian R.Is, the annual budget allocations to R.Is and research grants to Universities were considered vis-a-vis the OAU's recommendation of expenditure of 1% of GDP on R & D. The data collected was grouped and analysed in relation to the research questions. A number of questions were framed in the questionnaire (Appendix B) which were meant to provide answers to certain research questions. In addition, each of the research questions were discussed during the oral interview held with different officers of the six R.Is. In the process of data collection some other materials considered necessary in supporting the analysis being made have been collected and data was extracted from them and presented in a tabular form.

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4.2 ANNUAL BUDGET ALLOCATION AND GRANTS FOR R & D

The annual budget for the period covering 1982 through 1992 as shown on table 4.1 indicates the funds that were allocated to R.Is and research grants to Universities. From the last line of the table, the eleven year aggregates are:

1% of GDP	=	N8,539.215 million
R & D Funding	=	N1,872.233 million = 0.21% of GDP
Shortfall	=	N6,666.982 million = 0.79% of GDP

Table 4.1: Federal Republic of Nigeria Science & Technology Budget Allocation and Research Grants to Universities

1	2	3	4	5	6	7	8
Year	GDP At 1984 Constant Factor Prices N Million						
		Research Institutes		Research Grants to Universities		Total	
		Million N	% GDP	Million N	% GDP	Million N	% GDP
1982	70157.0	178.768	0.25	10.852	0.015	189.62	0.26
1983	66389.5	167.796	0.25	11.000	0.016	178.796	0.27
1984	63006.4	79.957	0.12	10.900	0.017	90.857	0.14
1985	68916.3	68.201	0.095	11.400	0.016	79.601	0.11
1986	71075.9	82.1	0.12	12.000	0.017	94.21	0.17
1987	70741.4	61.30	0.09	12.852	0.018	74.152	0.11
1988	77752.5	134.572	0.17	20.000	0.025	154.572	0.20
1989	83495.2	169.577	0.20	20.022	0.024	189.599	0.22
1990	90342.1	202.68	0.23 *	24.000	0.026	226.68	0.26
1991	94614.1	239.085	0.25	24.000	0.025	287.085	0.27
1992	97431.1	292.061	0.30	15.000	0.015	307.061	0.32
Total	853921.5					1,872.233	0.21 %

Sources: Federal Office of Statistics, Federal Government Approved Budget 1982 - 1992.
National Universities Commission - Research Grants 1982 - 1992.

Figure 4.1 is the bar chart of the funding of R & D activities for the period 1982 through 1992. This figure shows graphically the Nigeria's rates of public sector funding of R & D. The highest funding was 0.32 per cent in 1992, a long cry from the 1% of GDP recommended by OAU.

COMPARISON OF FUNDING RATES GRAPHICALLY WITH THE MINIMUM RECOMMENDED BY OAU.

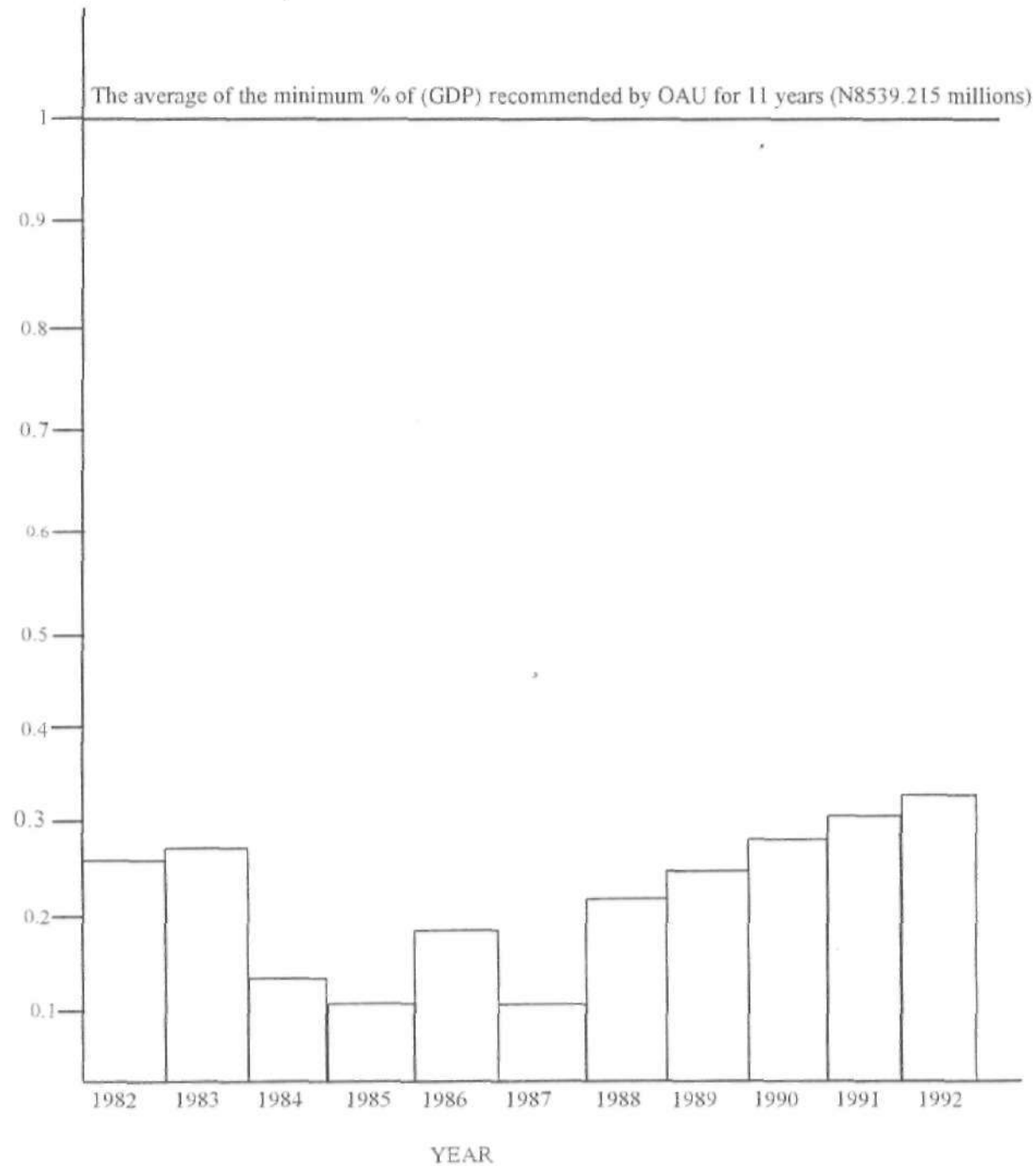


Figure 4.1 : Bar chart of Funding of R & D in Nigeria.

4.3 ANALYSIS OF THE QUESTIONNAIRE AND RESULT OF INTERVIEW

In the six R.Is, 53 officers and junior staff accepted questionnaire out of which 50 were returned. The data derived from the survey were analysed.

4.3.1 Personal Data

Table 4.3 shows the age distribution of respondents. The age of 13 respondents ranged between 25 and 30 years, while 37 of them were 31 years and above.

As regard the position or offices of the respondents, Table 4.4 shows that 66 per cent out of the 50 respondents, were of the rank between Assistant Director and Senior Research Officers and Accountants. The remaining 36 per cent were made up of four Higher Executive Officers accounts, two Higher Executive Officers Administration, three Executive Officers Audit and junior staff who were cashiers or worked in expenditure control section and Internal Audit as Assistant Executive Officers and Clerical Staff.

Eight senior members of staff of FIIRO and NARICT who did not accept questionnaire allowed themselves to be interviewed. These were Directors, Assistant Directors, Chief Research Officers and Principal Research Officers who were also head of departments. The Chief Executive of

each of the R.Is is a Director while the top management is made up of the Director, Assistant Directors who supervise departments under them, the Chief Administrative Officer who is also a Secretary to the Governing Board and the Chief Accountant.

Table 4.2: Age Distribution of Respondents

S/N	Age	No	Per Centage
1.	Below 25 years	-	0
2.	25 - 30 years	13	26
3.	31 and above	37	74
		50	100%

Source: Response of Respondents to item 2 on the questionnaire

Table 4.3: Respondents' Rank or Position in their Research Institutes

Number that Accepted Questionnaire and Returned Them			Number that Accepted Only Interview
Position - 'ie offices	Frequency	Per Centage	
Directors	0	0	2
Assistant Directors (Research & Technology)	0	0	2
Assistant Director (Planning and Production Division)	1	2	
Chief Research Officers	5	10	1
Chief Accountant			1
Assistant Chief Accountant	1	2	
Principal Research Officers	2	4	2
Principal Accountant	6	12	
Principal Maintenance Officers	3	6	
Principal Administrative Officer	2	4	
Principal Planning Officer	1	2	
Principal Internal Auditors	2	4	
Senior Research Officers	6	12	
Senior Accountants	3	6	
Others - Accounting Staff	11	22	
- Audit Staff	7	14	
Total	50	100	8

4.3.2 Funding of Research Institutes

Nigerian R.Is are funded solely by the Federal Government through the Ministry of Science and Technology. Respondents from the six research institutes indicated that their institutes receive their subvention from their supervising ministry quarterly and regularly.

On the question of adequacy of funds, 49 respondents out of 50, representing 98% as shown in Table 4.4 pointed out that the R.Is do not have enough funds to enable them engage in meaningful research work. To buttress this point, both on the questionnaire and interview conducted, respondents listed items for research work their institutes lack due to inadequate funds. Research Officers listed research equipments and materials which included:

- (1) Infrared Spectrophotometer
- (2) Automatic Protein Analyzer
- (3) UV Spectrophotometer
- (4) Amino Acid Analyzer
- (5) Electric Generator
- (6) Chemicals
- (7) Tractors
- (8) Bellers
- (9) Brush Cutters.

While Administrative Staff complained of inadequate staff's welfare and motivation by way of regular promotion and provision of decent accommodation. Research staff also complained of inadequate manpower and indicated that the financial situation of their institutes has made it difficult for them to attend seminars and workshops regularly.

Table 4.4: Frequency of Responses On: Whether the R.Is Have Enough Funds

Value Label	Frequency	Percentage
Yes	1	2
No	49	98
Total	50	100%

Responses from Accountants interviewed revealed that research equipments are purchased from Capital Subvention while perishable research materials, including chemicals are purchased from recurrent allocation for overhead. The recurrent overhead subvention also cater for expenses such as printing and stationery, staff health care, vehicle maintenance, local transport and travelling, estate maintenance, electricity and water bills and etc. They

added that the above-mentioned expenditure items which are necessary for the smooth administration of R.Is gulp a lot of money especially under the condition of dwindling value of the Naira.

Consequently, purely research activities suffer or are compromised as allocations do not usually match the rate of inflation. These responses also showed the various items the R.Is utilize their funds on.

Besides subvention from the government, R.Is generate little funds from consultancy services and production of goods. For instance, National Research Institute for Chemical Technology (NARICT) makes shoes and bags of various kind and other leather goods sold to the public. Nigerian Building and Road Research Institute provides consultancy services and professional, technical and scientific data relating to road construction and transportation.

Federal Institute of Industrial Research, Oshodi (FIIRO) organises short courses for non-staff who would like to set up small scale businesses. Project Development Institute (PRODA) Enugu also organises several training courses for non-institute staff, including training for the Army Resettlement Scheme. While National Animal Production Research Institute (NAPRI) generates income from feedlot operation, sale of chickens, eggs, fresh milk, goats, hays etc.

Income from the sources mentioned above are usually very meagre when compared with the total amount of funds required to run the institutes annually. Table 4.5 shows a summary of the income generated internally by NARICT, NAPRI and Rubber Research Institute of Nigeria from production of goods and services. Similarly, FIIRO realised N200,142.00 and N61,561.00 in 1986 and 1987 respectively from sales and services and incurred total expenditures of N2,580,936 and N3,384,660.00 for the respective years. (See FIIRO Annual Report for 1987 pages 6 and 7).

Table 4.5: Income Generated from Production of Goods and Services

Institute	Year	1982 N	1983 N	1984 N
NAPRI		355,636.00	532,894.00	
Rubber Research Institute of Nigeria			173,137.00	237,810.86
	Year	1987	1988	1989
		N	N	N
NARICT		80,053.00	81,413.00	170,514.00

Source: Audited Accounts Collected from NASENI

4.3.3 Daily Takings and Payments - Cash Office

It was indicated in the literature review that judicious utilization of funds made available to an organisation is a function of a good management. As an effective internal control system assists in good management of resources, a number of questions were asked that gave insight into the way each of the six institutes manage their funds and fixed assets. The study revealed that all subventions are received by cheque and are paid into the institutes' accounts.

The study also revealed that some R.Is do not lodge their takings with the bank daily. Four respondents from FIIRO and NARICT indicated that lodgement is done once a week. When they were interviewed, it was explained that the amount of cash received is sometime low and considering the distance between the office and central bank and non-availability of vehicle at times, it was not practicable to lodge takings daily. However, cash and cheques receipts are posted into the receipt cash book and balanced daily. The head of accounts department goes through both receipts and payment cash books to prepare his daily cash flow analysis. Moreover when bank statements are received the final account unit of the Accounts department prepares the bank reconciliation statements. Without notice, schedule staff of the

Internal Audit Unit go to the cash office for cash count. This has reduced the chances of misappropriation of funds and ensured that the little funds available were judiciously used.

All payment vouchers, with exception of petty cash vouchers or Imprest forms go through the necessary audit checks before cheques are written by the payment cashier. The payment cashier keeps all signed cheques and unused cheque leaves. He releases cheques to payees after they must have signed the cheque payment register. Besides the receipt cashier no member of staff is allowed access to receipt books. Cheques and receipts books are kept in the safe.

4.3.4 Signatories to the Institutes Bank Accounts

In issuance of cheques the institutes were found complying with Civil Service Financial Regulation (FR) No. 804 which makes it mandatory that cheques to be drawn against an official account should be signed by two officers, one of whom is authorised to keep the account. The officers signing cheques should also sign the counterfoils. In the Institutes, signatories to the official bank accounts are grouped into A and B. The Director and an Assistant Director who acts when the Director is away are signatories A. While the Head of

Accounts and his Deputy are signatories B. In line with the FR, the Director and the Head of Accounts sign cheques or one person each from the two groups.

The Directors being signatories to their institutes' accounts is appropriate as it is their duty to oversee the running of their institutes. As they are accountable to their Governing Boards for whatever goes on in their institutes, they are watchful so as to guard against mismanagement of funds. Attached to every cheque sent for their signature are:

- (1) Payment Voucher
- (2) Invoice or a written request for an advance or reimbursement
- (3) A memo or a written request that contains their minutes authorising the expenditure.

These are the things they check before signing the cheques. This enables them to make sure that cheques are only written for bills they have authorised and hence prevent or reduce the chances of misuse of funds.

4.3.5 Salaries and Wages

Before a new member of staff's name is put on the payroll, a copy of letters of appointment and assumption of duty from Administration Department must have been

received by the accounts department. Item 19 on the questionnaire sought information on whether there has been any occasion of the presence of ghost workers in the institute studied. Table 4.6 shows that all the respondents answered no to that question.

Table 4.6: Respondents' Answer As Regards the Presence of Ghost Workers

Value Label	Frequency	Percentage
Yes	0	0
No	50	100
Total	50	100%

The procedure involved in payment of salaries is a safeguard against the presence of ghost workers in the institutes, except where there is collusion. The Internal Audit unit vouch salaries and wages before they are paid.

The institutes paid overtime to mainly drivers who usually worked late when there are management or Board Meetings and accounts staff in the final accounts section. Respondents indicated that overtime is controlled.

4.3.6 Purchases and Contracts for Supply and Repairs

In all the six R.Is, acquisition of stores are done by the issuance of local purchase order to reputable and registered suppliers. All local purchases are authorised by the directors who control expenditure and issuance of local purchase orders. Before contracts are awarded for any repair and supply of materials, quotations are obtained from three contractors, on the basis of which the best quotation in terms of the lowest price and the reputation of the contractor for genuine goods and quality services is chosen. This requirement of calling for three quotations and choosing the best, helps officers to exercise due economy in spending funds made available to their department as stated at FR No. 515.

The institutes were found conforming to the provision of the FR No. 3903 which stipulates the amount of money that should determine whether the purchase of any material should be done by contract and by public tender or otherwise. According to the FR, stores purchased in Nigeria, the cost of which exceeds ₦5,000.00 must be obtained by contract after public tender.

Due to inflation, the amounts specified by the FR have been reviewed upwards to five hundred thousand Naira and above. There is limitation to the value of supplies or contract jobs that the Directors can approve. Like the

Chief Accountant of NARICT pointed out, the Director approves supplies and jobs up to the sum of two hundred thousand Naira. Beyond that limit, the Chairman of the Governing Board's approval is obtained. Tenders invited in accordance with the regulation are considered by Tender Board. The shortlisting or selection of contractors is done by the Tender Board. All persons tendering for the supply of materials are required to submit sample of such materials along with their tenders as provided for at FR 4010.

The submission of sample enables the professionals or a member of staff of the user's unit who is a member of the Tender Board to ascertain the genuineness of the goods, bearing in mind their quality and prices before the decision as to who supplies the goods are reached by the Board. When such goods are eventually supplied their description and quantity are checked against the local purchase order by the store keeper, Internal Audit staff and a member of staff of the user's unit.

Materials that are urgently needed which cost small amount of money are purchased from Imprest. The Internal Audit is always providing a staff to see and certify that purchases for which money was advanced were made. Members of staff do adhere to this practice religiously as non-conformity normally make retirement of cash advance taken difficult.

The Internal Audit also serves as a price monitoring unit. The unit carries out market survey on regular basis to acquaint itself with current prices in the market. The study revealed that this practice helps to guard against purchase of materials at inflated prices by members of staff.

4.3.7 Management of Fixed Assets

The institutes have a fleet of vehicles. The category of officers given official cars are the Directors, Assistant Directors, Heads of Administration and Accounts Department. Besides these vehicles specifically assigned to these principal officers of the institutes, they have other vehicles in the pool which are used for official assignments. When an officer needs a vehicle for official use, he puts up a request for it. He is given one and a driver that will take him to his destination. It is only the institutes' employees who are professional drivers that are allowed to drive the institutes' vehicles. Proper maintenance of the vehicles are done on regular basis. The institutes were found to have a measure of control over the way official vehicles are used. Though 20 out of the 50 respondents indicated that the institutes' vehicles are not strickly used for official assignments. That the Principal Officers use

vehicle for non-official travels. Cost of maintenance of vehicle during such travels are borne by the institutes. Responses of those interviewed showed that it is only the Director that is allowed to use official vehicle for personal journeys.

Furniture and equipment within a building are recorded in a Master Inventory Record which is maintained by the store officer. This shows the location of the furniture and equipment. The Head of Accounts ensures that the inventory of equipment and furniture distributed to different offices and laboratory agrees with the balance in the relative Fixed Asset Register. He is also to ensure that a Furniture Inventory Board is displayed in each room or office to show the distribution of furniture and equipment to each room or office. The furniture and equipment have identification marks and numbers to reduce the chances of their being stolen.

The store officer acting on behalf of the Head of Accounts checks periodically, at least once a quarter to ensure that the correct number of furniture and equipment are found where they are supposed to be located and that they are in good serviceable condition. The external auditors check annually, locations where the institutes' fixed assets are kept to verify their existence when they are to round up their audit. None of the audited accounts

of the institutes that were studied for this research contains any adverse report on the use and maintenance of fixed assets. The FR has a provision for precautionary measures to be taken against loss of property which the institutes have adhered to. Regulations 3309 and 3311 specify the items to include provision of adequate fire fighting appliances and the employment of a night watchman to watch over the premises whenever the stores are of sufficient importance or value. The institutes have security men and fire fighting appliances. These have helped them to minimize the chances of losses of articles by fire outbreak and burglary.

4.3.8 Deposit and Savings Accounts

The audited account of four R.Is studied were accessible for this research work. The audited accounts showed that the institutes maintained deposit and savings accounts with various banks when they were allowed to operate accounts with the commercial banks. Table 4.7 shows the amount involved, the year and the institutes.

National Animal Production Research Institute, Zaria had over five million Naira in its' deposit and savings accounts as at 31st December 1982 and 1983. Rubber Research Institute of Nigeria had over two million Naira as at 31st December, 1984. While that of Nigeria Building

and Road Research Institute was two million Naira in 1985 and 1986. In 1987 and 1988, National Research Institute for Chemical Technology had over one million Naira each year in various banks. This is besides twenty-three other accounts for salary overhead, capital and etc. that had some reasonable balances. The operation of deposit and savings accounts helps to generate additional income. The desire for more funds must have informed the management's decision to operate fixed deposit accounts with their surplus funds. However, this operation also shows that, the respective institutes had been having surpluses from their subventions which they put in deposit accounts. Considering the exchange rate of the Naira as against the Pound Sterling and American Dollar back then, what they had could have bought them some of the research equipments which the research officers interviewed said they lacked.

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Table 4.7: Deposit and Savings Accounts

<u>NAPRI</u>	1982 N	1983 N
United Bank for Africa Limited A/C No.1	4,186,337.00	4,154,377.00
United Bank for Africa Limited A/C No. 2	160,120.00	408,036.00
First Bank Samaru	650,000.00	213,543.00
Union Bank of Nig. Limited	206,063.00	215,194.00
Union Bank of Nig. Limited	21,960.00	37,703.00
	5,224,480.00	5,028,853.00
 Rubber Research Institute of Nigeria		1984 N
First Bank of Nig. Limited		2,250,000.00
First Bank of Nig. Limited		21,360.83
		2,271,360.83
 Nigeria Building and Road Research Institute	1985 N	1986 N
First Bank of Nig. Ltd. Maloney A/C 2	1,000,000.00	1,000,000.00
Nigerian Merchant Bank Lagos	1,000,000.00	1,000,000.00
	2,000,000.00	2,000,000.00
 <u>NARICT</u>	1985 N	1986 N
Bank of the North Zaria- Fixed Deposit A/C	100,000.00	100,000.00
Society General Bank of Nig. Kaduna	500,000.00	600,000.00
Union Bank of Nig. Samaru	200,000.00	77,349.00
Union Bank of Nig. Samaru- Savings	121,369.00	102,312.00
International Bank for West Africa, Zaria	102,059.00	102,312.00
Allied Bank Zaria		348,950.00
	1,023,428.00	1,228,611.00

Source: Audited Accounts collected from National Agency for Engineering
Infrastructure (NASENI)

Going by the recommendations of OAU, the annual budget allocations to R.Is, might present underfunding, whereas the institutes had so much funds in deposit accounts. Consequently, their problem may not necessarily be that of lack of funds alone, but that of vision. The institutes were established for a purpose. Where the equipment and materials needed to accomplish the purpose are lacking whereas the institutes concerned had funds, is not a good management.

4.3.9 Expenses on Members of the Governing Board

Members of the Governing Board are paid sitting allowance each time they convene a meeting to deliberate on issues that concern the staff and the Institute in general. The Institutes take care of their transportation and hotel accommodation in every visit made. Item 32 on the questionnaire was meant to provide information on whether board members frequently visit the institutes even when the purpose of the visit could have been discussed over the phone. The study revealed that no member of the Board made unnecessary visits. But on item 33 of the questionnaire, respondents from one of the R.Is indicated that the Chairman of the Governing Board once stayed in the Institute's guest house for over six months with his children and at the expense of the institute. This was

improper as there is no provision that allows a Chairman to be in the Institutes' guest house or quarters for such a length of time and for a period he is not performing official assignments. Expenses he incurred included those on feeding himself and his children, newspapers, telephone bills and vehicle maintenance.

4.3.10 Retirement of Special Imprests and Tourning Advances

Special Imprests were granted for purchases of items that were needed for urgent use. Touring advances were also granted to staff for official tours. These advances are supposed to be retired within seven days after the grant was made or as soon as the purpose for which the advance was taken is accomplished.

The institutes were found to be a bit slack in this area. Special Imprests and Tourning advances were not being retired on time. Responses, on item 34 in the questionnaire showed that retirement of advances are often delayed. The 50 respondents indicated that Imprest and Tourning Advances are retired:

		Number of Respondents	%
1	Seven days after they have been granted	10	20
2	Seven days after the money is spent	5	10
3	Six months from when the grant was made	20	40
4	One year and above	15	30
	Total	50	100%

Item 35 sought information on why retirement are usually delayed. 25 respondents attributed the delay to the use of part or balance of the amount granted the officer concerned for personal purchase during tour and inability to refund the money immediately upon return. 15 respondents felt that the management had not strongly opposed delay in retirement of advances. The responses indicating delay in retirement were obtained from all the six sampled institutes although with varying degrees.

The study also revealed that cash advances for purchases were being granted too often. Table 4.8 shows balances on the total amount granted which were left unretired at the end of the years listed on the table.

Table 4.8: Balances of Cash Advances at 31st December of the Years Indicated Below

Institute	Year	1982	1983	1984
		N	N	N
NAPRI		3,638.00	8,117.00	
PRODA			46,903.00	
Rubber Research Institute of Nigeria			15,650.00	14,962.40
	Year	1987	1988	1989
		N	N	N
NARICT		19,716.00	24,285.00	310,264.00

Source: Audited Accounts Collected from NASENI

4.3.11 Annual Budgets

The six R.Is studied practice the same budgeting system. Every budget reflects expenditure made in the previous year and the provisions sought for the current year which were found to be higher, and are listed item by item. The items are classified as personnel cost, research materials, local transport and traveling, estate maintenance etc. The R.Is are required to submit and defend their annual budgets before a committee made up of staff of the Federal Ministry of Science and Technology.

Expenditure on most of the items were found to be higher than the figures in the budgets for 1982, 1987, 1988 and 1989. The variances are between 15 and 100 per cent or above.

4.3.12 Head of Accounts Department

Accounts department of R.Is are manned by officers of the ranks between Principal and Chief Accountants who hold Higher National Diploma or First degree in Accounting. Accountants are not stable and as the study revealed they are always in search for better jobs. In 1996 the head of Accounts department in one of the R.Is was on contract with the institute. The next officer to him in rank was a senior accountant who allowed himself to be interviewed.

4.4 SUMMARY OF THE FINDINGS

The study revealed that the total allocation of funds to the 26 R.Is and research grants to Universities for the period 1982 through 1992 was N1872.233 million, representing 0.21% of GDP as against N8,539.215 million for the same period. The highest allocation was 0.32% made in 1992.

The R.Is are funded solely by the Federal Government through the Ministry of Science and Technology which releases subvention to them regularly. Respondents from

the six R.Is studied indicated that their institutes are not adequately funded. To buttress their point they listed research equipment they lacked due to inadequate funds. It was also indicated that the poor financial situation of their R.Is has affected staff welfare and motivation and their regular attendance of Seminars and workshops.

Besides subvention from the government, the R.Is generate little funds from consultancy services and production of goods.

The study also revealed that it is not all the institutes studied that lodge their takings with the bank daily. The reason for not lodging takings daily was explained when the cashiers were interviewed. To reduce the chances of misappropriation of funds the Internal Audit unit staff often go to the Cash Office for cash count without notice. In addition all payment vouchers are audited before payments are made.

In compliance with FR all cheques are signed by the director and the head of accounts department or their deputies. The study revealed that this enable signatories to make sure that cheques are written for only approved expenditures and hence reduce the chances of misuse of the available funds which are not adequate.

The study showed that there has been no case of the presence of ghost workers in any of the six institutes.

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Acquisition of stores are done by the issuance of local purchase order to a supplier whose quotation should be the best among the three they are to call for. The same thing applies to contract jobs for repairs. When goods are supplied their descriptions and quantities are checked against the local purchase order by the store keeper, Internal Audit staff and a member of staff of the user's department. Sometimes purchases of materials that are urgently needed are bought through cash advances to staff. Cash advances were frequently made to staff. It was observed that the Internal Audit carries out market survey to be familiar with prices of things in the market. This serves as a guard against purchase of materials at inflated prices by members of staff.

Official Vehicles are strickly used for official duties except those allocated to the principal officers of the institutes that are sometimes used for non-official travels. Responses of those interviewed showed that it is only the director that is allowed to use official vehicle for personal journeys. The institutes were found complying with FR 3309 and 3311 which require the provision of security men and fire fighting appliances meant to minimize the chances of losses of articles by fire and burglary.

Using OAU's recommendation of expenditure of 1% of GDP on R & D, the R.Is are not adequately funded as already pointed out above. But the study revealed that despite the cry for adequate funds some R.Is had millions in fixed deposit accounts.

It was observed that one of the former Chairmen of the Governing Board of the R.Is once stayed in the institute's Guest House with his children for over six months at the expense of the institute which was not supposed to be.

The R.Is were found to be practicing a mixture of incremental and zero-based budgeting system. Expenditure on most of the expenditure heads were found to be about 15 to 100 percent or more higher than the figures in the budgets for 1982, 1987, 1988 and 1989.

The head of accounts department in the R.Is are of the ranks of between Principal and Chief Accountants who hold Higher National Diploma or First degree in Accounting and do not usually remain in their institutes' employment for long.

CHAPTER FIVE**SUMMARY, CONCLUSION AND RECOMMENDATIONS****5.1 INTRODUCTION**

In this chapter, it is intended to make a brief summary of the research work from the beginning of chapter one to the end of chapter four where the data collected was analysed and the findings were stated. A conclusion about the position of funding and utilization of funds in Nigerian research institutes would be made. These will be followed by recommendations based on the findings.

5.2 SUMMARY

The main purpose of this research work was to examine the funding and utilization of funds in six selected R.Is with a view to determining the adequacy of funds made available to the institutes and how such funds have been utilized. Thus in chapter one, an introduction to the topic was made where the role of research institutes in economic development was explained and achievements made by some of the institutes in R & D were listed. In the same chapter, what necessitated the carrying out of this study which has to do with inadequate funding as one of the factors that has inhibited the performance of the R.Is

was stated. Also stated are the purpose and significance of the study.

In chapter two, a literature review of the topic was made to provide the theoretical framework for the study. Basically, this chapter covers how adequacy of funds being spent on R & D activities can be determined, the scope of utilization of funds and the role of management in utilization of funds.

All the relevant literature on funding indicated that funding commitment should be measured in terms of percentage of GDP or GNP spent on R & D activities. The OAU urged its member nations to spend at least 1% of their GDP on R & D while the United Nations Organisation recommended a minimum of 1% of GNP.

Uses of funds are classified into the following groupings:

- (1) Purchase of fixed assets and stock
- (2) Paying off a debt
- (3) Payment of cash dividend to shareholders and
- (4) Revenue expenses.

For judicious utilization of funds the management plays a very crucial role. It should have the objective or goal of the organisation well defined. It should also ensure that everybody in the organisation works towards

the attainment of the goal set through proper planning and necessary controls.

The methods employed in carrying out the research were discussed in chapter three. These included the use of questionnaire and oral interviews. The sample size covered and how the methods were applied in gathering the data were also explained.

The analysis of data gathered followed immediately in chapter four. The data was analysed in the light of whether funds allocated to R.Is are adequate and how such funds are used. The main things the study revealed were:

- (1) The average annual allocation to R & D activities between 1982 and 1992 was 0.21% which is 0.79% below what OAU recommended.
- (2) Inadequate funding has led to lack of the necessary research materials and equipment
- (3) R.Is operate special, imprest account or make cash advances to staff for purchases, the frequency of which reduces the benefits the institute should have derived from bulk purchases.
- (4) Use of official vehicle was being abused.
- (5) In one of the institutes the Chairman of the Governing Board and his children stayed in the Guest House for over six months at the expense of the institute.

- (6) Though the R.Is are not being adequately funded some of them had a lot of funds in deposit accounts between 1982 and 1988.
- (7) Lack of adequately qualified personnel in the accounts department and audit unit.
- (8) The R.Is practice a mixture of incremental and zero-based budgeting systems. Three out of the R.Is studied whose budget figures were compared with actual expenditure in their audited accounts for 1982, 1983, 1984 and 1985 showed unfavourable variances of between 15 to 100 per cent or more.

5.3 CONCLUSION

R.Is play a big role in a nations ability to create more wealth and hence in economic development. If Nigeria had been investing 1% of GDP on R & D as recommended by OAU, she would have spent ₦8,539.215 million on R & D between 1982 and 1992 and possibly enhanced the performance of the R.Is. Since investment on R & D is low and annual increase in budget allocation is also low when compared with the rate of inflation, actual expenditure on purely research activities are bound to reduce from year to year.

Though the study revealed that R.Is are not adequately funded, some institutes had large sum of money

in deposit accounts with commercial banks. This shows lack of vision on the part of the management of those institutes.

Besides the observations made above on the use of official vehicles, frequency of cash advances and expenses incurred by a Chairman of the Governing Board of one of the R.Is, utilization of funds by the institutes studied was found to be fairly satisfactory.

5.4 RECOMMENDATIONS

The federal government should bail R.Is out of their financial crises by increasing their allocation. Companies should be made to contribute 2% of their annual profit for R & D activities. With more funds made available, specific target should be set for each research institute to reach. Allocation of more funds should be in harmony with the number of projects to be embarked upon.

The management of R.Is should examine areas where bulk buying would be most appropriate so as to reduce the frequency of special Imprest or cash advances. This will enable the institutes to earn trade discount or buy at lower prices which is the advantage associated with buying things in bulk.

The head of accounts department should not be less than an assistant director. This will enable the

institutes to attract experienced professionally qualified accountants, who will ensure that funds are properly disbursed according to laws or statutes that establish the institutes and that such resources are used with economy. He will also ensure that cash advances are retired promptly. . . .

The Federal Ministry of Science and Technology should have their staff visit the institutes regularly to look into their records, and research projects and undertake value-for-money audit. With regular audit the management will always want to be prudent in spending funds made available to them.

The R.Is should practice the PPBS. This will enable them to plan for specific research projects, allocate funds to them and would be motivated to want to see them through to completion at the stipulated budget period.

5.5 AREAS OF FURTHER RESEARCH

This research work is in no way expected to be the final study of the R.Is in Nigeria. If anything, it is hoped that the study will inspire more research on the same topic or other related topics. A research on the same topic can be carried out on other R.Is not selected.

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APPENDIX A

AHMADU BELLO UNIVERSITY

Telephone ZARIA 32352 or 32091
Telegrams INSTITUTE ZARIA

Your Ref:

Our Ref: M.Sc/S/89/90



DEPARTMENT OF ACCOUNTING
INSTITUTE OF ADMINISTRATION
P.M.B. 1013,
ZARIA, NIGERIA

Date: 15th Nov., 1993.

TO WHOM IT MAY CONCERN:

LETTER OF INTRODUCTION

JOHN ENLA ODUBU

This is to introduce Mr. J.E. ODUBU who is a student on the M.Sc. (Accounting and Finance) programme of the University.

As one of the requirements for the award of the degree, Mr. ODUBU is expected to submit a dissertation. The title of the dissertation approved for him is "UTILISATION OF FUNDS BY THE NIGERIAN RESEARCH INSTITUTES: A STUDY OF SELECTED INSTITUTES".

For the above purpose, he would need to collect necessary data and information from appropriate organisations/institutions/individuals. The Department has given instructions to the students that data and information so obtained should be kept in strict confidence and should be used only for the purposes of research.

We would very much appreciate your cooperation on this matter.

A. Silva
A. SILVA,
For:
Head of Department.

NO (17/11/93)
Pls allow E. use
Library (17/11/93)

VICE-CHANCELLOR: PROF. Daniel I. Saror,
B.Sc., DVM. (Lans.), B.Sc. (Honn.), Ph.D. (ABU).

HEAD OF DEPARTMENT: A.B.D. Watoseninyi
B.Sc. (ABU), M.Sc. (ABU).

APPENDIX B

QUESTIONNAIRE

Please do not write your name. Tick one or fill in the gaps where applicable. All information will be kept confidential and will only be used for the purpose of the research.

1. Sex ☐ Male ☐ Female
2. Age ☐ 18 to 25 ☐ 25 to 30 ☐ 31 and above
3. Marital Status ☐ Single ☐ Married
4. Your Research Institute and Department
.....
.....
5. What is your rank?
.....

FUNDING OF RESEARCH INSTITUTES

6. Your Research Institute is funded solely by the Federal Government through the supervising Ministry.
☐ Yes ☐ No
7. Does your Institute receive its subvention from the supervising Ministry regularly?
☐ Yes ☐ No
8. Does your Institute have enough funds to enable it engage in meaningful research work?
☐ Yes ☐ No

9. If your answer to question 8 is no, state below things that are vital to carry out the Institute's mandate which the Institute does not have due to lack of funds.

.....

10. Apart from subvention from what other source(s) does your Institute get some funds?

A. () Production of goods and services
 B. () Donations from individuals and organisations
 C. () Others - specify

11. DAILY TAKINGS AND PAYMENTS - Cash Office

11. Are all subventions received by cheque?
 () Yes () No

12. When subventions are received, into whose account and bank are they first lodged?

A. () The Institute's Accounts with Central Bank
 B. () The Institute's Accounts with Commercial Bank
 C. () A and B above
 D. () Sometimes in a personal account of an officer

13. The receiving cashier lodges cash received into the Institute's Accounts
- A. ☐ Once a week
 - B. ☐ Once in two weeks
 - C. ☐ Once a month
 - D. ☐ Daily.
14. How does the Institute ensure that what the receiving cashier declares as daily takings are correct?
- A. ☐ The Head of Accounts Department or any officer he assigns compares total cash received as per receipt books with physical cash daily.
 - B. ☐ It is only the audit unit that checks occasionally
 - C. ☐ None of the above.
15. Is there any occasion when cheques are issued to settle bills or advances without first having audited payment vouchers?
- ☐ Yes ☐ No
16. Other than the cashiers are members of staff allowed access to receipt and cheque books.
- ☐ Yes ☐ No
17. If your answers to questions 14 and 16 above are a and b respectively, has the Institute suffered any loss of funds as a result?
- ☐ Yes ☐ No

SALARIES AND WAGES

18. What are the documents/details required before a new member of staff's name is entered on the payroll?
- A. ☐ A copy of letters of appointment and assumption of duty from the administrative officer.
- B. ☐ Acceptance letter from the candidate
- C. ☐ Verbal instruction from the Head of Accounts Department.
19. Have there been occasions of the presence of ghost workers in the organisation?
☐ Yes ☐ No
20. Does the audit unit vouch salaries and wages before they are paid?
☐ Yes ☐ No
21. Are payments to members of staff as 'overtime' usually high even when there is less work to be done?
☐ Yes ☐ No

PURCHASES AND CONTRACTS FOR SUPPLY AND REPAIRS

22. Before contracts are awarded for any repair and supplies of materials does the management obtain quotations from contractors on the basis of which the best quotation is chosen?
☐ Yes ☐ No

23. When a member of staff is advanced cash towards the purchase of some materials, what is done so as to make sure that materials for which the advance was taken were actually bought?
- A. ☐ Receipts are submitted and the advance is retired.
- B. ☐ The materials and the receipts are taken to a staff in the audit whose duty is to certify that the materials were bought before they are used.
- C. ☐ None of the above is done.
24. Does the management ensure that purchases made by members of staff as in question 23 above are not done at inflated prices?
☐ Yes ☐ No
25. Who approves contracts on the Institute's major project?
- A. ☐ The Director
- B. ☐ The Board of Governors.

MANAGEMENT OF FIXED ASSETS

26. The Institute's vehicles are used strictly for official assignments.
☐ Yes ☐ No

27. What category of officers are given official vehicles for personal use?

- A. ☐ The Director, Assistant Directors and Head of Departments only.
- B. ☐ The Director only
- C. ☐ The Assistant Directors and Director only
- D. ☐ Very Senior Staff
- E. ☐ A and D.

28. Maintenance of all Institute's vehicles whether for official or personal use is done by the Institute.
☐ Yes ☐ No

29. It is only the Institute's drivers that are allowed to drive the Institute's vehicles.
☐ Yes ☐ No

EXPENSES ON MEMBERS OF THE GOVERNING BOARD

30. In what form does the Institute pay members of its governing Board?

- A. ☐ Sitting Allowance
- B. ☐ Salaries
- C. ☐ Salaries and Sitting Allowance.

31. Does the Institute settle bills incurred by members of the Board in connection with their trips each time they call at the Institute?
☐ Yes ☐ No

32. Do Board members frequently visit the Institute even when what caused the visit could be discussed over the phone?
☐ Yes ☐ No

33. Does any member of the Board stay in the hotel or guest.house with members of his family for days or weeks at the expense of the Institute?
☐ Yes ☐ No

SPECIAL IMPREST ACCOUNT AND TOURING ADVANCES

34. How long does it take members of staff to retire special imprest/cash advance and touring advances taken?
- A. ☐ Seven days after the day the advance was granted.
- B. ☐ Seven days after the money has been used up
- C. ☐ 6 Months
- D. ☐ One year and above.
35. If your answer to question 34 above is either C or D what is the reason for delay in retirement?
- A. ☐ Laziness to retire
- B. ☐ Balances on such advance are used for some personal purchases during the tour and inability to pay back delays retirement
- C. ☐ The management has not strongly opposed dealy in retirement of advances
- D. ☐ All of the above.