

BUDGET IMPLEMENTATION IN THE PUBLIC SECTOR:

THE CASE OF THE OFFICE OF THE PRESIDENT.

BY: PETER.O. ODUNDO. 27th March 2003

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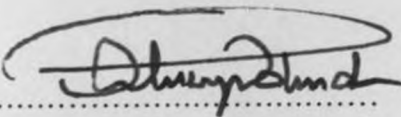
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DECLARATION

The project is my original work and has not been submitted for a degree in any other University.

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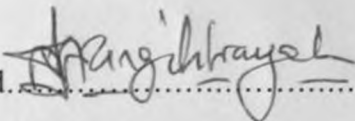
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DEDICATED TO MY FAMILY AND PARENTS

This project has been submitted for examination with my approval as the University Supervisor.

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ABSTRACT

This study sought to document the extent of implementation of the budget of the Office of the President, to assess the accuracy of the revenue estimates, as it is the main facilitator of budget implementation, and to develop a predictive model to be used in allocation of funds to the departments within the Office of the President.

There are always questions asked about the extent of budget implementation by the Government in terms of utilizing the funds that has been allocated to it by Parliament and also the extent of adherence to the budgetary allocations. Budget implementation can only be effective if the above two factors are addressed and data collected for a period of eight years shows that there were many incidences of fiscal indiscipline and none adherence to budgetary allocations occasioning over-expenditures in six out of the eight years.

The accuracy of revenue estimates is critical in budget implementation as these are the source of funds that are allocated to Ministries to enable them fund their programmes and activities. By computing the differences between the estimated revenues reported in the budget proposals and the actually collected revenues reported in the Final Accounts, it was possible to assess the accuracy of the revenue estimates.

To develop a predictive model for the allocation of funds to departments within the Office of the President regression analysis was used with the departmental allocation as the dependent variable and actual revenue, gross domestic product, and external financing as independent variables. The model formed proved that it was possible to predict the allocation to the Office of the President, however for some of the departmental allocations there was evidence that other factors contributed to the allocation which could not be provided for in the model.

CHAPTER ONE: INTRODUCTION

1.1 Background

Budgeting in the public sector evolved in the United Kingdom during the medieval days when Parliament assumed the right to control the national purse (Premchand 1994). Parliament at that time insisted that it had the sole right to grant Kings and Governments the funds they needed to spend, and that in order for it to release the funds, the Kings and Government had to specify the objectives for which they needed the budgetary allocation.

Parliament scrutinized the details of the Government's requirement for funds and had to satisfy itself of the legitimacy of the budgetary requirement before allowing Government to appropriate the necessary supply. This in effect meant that Parliament required the annual submission of budgets containing a statement of expenditure and revenue needed for the purpose.

The legislative accountability inherent in the early budgetary approaches continues to govern the budgetary concept today. The budget has evolved to acquire dimensions of planning and management and has become a key instrument of national policy making. The purposes and features in broad terms of the budget may be considered along three key aspects namely;

- (i) a tool of accountability
- (ii) a tool of management
- (iii) an instrument of economic policy

A budget is an instrument of accountability as the government agencies are responsible for the proper management of funds and programs for which funds are appropriated. It is equally a tool of management, as a budget being an operational document specifies either directly or implicitly, the cost, time, and nature of the expected results. More importantly budgeting as an instrument of economic policy serves multivariate functions. It indicates the direction of the economy and expresses intentions regarding the utilization of available resources. As an operational tool it guides the determination of the national growth and investment goals and leads ultimately to the

allocation of resources among consumption, transfer and investment outlays and amongst sectors. Available resources should be allocated among various uses so as to maximise the benefits received. The national budget is the main instrument for allocating the resources available to the Government to various sectors of the economy in order to achieve the overall objective of raising the living standards of the people and attaining sustainable economic growth.

This objective can be achieved by the Government directly investing in productive areas such as agriculture, industry and transportation, or by investing in sectors that can create a conducive environment for the private sector such as health, education, infrastructural development, and security. The fundamental basis for budgeting is that resources are scarce and therefore have to be spread over increasing needs for services.

The International Monetary Fund Institute Paper No78-11/4 defines the budget as an act or set of acts, formulated and proposed by the executive arm of the Government and approved by the legislative arm(parliament), detailing the manner in which the expenditure of the forthcoming fiscal year is to be incurred and the resources to finance it are to be raised.

Proper budgeting is necessary in order that resources availed for provision of services is utilized in a manner that will lead to more productivity in the sectors in which they are applied. The budget should aim at equalizing the social benefits of expenditure and the social cost of withdrawal of resources from the private sector. An important task of budgetary policy is to promote growth. Growth can be accelerated through additional expenditures in desired sectors either through direct outlays or through an appropriate strategy of development of infrastructure that, in turn, will induce further investment. Premchand (1994) observes that implementation of a strategy of growth is reflected in the allocation of budgetary resources to those sectors whose projects and programs have been reviewed and are considered to have an impact on growth. Specifically these are the implementation strategies which are outlined annually in the Budget Speech.

“The implementation of growth strategy or poverty alleviation strategies have dominated the Government of Kenya’s development policy for a long time” (Public Expenditure Review)

and therefore it is important that the Government's budget is skewed towards the realization of the two objectives..

1.2 Statement of the Problem

The Budget in the early years was treated as a financial plan that emphasized the mechanisms of payment, accounting and reporting. In the inter war period between 1920 and 1930s it was developed to recognize the economic implications of the budget to make it be perceived as a major instrument of economic planning and macroeconomic stabilization and growth. In the 1960s the budget was now being viewed as a comprehensive exercise in resource allocation and management with emphasis on relating costs to performance.

Premchand (1993) observes that the operational framework of expenditure management comprises a three stage administrative process: (i) determination of the policies and objectives and the resources needed to attain them (ii) allocation of resources needed to attain the objectives, and (iii) assurance that specific tasks are carried out economically, efficiently and effectively. Studies conducted by Leloup et al (1998) and Lee and Johnson (1974) have shown that there is little congruence between fiscal plan, formulated budget and implementation of the budget. A number of reasons have been postulated for these divergencies. One perspective has it that because a resort to expediency is often convenient from a political viewpoint, the budget formulated differs from the fiscal plan and in implementation, what is implemented tends to differ from the fiscal plan and the budget.

Axelrod (1986) observes that budgeting does not end with the passage of the Appropriation Bill, which is but a milestone in the budget process and the beginning of still additional changes ahead. The budget that has actually been implemented at the end of the fiscal year may differ significantly from the budget proposed by the Government and the Appropriation Bill approved by the Legislature. Axelrod poses the following questions; of what avail are the proposed policies, priorities, programs and projects in the budget if they fall apart in the implementation phase? Or are implemented ineffectively and inefficiently; or in part; or not at all; or at unacceptable cost; or at unrealistic funding

levels?. In attempting to answer these questions, it is important to examine the budget structure for structural defects that will require reforms or weakness in the Central Agency namely the Ministry of Finance and /or the implementing agencies namely the various Ministries/Departments. Leloup (1998) in a study of the Hungarian budget process found out that the budget implementation is hampered by the fragmented nature of the budgetary system, the lack of standardized accounting and budgetary information system, and the uncertainty caused by economic transition. As a result of these uncertainties and the inaccuracies in forecasting both revenues and expenditures, there are frequent revisions of budget proposals- repetitive budgeting during the fiscal year.

Pechman. (1983) brings out the dilemma that the United States of America finds itself in, in implementing the 1983 budget as follows;

“ the 1983 budget aims at reducing the budget deficit which in 1982 had exceeded \$ 100 billion, by instituting large cuts in civilian spending programs, while increasing defence budget due to the fact that the build up in military spending had to continue for strategic reasons. To attain the goal of closing in on the large long-run deficit gap, the options was a major tax increase whose economic damage to the private sector incentives would be greater than the gain from reducing the deficit”.

In determining the extent of budget implementation it is important to take note of the effect of *implementation illusion*. This phenomenon occurs when the pace and magnitude of expenditure do not fully reveal how tasks are performed. When attention is only focused on annual outlays and money expenditures and little attention paid to the physical progress of the project to be implemented then implementation illusion occurs.

This study will determine the extent of the implementation of the budget in light of the fact that there exists broad divergence between the commitment budget as spelt out in the Annual Budget Speech and the budget implemented at the end of the fiscal year with particular reference to the Office of the President.

1.3 Objectives of the Study

The objectives of this study will be:

- (i) to assess the extent of implementation of the budget of the Office of the President.
- (ii) to assess the accuracy of the revenue estimates as it is the main facilitator of budget implementation.
- (iii) to develop a predictive model to be used in allocation of revenue to the Office of the President.

1.4 Significance of the Study

The findings of the study will:

- (i) provide policy makers with comprehensive material that will assist in improving the budget implementation process
- (ii) provide information to the budget officials and donor agencies involved in the budgetary process
- (iii) be valuable addition to the existing body of knowledge in budgeting and budget implementation in the public sector

CHAPTER TWO: LITERATURE REVIEW

2.1 Budget Implementation

Premchand (1995) observes that budget implementation is public expenditure policy and therefore the manner in which public expenditure is managed will definitely impinge on the implementation of the budget. Ramakrishnan (1997) postulates that implementation or execution of the budget is an activity that takes place throughout the financial year and is the cutting edge of the budget as it involves all branches of the government unlike the more technical and selective participation of officials in budget formulation.

The primary concern during the budget implementation process is to ensure the fulfilment of the financial and economic aspects of the budget. The financial tasks include; spending the amounts for the purposes specified, minimizing savings and avoiding lapses or rush of expenditures during the end of the year. The economic tasks on the other hand are; ensuring that the physical targets of programmes and projects are achieved and the macro-economic aspects of the budget such as borrowing and deficit levels are also achieved. In managing budget implementation one of the key areas of focus is the revenue and expenditure flow pattern

Aggregate revenues tend to be below the projections on which the budget is based as observed by Kiringai and West (2000). In situations when revenue inflow is low and therefore cash releases are effected as budgeted, Ministries are often forced to reduce expenditures. As a rule, personnel emoluments and statutory obligations for example debt payments are exempt from expenditure reductions, therefore implementation of

development projects and purchase of goods and services suffer severe budgetary reductions. This results in distortion of priorities and reduction in productivity as the recurrent costs of development projects cannot be met. One of the major problems in the implementation of the budget especially the development budget (which is the focus of this study), is the recurrent cost problem. Heller and Aghvelli (1985) defines the recurrent cost problem as the failure to provide adequate funds to operate and maintain a project or programme. The recurrent cost problem arises when the recurrent outlays are sufficiently below the level necessary to operate or maintain a project at its intended level to result in a noticeable loss in output, inefficiency or an obvious deterioration in plant and facilities.

Gray and Martens(1983) developed a measure to illustrate the recurrent cost problem. The method referred to as the G-M measure calculates the ratio of current expenditures on other goods and services to expenditure on wages and salaries (the coefficient of effectiveness). Using this measure for the case of Kenya in the period 1972-1980, the G-M measure rose significantly reflecting the fact that during the period recurrent expenditure grew rapidly. However this did not in any way result in a reduction in the recurrent cost problem in Kenya. The conclusion to be drawn from this is that the growth in recurrent expenditure has been absorbed mainly in non-development oriented services rather than being used to alleviate the recurrent cost problem.

Premchand (1994) states that implementation of the budget requires an advance program of action evolved within the parameters of the ends of the budget and means available. This framework, he further states, should include the following; identification and enumeration of the implementation tasks, assessment of the suitability of the means

of achieving the ends and prospects for the improvement of means if they are less than adequate. The budgetary and economic tasks are rendered operational through the administrative process that comprises four major interrelated phases of work namely; (a) an allocation system under which expenditure is controlled by release of funds, (b) supervision of the acquisition of goods and services to ensure value for the money spent, (c) an accounting system that records government transactions and provides a framework for an analysis of their implications, and (d) a reporting system that permits a periodic appraisal of the actual implementation of policies.

Ministries or spending agencies must prepare forecasts of the financial requirements in order to facilitate prompt release of funds for the actualisation of their activities and programmes. Release of funds by the Ministry of Finance is an instrument that is very critical to the budget implementation process. When planned and effected properly it can facilitate the implementation tasks of spending agencies, while the negative use of the same process may hamper the activities of the agencies. In the course of budget implementation another key factor that has to be taken into account is the issue of cost increases.

In most government programs and projects cost increases are the rule rather than the exception and cases of cost increases have been known to inflate project budgets by as high as 100 percent. These increases have to be anticipated and policies formulated to counteract them or provide for them as has been suggested by Premchand (1994) through creation of a contingency reserve. The phenomena of excess expenditure also critically affects budget implementation. It may occur as a result of cost increase or as a consequence of poor management. Excess expenditures cause instability in the resource

allocation process and are discouraged by many government, some even providing legislative restrictions. Schick (1999) observes that a country can have a sound budget and financial system and still fail to achieve its intended targets. This is because the rules of the game by which the budget is formulated and implemented are equally important and do influence outcomes.

2.2 Budget Implementation In Kenya

The budget implementation process begins after Parliament has issued authority to the Government to operate on Vote on Account. The Vote on Account is the authority that allows the Government to utilize one half of its budget as provided for in the Printed Estimates until the passage of the Appropriation Act. The Appropriation Act is the authority that Parliament gives to the Government to withdraw funds from the Consolidated Funds to finance its programmes and activities during a particular financial year. Parliamentary authority is necessary as the Constitution of Kenya under section 99 sub-section 1-4 provides that the authority for raising revenue or other monies and the appropriation of the same for the purpose of the Kenya Government is vested in Parliament

The Government of Kenya operated a three-cycle budget until 1999 when it changed into a two-cycle budget. The three-cycle budget commenced with the Programme Review and Forward Budget (PR&FB). This is a three-year rolling budget which provides indicative government expenditures for both Recurrent and Development Estimates. The Forward Budget exercise would run from July to December of each year and the Draft Estimates or the Annual Estimates for the following financial year would be

based on the first financial year of the Forward Budget. The Draft Estimates have to be submitted and approved by the Ministry of Finance between April and May of each year for presentation to Parliament on or before mid June. It is a constitutional requirement that the Budget Speech be read in Parliament on or before 20th of June.

The last cycle of the budget is the Revised or Supplementary Estimates. The Revised Estimates is the opportunity offered to Ministries to request for additional funds or re-allocate savings realized in their Votes to fund programmes and activities which were either under funded or arose as a result of an emergency for example drought, famine, floods or security threats. The Supplementary Estimates are presented to Parliament between March and May of every year.

The Government in 1999 introduced a new budgetary system known as the Medium Term Expenditure Review (MTEF) which provides for a two cycle budget. The MTEF replaced the Forward Budget as it is also a three-year budget which closely ties planning to budgeting. The major objective is to address inadequacies in the links between programmes and policies and the resources allocated for their implementation. The goals of the MTEF are broadly defined as; (a) attaining fiscal discipline through adhering to hard budget ceilings in order to remain within aggregate resource constraints, (b) attaining allocative efficiency by ensuring that expenditure allocations are channelled towards addressing national development priorities, and (c) attaining operational/technical efficiency by ensuring that outputs are achieved at the least cost by applying performance targets of output relative to inputs.

The Budget speeches read every year by the Minister for Finance provide the basis for budget implementation. The Budget speech outlines the key sectors that will be

financed in order to achieve the national objectives. The sectors so identified are then allocated funds relative to their importance to the set objectives. For example, from the Budget speech for the fiscal year 1998/99 the following were the target areas of government funding;

- (a) reduction of domestic debt and interest rates
- (b) improving physical infrastructure particularly roads
- (c) improving the delivery of public services such as telecommunications, power and water supplies
- (d) improving the efficiency of the civil service
- (e) improving public security and administration of justice

This information was utilized to establish the extent of implementation of the target objectives with particular reference to the Development Vote of the Office of the President.

2.3 Constraints In Budget Implementation In The Public Sector

Budget implementation in Kenya has been an issue of public concern for a long time. The concern arises because of the impact it has on public sector performance and outcomes. The first major concern by the Government on this subject is contained in the Report and Recommendation of the Working Party on Government Expenditure (July 1982). The report mentioned the following in regard to budget implementation;

"During the last decade the capacity of the government to provide essential services to wanainchi has been increasingly and seriously strained by the large gap between revenues and expenditures, growing balance of payments difficulties, the increasing demand for services and a decline in the efficiency of operations of the public service. The growing recourse to

supplementaries and unauthorized departures from the annual budget suggest that the budgeting process is not the effective instrument of financial planning and control that it was intended to be."

Similar concerns were raised in the Report on the Government Projects Review Committee (May 1993). The report identified as a major constraints to budget implementation the proliferation of development projects whose resource requirements are far in excess of government's ability to satisfactorily implement them. The report further established that the large number of development projects created increased demand for operational financing which was an added strain to an already overloaded recurrent budget.

The Public Expenditure Review (1997) identifies two key factors that undermine budget implementation as unbudgeted expenditures and resource uncertainties. Unbudgeted expenditures take the form of expenditures for which no appropriations has been approved or even formally approved supplementaries which are included in the Revised Estimates. Resource uncertainties occur when expected external resources in the form of loans and grants are not received or received late in the financial year. For example in 1995/96 financial year the actual realization of external resources was less than 50% of the Forward Budget forecast. The Ministry of Finance includes in its financing plan programme finance (which include structural adjustment credits for budgetary support), based on donor commitments and agreed conditionalities. However due to non-fulfilment of the conditionalities the available finances falls far short of the indicated commitment. This results in expenditure reductions on discretionary expenditures which include capital investment and operations and maintenance.

The third constraint which is closely related to the previous one is the counterpart funds contribution by the government. Most donor funded projects require a counterpart fund contribution by the government ranging from 10-20 percent of the value of the project. The government relies on its revenues to provide for the counterpart funds. In the event that the revenue flows are far short of the targeted amount then the Ministry of Finance has only two options namely to either drastically reduce the development expenditures or use short term domestic borrowing to finance the investment programme. Discrepancies between expenditure ceilings and exchequer issues are often large thus impeding the budget implementation process.

Budget rationalization which should be carried out when faced with resource constraints is totally lacking in Ministries as often times they do not focus their expenditures on critical activities in the development and recurrent budgets thus resulting in allocation of funds to areas that are not in line with national priorities (Report of the Government Projects Review Committee 1993).

2.4 Reforms In The Budgetary Process

The Report and Recommendations of the Working Party on Government Expenditure (1982) identified major flaws in the budgeting process amongst other issues and recommended the introduction of certain reforms to the process. It recommended inter alia that to improve on budgeting especially the development budget no project should be considered for inclusion in the forward budget without a detailed schedule of implementation covering all its components has been prepared and approved. In 1985 the

Government recognizing the limitation of the budgetary process to prioritise expenditures and in a reaction to the concerns raised by the Working Party Report, introduced the Budget Rationalization Programme (BRP) in 1986. The BRP sought to rationalize and improve the pattern of allocation of budgetary resources in conjunction with a program of borrowing and other policy measures in order to bridge the gap between resources and the sectoral requirements.

The intention of adopting the BRP was two fold namely to increase the productivity of scarce budgetary resources by allocating them in accordance with well defined priorities and to improve the planning and budgetary process in the Ministry of Finance and in the spending agencies so that the improvements visualized are institutionalised and implemented through the budgetary process. The Forward Budget was the principal instrument for the implementation of the BRP as it would be used to rank projects in categories of high and low priority, with those ranked high being funded fully, while those ranked low would either be deferred, re-designed or even cancelled. Some measure of success was realized through the BRP although it did not translate into efficient allocation and utilization of expenditures. The main reason for the ineffectual success was due to the fact that Ministries faced with budget reduction in the non-wage recurrent expenditure, resorted to using the development budget to finance its operations and maintenance requirements. As a large portion of the development budget is donor financed, Ministries were reluctant to reduce the number of projects in their portfolio as this would limit chances of donor assistance.

The rationalization programme also required the instituting of reforms in the Civil Service and Parastatal Sector with the aim of reducing the wage bill in order for the

savings realized to be re-allocated to the non-wage O&M expenditures and the development budget. These reforms were only effected in 1993 when the Voluntary Early Retirement Scheme (VERS) was implemented.

The next reform to be undertaken was the introduction of the Public Investment Programme (PIP) in 1991. This reform measure was instituted in order to strengthen the weaknesses in the BRP and also in response to the challenge to improve the quality of the development portfolio, by reducing the aggregate level of development expenditure, and redirecting that expenditure towards investment that contributed more directly to economic growth.

The PIP had, as its objective, the attribution of priority ranking to all projects included in the Ministries investment portfolio, the provision of accurate and binding information on the financial requirements of each selected projects and programmes to include the total cost, balance required to complete the project and any pending bills. The third objective was the requirement to include an estimate of the recurrent cost demand that would be generated by the project upon completion.

Wheeler and Cohen (1994) observed that by 1994 the PIP had recorded genuine progress in the categorization of projects by Ministries thus resulting in a more manageable project portfolio. The PIP produced for fiscal year 1998/99-2000/01 indicated that the Government's total project portfolio (both Government and donor funded) had been reduced from 1667 projects (1226 ongoing and 441 new) to 982 in 1999 (927 ongoing and 55 new). The reduced project portfolio was still higher than the number given by the Minister for Finance in his Budget Speech of 1998 which was 664. The objective of the reduced project portfolio was to enable the Government fully finance the core projects

while the low priority projects that were sellable would be sold and the proceeds utilized to retire short-term debts.

The third major budget reform was the introduction of the Medium Term Expenditure Framework (MTEF) in 1999. The MTEF's objectives are; to create a macro-economic environment that would attract both foreign and domestic private investment by supporting efficient production and to ensure that public resources are utilized efficiently and effectively in supporting high growth of income and employment. The first MTEF budget was prepared in 1999 for the 2000/2001 fiscal year and thus its success or failure falls outside the scope of this study.

2.5 Factors Influencing Budget Implementation

Two key factors influence budget implementation namely, the level of local revenues collected and the availability of external resources to bridge the gap occasioned by shortfall in revenues. When revenues fall short of the projected level then budget implementation is affected to the extent that the expenditures have to be reduced and some projects and programmes postponed altogether. External resources in the form of loans and grants are also factored into the budget following commitment by donors. The funds may however not be available at all as may be released late into the financial year as the budgeted amount may be reduced or a result of some donor refusing to release funds as result of the non-fulfilment of donor conditions. The above situation will lead to a shortfall in budget financing and the only realistic alternative if the budget is to be implemented in full is to resort to domestic borrowing. There however is a limit to the amount of domestic borrowing that can be permitted due to its consequences as interest

rates and also inflation. The Central Bank of Kenya Amendment Act (1996) limited the borrowing by the Kenya Government to 4% of its revenue of the last audited accounts. Therefore it is important that the projected revenue levels and the external resources committed are available to enable the budget to be fully implemented by the Government.

The other factor is the recognition of structural bottlenecks such as the weather, which can give rise to drought, famine and flooding situations. The researcher focused on the revenue estimates as it is a controllable item in terms of the fact that it is determined by the growth of the economy, efficiency in tax collection, amongst others. The factors determining revenue can be assigned some value which can enable one to assess its availability. The external resources on the other hand, are determined by both economic and political factors. The political factors that determine release of donor funds include governance issues, human rights and legislative provisions that cannot be assigned any factors for simulation or forecasting.

The study used secondary data obtained from the following sources:

- (i) The Prime Minister
- (ii) The Ministry of Finance
- (iii) The Appropriation Authority
- (iv) The Budget Speeches 1996-2001

The data will be presented in the following format:

Printed Parliament (2)	Approved Budget (3)	Actual Expenditure (4)	Deviation	
			(5-3)	(3-4)

CHAPTER THREE: RESEARCH DESIGN

3.1 Population

The researcher carried out the study on the Office of the President which at the beginning of the period of the study had twenty six (26) Departments receiving funds under the Development Budget. The period covered was ten years (1990-1999).

3.2 Sample

The sample studied was the Development budget of the 26 Departments. The Development Budget has been chosen as it is the determinant of capital formation and investment and therefore economic growth. It is also subject to discretionary spending and thus the purpose of the study was to establish the extent of deviation from the approved estimates for the period 1990-1999

3.3 Data Collection Method

The study used secondary data obtained from the following sources;

- (i) The Printed Estimates
- (ii) The Revised Estimates
- (iii) The Appropriation Accounts
- (iv) The Budget Speeches 1990-2000

The data collected will be presented in the following format;

Year (1)	Printed Estimates (2)	Approved Budget (3)	Actual Expenditure (4)	Deviation	
				(2-3)	(3-4)

3.4 Data Analysis

The data was analysed using the above table to determine the deviation index. The extent of the deviation can be attributed to the factors influencing budget implementations. One of the factors namely, the revenues was studied to determine its accuracy and therefore its ability to facilitate budget implementations.

The determination of the accuracy of the revenue estimates was done by obtaining the differences between the estimated revenue reported in the budget proposals and the actually collected revenues reported in the closing accounts for the period 1990 – 1999. If the revenue in budget proposals is referred to as (A) and the actually collected revenue is referred to as (B), then the value of difference that is (P) is

$$P = \frac{(B - A)}{B} \times 100$$

P would be greater, lower than or equal to 0

B > A this implies an underestimate

B < A this implies an overestimate

The values of P will then be subjected to Chi- square test to establish the levels of significance of the variation.

The above estimation has been carried out for revenue estimates for Japan by Shibata and Shibata (1997) and therefore the same can be replicated for Kenya

The variance established in the table above is due to the following factors.

- (i) Economic growth rate – the economic environment prevailing in a country has great effect on the revenue flows. As Heller and Aghevli (1985) observes the

following factors can greatly affect revenues namely; a sharp increase in the price of one of the country's basic imports e.g. effect of the oil shock, an unanticipated decline in the price of its principal export and an unanticipated surge in world inflation rates.

These factors affect economic growth rate and thus result in fall in revenue which then necessitates re-ordering of budgetary priorities.

- (ii) Government deficit – Dvorkovich (2000) mentions that past policies with respect to public enterprises leave government with a large number of enterprises with operating deficits that must be financed by the central government budget. Financing of central government deficit through internal borrowing leaves a legacy of debt service requirements that are a significant proportion of total expenditure. Internal borrowing is resorted to, to bridge the gap between forecast revenue and realized revenue but can only be done to the extent to which it does not adversely affect economic growth through high interest rate and inflation.
- (iii) Inflation – the growth of inflation affects revenue inflow. It has an impact on the cost of production and thus adversely affects the trading results of business entities on whom the government relies on for tax.
- (iv) Donor funding – the donor component is included in the revenue forecasts and thus is part of the budgeted funds to be availed to Ministries. In situations when the level of donor funding inputted in the budget is not available, this results in a large variance in the budget outturn.

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

The predictive model was developed thus;

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4$$

Where;- X_1 is the economic growth rate

X_2 is the government borrowing

X_3 is the inflation rate

X_4 is the external funding

	1992/93	1993/94	1994/95	1995/96
Revenue	1,200,000	1,200,000	1,180,000,000	1,400,014,040
Capital Expenditure	-13,000,000	-13,000,000	-4,000,000	-4,300,000
Current Expenditure	-20,000	-20,000	-20,000	-20,000,000
Debt Repayment	-11,000,000	-12,000,000	-1,000,000	0
Interest on Debt	-20,000	100,000	100,000	-100,000
Transfer to Other	-1,000,000	-8,700,000	-4,000,000	-20,000,000
Other	-370,000	-200,000	-27,000	14,000,000
Net Debt	-8,340	-18,300	-3,520	20,000
Net Cash	272,440	-500,000	0	20
Revenue	40,000,000	41,000,000	23,000,000	-5,000,000
Capital Expenditure	0	0	0	0
Current Expenditure	-10,000,000	-9,000,000	-8,000	-1,000,000
Debt Repayment	-50,000,000	-70,000,000	-8,000,000	-12,000,000
Interest on Debt	-3,000,000	10,000,000	-4,000,000	4,000,000
Transfer to Other	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Other	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Net Debt	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Net Cash	20,000,000	20,000,000	20,000,000	20,000,000
Revenue	10,000,000	10,000,000	10,000,000	10,000,000
Capital Expenditure	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Current Expenditure	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Debt Repayment	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Interest on Debt	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Transfer to Other	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Other	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Net Debt	-10,000,000	-10,000,000	-10,000,000	-10,000,000
Net Cash	10,000,000	10,000,000	10,000,000	10,000,000

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Implementation Status

The results of the study on the implementation status of the budget for the Office of the President is presented in Table 1 and 2.

Table 1: Variance Between Actual Expenditure and Printed Estimates

Department	1991/92	1992/93	1993/94	1994/95
Headquarters	-8,290,080	1,806,840	1,155,622,620	2,462,614,640
Nairobi Province	-2000000	-12,000,000	-4,040,000	-4,998,060
Nat Registration	-184,440	-25,980	-60,140	-102,098,160
Agr Dev Corp	-14,000,000	-12,000,000	-1,000,000	0
Cabinet Office	-88,500	182,340	-100,000	-100,000
Nyayo Tea Zone	-40,000,000	-44,730,000	-44,000,000	-35,000,000
Matuga DDI	-370,640	-339,360	-77,000	14,872,680
Embu DDI	-6,340	-15,380	-3,620	29,700
Baringo DDI	-512,440	-500,000	0	-20
Provincial Administration	48,057,760	61,509,620	22,855,260	-6,976,820
Dist Reg Serv	0	0	0	
Administration Police	-10,000,000	-9,972,240	-8,060	-1,358,940
Govt Printer	-54,060,000	-70,334,000	-6,199,840	-12,202,840
NYS Headquarters	4,318,260	18,760,200	-6,417,680	420,108,960
NYS Training	-30,933,740	-18,336,340	-10,565,480	-11,129,600
NYS Production	-364,880	-123,520	18,340	152,000
Aerodromes	-50,720,000	0	0	-4,000,000
Immigration	-342,580	-354,760	-142,140	260
CID	-313,980	-2,829,460	-217,660	-1,399,880
Police Headquarters	-7,936,220	-3,394,220	1,119,660	-125,431,240
Police College	257,760	-757,760	0	-901,360
Police Field	-45,913,320	-14,464,520	-7,707,440	-25,481,920
Govt Chemist	-2,190,620	-1,431,000	-1,142,640	-1,134,900
GSU Training	-21,665,000	133,587,320	6,063,320	-3,587,900
GSU Headquarters	-12,000,000	-8,483,220	-10,000,000	-5,000,000
GSU Field Administratio.	11,927,660	-12,897,880	-371,900	-12,818,140
Total	-237,331,340	2,856,680	1,093,625,600	2,544,158,460

Table 1 – Cont-

Department	1995/96	1996/97	1997/98	1998/99	Average 1991-1999
Headquarters	-124,939,400	35,658,960	-64,558,000	149,364,500	450,910,010
Nairobi Province	-8,000,000	0	0	0	-3,879,758
Nat Registration	917,495,340	495,336,220	-66,975,340	0	155,435,938
Agr Dev Corp	25,000,000	8,000,000	0	0	750,000
Cabinet Office	-100,000	-100,000	0	0	-38,270
Nyayo Tea Zone	-1,085,000	-80,704,640	-90,370,360	-129,630,000	-58,190,000
Matuga DDI	-25,522,420	-5,734,360	0	0	-2,146,388
Embu DDI	-540	-100,020	0	0	-12,025
Baringo DDI	0	-20,000	0	0	-129,058
Provincial Administration	24,307,000	48,874,620	7,369,980	42,225,580	31,027,875
Dist Reg Serv Administration	0	0	0	0	0
Police	-81,000,000	-6,198,800	-2,500,000	-1,080,000	-14,014,755
Govt Printer	-63,852,740	-71,427,640	-19,485,780	-4,715,040	-37,784,735
NYS Headquarters	12,414,440	-20,758,320	265,903,720	270,548,740	120,609,790
NYS Training	-18,879,200	1,045,580	-443,040	-1,000,000	-11,280,228
NYS Production	-58,860	-43,800	-793,380	-479,060	-211,645
Aerodromes	1,780,997,640	72,350,940	28,166,940	4,223,880	228,877,425
Immigration	-700,000	1,090,000	0	0	-56,153
CID	-131,340	2,669,840	-5,504,340	0	-965,853
Police Headquarters	-43,329,780	-3,993,580	-69,471,460	5,235,900	-30,900,118
Police College	-6,000,000	24,660	-8,569,260	-4,000,000	-2,493,245
Police Field	-39,740,680	-14,371,820	-141,652,480	-1,266,200	-36,324,798
Govt Chemist	-1,456,520	-1,263,660	0	0	-1,077,418
GSU Training	-18,200,000	70,000	4,577,260	87,225,080	23,508,760
GSU Headquarters	-23,000,000	1,000,000	-28,782,780	3,478,280	-10,348,465
GSU Field. Administration.	-2,189,760	8,943,740	-53,086,680	-7,552,760	-8,505,715
Total	2,302,028,180	470,347,920	-246,175,000	412,578,900	792,761,175

The results of the study on implementation of the budget of the Office of the President as shown in Table 1 indicate that in the period under study, funds allocated were actually spent. It is however not possible to assess the effective utilization of the funds as it is outside the scope of the study. From the available data in Table 1 it can be seen that the Provincial Administration (Field Administration) Department had substantial resources allocated to it to construct offices in the Provinces and Districts. The same projects were allocated funds every year yet none of them were completed. This shows that despite the introduction of budget reforms mentioned in Chapter Two, the Office of the President did not rationalize its project portfolio in order to complete its projects given the resource constraints prevailing.

It can be concluded that implementation illusion occurred as far as the project implementation record is concerned as the pace and magnitude of expenditure do not fully reveal how tasks were performed. In order to test the existence of divergence between the Printed Estimates and the Actual Expenditure, Chi-square test was done. The hypothesis was whether the Printed Estimates were equal to the Actual Expenditure. The cumulative totals for the financial years 1991-1998 were used. The Chi-square test was done at 5% significance level and seven degrees of freedom.

The outcome was as contained in Table 3 but summarized here -below as;

$$P(14.7 < \chi^2 < \infty) = 0.05$$

$$\chi^2 = 0.03926$$

The interpretation is that there is no significant difference between the Printed Estimates and the Actual Expenditure.

This interpretation is supported by the fact that although some departments received low allocations during the Printed Estimates period they were more than compensated by receiving more cash than the budgeted amount.

	2010	2011	2012	2013
...	0	-8,140,000	0	0,327,000
...	164,400	-30,900	-62,800	-81,300,110
...	-14,500,000	-12,700,000	0	0
...	-48,000	-17,800	0	-100,000
...	-20,500,000	-24,700,000	26,700,000	-18,900,000
...	-270,000	-23,000	-668,000	-1,187,000
...	-4,000	-15,000	-3,000	24,700
...	-812,440	-600,000	0	170
...	-26,000,000	-41,000,000	11,410,000	16,740,000
...	0	0	0	0
...	-10,000,000	-800,000	0	-283,000
...	-47,800,000	-5,000,000	2,000,000	-16,000,000
...	-71,000,000	-12,000,000	2,000,000	200,000,000
...	-20,000,000	-400,000	100,000	-6,000,000
...	-500,000	-270,000	-100,000	-200,000
...	0	0	-200,000,000	-4,000,000
...	-240,000	-260,000	100,000	200
...	-310,000	-1,200,000	400,000	-1,000,000
...	-7,000,000	-1,000,000	400,000,000	-80,000,000
...	-1,000,000	0	0	-200,000
...	-40,000,000	-11,000,000	3,000,000	-21,000,000
...	2,000,000	-1,000,000	-200,000	-1,000,000
...	40,000,000	42,000,000	4,000,000	-1,000,000
...	-8,000,000	0	0	-5,000,000
...	-12,000,000	-9,000,000	-1,000,000	-12,000,000
...	-30,000,000	10,000,000	10,000,000	-100,000,000

Table 2: Variance Between Actual Expenditure and Approved Estimates

Department	1991/92	1992/93	1993/94	1994/95
Headquarters	-21,140,080	-77,560	-444,373,080	-27,385,360
Nairobi Province	0	-8,040,000	0	2,322,080
Nat Registration	-184,440	-25,980	-52,500	-80,298,160
Agr Dev Corp	-14,000,000	-12,000,000	0	0
Cabinet Office	-88,500	-17,660	0	-100,000
Nyayo Tea Zone	-20,000,000	-24,730,000	-39,328,200	-15,000,000
Matuga DDI	-370,640	-339,360	-948,800	-1,187,320
Embu DDI	-6,340	-15,380	-3,620	29,700
Baringo DDI	-512,440	-500,000	0	-20
Provincial Administration	-36,064,200	41,693,120	11,415,340	18,746,600
Dist Reg Serv	0	0	0	0
Administration Police	-10,000,000	-600,020	0	-283,640
Govt Printer	-47,889,960	-5,633,240	2,080,780	-16,202,840
NYS Headquarters	-71,022,920	12,130,580	2,020,620	398,262,960
NYS Training	-39,878,120	-436,340	116,300	-9,099,600
NYS Production	-564,880	-273,520	-195,720	-248,000
Aerodromes	0	0	-262,000,000	-4,000,000
Immigration	-342,580	-354,760	109,100	260
CID	-313,980	-1,329,460	982,340	-1,399,880
Police Headquarters	-7,936,220	-1,943,940	-603,451,160	-65,231,240
Police College	-1,242,240	0	0	-901,360
Police Field	-48,582,780	-11,224,540	3,553,580	-21,649,920
Govt Chemist	-2,190,620	-1,431,000	-702,900	-1,134,900
GSU Training	-23,544,220	43,518,280	4,208,420	-6,558,900
GSU Headquarters	-8,000,000	20	0	-5,000,000
GSU Field Administration	-12,698,320	-9,210,180	-1,627,500	-12,818,140
Total	-366,573,480	19,159,060	19,159,060	150,862,320

Headquarters	1995/96	1996/97	1997/98	1998/99	Average 1991-1999
Nairobi Province	-939,400	-2,041,040	-666,260	-130,409,840	78379077.5
Nat Registration	-4,000,000	0	0	0	-1214740
Agr Dev Corp	-92,466,460	-4,963,780	-4,351,640	0	-22792870
Cabinet Office	25,000,000	0	0	0	-125000
Nyayo Tea Zone	-100,000	-100,000	0	0	-50770
Matuga DDI	-19,085,000	-704,640	0	-60,000,000	-22355980
Embu DDI	-16,285,940	-5,734,360	0	0	-3108302.5
Baringo DDI	-540	-100,020	0	0	-12025
Provincial Administration	0	-20,000	0	0	-129057.5
Dist Reg Serv Administration	-4,207,800	1,123,960	-33,290,020	5,853,840	658855
Police	0	0	0	0	0
Govt Printer	-1,200,000	-203,800	-1,000,000	-1,080,000	-1795932.5
NYS Headquarters	8,873,020	5,618,980	-9,966,820	-9,215,040	-9041890
NYS Training	163,114,440	11,557,700	-37,453,700	-31,186,860	55927852.5
NYS Production	1,120,800	9,945,580	-443,040	-1,000,000	-4959302.5
Aerodromes	-58,860	-43,800	-293,380	-479,060	-269652.5
Immigration	291,371,040	72,350,940	-15,718,280	0	10250462.5
CID	-700,000	-110,000	0	0	-174747.5
Police Headquarters	-131,340	2,669,840	6,495,660	0	871647.5
Police College	-3,129,780	-3,193,580	13,728,540	-14,004,100	-85645185
Police Field	-1,500,000	24,660	0	0	-452367.5
Govt Chemist	-9,825,880	-12,518,680	-23,086,620	3,133,800	-15025130
GSU Training	-1,456,520	1,036,340	0	0	-734950
GSU Headquarters	-200,000	-1,503,320	216,260	-10,741,400	674390
GSU Field. Administration.	0	1,700,000	-2,780	1,307,460	-1249412.5
GSU Field	-2,189,760	-1,890,660	-3,625,680	-10,852,760	-6864125
Total	332,002,020	72,900,320	-109,457,760	-258,673,960	17577802.5

Table 3 Chi-square test for Printed Estimates and Actual Expenditure

	Printed			Estimated	
	Printed Estimates	Actual Expenditure	Total	Printed Estimates	Actual Expenditure
1991	827,237,500	571,905,200	1,399,142,700	561,769,634	837,373,066
1992	669,681,200	672,537,880	1,342,219,080	538,914,238	803,304,842
1993	513,525,340	1,607,150,940	2,120,676,280	851,472,504	1,269,203,776
1994	2,597,103,980	5,330,080,660	7,927,184,640	3,182,843,047	4,744,341,593
1995	1,369,839,800	3,671,867,980	5,041,707,780	2,024,295,545	3,017,412,235
1996	2,460,752,480	2,931,100,400	5,391,852,880	2,164,882,266	3,226,970,614
1997	3,213,318,080	2,967,143,080	6,180,461,160	2,481,516,292	3,698,944,868
1998	1,623,968,440	2,036,547,340	3,660,515,780	1,469,733,295	2,190,782,485
Total	13,275,426,820	19,788,333,480	33,063,760,300		

Chi-square test

0.039260362127

Table 4 Chi-square test for Approved Estimates and Actual Expenditure

	Approved			Estimated	
	Approved Estimates	Actual Expenditure	Total	Approved Estimates	Actual Expenditure
1991	938,478,680.00	571,905,200.00	1,510,383,880.00	785,272,118.65	725,111,761.35
1992	653,378,820.00	672,537,880.00	1,325,916,700.00	689,364,756.83	636,551,943.17
1993	2,935,347,940.00	1,607,150,940.00	4,542,498,880.00	2,361,715,962.87	2,180,782,917.13
1994	2,597,103,980.00	5,330,080,660.00	7,927,184,640.00	4,121,466,840.06	3,805,717,799.94
1995	3,339,865,960.00	3,671,867,980.00	7,011,733,940.00	3,645,509,753.77	3,366,224,186.23
1996	2,858,200,080.00	2,931,100,400.00	5,789,300,480.00	3,009,947,546.20	2,779,352,933.80
1997	3,076,600,840.00	2,967,143,080.00	6,043,743,920.00	3,142,236,656.18	2,901,507,263.82
1998	2,295,221,300.00	2,036,547,340.00	4,331,768,640.00	2,252,154,026.85	2,079,614,613.15
Total	18,694,197,600.00	19,788,333,480.00	38,482,531,080.00		

Chi-square test

0.0470848

The Approved Estimates allocated more resources to the Office of the President than that allocated in the Printed Estimates. However when compared with the Actual Expenditure a similar pattern to that of the Printed Estimates emerges. A Chi-square test performed to establish the divergence between the Approved Estimates and the Actual Expenditure as illustrated in Table 4 where χ^2 is 0.04708 shows that there is no significant difference between the two. The same explanation espoused for the Printed Estimates would hold true. It can also be stated that since the figures used to calculate the Chi-square test are cumulative for all the eight years it is possible that the periods of large divergence may have been fully compensated by years of large deficits. Therefore it can be suggested that a future study calculate the Chi-square test on a yearly basis.

4.2 Accuracy of Revenue Estimates

The second objective of the study was to assess the accuracy of the revenue estimates as it is the main facilitator of budget implementation. Table 5 illustrates the budgeted revenue, the actual revenue realized and the deviation between the two. It is evident from the table that other than 1992 when the actual revenue realized was significantly more than the budgeted revenue by 44.5%, in all the other years, the deviation was less than ten percent either lower or higher than the realized revenue. The Chi square test was applied to determine the degree of consistency between the actual and the budgeted revenue as shown in Table 6. The result of the Chi-square test where χ^2 is 0.02279, has been determined at 5% level of significance and eight degrees of freedom thus showing that there is no significant difference between the Actual and Budgeted Revenue.

Table 5: Variance Between Actual and Budgeted Revenue

Year	Budgeted Rev (A)	Actual Rev (B)	Deviation (B-A)	$P = ((B-A/B)*100$
1991	57750.4	57080.6	-669.8	-1.17342845
1992	65269.2	117626.2	52357	44.51134186
1993	90,500	101,033.60	10533.6	10.42583853
1994	148,077.80	123,222.80	-24855	-20.17078008
1995	143,851.60	143,841.00	-10.6	-0.007369248
1996	150,765.80	148,928.80	-1837	-1.233475325
1997	167,354.20	181,655.00	14300.8	7.872505574
1998	186,160.00	179,951.80	-6208.2	-3.449923813
1999	188,846.40	188,278.40	-568	-0.301680915
Total	1198575.4	1241618.2	43042.8	36.47302813

Mean 4.05

Standard Deviation 17.41

Variance 303.21

Table 6 Chi-square test for Budgeted and Actual Revenue

Year	Actual			Estimated	
	Budgeted Revenue	Actual Revenue	Total	Budgeted Revenue	Actual Revenue
1991	57.75	57.081	114.831	56.403	58.428
1992	65.269	117.626	182.895	89.834	93.061
1993	90.5	101.034	191.534	94.078	97.456
1994	148.078	123.223	271.301	133.258	138.043
1995	143.852	143.841	287.693	141.309	146.384
1996	150.766	148.929	299.695	147.204	152.491
1997	167.354	181.655	349.009	171.426	177.583
1998	186.16	179.952	366.112	179.827	186.285
1999	188.846	188.278	377.125	185.236	191.889
Total	1198.575	1241.618	2440.194		

Chi-square test 0.02279

Table 7: Comparative Analysis of Variance in Revenue Against Key Economic Indicators.

Year	Rev Var.	Inflation	GDP	External Fin	Domestic Fin
1991	-669.8	19.6	221,240	4,867	6,898
1992	52,357	27.5	256,140	15,168	15,034
1993	10,532.80	46	320,140	8,028	24,247
1994	-24,855	28.8	393,680	11,099	8,136
1995	-10.6	1.6	460,800	10,031	-2,163
1996	-1,837	9	528,740	-851	19,102
1997	14,300.80	11.2	623,360	-1,863	11,222
1998	-6,208.20	6.6	692,120	-13,904.60	11,194
1999	-568	3.5	753,080	-9,131	17,375

Key:

Rev Var - Revenue Variance

GDP - Gross Domestic Product

External Fin - External Financing

Domestic Fin - Domestic Financing

Table 7 gives an illustration of the variance in actual revenue to budgeted, the inflation rate, gross domestic product at market prices, external financing and domestic financing. It is evident that in the year 1992, 1993 and 1997 when revenue realized was significantly more than budgeted, inflation rate were high at 27.5, 46.0 and 11.20 percent respectively. Gross domestic product also had significant increases during these years. Inflation therefore was a significant factor in revenue inflows .

Following the suspension of donor funding in the mid 1990's there was heavy reliance on domestic borrowing to bridge the revenue gaps. The negative figures for external funding in Table 7 are as a result of programme funds that were factored into the budget in anticipation of the donors support which however was not received.

The accuracy of revenue estimates can be attested to by levels of (P). (P) is the value of the difference between the actual revenue realized and the budgeted revenue. When P is equal to or less than zero (0), that represents an over estimate while when P is equal to or greater than zero (0), it represents an under estimate. Table 5 shows more cases of over estimation, however the Chi-square test results shows that the difference was not significant thus indicating that the revenue estimates were fairly accurate.

4.3 Model Formulation

To develop the predictive model the following were identified as the factors influencing revenue realization;-

- (i) Inflation rate
- (ii) economic growth rate expressed as Gross Domestic Product at market prices
- (iii) external financing both grants and loans
- (iv) domestic financing

The model to be developed is a regression model of the form;

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4$$

Where: Y is revenue

X₁ is gross domestic product

X₂ is domestic financing

X₃ is inflation

X₄ is external financing

The regression model is used here as it is one of the tools used in establishing the existence of causal relationships between two variables or more. The regression model provides information when we are interested in relationship per se or in estimating the size, length or weight of a particular variable (Yamane, 1973).

The regression analysis that was executed in this study is for the purpose of determining the relationship between government revenue and the allocation of funds to Ministries.

Table 8 illustrates the figures used in the regression analysis with actual revenue as the dependent variable and gross domestic product, domestic financing, inflation, and external financing as independent variables.

Table8: Variable for the Predictive Model

Act Rev	Weinfa	GDP	Ext Fund	Dom Fund
57080.60	19600.00	221240.00	4867.00	6898.00
117626.20	27500.00	256140.00	15168.00	15034.00
101033.60	46000.00	320140.00	8028.00	24247.00
123222.80	28800.00	393680.00	11099.00	8136.00
143841.00	1600.00	460800.00	10031.00	-2163.00
148928.80	9000.00	528740.00	-851.00	19102.00
181655.00	11200.00	623360.00	-1863.00	11222.00
179951.80	6600.00	692120.00	-13904.60	11194.00
188278.40	35000.00	753080.00	-9131.00	17375.00

Key: Act Rev = Actual Revenue

Weinfa = Weighted Inflation

GDP = Gross Domestic Product

ExtFund = External Financing

DomFund = Domestic Financing

The result of the regression analysis indicate that there was 89.6 percent association between the dependent variable and the four independent variables. Figure 1 shows this association in a graph.

On the basis of this it was now possible to establish a model that would be used to determine the allocation of funds to various departments in the Office of the President. The researcher isolated two variables out of the four for developing the predictive model due to their high level of significance (t distribution), namely the gross domestic product and external financing. Table 9 shows the correlation coefficients for the four variables.

Table 9: Correlation Coefficients Matrix

	DOMFUND	EXTFUND	GDP	WEINFA
DOMFUND	1			
EXTFUND	-0.1915	1		
GDP	0.0712	-0.848	1	
WEINFA	0.4722	0.5802	-0.6902	1

This was done to establish whether some of the variables had perfect correlation with each other, thus creating a problem of multicollinearity. No perfect correlation was established between the four variables.

To effect the predictive model the actual expenditures of each of the twenty six departments for the years 1991 to 1998 were obtained and regressed against actual revenue realized by the Government for each of the years of study, gross domestic product, and external financing. The actual expenditures for the financial year 1999/2000 were unavailable and thus excluded from the study.

It is to be noted that the actual expenditure figures in Table 1 which are used in developing the model were significantly weighted by 100,000 in order to bring them at par with the figures for the other variables otherwise the model would have collapsed. Secondly some departments received very large budgetary allocations for one time projects for example security equipment installation for Office of the President Headquarters (Department 1), second generation identity cards project for National Registration Bureau (Department 3), and construction of Eldoret International Airport for Aerodromes Department. These large figures were eliminated from the analysis as they would have caused distortions.

The findings of the regression analysis for each department are illustrated in Table 10, however more details on the regression are available in Appendix I-VII.

1	$Y = 2,742.40 + 0.0121X - 0.0024Z + 0.21X$
2	$Y = -349.5 + 0.0721X - 0.0124Z - 1.34X$
3	$Y = 19,749.9 + 0.1721X - 1.0324Z + 0.32X$
4	$Y = -549.91 + 0.00521X + 0.9324Z - 0.01X$
5	$Y = 4,197.24 + 0.0121X - 0.0124Z + 0.25X$
6 (President)	$Y = -445,703 + 0.6021X + 0.7124Z + 0.01X$

Table 10: Predictive Models For Departments In The Office of the President

Headquarters	$Y = 28,701 - 0.17X1 - 3.44X4 + 0.55X5$
Nairobi Province	$Y = 9.37 + 0.02X4 - 0.01X5$
Nat Registration	$Y = 28.84 + 5.05X1 + 3.56X4 - 3.38X5$
Agr Dev Corporation	$Y = 1,327.63 + 0.01X1 + 0.14X4 - 0.03X5$
Cabinet Office	$Y = 20.75 - 2.83X1 - 0.001X4 + 8.56X5$
Nyayo Tea Zone	$Y = 2953.74 + 0.01X1 + 0.11X4 - 0.03X5$
Matuga DDI	$Y = 831.98 + 0.01X1 + 0.09X4 - 0.03X5$
Embu DDI	$Y = -8.36 + 1.66X1 + 0.0018X4 - 4.68X5$
Baringo DDI	$Y = -56.31 + 0.001X1 + 0.0079X4 - 0.0027X5$
Prov Administration	$Y = 17,711 + 0.01X1 + 0.14X4 - 0.06X5$
Administration Pol	$Y = 826.8 + 7.12X1 - 0.001X4 - 0.0063X5$
Govt Printer	$Y = 377.65 + 0.01X1 + 0.05X4 - 0.02X5$
NYS Headquarters	$Y = 70,305 + 0.37X1 + 4.19X4 - 0.62X5$
NYS Training	$Y = 2,426.49 - 0.001X1 + 0.002X4 + 0.028X5$
NYS Production	$Y = -87.64 + 0.0010X1 + 0.0114X4 - 0.002X5$
Aerodromes	$Y = -24,576.3 + 0.12X1 + 1.13X4 - 0.18X5$
Immigration	$Y = 14.45 + 1.73X1 + 0.0021X4 - 4.69X5$
CID	$Y = -1,231.9 + 0.01X1 + 0.07X4 - 0.02X5$
Police Headquarters	$Y = -1,708.2 + 0.01X1 + 0.11X4 - 0.007X5$
Police College	$Y = 504.7 - 1.75X1 - 0.007X4 - 0.0017X5$
Police Field	$Y = 3,766.46 + 0.07X1 + 0.68X4 - 0.21X5$
Govt Chemist	$Y = -149.5 + 5.07X1 + 0.014X4 - 1.34X5$
GSU Training	$Y = 16,749.9 - 0.17X1 - 1.35X4 + 0.52X5$
GSU Headquarters	$Y = -549.91 + 0.005X1 + 0.03X4 - 0.01X5$
GSU Field	$Y = 4,107.14 + 0.01X1 - 0.01X4 - 0.05X5$
Office of President	$Y = -485,709 + 0.40X1 + 3.71X4 - 0.90X5$

The R square is the tool used to determine the closeness of fit and also as a measure of co-variability between a group of variables while the t-distribution is used to test whether the variables chosen are the key factors that determine resource allocation.

T-distribution was derived as follows;

$$N - k - 1 \text{ to obtain the degrees of freedom.}$$

The degrees of freedom is therefore;

$$9 - 3 - 1 = 5 . \text{ For 5 degrees of freedom and significance level of 5\%, (t)}$$

will lie between; $P (-2.571 < t < 2.571 / \text{Deg } 5) = 0.95$

Table 11 gives the R square values for all the Departments while Tables 12,13, and 14 gives the t-values for each of the variables used in developing the predictive model.

Department	R Square	Category
Police	40%	Low
Prisons	42%	Low
Justice	52%	Average
Health	57%	Average
Education	60%	Very High
Transport	62%	Average
Environment	47%	Very Low
Fire	72%	High
Water	58%	Average
Energy	25%	Very Low
Information	30%	Low
Defence	47%	Average
TC	54%	Very High
Labour	32%	Low
Immigration	38%	Low
Foreign	68%	Very High

Table 11. Analysis of the Regression Model R square

Department	R Square	Comments
Headquarters	70%	High
Nairobi Province	22%	Very Low
National Registration Bureau	74%	High
Agricultural Dev. Corporation	28%	Very Low
Cabinet Office	95%	Very High
Nyayo Tea Zone	65%	Average
Matuga DDI	16%	Very Low
Embu DDI	83%	Very High
Baringo DDI	50%	Average
Provincial Administration	26%	Very Low
Administration Police	48%	Low
Government Printer	42%	Low
NYS Headquarters	55%	Average
NYS Training	67%	Average
NYS Production	80%	Very High
Aerodromes	59%	Average
Immigration	4%	Very Low
CID	72%	High
Police Department	58%	Average
Police College	26%	Very Low
Police Field Administration	46%	Low
Government Chemist	51%	Average
GSU Training	84%	Very High
GSU Headquarters	32%	Low
GSU Field Administration	38%	Low
Office of President	85%	Very High

Table 12. Actual Revenue T- Distribution

No.	Department	T- Distribution	Comments
1	Headquarters	0.734	Fail to reject
2	Nairobi Province	-0.719	Fail to reject
3	National Registration Bureau	-1.352	Fail to reject
4	Agricultural Dev. Corporation	0.538	Fail to reject
5	Cabinet Office	7.161	Reject
6	Nyayo Tea Zone	-0799	Fail to reject
7	Matuga DDI	0.735	Fail to reject
8	Embu DDI	-2699	Reject
9	Baringo DDI	-1.769	Fail to reject
10	Provincial Administration	-0.320	Fail to reject
12	Administration Police	-0.771	Fail to reject
13	Government Printer	-0.473	Fail to reject
14	NYS Headquarters	-0.692	Fail to reject
15	NYS Training	1.030	Fail to reject
16	NYS Production	-1.367	Fail to reject
17	Aerodromes	-0.676	Fail to reject
18	Immigration	-0.200	Fail to reject
19	CID	-1.501	Fail to reject
20	Police Department	-0.09	Fail to reject
21	Police College	-0.260	Fail to reject
22	Police Field Administration	-1.44	Fail to reject
23	Government Chemist	-0.034	Fail to reject
24	GSU Training	4.37	Reject
25	GSU Headquarters	-0.459	Fail to reject
26	GSU Field Administration	-0.95	Fail to reject
27	Office of President	-2.81	Reject

Table 13. External Funding T- Distribution

No.	Department	T- Distribution	Comments
1	Headquarters	-1.682	Fail to reject
2	Nairobi Province	0.799	Fail to reject
3	National Registration Bureau	0.518	Fail to reject
4	Agricultural Dev. Corporation	0.799	Fail to reject
5	Cabinet Office	-4.396	Reject
6	Nyayo Tea Zone	0.988	Fail to reject
7	Matuga DDI	0.869	Fail to reject
8	Embu DDI	3.859	Reject
9	Baringo DDI	1.841	Fail to reject
10	Provincial Administration	0.282	Fail to reject
12	Administration Police	-0.049	Fail to reject
13	Government Printer	0.542	Fail to reject
14	NYS Headquarters	1.707	Fail to reject
15	NYS Training	0.026	Fail to reject
16	NYS Production	3.243	Reject
17	Aerodromes	1.527	Fail to reject
18	Immigration	0.326	Fail to reject
19	CID	2.390	Fail to reject
20	Police Department	1.04	Fail to reject
21	Police College	-0.385	Fail to reject
22	Police Field Administration	1.69	Fail to reject
23	Government Chemist	1.278	Fail to reject
24	GSU Training	-4.11	Reject
25	GSU Headquarters	0.547	Fail to reject
26	GSU Field Administration	-0.07	Fail to reject
27	Office of President	4.21	Reject

Table 14. Gross Domestic Product T- Distribution

No.	Department	T- Distribution	Comments
1	Headquarters	-0.694	Fail to reject
2	Nairobi Province	0.060	Fail to reject
3	National Registration Bureau	0.606	Fail to reject
4	Agricultural Dev. Corporation	0.492	Fail to reject
5	Cabinet Office	-7.112	Reject
6	Nyayo Tea Zone	0.473	Fail to reject
7	Matuga DDI	0.833	Fail to reject
8	Embu DDI	2.868	Reject
9	Baringo DDI	1.973	Fail to reject
10	Provincial Administration	0.124	Fail to reject
12	Administration Police	0.261	Fail to reject
13	Government Printer	0.791	Fail to reject
14	NYS Headquarters	1.256	Fail to reject
15	NYS Training	-1.086	Fail to reject
16	NYS Production	2.530	Fail to reject
17	Aerodromes	1.294	Fail to reject
18	Immigration	0.221	Fail to reject
19	CID	2.246	Fail to reject
20	Police Department	0.74	Fail to reject
21	Police College	-0.078	Fail to reject
22	Police Field Administration	1.47	Fail to reject
23	Government Chemist	0.388	Fail to reject
24	GSU Training	-4.30	Reject
25	GSU Headquarters	0.724	Fail to reject
26	GSU Field Administration	0.62	Fail to reject
27	Office of President	3.78	Reject

The allocations for one of the departments namely District Registration Services, which would have been number eleven (11) on the tables, were not availed during the entire period of the study and for that reason it has been omitted from the analysis. To allow for consistency tables 12-14 omit Department 11 hence the sequence of moving from Department 10 to Department 12.

From the results shown above on the above tables it can be concluded that the predictive model does not fully explain the allocation of resources in the Office of the President. Taking the rule of thumb for R square interpretation of 70% explanation of closeness of fit only seven departments out of twenty six in the sample qualify .

The T distribution test carried out for the three independent variables namely actual revenue, external financing, and gross domestic product reveal similar results as those of the R square. The Actual Revenue variable is only significant in determining allocation of resources for four departments. External financing accounts for only five departments resource allocation, while Gross Domestic Product is only significant in determining allocation resources for four departments. In all the three cases the same departments namely, Cabinet Office, Embu District Development Institute, General Service Unit Training School, and the Office of the President total allocation pass the test to significant relationship between each variable and the resource received by the department.

The conclusion therefore is that there are other factors which determine the resource allocation for departments which can form the basis for future study.

5.0 SUMMARY, CONCLUSIONS, LIMITATIONS AND SUGGESTION

5.1 Summary and Conclusions of Findings

This study was set to undertake three objectives, namely the implementation of the budget by the Office of the President, the determination of the accuracy of the revenue estimates and the development of a predictive model for the allocation of funds to the Office of the President and its various departments.

The Office of the President did implement its budget by actually spending funds allocated to it, however incidences of implementation illusion were noted as well as significant incidences of fiscal indiscipline by spending more funds than was allocated to the Ministry. Secondly the study did establish that revenue estimation by the Government was quite accurate given the little significance as established by the Chitest between the actual revenue and the budgeted revenue.

Thirdly the study indicated that it was possible to develop a predictive model for resource allocation to the Ministry. The key variables to consider are the actual revenue realized, the gross domestic product and external financing. The model can assist Ministries to have an indication of the funds that they can expect to receive within a financial year and similarly use the model to allocate funds to departments within the Ministry.

It is evident from the findings that currently no set formula is used in allocating funds to the various departments in a Ministry and this negatively impacts on the implementation of projects and programmes. The research findings have made the researcher to draw the following conclusions;

- (i) The manner in which the budget is implemented in the Office of the President has more concentration on expenditure than project implementation and adherence to the budget ceilings. Although from the Chi-square test results it can be established that there exists no significant difference between the Printed Estimates and the Actual Revenue on the one hand and between the Approved Estimates and Actual Revenue on the other hand there is still grounds to state that it is important to have a predictable budget which can result in proper utilization of resources for project implementation. For the budget to serve a useful purpose it is important that sanctions be developed in order to ensure that resources availed are not exceeded.
- (ii) Revenue estimates have been established through the Chi-square test to be relatively predictable therefore meaning that Ministries can determine with a great degree of certainty the resources that it will be allocated. It is clear from the research findings that even after a pattern had emerged that realized revenue is similar to the budgeted revenue, the Office of the President still continued to revise its budget upwards during each financial year. Though the study covered only this Ministry it is safe to conclude that some Ministries had to forego their programmes in order to accommodate the additional funds given to the Office of the President.
- (iii) The predictive model for resource allocations to Departments provides a tool which can be used to effect adherence to the budget ceilings by indicating to the departments the resources that will be available to it with a view to restricting its expenditure to that level of funding. It was however evident that

some other factors such as political influence, the influence of a departmental head, or officials of the Ministry of Finance, do influence resource allocation, therefore the model may not fully predict the exact amount of funds available to the Departments.

5.2 Limitations of the Study

The results of this study should be interpreted in light of the following limitations;

- (i) the data for the financial year 1999/2000 were not available to enable the researcher complete the ten year period of study as had been intended,
- (ii) the figures for inflation and actual expenditure had to be weighted considerably given the large figures for the other key variables to avoid the collapsing of the model
- (iii) from the study it is evident that other non-economic factors for example political considerations, the influence of a departmental head, and relations with Treasury officials amongst many other factors are used in the allocation of funds to various departments and these factors could not be provided for in the model.

5.3 Suggestions for Further Research

1. There is need to identify the other factors that influence resource allocation to Departments in order to provide for them while developing a predictive model to ensure a more exact prediction.
2. A study combining more Ministries may provide more information especially on resource outflows and inflows during revisions to the budget as a result of one Ministry receiving more funds than was originally allocated to it given the fact that there was no appreciable growth in revenue collected.
3. Undertake a study on project implementation to evaluate the project status vis-à-vis the funds allocated in order to establish the level of implementation illusion in projects.

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Department 1 Headquarters

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	210.00	57080.6	221240.0	4867.00
1992	200.60	117626.2	256140.0	15168.00
1993	582.20	101033.6	320140.0	8028.00
1994	881.40	123222.8	393680.0	11099.00
1995	2526.00	143841.0	460800.0	10031.00
1996	3575.80	148928.8	528740.0	-851.00
1997	6054.40	181655.0	623360.0	-1863.00
1998	76689.00	179951.8	692120.0	-13904.00
1999	-	188278.4	753080.0	-9131.00

Department 2 Nairobi Province

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	.00	57080.60	221240.0	4867.00
1992	.00	117626.2	256140.0	15168.00
1993	396.00	101033.6	320140.0	8028.00
1994	300.10	123222.8	393680.0	11099.00
1995	.00	143841.0	460800.0	10031.00
1996	.00	148928.8	528740.0	-851.00
1997	.00	181655.0	623360.0	-1863.00
1998	.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 3 Matuga DO

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	21.50	57080.60	221240.0	4867.00
1992	7.40	117626.2	256140.0	15168.00
1993	13.90	101033.6	320140.0	8028.00
1994	20.10	123222.8	393680.0	11099.00
1995	0.00	143841.0	460800.0	10031.00
1996	0.00	148928.8	528740.0	-851.00
1997	0.00	181655.0	623360.0	-1863.00
1998	0.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 4 Embu DO

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	2000.00	57080.60	221240.0	4867.00
1992	2200.00	117626.2	256140.0	15168.00
1993	2300.00	101033.6	320140.0	8028.00
1994	1600.00	123222.8	393680.0	11099.00
1995	3300.00	143841.0	460800.0	10031.00
1996	4200.00	148928.8	528740.0	-851.00
1997	0.00	181655.0	623360.0	-1863.00
1998	0.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 3 Nat Registration Bureau

Department 4 Agricultural Dev Corporation

Department 5 Cabinet Office

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	1.15	57080.6	221240.0	4867.00
1992	28.20	117626.2	256140.0	15168.00
1993	.00	101033.6	320140.0	8028.00
1994	.00	123222.8	393680.0	11099.00
1995	.00	143841.0	460800.0	10031.00
1996	.00	148928.8	528740.0	-851.00
1997	.00	181655.0	623360.0	-1863.00
1998	.00	179951.8	692120.0	-13904.00
1999	-	188278.4	753080.0	-9131.00

Department 6 Nyayo Tea Zones

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	3000.00	57080.60	221240.0	4867.00
1992	2527.00	117626.2	256140.0	15168.00
1993	2600.00	101033.6	320140.0	8028.00
1994	1500.00	123222.8	393680.0	11099.00
1995	3491.50	143841.0	460800.0	10031.00
1996	2329.50	148928.8	528740.0	-851.00
1997	.00	181655.0	623360.0	-1863.00
1998	.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 7 Matuga DDI

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	69.30	57080.60	221240.0	4867.00
1992	94.00	117626.2	256140.0	15168.00
1993	181.00	101033.6	320140.0	8028.00
1994	1739.70	123222.8	393680.0	11099.00
1995	41.20	143841.0	460800.0	10031.00
1996	1946.50	148928.8	528740.0	-851.00
1997	0.00	181655.0	623360.0	-1863.00
1998	0.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 8 Embu DDI

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	9.36	57080.60	221240.0	4867.00
1992	8.40	117626.2	256140.0	15168.00
1993	9.60	101033.6	320140.0	8028.00
1994	22.90	123222.8	393680.0	11099.00
1995	19.90	143841.0	460800.0	10031.00
1996	9.90	148928.8	528740.0	-851.00
1997	0.00	181655.0	623360.0	-1863.00
1998	0.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

(II)

Department 9 Baringo DDI

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	58.70	57080.6	221240.0	4867.00
1992	10.00	117626.2	256140.0	15168.00
1993	30.00	101033.6	320140.0	8028.00
1994	65.90	123222.8	393680.0	11099.00
1995	130.00	143841.0	460800.0	10031.00
1996	124.00	148928.8	528740.0	-851.00
1997	40.00	181655.0	623360.0	-1863.00
1998	40.00	179951.8	692120.0	-13904.00
1999	-	188278.4	753080.0	-9131.00

Department 10 Provincial Administration

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	19789.00	57080.60	221240.0	4867.00
1992	16323.00	117626.2	256140.0	15168.00
1993	9748.10	101033.6	320140.0	8028.00
1994	12917.20	123222.8	393680.0	11099.00
1995	19470.00	143841.0	460800.0	10031.00
1996	11337.00	148928.8	528740.0	-851.00
1997	10951.00	181655.0	623360.0	-1863.00
1998	12032.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 12 Administration Police

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	600.00	57080.60	221240.0	4867.00
1992	302.70	117626.2	256140.0	15168.00
1993	259.10	101033.6	320140.0	8028.00
1994	624.60	123222.8	393680.0	11099.00
1995	100.00	143841.0	460800.0	10031.00
1996	200.10	148928.8	528740.0	-851.00
1997	0.00	181655.0	623360.0	-1863.00
1998	332.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 13 Government Printer

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	1203.90	57080.60	221240.0	4867.00
1992	1422.50	117626.2	256140.0	15168.00
1993	2790.00	101033.6	320140.0	8028.00
1994	1617.70	123222.8	393680.0	11099.00
1995	3334.70	143841.0	460800.0	10031.00
1996	2877.20	148928.8	528740.0	-851.00
1997	2051.40	181655.0	623360.0	-1863.00
1998	3108.40	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

(III)

Department 14 NYS Headquarters

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	10167.00	57080.6	221240.0	4867.00
1992	14186.00	117626.2	256140.0	15168.00
1993	9786.20	101033.6	320140.0	8028.00
1994	53581.00	123222.8	393680.0	11099.00
1995	38341.40	143841.0	460800.0	10031.00
1996	23634.10	148928.8	528740.0	-851.00
1997	77180.00	181655.0	623360.0	-1863.00
1998	3661.40	179951.8	692120.0	-13904.00
1999	-	188278.4	753080.0	-9131.00

Department 15 NYS Training Units

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	2106.60	57080.60	221240.0	4867.00
1992	3266.30	117626.2	256140.0	15168.00
1993	1543.40	101033.6	320140.0	8028.00
1994	2137.00	123222.8	393680.0	11099.00
1995	1412.00	143841.0	460800.0	10031.00
1996	2204.50	148928.8	528740.0	-851.00
1997	1855.60	181655.0	623360.0	-1863.00
1998	0.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 16 NYS Production Units

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	103.50	57080.60	221240.0	4867.00
1992	127.60	117626.2	256140.0	15168.00
1993	131.80	101033.6	320140.0	8028.00
1994	245.20	123222.8	393680.0	11099.00
1995	224.10	143841.0	460800.0	10031.00
1996	125.60	148928.8	528740.0	-851.00
1997	220.60	181655.0	623360.0	-1863.00
1998	152.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 17 Aerodromes

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	0.00	57080.60	221240.0	4867.00
1992	0.00	117626.2	256140.0	15168.00
1993	0.00	101033.6	320140.0	8028.00
1994	10000.00	123222.8	393680.0	11099.00
1995	10000.00	143841.0	460800.0	10031.00
1996	10000.00	148928.8	528740.0	-851.00
1997	22616.60	181655.0	623360.0	-1863.00
1998	722.30	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 18 Immigration

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	5.70	57080.6	221240.0	4867.00
1992	34.50	117626.2	256140.0	15168.00
1993	55.70	101033.6	320140.0	8028.00
1994	70.00	123222.8	393680.0	11099.00
1995	0.00	143841.0	460800.0	10031.00
1996	129.00	148928.8	528740.0	-851.00
1997	0.00	181655.0	623360.0	-1863.00
1998	0.00	179951.8	692120.0	-13904.00
1999	-	188278.4	753080.0	-9131.00

Department 19 CID

Year	Department	Actual Revenue	Gross Domestic Product	External Funding
1991	32.80	57080.60	221240.0	4867.00
1992	17.00	117626.2	256140.0	15168.00
1993	128.20	101033.6	320140.0	8028.00
1994	420.00	123222.8	393680.0	11099.00
1995	1046.80	143841.0	460800.0	10031.00
1996	896.90	148928.8	528740.0	-851.00
1997	649.50	181655.0	623360.0	-1863.00
1998	300.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 24 OSU Training College**Department 20 Police Headquarters**

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	926.30	57080.60	221240.0	4867.00
1992	2180.50	117626.2	256140.0	15168.00
1993	1754.40	101033.6	320140.0	8028.00
1994	4076.80	123222.8	393680.0	11099.00
1995	3067.00	143841.0	460800.0	10031.00
1996	1353.30	148928.8	528740.0	-851.00
1997	3783.00	181655.0	623360.0	-1863.00
1998	3523.50	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 25 OSU Headquarters**Department 21 Police College**

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	425.00	57080.60	221240.0	4867.00
1992	124.00	117626.2	256140.0	15168.00
1993	140.00	101033.6	320140.0	8028.00
1994	108.00	123222.8	393680.0	11099.00
1995	0.00	143841.0	460800.0	10031.00
1996	202.00	148928.8	528740.0	-851.00
1997	343.00	181655.0	623360.0	-1863.00
1998	0.00	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

(V)

Department 22 Police Field Administration

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	11163.00	57080.6	221240.0	4867.00
1992	8275.20	117626.2	256140.0	15168.00
1993	8577.10	101033.6	320140.0	8028.00
1994	11135.60	123222.8	393680.0	11099.00
1995	15077.20	143841.0	460800.0	10031.00
1996	15489.40	148928.8	528740.0	-851.00
1997	6505.50	181655.0	623360.0	-1863.00
1998	4839.30	179951.8	692120.0	-13904.00
1999	-	188278.4	753080.0	-9131.00

Department 23 Government Chemist

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	1.00	57080.60	221240.0	4867.00
1992	186.90	117626.2	256140.0	15168.00
1993	105.70	101033.6	320140.0	8028.00
1994	106.50	123222.8	393680.0	11099.00
1995	294.30	143841.0	460800.0	10031.00
1996	193.60	148928.8	528740.0	-851.00
1997	0.00	181655.0	623360.0	-1863.00
1998	0.00	179951.8	692120.0	-13904.00
1999	-	188278.4	753080.0	-9131.00

Department 24 GSU Training College

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	2043.50	57080.60	221240.0	4867.00
1992	14568.70	117626.2	256140.0	15168.00
1993	2439.20	101033.6	320140.0	8028.00
1994	1219.20	123222.8	393680.0	11099.00
1995	300.00	143841.0	460800.0	10031.00
1996	1617.00	148928.8	528740.0	-851.00
1997	5057.70	181655.0	623360.0	-1863.00
1998	14166.30	179951.8	692120.0	-13904.00
1999	-	188278.4	753080.0	-9131.00

Department 25 GSU Headquarters

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	0.00	57080.60	221240.0	4867.00
1992	151.60	117626.2	256140.0	15168.00
1993	0.00	101033.6	320140.0	8028.00
1994	600.00	123222.8	393680.0	11099.00
1995	600.00	143841.0	460800.0	10031.00
1996	1300.00	148928.8	528740.0	-851.00
1997	121.70	181655.0	623360.0	-1863.00
1998	692.80	179951.8	692120.0	-13904.00
1999	-	188278.4	753080.0	-9131.00

Department 26 GSU Field Administration

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	3692.70	57080.60	221240.0	4867.00
1992	1010.20	117626.2	256140.0	15168.00
1993	2142.80	101033.6	320140.0	8028.00
1994	1018.10	123222.8	393680.0	11099.00
1995	2381.00	143841.0	460800.0	10031.00
1996	4594.30	148928.8	528740.0	-851.00
1997	1491.30	181655.0	623360.0	-1863.00
1998	2036.50	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00

Department 27 Office of the President

Year	Department Expenditure	Actual Revenue	Gross Domestic Product	External Funding
1991	57190.50	57080.60	221240.0	4867.00
1992	67253.70	117626.2	256140.0	15168.00
1993	160715.10	101033.6	320140.0	8028.00
1994	533088.00	123222.8	393680.0	11099.00
1995	367186.70	143841.0	460800.0	10031.00
1996	293110.00	148928.8	528740.0	-851.00
1997	296714.00	181655.0	623360.0	-1863.00
1998	203654.70	179951.8	692120.0	-13904.0
1999	-	188278.4	753080.0	-9131.00