

**THE IMPACT OF MEDIUM TERM EXPENDITURE FRAMEWORK ON
OPERATIONAL EFFICIENCY OF GOVERNMENT MINISTRIES IN KENYA**



BY

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the award of the degree of Master of Business Administration of the university of
Nairobi**

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DECLARATION

This research project report is my original work and has not been presented for academic purposes in the University of Nairobi or any other University.

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This project report has been submitted with our approval as university supervisors

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DEDICATION

This project is dedicated to my Mother who encouraged me to begin the Master program and supported me both morally and financially throughout my period of study to attain a Master in Business Administration.

ACKNOWLEDGEMENTS

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Finally I appreciate my friends and Family for the support they have given me throughout the writing of this project, whether morally or financially, or through advice and recommendations.

ABSTRACT

The Medium Term Expenditure Framework (MTEF) was introduced into Kenya in 1998 and it was first implemented in the budget in the financial year 2001/2002 after the failure of the Forward Budget Review Program, the Budget Rationalization Program and the Public Investments Program , The main aims of the Program were to increase fiscal discipline, Political accountability and public participation in financial matters and improve efficiency of government operations through the introduction of Budget Ceilings, Sector Working Groups and frequent Expenditure Reviews (PER, 2010).

This research sought to investigate the impact of MTEF on operational efficiency of Government ministries, so as to inform the Government, development partners and the public at large on the benefits and short comings of the framework. The research design used was a census survey of all Government Ministries in Kenya, the data collected was secondary data and analysis done using regression analysis of Operational efficiency to the extent of compliance to MTEF ceilings. Operational efficiency is measured as the ratio of the composite score (given by performance contracting) to expenditure of the ministry as a percentage of total expenditure by all ministries.

The research found that adherence to MTEF ceilings has a negative impact on the performance of Government Ministries in Kenya. The study was limited by the poor availability of information and inconsistency of the financial information gathered as compared to all other publications of the same, as well as Ministry re-organizations. It is recommend that Links between Budgeting and Planning be strengthened, and IFMIS be rolled out to operational areas to improve efficiency and information consistency, as well as the setting up of efficient reward and sanction systems to encourage prudent fiscal responsibility. For researchers intending to do further studies on this Topic, insight should be sought into the compliance of resource division amongst sectors to the long term Vision of the Country, The cause of inconsistency in public financial data and the measurement of compliance to ceilings to the performance in project implementation of Government Ministries Departments and Agencies.

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ABBREVIATIONS

ARD	Agricultural and Rural Development
BDI	Budgetary Deviation Index
BRP	Budget Rationalization Programme
GDP	Gross Domestic Product
GNP	Gross National Product
ICT	Information and Communication Technology
KIPPRA	Kenya Institute of Public Policy Research and Analysis
KTCIP	Kenya Transparency Communications Infrastructure Programme
MTEF	Medium Term Expenditure Framework
PEM	Public Expenditure Management
PER	Public Expenditure Review
PFM	Public Financial Management
PIP	Public Investments Programme
PRFB	Programme Review Forward Budget

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

1.1.1 Medium Term Expenditure Framework

Medium Term Expenditure Framework (MTEF) is a Government strategic policy and expenditure framework which balances what is available in resources against policy priorities of the Government. It defines a 3 year rolling macro-economic framework which outlines overall resources available for the Government, and sets national expenditure priorities. It consists of a top down resource envelope, a bottom up estimation of current and medium term costs, and a matching of these costs to the available resources. It provides a linking framework which allows expenditures to be driven by policy priorities and disciplined by budget realities (World Bank 1998 9:32)

The MTEF has six basic stages namely; Development of macroeconomic fiscal framework which projects revenues and expenditure in the medium term, Development of Sectoral programs, Development of Sectoral expenditure frameworks, Definition of Sector resource allocations by setting the budget ceilings, Preparation of Sectoral budgets and finally political approvals (Le Houerou and Taliercio, 2002).

The Medium Term Expenditure Framework (MTEF) was introduced into Kenya in 1998 after the Government of Kenya and the World Bank carried out a Public Expenditure Review (PER) and realized a decline in the credibility of the Budgetary process and the quality of public investments. It was first implemented in the budget presented in June 2000 and guided by Kenya's Vision 2030 medium term plans (Public Expenditure Review 2010). Prior to the introduction of the MTEF programme, The Government had implemented various budget improvement programmes including: Programme Review and Forward Budget (1970s), The Budget Rationalization programme (1980s), and the Public Investment Programme (1990s).

The Programme Review and Forward Budget (PRFB) intended to provide a link between planning and budgeting, it was to relate annual development and recurrent budgets closely within a 5 year development plan. It was an annual exercise with a rolling plan to be reviewed every year, to provide the basis for actual allocation of resources amongst sectors and within sectors. It was defined as a rolling plan for 3 years to be updated and revised every year in light of resources available (Budget Rationalization Seminar, Vol. II, 1986), but it failed due to its overoptimistic resource ceilings that were a little farfetched from realistic resource forecasts, causing it to lose credibility(Kiringai, 2002). The Budget Rationalization Programme (BRP), launched in 1986 intended to ensure that limited funds are spent on high priority areas for an immediate impact on growth prospects, increased productivity, creating employment opportunities and increasing the revenue base. It was to improve the allocation of available budgetary resources so as to provide a close linkage between what the economy could afford and the programmes that would lead to faster growth in the economy. This would be achieved through the process of rationalization and prioritization (MTEF Manual 2011).

Public Investment Programme aimed to improve the quality of the development portfolio by reducing the aggregate level of development expenditure while redirecting that expenditure towards investments that contribute more directly towards economic growth. It was intended to ensure that capital resources addressed national development priorities in an efficient manner (PER 2010).

However despite all these reform efforts, the 1997 Public Expenditure Review indicated that there were outstanding macro-economic management problems, the budget had low credibility and public sector productivity was very low. Resources were poorly utilized and their contribution to achieving national development objectives limited. According to Kiringai and West (2002) Key challenges faced in implementing MTEF are; poor forecasting ability with revenue forecasts consistently exceeding actual collection, political interference, separation of Budgeting and planning, poor employee morale resulting in incremental budgeting, The budget is still submitted as a line item budget

rather than a program budget, weak accounting systems and failure to consider the recurrent impact of development expenditures.

1.1.2 Operational Efficiency

Operational efficiency has been defined as what occurs when the right combination of people, process, and technology come together to enhance the productivity and value of any business operation, while driving down the cost of routine operations to a desired level. The end result is that resources previously needed to manage operational tasks can be redirected to new, high-value initiatives that bring additional capabilities to the organization (Shawk, 2008)

Operational efficiency deals with minimization of waste and maximization of resource capabilities, in order to deliver quality products and services to customers. Operational efficiency is concerned with identifying wasteful processes and resources that drain the organization's profits. It aims at maximizing delivery of outputs while minimizing costs of inputs and delivery. A fundamental requirement here is a radical shift from input oriented line item incremental budget to a prioritized well-costed output-oriented budget (Kiringai and Kulundu 2002).

One of the goals of introducing an MTEF is to enhance Operational efficiency through programme based budgets that focus on the result of spending and look at inputs in terms of what they achieve, the use of budget ceilings to ensure focus on priority programs and enhance allocative efficiency (MTEF Manual 2011), it is therefore expected that adherence to MTEF guidelines will increase operational efficiency in Government Ministries, departments and agencies.

1.2 Statement of the Problem

Before the introduction of MTEF in 2000, policy making, planning and budgeting were independent of each other in Kenya. The various programmes including PRFB, PIP and BRP attempted to address this problem but the budget still failed to deliver with resources being distributed too thinly over too many projects and not being linked to all the policy priorities (Khasiani and Makau, 2004). Since the introduction of MTEF, Expenditure ceilings for the present and two outer years have consistently been established and budget preparation and defense at the sectoral level has been based on programmes and their contribution to Sectoral and national Goals, this should translate to improved public sector performance and efficient operations as programmes that do not directly show gains to the long term goals are left out of the budget as non-priority.

Le Houerou and Taliercio (2002) showed that MTEF introduction in Africa showed no empirical evidence of improved macro economic balance, greater budget predictability or efficiency gains in Sectoral spending. Brumby (2008) shows that Medium Term Performance Frameworks have a positive effect on Technical efficiency, however the other ingredients of an MTEF, the medium term budgetary framework and Medium term Fiscal Framework have no effect on Technical efficiency. Kigundu (2009) studying the effect of MTEF on the budgetary process brought out that although Fiscal discipline had to some extent been bestowed by the introduction of MTEF, little had been done to achieve the other objectives of an MTEF. Arnolds and Njuguna (2009) in the study of improving financial efficiency of pension funds in Kenya brings out measures of spending efficiency that could be applied including; Governance, adherence to regulations, work ethics, investment strategies, risk management and internal controls. Karingi et al (2004) in the paper Budget Mechanisms and Public Expenditure Tracking in Kenya found that frequently auditing reduces leakages a major source of Government inefficiency, minimizing the use of Ghost workers and a higher text book to students ratio would improve efficiency in the education sector, they also found a need to increase extension workers in the agriculture sector to improve efficiency and effectiveness of service delivery and a bottom up approach to funding medical supplies to reduce

undersupply of drugs in health facilities, as well as a shorter registration process for health facilities.

The study by Le Houerou and Taliercio (2002) was however done when Kenya was at a very early stage in the introduction of MTEF therefore information on which to rely was scarce, and the study by Kigundu did not have a definite measure for efficiency leaving it to the discretion of the respondent to decide what he would consider his measure of efficiency, leaving a gap in the activities that would constitute a measure of efficiency and a means to determine whether according to those specific activities, efficiency has been enhanced in Kenya due to the introduction of MTEF. The study by Karingi et al (2004) focused only on three sectors namely Agriculture, health and Education and Arnolds and Njuguna(2009) only considered pension efficiency. This study intends to extend the above studies to see the impact of MTEF after running for 12 years on all Government Ministries' efficiency as per pre described measures of efficiency.

1.3 Objective of the Study

Investigate the impact of MTEF on operational efficiency of Government Ministries in Kenya.

1.4 Significance of the Study

The primary beneficiary of studies on MTEF is the Government of Kenya in its bid to achieve its long term plans such as the Vision 2030. This study will help the Government compare the efficiency of the MTEF programmes to previous budget control programmes undertaken.

The citizens of Kenya who hold the Government accountable for managing its public funds would benefit from this study as it creates a transparent view of the success of a process being undertaken to improve their livelihood, and the credibility of public funds management

Finally Development partners would also benefit from an assessment of the quality of the MTEF programmes as they partially fund Government projects running toward the achievement of MTEF plans.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This Chapter looks at the theories advanced relating to budgeting including theory of incrementalism, the garbage can theory and rational theory, then it looks at MTEF in depth, Operational efficiency more widely and shows empirical studies done to assess the impact of MTEF on the countries in which it has been introduced and empirical studies of operational efficiency in various countries.

2.2 Review of Theories

2.2.1 Incrementalism Theory

Schick (1983) talks of incrementalism; introduced in the 1960s, it is a budget which is only adjusted for small marginal changes in policy from the existing policy it is a backward looking process that adjusts expectations based on past performance. Rather than discontinue policies the government adjusts them to improve and adapt them to the current environment. The argument is that this is preferable to reviewing the whole budget as it moderates conflict, reduces research costs and stabilizes budgetary roles and expectations, while also reducing the amount of time spent on budgeting so that there's more room to take into account important political values

2.2.2 Garbage Can Theory

Another approach to budgeting is the "garbage can" theory detailed by Cohen et al (1972), was explained it to have 4 independent streams; the current problem, the solution, the people involved and choice opportunities. Therefore for every decision to be made, the problem at hand, the possible solutions, the people involved and choice opportunities have to be considered, causing the decision to be random in outcome and unpredictable.

2.2.3 Rational Theory

The rational theory (Hamilton and Flavin, 1986) suggests that despite limiting factors in the budget process in the short run, of poor economic performance and the non acceptance of incremental tax by taxpayers, the budgeting process will still be forward looking, the decision makers will therefore still plan the budget over a long period of time despite the constraints in the short run.

All the three above theories attempt to explain the rationale for the preparation of an annual budget, however there was a realization that the annual approach to budget making actually undermines budgetary performance, contributing to fiscal instability and, perhaps even more fundamentally, to resource misallocation and the inefficient and ineffective use of resources, hence the introduction of multiyear expenditure estimates that map the longer term plans into the short term budgets (Petkova, 2009). A more ambitious and comprehensive scheme is the Medium-Term Expenditure Framework (MTEF), which several African countries have embraced.

2.3 Medium Term Expenditure Framework

MTEF is a transparent planning and budget formulation process that attempts to improve the decision making process so as to link Government policies, priorities and requirements within limited resource constraints (MTEF Manual 2011). MTEF's key features are; a medium term perspective to budget planning, an explicit linkage between policy priorities and resource allocations and an emphasis on efficient use of limited public resources. The objectives of introducing MTEF in Kenya include; to provide a realistic and comprehensive framework for the planning and management of public expenditure, to increase the predictability of resources through a structural budget planning process that provides more reliable estimates of revenues and expenditures over a three year period, to better link resource allocation processes to Government policy and programme priorities, to restructure and rationalize resource allocation so that priority areas receive adequate funding, to improve the basis of the budget by moving away from the incremental approach to estimating the actual costs of Government activities in

delivering goods and services and integrating the preparation and presentation of the recurrent and development budgets and to introduce a forward or medium term perspective in the planning of policies, expenditures and revenues (Citizen's handbook to Budgeting 2007).

The MTEF provides the “linking framework” that allows expenditures to be “driven by policy priorities and disciplined by budget realities”. If the problem is that policy making, planning, and budgeting are disconnected, then a potential solution is an MTEF (Le Houerou and Taliercio, 2002). Given that this disconnect between policy making, planning, and budgetary processes is a common condition of developing country governance, the MTEF has increasingly come to be regarded as a central element of PEM reform programs. According to the World Bank's Public Expenditure Management Handbook (1998a: 46), “The MTEF consists of a top-down resource envelope, a bottom-up estimation of the current and medium-term costs of existing policy and, ultimately, the matching of these costs with available resources...in the context of the annual budget process.”, The “top-down resource envelope” is fundamentally a macroeconomic model that indicates fiscal targets and estimates revenues and expenditures, including government financial obligations and high cost government-wide programs such as civil service reform. To complement the macroeconomic model, the sectors engage in “bottom-up” reviews that begin by scrutinizing sector policies and activities with an eye toward optimizing intra-sectoral allocations.

The value added of the MTEF approach comes from integrating the top-down resource envelope with the bottom-up sector programs. It is at Stage III that the policy making, planning, and budgeting processes are joined. Once the strategic expenditure framework is developed, the government defines the sectoral resource allocations, which are then used by the sectors to finalize their programs and budgets. Key to the sectoral review process is the notion that within the broad strategic expenditure framework, which reflects the resource constraint as well as government policy, sectors have autonomy to manage by making decisions that maximize technical outcomes like efficiency and effectiveness. Once the MTEF has been developed it is rolling in the sense that the first

outward year's estimates become the basis for the subsequent year's budget, once changes in economic conditions and policies are taken into account (Mfunwa, 2007). The integration of the top-down envelope with bottom-up sector programs occurs by means of a formal decision making process. Key to increasing predictability and strengthening the links between policies, planning, and budgeting is an effective forum at the center of government and associated institutional mechanisms that facilitate the making and enforcement of strategic resource allocation decisions.

The approach to MTEF design has mapped out 10 sectors in the MTEF programme classified by function into: - Agriculture and Rural Development (ARD), Energy-Physical infrastructure and ICT, Health, General economic-Commercial and Labor affairs, Education, Governance-Justice-Law and order, Public Administration and international relations, National security, Social protection-culture and recreation, Environmental protection-Water and Housing (MTEF Manual 2011).

Every year a circular is issued to the respective ministries, departments and Government agencies, advising them on the significance of MTEF in their Budget preparation and offering guidelines by which they are to operate such as re-iteration of the most important projects to take priority in the budgets, the requirement that ministerial Public Expenditure Reviews be done and submitted before negotiation of the next budget, the timing and format of Public expenditure reviews, the requirement of program based budgeting in sectoral submissions, the criteria for determining priority of projects undertaken, laws governing the preparation of budgets and the categorization of sectors in case of change.

2.4 Operational Efficiency

Operational efficiency or Technical efficiency as it is described in the MTEF Manual refers more basically to spending efficiency and cash flow efficiency, which entail a matching of budgetary inputs and outputs and the resultant outcomes in a programme based budget which enables the attainment of the highest value from public expenditures and is meant to ensure delivery of high level public services at the lowest cost. This

emphasis on the input-output-outcome framework is essential to achieve the best value from public expenditures. The objective of operational efficiency can be expressed as “doing the thing right”, or maximizing the delivery of outputs while minimizing the inputs used. (Kiringai and West, 2002)

A study by Hauner and Kyobe (2008) focused on the Determinants of Government efficiency. The study developed three concepts to measure efficiency: public sector performance, Public Sector efficiency, and data envelopment analysis scores. all three measure performance by outcome indicators that are assumed to be targeted by public policy, and then efficiency by relating these outcomes to expenditure.

Public sector performance is then measured as

$$PSP_i = \sum_{j=1}^n w_j PSP_{ij}$$

where i is the country, j the areas of Government activity, w is the weight given to each Government activity based on the societal welfare function. Public Sector Efficiency is then measured as the ratio of PSP to Expenditure, it is given as

$$PSE_i = \frac{\sum_{j=1}^n PSP_{ij}}{\sum_{j=1}^n EXP_{ij}}$$

A study by Japan Bank for International Co-operation (2002) on Public Expenditure Management in Developing Countries showed that with regard to operational efficiency, The Philippines succeeded in re-engineering Bureaucracy through the introduction of a bill that gave the president authority to re-organize all departments and adopted a scrap and build policy that limited the creation of random agencies, they also ensure performance evaluation by requiring all departments to submit performance targets at the time of their budget requests and to provide quarterly reports on their achievements of targets as a measure of their operational efficiency.



2.5 Review of Empirical Studies

Le Houerou and Taliercio (2002) carried out an analysis of the success of MTEFs in 9 African countries; the analysis was based on internal World Bank and government documents, publications, working papers, press accounts, and interviews with country economists and other experts (including several in field offices). A standardized questionnaire was used in the interviews and to structure the case studies. A pre- and post-MTEF comparison was done for the four most developed MTEFs in the region. The data provide did not support for a link between the MTEF and reduced fiscal deficits. However the cases studied did provided limited support for the hypothesis that MTEFs are associated with reallocations of resources to government priorities. Using the Budget deficit index (BDI) the simple comparison of means did not provide evidence that MTEFs deliver greater budgetary predictability (and less deviation) and there was some anecdotal evidence that publication and dissemination of MTEFs led to greater civil society involvement in PEM issues.

Brumby (2008) Carried out a research to Investigate the Impact of MTEF on Budgetary Outcomes, his study grouped MTEFs into 3 types, with MTFF being medium term fiscal framework meant to enhance macro-economic stability, MTBF medium term Budgetary framework responsible for setting budgetary ceilings within which resources are to distributed it would result in allocation efficiency, and MTPF medium term performance frameworks which focus on inputs and outputs and impacts most on technical efficiency, he found that MTEFs improve fiscal stability with improved results as we move from an MTFF to a MTPF and they also improve allocation efficiency with greater results on an MTBF. Results on technical efficiency measured as health spending's impact on output of the health sector whether life expectancy or infant mortality was mixed. Using life expectancy as a measure of service delivery he found a positive effect of the MTPF but no effect from the introduction of other frameworks.

Kigundu (2009) did a research in Kenya on The effect of MTEF on the Budgetary process in Kenya. The Study methodology was a descriptive survey, the target

population: all 9 sectors of MTEF all 40 ministries of which he took a census, he collected data using a questionnaire prepared using linkert scale, and analysed the data using pie charts, bar charts and comprehensive tables. His Main objective was to establish the effects of MTEF as a reform initiative on the budgetary process in Kenya, the specific objectives to determine predictability of the resource envelope, Compare incremental budgeting with MTEF, Find out significance of outer ceiling for MTEF outer years, Investigate importance of sector working groups and Determine the credibility, comprehensiveness and transparency of MTEF. 89% of the respondents understood the budget with 11% having little or no understanding, 75% of the respondents said treasury still influences expenditure cuts arbitrarily with 83% saying that we should scrap MTEF outer year ceilings and 40% thinking Sector Working Groups are fairly important to the process. 42% think MTEF is no different from incremental budgeting, just new terminologies and added workload and 59% think that after the introduction of MTEF deviations from the budget were lower. 75% of the respondents think MTEF is transparent, 53% think MTEF has not linked policy, planning and budgeting. Generally he found that the MTEF process is understood but doesn't achieve the expected and intended objectives, because of poor cash inflows, ritualistic following of the process with no regard to MTEF objectives.

A study was done by Alvaro, Filomena, Miguel and Joanna (2009) on The Efficiency and Effectiveness of Public Spending on Tertiary Education in Europe. Efficiency of public spending on tertiary education is evaluated using two different methods: a semi-parametric method and the stochastic frontier analysis (SFA). The first method includes data envelopment analysis (DEA) as a first stage and the regression of the obtained efficiency scores on explanatory factors as a second step. The latter is essentially a regression of total tertiary education cost on the considered outputs and factor costs, including the explicit modelling of country-specific efficiency scores. Outputs considered were teaching measured by number of grandaunts, and research measured by the number of published reports in academic journals and author affiliations to the schools. The inputs considered were the number of students enrolled, cost of tertiary education, number of teaching staff and amount of time spent on the courses. Results from the semi-parametric and SFA methods are essentially consistent. Countries with secondary

education systems of good quality and where tertiary education is organised along certain lines (in terms of staff policy autonomy and flexibility, of independent and public evaluation of institutions, and of output oriented funding rules) tend to obtain better results in education and research from the resources used. They found that when funding to institutions depends more on outputs (e.g., graduations and publications) and less on historical attributions or inputs, efficiency tends to increase. Efficiency tends to be higher in countries where institutions are publicly evaluated by stakeholders and/or independent agencies and Institutions' autonomy to hire and dismiss academic staff and to set their wages is correlated with higher efficiency.

A case study using The Efficiency Frontier as a Method for Gauging the Performance of Public expenditure(a case study of Belgium) by Eugene (2008), Focused on 3 ministries including the education Sector, the Health sector and Public safety and order. he found that although Belgium did not lie on the efficiency frontier it was close to it and therefore relatively efficient in comparison to other countries in the same region, in education Belgium was found to be less efficient than the countries around it as its outcome per unit of expenditure on education was low, in Public safety and order Belgium did poorly by spending more in Public safety and order while yielding lower results compared to the other countries.

Arnolds and Njuguna (2009) did a paper on Improving the Financial Efficiency of Pension Funds in Kenya, taking a sample of 362 pension funds drawn from the Kenyan RBA register and applied data envelopment analysis to determine efficiency of the pension funds. they hypothesized that pension fund Governance, adherence to regulations, proper investment strategies, fund ethics, risk management, fund design, membership age, fund design and operational efficiency would all have an impact on financial efficiency of the Fund. The empirical results showed that pension fund governance, leadership and regulations do not influence the financial efficiency of these funds. The results however reveal that fund size is the most important determinant of financial efficiency of the pension funds.

Karingi et al (2004) in the study of Budget mechanisms and Public Expenditure Tracking in Kenya using both multistage and purposeful sampling studied 8 provinces and 14 districts in Kenya with the aim of identifying delays and shortfalls in budget execution, resource leakages at district and facility levels and efficiency and Quality in service delivery for 3 sectors of Government namely; Education sector, Health sector and Agricultural sector. The study quantified and highlighted leakages of resources in the health sector, especially drugs and ghost workers in the education sector, Poor record keeping and accountability, and inadequacies in deployment of resources in the sectors, both human and financial. Showing a high level of inefficiency in Government operations at the district and facility levels.

2.6 Conclusions

Empirical evidence From the World Bank study (Le Houerou and Taliercio 2002) show little very little Evidence of MTEF resulting in Operational Efficiency, Brumby(2008) shows that Medium Term Performance Frameworks a section of MTEF is the major contributor to Operational/ Technical efficiency, The study By Kigundu (2009) reveals that in Kenya, in the opinion of those charged with implementation of MTEF, so far only fiscal discipline was being bestowed by the introduction of MTEF to the Country Budgeting Process, The study by Alvaro, Filomena, Miguel and Joanna (2008) shows that when measures such as Allowing autonomy in the decision making process, Performance evaluation and Pegging funding to Certain outputs improves efficiency of Government Operations and The study by Eugene (2008) suggests that relating inputs to outputs reveals very little efficiency in the Belgian Government. What comes out clearly in all studies is that the appropriate measures for efficiency in the public sector would be Performance evaluation, Transparency and accountability, decentralization of decision making and a means of comparing inputs to outputs or outcomes of the programs undertaken by Government.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter introduces the proposal of how to go about collecting information on operational efficiency in ministries that would be used to complete the research process and provide an analysis of the information so collected.

3.2 Research Design

The research design used was descriptive research; Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection (Glass & Hopkins, 1984). Descriptive research is most suitable to this study as the key variables of the study are defined however the relationship between them is yet to be established. The design was in emulation of that used by Hauner and Kyobe (2008) to measure Public Sector Efficiency

3.3 Population and Sample

The study was a census survey of all forty Ministries covering the ten sectors of the MTEF Process as listed in Appendix I. A census survey is a study of every element in a population; it is used when the population is small enough to economically study (Dawson, 2002).

3.5 Data Collection

The nature of data collected was secondary data gathered from World Bank Reports, Budget outlook papers, Kenya bureau of Statistics and Ministry of Finance, Planning and vision 2030 and Department of Public Sector Reforms and Performance contracting.

3.6 Data Analysis

Data analysis was done using simple linear regression

Regression analysis is a statistical technique that attempts to explore and model the relationship between two or more variables, simple linear regression is used where there is only one explanatory variable, to assess the contribution of the explanatory variable (independent variable) to the dependent variable (Winner, 2003)

It was fitted in a line

$$Y = a + bX$$

Where Y; the dependent variable is Public sector efficiency measured as the ratio of public sector performance to percentage of GDP spent on the Ministry, that is;

$$Y(\text{Public Sector Efficiency}) = \frac{\text{Public Sector Performance}}{\text{Expenditure (as a percentage of Total Expenditure)}}$$

and X; the independent Variable is the ratio of Actual expenditure to Budget ceilings set in the MTEF Budget.

$$X = \frac{\text{Actual Expenditure}}{\text{MTEF Ceiling}}$$

The line was then tested using coefficients of correlation and determination for the significance of X in determining Y to draw conclusions on the contribution of compliance to set ceilings to Operational efficiency. The study was done for a period of 5 years from 2007 to 2011. The SPSS Package was used in the analysis.

CHAPTER 4

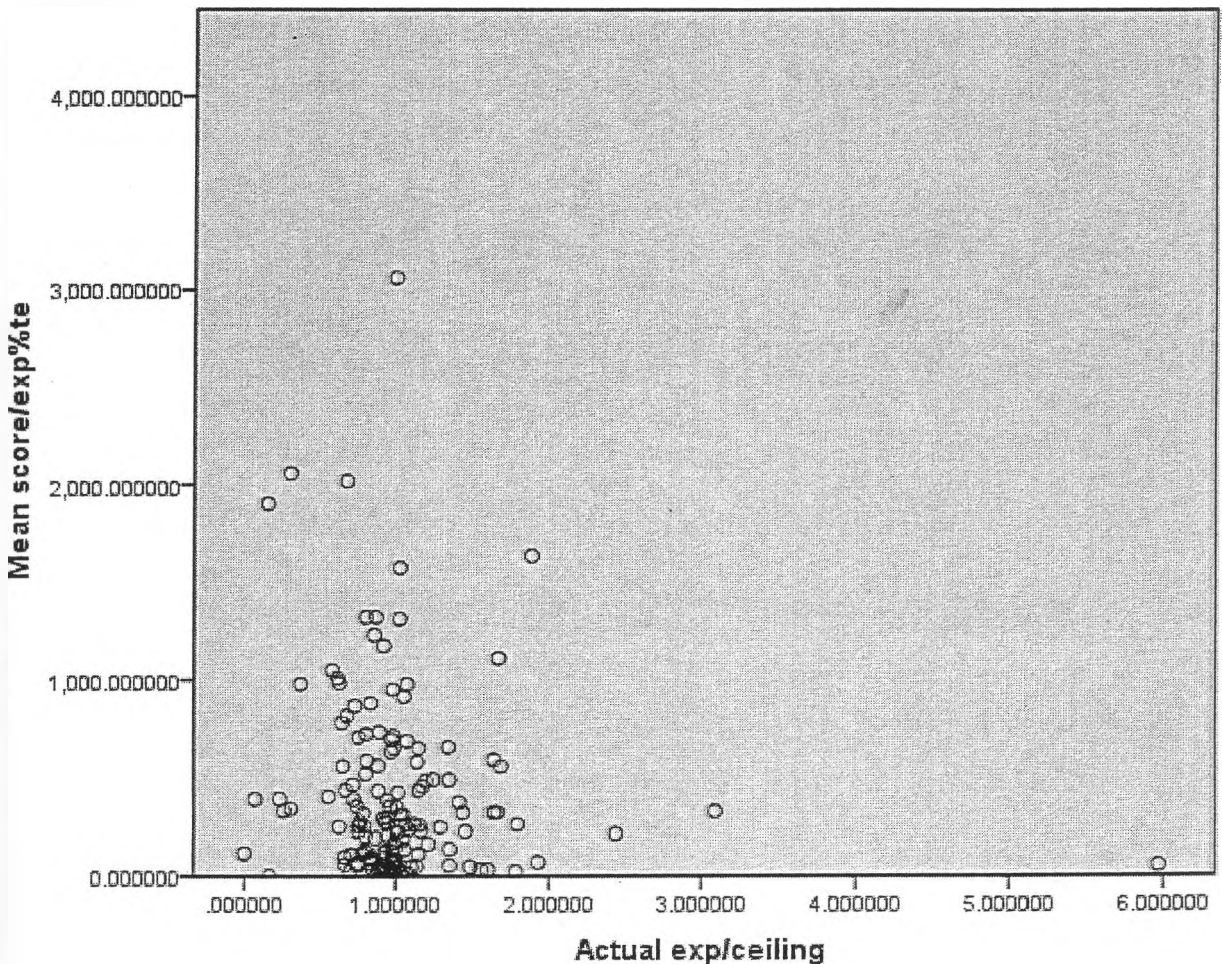
DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This Chapter will provide a summary of the data collected, the scatter diagram created from the data, a pictorial presentation of the regression line deduced from the data, a summary of the values of the various coefficients including the y intercept, gradient, coefficient of correlation and coefficient of determination and finally a summary and interpretation of the findings of the regression analysis.

4.2 Data Presentation

4.2.1 Scatter Diagram for operational efficiency to adherence to ceilings



The scatter Diagram shows the ratio of operational efficiency to adherence to ceilings for all ministries over a five year period from the financial year 2006/7 to the financial year 2010/11, shows that most ministries' expenditure is clustered around the ceiling with very few expenditures being lower than the ceiling provided and quite a number spending way above the ceiling. The contribution of these expenditures also seems to be clustered together with very few deviations. Generally the scatter diagram seems to suggest more of a random relationship than a linear one.

4.2.2 Regression Statistics

Regression is the study of dependence (Weisberg, 2005) it is perhaps the most widely used statistical technique, estimates relationships between independent (predictor or explanatory) variables and a dependent (response or outcome) variable. Regression models can be used to help understand and explain relationships among variables; they can also be used to predict actual outcomes. Regression analysis is used when two or more variables are thought to be systematically connected by a linear relationship.

Table 1

		Variables Entered/Removed(b)			
Model		Variables Entered	Variables Removed	Method	
dimension	1	Actual exp/ceilings	.	Enter	

a. All requested variables entered.

b. Dependent Variable:
score/expenditure %total
expenditure

This first table gives under regression statistics simply tells us which variables are included in the analysis and how they are derived (which is the independent and which is the dependent variable).

Table 2

		Model Summary			
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
dimension	1	.028a	0.001	-0.006	471.14195

a. Predictors: (Constant), Actual exp/ceiling

This table Gives us the Coefficient of correlation which measures the direction and degree of the relationship between two variables (Sharma, 2005), in the second row, third column is the coefficient of correlation statistic which is 0.028 in this case.

From this table we also derive the Coefficient of Determination which explains the strength of relationship between two variables (Sharma, 2005) in the second row fourth column, whose value is 0.001 an equivalent to 0.1%, what this means is that the dependent variable (adherence to MTEF ceilings) explains only .1% of the Performance Score/ministry expenditure as a percentage of total expenditure, achieved by each ministry.

Table 3

		Coefficients(a)			
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	t
1	(Constant)	411.193	67.436		6.098
	Actual exp/ceiling	-21.05	60.45	-0.028	-0.348
					Sig.
					0
					0.728

a. Dependent Variable: score/exp%te

This table gives us the y intercept in column 3 row 4 as 411.193. The Y intercept represents the value of the Dependent variable if the independent variable were equal to Zero. In our case this means that if the ratio of Actual Expenditure to Budget ceilings were zero then the ratio of the Performance Score to percentage expenditure of the ministry would be 411.193.

The Gradient (slope) of the line is given in the third column fifth row and represents both the direction of relationship between the two variables and the impact of the change in the independent variable on the dependent variable. In our case -21.05 means that for every 1 unit increase in our Actual Expenditure to Budget ceiling results in a -21.05 increase in the ratio of our Performance score to percentage Ministry expenditure.

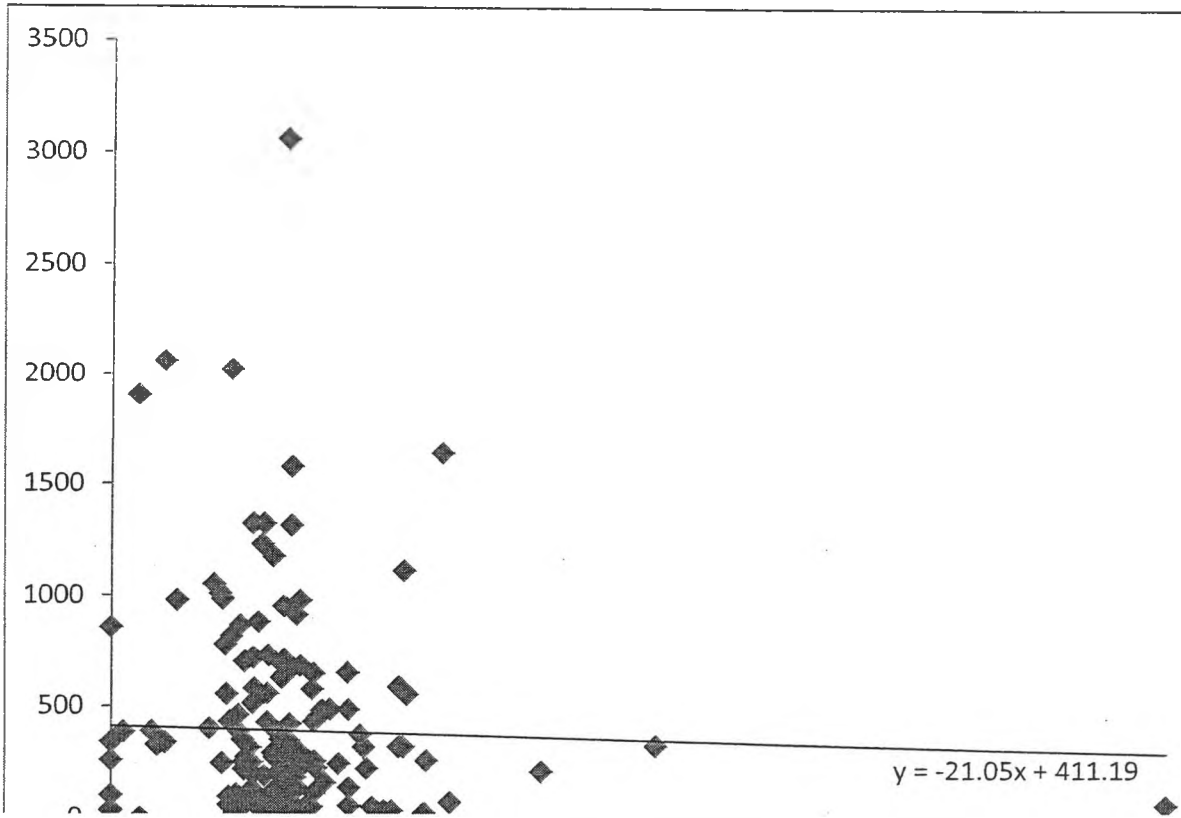
Table 4

Equation	$Y=a +bx$
y	Dependent variable
X	Independent variable
a	intercept
b	gradient

equation $Y=411.193-21.05X$

From the above table the regression line fitted was $Y=411.193-21.05X$, showing a negative relationship between the scores' contribution and adherence to the set ceiling.

4.2.3 Fitting the regression line onto the scatter diagram



This pictorial presentation of the regression line fitted against the scatter diagram shows the line of best minimizing the standard error. It also gives a pictorial presentation of the Y intercept, the value of the Composite score/ percentage ministry expenditure given a zero value for Actual expenditure/Budgeted ceiling.

4.3 Summary and Interpretation of Findings

The research found that there was a negative relationship between the extent of adherence by Ministries to MTEF ceilings and their operational efficiency as measured by the ratio of Performance Scores to percentage expenditure of the Ministry. This is indicated by the gradient which was -21.05 as shown in the table above. This negative relationship was found to be very weak with scores of 2.8% in the coefficient of correlation and 0.1% in the coefficient of determination. Meaning that only 0.1% of the Composite score/percentage ministry expenditure is actually explained by the extent of adherence to MTEF ceilings.

The third table provided the regression statistics of most interest to our present efforts. The first column, "B", in the second row provided the slope coefficient for the independent variable which in this case for every 1 unit increase in our Actual expenditure/Budget ceiling results in to -21.05 increases in our Composite score/percentage Ministry expenditure. The gradient identified of -21.05, reveals a negative relationship showing that a compliance to the budget ceilings result in a higher composite score to percentage expenditure ratio and as such offers lower efficiency for the ministries. Implying that adherence to MTEF ceilings does not enhance the performance of the ministries rather it worsens their performance. Note that the composite score used in this study is an inverted, meaning that a higher score represents lower levels of performance and a lower score representing higher performance.

The first row in the third table provided statistics for the constant, or y-intercept. Of greatest interest to us in this chapter is the value in column "B". That value is the y-intercept, or the point at which the regression line crosses the y-axis. In our data, it is 411.193. What that means, then, is that when Actual expenditure/Budgeted ceiling is zero for government ministries, score/expenditure as percentage of total expenditure is predicted to be 411.193.

However the coefficient of correlation between the two variables was only 2.8% which is insufficient to draw a cause effect relationship from. The coefficient of determination (r^2) is also very low a figure of 1% showing that compliance to budget ceilings explains only 1% of the ratio of composite score to percentage of total expenditure incurred by the ministry. There is therefore a very weak correlation between adherence to Budget ceilings and efficiency of Government ministries. The standard error is also very large being a figure of 471.14 and as such it can be said that the relationship established between the two variables is that an adherence or saving on the Budget ceiling has almost no effect on the Performance of the Ministries as measured by the Performance contracting Composite Scores.

The regression line drawn against the scatter diagram shows that only a few points actually lie on the line with majority of the data points lying outside the line, this also points toward the fact that the line would be a poor predictor of performance of the ministries, given the extent of their adherence to budget ceilings. It can therefore be deduced the same as from the other tables and data that, the extent of adherence to budget ceilings has almost no impact on the performance of the ministry if we use the Performance contracting score as the measure of efficiency.

Finally, to illustrate the regression line as an actual line of best fit for the many cases in our dataset, we have included another scatterplot with the regression line in 4.2.3. This graph illustrates that the regression line tries to minimize the variation between all of the points in the scatterplot, providing a best estimate of the dependent variable (public sector efficiency) for each value of the independent variable (Actual expenditure/Budget ceiling). It also shows the regression line crossing the y-axis at the value noted above 411.1.

These findings are similar to those of Kigundu (2009) who found that MTEF was more or less an incremental budget and had not succeeded in achieving its intended objectives, it is also similar to the findings of Brumby (2008) who concluded that Medium Term Budgetary Frameworks (adherence to ceilings) were the least likely form of MTEF to

result in improved technical efficiency therefore advising Medium term Performance Frameworks(performance contracting) to enhance Operational efficiency. It is also in agreement with Le houerou and Taliercio (2002) who showed that MTEF has so far not achieved its intended objectives in Kenya other than the reallocation on resources.

CHAPTER 5

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

This paper was a study of the Impact of MTEF on efficiency of Government Ministries in Kenya. It began with a look at the programs that preceded MTEF including the Program Review Forward Budget, the Budget Rationalization Program and the Public Investments Program, highlighting the cause of their failure in improving Public expenditure management and hence the need to adopt the Medium Term Expenditure Framework, the objective of this paper was to find out whether MTEF through its tool the setting of Budget ceilings has succeeded in enhancing operational efficiency of Government Ministries in Kenya.

The research methodology used was a census survey of all Government Ministries, intending to investigate the existence of a relationship between adherence to MTEF ceilings and Ministries' efficiency, using the Department of Public sector reforms' composite scores as a measure of efficiency and calculating it as a contribution by dividing it with the expenditure of the ministry as a percentage of total expenditure by all ministries, then measuring MTEF as a ratio of compliance to set MTEF Budget ceilings. The data collected was secondary data from the KNBS, Treasury website and Department of Public sector reforms and Performance Contracting. The Statistical Package for Scientific Studies was used in analysis, and it was found that adherence to budget ceilings has almost no impact on the efficiency of ministries as measured by the composite score since the coefficients of correlation and determination were too low, figures of 2.8% and 1% respectively, the analysis also found a negative relationship between the two variables indicating that an increased adherence to the ceiling would result in an increase in the performance score which represents a fall in efficiency of the ministries.

5.2 Conclusions

From the analysis we can come to the conclusion that Adherence to MTEF ceilings set has a negative impact on Operational efficiency of Government Ministries if we use Performance contracting Composite scores as our measure of Operational efficiency of the Ministries, this can be explained by the rising inflation over the period of time covered by this study which would have required some Ministries to spend more than the ceiling they were provided with in order to achieve their medium term goals and targets.

The Public Expenditure Review 2010 in relation to the performance of Public Expenditure this far states that “As a result of global economic shocks and domestic political upheaval, economic growth fell from 7.1 percent in 2007 to 1.7 percent a year later. The level of headline inflation reached 26 percent in 2008 largely as a result of high food prices, and remains a key issue of concern. Economic recovery from the 2008 political crisis was hampered by the subsequent external shocks: food and fuel price hikes in 2008, global economic crisis in 2008/9, and a drought in 2009. During the year 2009, the economy continued along the gradual path of recovery that led to an estimated annual growth of 2.2 percent.

This spiraling inflation which caused a general rise in the price of everything meant that for Ministries to still succeed in achieving their intended targets they would have to increase expenditure to meet the cost of inflation. This would explain why the ministry’s performance score increased as expenditure deviated away from the ceilings set for the Ministries. The good performance contracting Composite Score would reflect their success in achieving the laid down targets despite the fact that they had to do so at a higher cost. The strength of the relationship so derived must however be noted to have been very weak with the extent of adherence to MTEF ceilings explaining only 0.1% of the Composite score achieved by the Ministries, this may therefore not be a true cause effect relationship, the correlation factors were too low to represent a cause effect relationship.

5.3 Policy Recommendations

Drawing from the last Public Expenditure Review (2010), five platforms need to be targeted for improved fiscal management. These are: a. improved budget comprehensiveness, at the central government level and also to include government agencies, particularly the executing agencies which provide public services, b. improved budget execution with special emphasis on development budget and such key areas as core poverty programmes, where underperformance continues to occur, c. strengthened links between policy planning the annual budget and the MTEF framework to ensure programmes and projects are implemented as planned and do not stall or incur excessive unplanned costs due to poor costing, d. improved transparency and consistency in budget presentation to ensure that budget documents are user friendly, accurate, timely and available when needed, particularly in relevant websites and offices, and rolling-out the IFMIS to all operational areas while improving its reliability. However, for enhanced effectiveness and impacts, these efforts need support of a more expeditious system of rewards and sanctions, predicated on an efficient judicial system. An implementation of the later accompanied by expeditious rewards and sanctions through an efficient judicial system would go a long way in improving operational efficiency of Government Ministries, Departments and Agencies.

MTEF is more of a broad framework and as such only lays out the skeleton for efficiency, However due to the fact that it only speaks broadly or generally, it is difficult to properly measure it's performance. This study recommends that MTEF be broken down to specific, achievable and measurable targets, which can be used to directly assess its impact on Government operations and also to discourage the mentality that keeps the budgeting process sinking back to incrementalism, as those charged with preparation and implementation of the budget will be able to more clearly see the role MTEF plays in enhancing operations and not just view it as a lengthy and tedious process.

5.4 Limitations of the study

This study was limited by the poor availability of Information; the raw score for Project implementation which would have been a more accurate judge of efficiency was not stored by the department and as such was not available to the Public.

This study was also limited by the inconsistency of public financial information, where all published sources seemed to have a different figure from the other, documents heavily relied on included the Medium Term Budget strategy paper, Sectoral reports and Indicative Program Based Budgeting, disregarding any other source that differed with the figures in these three documents.

Despite this being a census survey, it was limited by the unavailability of financial data for the Ministry of Defense due to the nature of the information which is regarded as secret for the sake of national security and thus is not readily available for public scrutiny.

The re-organization of ministries also limited the study as newly created ministries only had recent information being the last three years leaving lots of gaps and blanks in the data capture sheet, this was covered by assuming the performance of the mother ministry to be the performance of the new ministry as well in prior years.

5.5 Suggestions for further studies

Gaps identified during the study recommend that researchers on the same topic in future look into the possibility of attaining the raw score for project implementation as the efficiency score and use it to measure the contribution of each ministry to get a clearer picture of how adherence the budget ceilings affects achievement of set targets.

It would also be advisable that a study of Consistency in Government Financial Information, an investigation into the source of Differences in presentation of the same information in various documents or in quoting prior period information in future periods and probably come up with a provision for error term.

An investigation into the efficiency of the resource allocation or sharing should also be looked into to find out whether the ratio in which the Sectors receive their funding is in consistency with the long term Vision of the Government, and whether this sharing of resources is truly resulting in an improvement in the performance of these ministries, departments and Government Agencies.

A study of Government Departments and Agencies other than the ministries to see if there is a different impact MTEF has on these institutions as compared to its impact on mainline Government ministries, and show the reason if any for the difference in the impact between these two groups is also recommended.

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Appendix 1 – Sectors and Ministries

A. Agriculture and Rural Development

1. Ministry of Agriculture
2. Ministry of Livestock Development
3. Ministry of Fisheries Development
4. Ministry of Co-operative Development
5. Ministry of Lands

B. Trade, Tourism and Industry

6. Ministry of Trade
7. East African Community
8. Ministry of Tourism
9. Ministry of Industrialization
10. Ministry of State for National Heritage, Culture and Development

C. Physical Infrastructure

11. Ministry of Roads
12. Ministry of Transport
13. Ministry of Energy
14. Ministry of Housing
15. Ministry of Public Works
16. Ministry of Local Government
17. Nairobi Metropolitan development

D. Environment, Water and Irrigation

18. Ministry of Water and Irrigation
19. Ministry of Environment and Natural Resources
20. Ministry of Forestry and wildlife

E. Human Resource Development

- 21. Ministry of Education
- 22. Ministry of Medical Services
- 23. Ministry of Labor and Human Resource Development
- 24. Public Health

F. Research Innovation and Technology

- 25. Ministry of Higher Education, Science and Technology
- 26. Ministry of Information and Communication

G. Governance, Justice, Law and Order

- 27. Ministry of Home Affairs
- 28. Ministry of Justice, National Cohesion and Constitutional Affairs
- 29. Ministry of State for Immigration and Registration of Persons

H. Public Administration and International Affairs

- 30. Ministry of State for Provincial Administration and Internal Security
- 31. Ministry of State for Public Services
- 32. Ministry of Planning National Development and Vision 2030
- 33. Ministry of Foreign Affairs
- 34. Ministry of Finance

I. Special Programmes

- 35. Ministry of Gender and Children Affairs
- 36. Ministry of Youth and Sports
- 37. Ministry of State for Special Programmes
- 38. Ministry of Development of Northern Kenya and other Arid Lands
- 39. Ministry of State for Metropolitan Development



J. National Security

40. Ministry of State for Defense

Appendix 2 - Raw Data Presentation

2006-2007	Ministry	Actual exp	Budget Ceiling	exp%of Total exp	Composite score	Actual exp/ceiling	score/exp%te
						x	y
1	Ministry of Agriculture	9,619.30	11,451.00	3%	2.4604	0.840040171	88.27173087
2	Ministry of Livestock	3,705.00	4,678.00	1%	2.6864	0.79200513	250.2314313
3	Ministry of fisheries development	754.00		0%		#DIV/0!	0
4	Ministry of Co-operative Development	932.30	889.00	0%	2.4642	1.048706412	912.1781448
5	ministry of lands	1,910.60	1,663.00	1%	2.3857	1.148887553	430.9287313
6	Ministry of Trade	3,358.00	3,007.00	1%	2.5387	1.116727636	260.9096155
7	East African Community	756.00	455.00	0%	2.4330	1.661538462	1110.656358
8	Ministry of Tourism	2,148.00	2,979.00	1%	2.4042	0.721047331	386.2742068
9	Ministry of Industrialization	-		0%		#DIV/0!	#DIV/0!
10	Ministry of State for National Heritage and Culture Development	924.00		0%	2.2922	#DIV/0!	856.1304237
11	Ministry of Roads	29,104.00		8%	2.6287	#DIV/0!	31.17078481
12	Ministry of Transport	7,544.00	9,696.00	2%	2.4331	0.778052805	111.3057685
13	Ministry of Energy	8,505.00	10,194.00	2%	2.2477	0.834314303	91.20600248
14	Ministry of Housing	1,680.00	1,942.00	0%		0.865087539	0
15	Ministry of Public Works	2,346.00	33,542.00	1%	2.6287	0.069942162	386.6984319
16	Ministry of Local Government	2,616.00	10,132.00	1%	2.4879	0.258191867	328.2120895
17	Nairobi Metropolitan development	-		0%		#DIV/0!	#DIV/0!
18	Water And Irrigation	8,246.00	11,644.00	2%	2.5512	0.708175885	106.7727847
19	Environment And Natural Resources	2,340.00	4,226.00	1%	2.7091	0.553715097	399.5476425
20	Forestry And Wildlife	-		0%		#DIV/0!	#DIV/0!
21	Ministry of Education	101,041.72	105,387.00	29%	2.3337	0.958768349	7.970832618
22	Medical Services	20,754.00		6%	2.3263	#DIV/0!	38.68328094
23	Labor And Human Resources Development	1,195.83	1,116.00	0%	2.3640	1.071532258	682.2403812
24	Public Health	5,835.00	35,048.00	2%		0.166485962	0

25	Higher Education Science And Technology	22,318.00		6%	2.4335	#DIV/0!	37.63010853
26	Information And Communications	2,550.50	826.00	1%	2.3898	3.087772397	323.3669441
27	Ministry Of Home Affairs	6,663.00	8,208.00	2%	2.2599	0.811769006	117.0519903
28	Justice National Cohesion And Constitutional Affairs	1,450.00	2,231.00	0%	2.3324	0.649932766	555.1296501
29	Ministry of State for Immigration and Registration of Persons	3,092.00		1%	2.3281	#DIV/0!	259.8492928
30	Ministry of State for Provincial Administration and Internal Security	26,689.00		8%	2.3788	#DIV/0!	30.75990726
31	Ministry of Foreign Affairs	6,588.00	6,567.00	2%	2.8183	1.003197807	147.6362562
32	Ministry Of State For Public Services	2,513.00		1%	2.4796	#DIV/0!	340.5246323
33	Planning National Development And Vision 2030	2,046.90	2,859.00	1%	2.7328	0.715949633	460.7555939
34	Office Of The Prime Minister and Ministry of Finance	40,893.00	22,966.00	12%	2.4155	1.780588696	20.3853167
35	Ministry of Regional development	931.50	1,381.00	0%	2.1975	0.674511224	814.1518576
36	Gender And Children Affairs	2,437.00	2,334.00	1%	2.1936	1.044130249	310.642807
37	Youth And Sports	4,031.00	1,655.00	1%	2.4353	2.435649547	208.4966417
38	Ministry Of State For Special Programmes	7,593.82		2%	2.2466	#DIV/0!	102.0997902
39	Development Of Nothern Kenya And Other Arid Lands	-		0%		#DIV/0!	#DIV/0!
40	Ministry Of State For Defence		27,521.00	0%		0	#DIV/0!
	Totals	345,111.47	324,597.00	100%			
2008-2009							
1	Ministry of Agriculture	13,138.60	13,095.00	2.74%	2.2211	1.003329515	81.11466802
2	Ministry of Livestock Development	4,521.10	4,504.00	0.94%	3.2750	1.003796625	347.5742266
3	Ministry of fisheries development	763.00	1,134.00	0.16%	3.2132	0.672839506	2020.661627
4	Ministry of Co-operative Development	982.10	1,151.00	0.20%	2.5192	0.853258036	1230.799498
5	ministry of lands	2,036.07	2,308.00	0.42%	2.3678	0.882179376	557.998055
6	Ministry of Trade	1,855.00	1,383.00	0.39%	2.5188	1.341287057	651.5235893
7	East African Community	453.00	458.00	0.09%	2.8900	0.989082969	3061.117602
8	Ministry of Tourism	1,897.00	1,929.00	0.40%	2.5497	0.983411094	644.9144783
9	Ministry of Industrialization	1,699.00	2,340.00	0.35%	3.0595	0.726068376	864.0471709
10	Ministry of State for National Heritage and Culture Development	1,767.00	1,829.00	0.37%	2.3129	0.966101695	628.0593429
11	Ministry of Roads	56,926.00	62,655.00	11.86%	2.3931	0.908562764	20.17114504
12	Ministry of Transport	5,204.00	8,324.00	1.08%	2.6758	0.625180202	246.7156706

13	Ministry of Energy	30,908.00	30,758.00	6.44%	2.7322	1.00487678	42.41524279
14	Ministry of Housing	614.00	4,105.00	0.13%	2.4370	0.149573691	1904.441041
15	Ministry of Public Works	3,333.00	3,533.00	0.69%	2.6466	0.943390886	381.0073629
16	Ministry of Local Government	3,135.00	13,625.00	0.65%	2.5425	0.230091743	389.1381324
17	Nairobi Metropolitan development	1,416.00	2,310.00	0.30%	2.9774	0.612987013	1008.914363
18	Water And Irrigation	13,212.20	19,923.00	2.75%	2.5965	0.663163178	94.2960632
19	Environment And Natural Resources	3,166.00	2,239.00	0.66%	2.4460	1.414024118	370.7028424
20	Forestry And Wildlife	5,009.00	5,413.00	1.04%	2.8351	0.925364862	271.5799626
21	Ministry of Education	114,684.53	117,527.00	23.90%	2.7929	0.975814324	11.6850593
22	Medical Services	24,829.00	26,796.00	5.17%	2.7885	0.926593521	53.88796634
23	Labor And Human Resources Development	1,326.93	1,450.00	0.28%	3.2501	0.915124138	1175.24682
24	Public Health	6,967.60	8,048.00	1.45%	2.7606	0.865755467	190.1081112
25	Higher Education Science And Technology	19,084.00	22,640.00	3.98%	2.5221	0.842932862	63.41226533
26	Information And Communications	22,318.00	3,738.00	4.65%	2.4047	5.970572499	51.69945965
27	Ministry Of Home Affairs	10,210.00	10,922.00	2.13%	2.5700	0.934810474	120.7779781
28	Justice National Cohesion And Constitutional Affairs	1,644.00	2,051.00	0.34%	2.4636	0.801560215	719.0328896
29	Ministry of State for Immigration and Registration of Persons	4,128.00	4,507.00	0.86%	2.4950	0.915908587	290.0088393
30	Ministry of State for Provincial Administration and Internal Security	43,211.00	43,704.00	9.01%	2.2720	0.988719568	25.22867162
31	Ministry of Foreign Affairs	9,008.00	9,519.00	1.88%	5.0000	0.946317891	266.3311723
32	Ministry Of State For Public Services	1,531.00	1,723.00	0.32%	2.3277	0.888566454	729.5115794
33	Planning National Development And Vision 2030	14,892.00	15,286.00	3.10%	2.2774	0.974224781	73.37813386
34	Office Of The Prime Minister and Ministry of Finance	22,482.00	33,736.00	4.69%	2.6525	0.66640977	56.61099954
35	Ministry of Regional development	1,337.70	2,315.00	0.28%	2.9287	0.577840173	1050.501154
36	Gender And Children Affairs	2,644.50	3,305.00	0.55%	2.8355	0.800151286	514.4775805
37	Youth And Sports	7,097.00	7,512.00	1.48%	2.9781	0.944755059	201.3468526
38	Ministry Of State For Special Programmes	18,396.31	9,550.00	3.83%	2.6321	1.926315183	68.65181756
39	Development Of Northern Kenya And Other Arid Lands	1,995.60	2,472.00	0.42%	2.4150	0.807281553	580.662813
40	Ministry Of State For Defence		43,202.00	0.00%		0	#DIV/0!
	Totals	479,822.24		100.00%			
2009-2010							
1	Ministry of Agriculture	12,699.00	13,750.00	2.41%	2.2192	0.923563636	91.98226453

2	Ministry of Livestock Development	5,099.00	4,703.00	0.97%	2.2481	1.084201573	232.0640089
3	Ministry of fisheries development	2,289.00	1,401.00	0.43%	2.5473	1.633832976	585.7488974
4	Ministry of Co-operative Development	982.00	1,135.00	0.19%	2.4686	0.865198238	1323.17234
5	ministry of lands	3,667.00	2,555.00	0.70%	2.2132	1.435225049	317.6778453
6	Ministry of Trade	2,208.00	1,315.00	0.42%	2.3181	1.679087452	552.5992291
7	East African Community	916.00	488.00	0.17%	2.8478	1.87704918	1636.406473
8	Ministry of Tourism	2,330.00	2,047.00	0.44%	2.5473	1.138251099	575.441728
9	Ministry of Industrialization	2,576.00	2,157.00	0.49%	2.3523	1.194251275	480.644555
10	Ministry of State for National Heritage and Culture Development	1,767.00	1,805.00	0.34%	2.3816	0.978947368	709.4298354
11	Ministry of Roads	57,546.00	82,572.00	10.93%	2.3861	0.696919052	21.82482028
12	Ministry of Transport	6,834.00	9,097.00	1.30%	2.8619	0.751236671	220.4228721
13	Ministry of Energy	32,875.00	38,754.00	6.25%	2.1145	0.84829953	33.85471053
14	Ministry of Housing	3,578.30	4,817.00	0.68%	2.3860	0.742848246	350.9707047
15	Ministry of Public Works	4,239.00	5,549.00	0.81%	2.1889	0.763921427	271.793885
16	Ministry of Local Government	13,318.00	13,555.00	2.53%	2.7132	0.982515677	107.2309058
17	Nairobi Metropolitan development	1,443.00	3,913.00	0.27%	2.6834	0.368770764	978.8051848
18	Water And Irrigation	21,748.00	16,088.00	4.13%	2.1756	1.351815017	52.65467089
19	Environment And Natural Resources	3,740.00	2,254.00	0.71%	2.2739	1.659272405	320.019864
20	Forestry And Wildlife	6,389.00	4,394.00	1.21%	2.6846	1.45402822	221.1688066
21	Ministry of Education	126,060.25	121,619.00	23.95%	2.6121	1.036517732	10.90658559
22	Medical Services	26,826.70	29,292.00	5.10%	2.4013	0.915837089	47.11469078
23	Labor And Human Resources Development	1,398.70	1,433.00	0.27%	2.5249	0.976064201	950.1600893
24	Public Health	9,861.20	9,331.00	1.87%	2.4902	1.056821348	132.9173391
25	Higher Education Science And Technology	26,677.00	23,468.00	5.07%	2.4322	1.13673939	47.98875381
26	Information And Communications	2,768.30	4,150.00	0.53%	2.2732	0.667060241	432.2168277
27	Ministry Of Home Affairs	10,536.85	10,827.00	2.00%	2.4596	0.973201256	122.8657578
28	Justice National Cohesion And Constitutional Affairs	2,548.50	2,052.00	0.48%	2.3541	1.241959064	486.2027896
29	Ministry of State for Immigration and Registration of Persons	4,338.69	4,594.00	0.82%	2.4145	0.944425337	292.9178014
30	Ministry of State for Provincial Administration and Internal Security	43,246.00	45,710.00	8.22%	2.3379	0.946094946	28.45490656
31	Ministry of Foreign Affairs	7,687.00	7,365.00	1.46%	2.6581	1.043720299	182.0084752
32	Ministry Of State For Public			0.34%	2.1990	1.146794872	646.9818026

	Services	1,789.00	1,560.00				
33	Planning National Development And Vision 2030	23,746.00	15,967.00	4.51%	2.1010	1.487192334	46.5707
34	Office Of The Prime Minister and Ministry of Finance	25,594.00	34,090.00	4.86%	2.5905	0.750777354	53.27489566
35	Ministry of Regional development	4,010.80	2,451.00	0.76%	2.4315	1.636393309	319.0953272
36	Gender And Children Affairs	3,509.60	4,483.00	0.67%	2.1096	0.782868615	316.3877589
37	Youth And Sports	8,957.00	7,385.00	1.70%	2.6938	1.212863913	158.2996487
38	Ministry Of State For Special Programmes	9,968.40	7,367.00	1.89%	2.5615	1.353115244	135.2527427
39	Development Of Nothern Kenya And Other Arid Lands	585.80	1,962.00	0.11%	2.2924	0.298572885	2059.767538
40	Ministry Of State For Defence		51,121.00	0.00%		0	#DIV/0!
	Totals	526,353.09		100.00%			
2010-2011							
1	Ministry of Agriculture	12,901.00	16,189.00	2.09%	2.6113	0.796899129	124.9046971
2	Ministry of Livestock and Fisheries Development	6,488.00	6,442.00	1.05%	2.2930	1.00714064	218.0914251
3	Ministry of fisheries development	3,512.00	2,607.00	0.57%	2.7581	1.347142309	484.6194919
4	Ministry of Co-operative Development	1,160.00	1,138.00	0.19%	2.4693	1.019332162	1313.594266
5	ministry of lands	4,992.00	3,868.00	0.81%	1.9720	1.290589452	243.7685706
6	Ministry of Trade	1,466.00	2,348.00	0.24%	2.3370	0.624361158	983.7168693
7	East African Community	1,037.00	1,015.00	0.17%	2.6490	1.021674877	1576.335219
8	Ministry of Tourism	2,167.10	2,879.00	0.35%	2.4659	0.752726641	702.1693774
9	Ministry of Industrialization	3,542.10	3,501.00	0.57%	2.4109	1.011739503	420.0139896
10	Ministry of State for National Heritage and Culture Development	2,153.00	2,220.00	0.35%	2.4030	0.96981982	688.7397012
11	Ministry of Roads	71,401.00	80,343.00	11.57%	3.1834	0.888702189	27.51264184
12	Ministry of Transport	6,903.00	9,181.00	1.12%	2.8087	0.75187888	251.0804265
13	Ministry of Energy	29,589.00	33,527.00	4.79%	1.9509	0.882542428	40.68647807
14	Ministry of Housing	3,494.00	3,961.00	0.57%	2.4265	0.88210048	428.5512556
15	Ministry of Public Works	5,981.00	5,642.00	0.97%	2.5118	1.060085076	259.1532327
16	Ministry of Local Government	5,161.00	16,972.00	0.84%	2.8277	0.304089088	338.09975
17	Nairobi Metropolitan development	1,257.00	1,570.00	0.20%	2.6941	0.800636943	1322.585664
18	Water And Irrigation	28,601.00	27,789.00	4.63%	2.4390	1.029220195	52.62304313
19	Environment And Natural Resources	4,370.00	4,556.00	0.71%	2.4834	0.959174715	350.6796922
20	Forestrv And Wildlife	7,096.00	6,978.00	1.15%	2.5228	1.016910289	219.3888706

21	Ministry of Education	140,180.75	129,102.00	22.72%	2.7074	1.08581393	11.91816578
22	Medical Services	44,100.55	27,605.00	7.15%	2.2718	1.597556602	31.78860473
23	Labor And Human Resources Development	1,795.70	1,677.00	0.29%	2.8467	1.070781157	978.2577464
24	Public Health	18,991.40	19,139.00	3.08%	2.3670	0.992287998	76.91068046
25	Higher Education Science And Technology	42,255.00	27,215.00	6.85%	2.1712	1.552636414	31.70787235
26	Information And Communications	5,180.00	2,892.00	0.84%	2.1655	1.791147994	257.9727333
27	Ministry of Foreign Affairs	8,525.00	8,584.00	1.38%	2.2906	0.993126747	165.8060013
28	Ministry Of Home Affairs	13,233.91	11,517.00	2.14%	2.3388	1.149076148	109.056181
29	Justice National Cohesion And Constitutional Affairs	3,238.96	2,768.00	0.52%	2.3661	1.170144509	450.7885617
30	Ministry of State for Immigration and Registration of Persons	4,997.98	4,851.00	0.81%	2.4858	1.030298907	306.9142454
31	Ministry of State for Provincial Administration and Internal Security	42,362.00	45,973.00	6.86%	2.2701	0.921453897	33.06845539
32	Ministry Of State For Public Services	1,554.00	1,869.00	0.25%	2.2113	0.831460674	878.0960597
33	Planning National Development And Vision 2030	18,794.10	25,186.00	3.05%	1.9382	0.746212181	63.63886608
34	Office Of The Prime Minister and Ministry of Finance	33,799.00	30,792.00	5.48%	2.4555	1.097655235	44.83131359
35	Ministry of Regional development	5,910.40	5,126.00	0.96%	2.4532	1.1530238	256.1305954
36	Gender And Children Affairs	6,483.00	5,584.00	1.05%	2.3527	1.160995702	223.9421832
37	Youth And Sports	8,874.00	11,093.00	1.44%	2.8608	0.799963941	198.9360313
38	Ministry Of State For Special Programmes	11,079.00	12,031.00	1.80%	2.1434	0.920871083	119.3845264
39	Development Of Northern Kenya And Other Arid Lands	2,459.60	3,830.00	0.40%	3.0996	0.642193211	777.6542408
40	Ministry Of State For Defence		48,526.00	0.00%	0.0000	0	#DIV/0!
Totals		617,085.55		100.00%			