

Full Length Research Paper

Analysis of the effectiveness of capital expenditure budgeting in the local government system of Ondo State, Nigeria

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Year in year out, Nigerians always hear of billions and trillions of naira budgeted as capital expenditure in our annual budget. This amount undoubtedly continues to increase with each passing year, but the society is always at a loss as to where the money was invested. There seems to be wide disparity between budget proposal and accomplishment. The government at all levels are accused of disregard for budgetary provisions, late passage of budget, involvement in extra-budgetary activities, late release of capital vote and selective implementation of budget. This paper therefore investigates whether or not there is a significant difference between the mean of budgeted capital and expended capital using some infrastructures in some selected local government. The paper adopts a basic research approach where data were obtained from secondary sources, mainly from published materials which include annual financial statements and publication of approved budget estimates covering the period of study. A stratified random sampling was adopted in selecting the sample. A method of descriptive analysis was used in analyzing the data. The method includes measures of central tendencies and test of equality among the means of budgeted capital and expended expenditure on each project per local government. This test uses the student t-test of differences of means. The outcome of the paper shows that there was a positive and significant relationship between budgeted capital and actual expenditure. The implication of this is that an increase in budgeted capital will lead to an increase in capital expenditure on that infrastructure.

Key words: Infrastructures, budgeted capital, expended capital, disparity, local government areas.

INTRODUCTION

One of the reasons why government engage in budgeting is scarcity of resources which always leads to claims and demands outweighing the resources to satisfy them. There are different types of resource scarcity that the government can face, however, irrespective of the type of scarcity facing the government; choice must still be made about what constitutes government priorities at any particular period (Olurankinse, 2010).

Onimode (1999) was of the opinion that the choice should be made through democratic budgeting which allows the participation of the people in the determination of government priorities. However, in practice, the choice that is made is not of the people but of the dominant

individuals within and outside government. The desire and expectations of the citizens from their government is that available resources be used efficiently and effectively to provide the highest level of public services possible. By measuring its level, efficiency and outcomes of a programme's effort, performance indicators can guide government resource allocation and communicate to the people, the goods, objectives and effectiveness of public programmes.

The effectiveness of capital expenditure is measured in terms of what proportion of the budget was actually spent and these calls for comparison between the amount set aside for a particular project in the annual budget and the

actual amount of the physical infrastructures on ground. The need for this comparison is very crucial as it helps to measure deviation so as to take necessary control and to forestall further wastages and extravagant spending. (Adubi, 2002)

CONCEPTUAL FRAMEWORK

There have been views that the experience of public sector failure in Nigeria is not an indictment of fiscal management theory, but a reflection of the political and economic environment resulting from the absence of fiscal transparency and probity in the management of government finances. Koptis and Craig (1998) defined fiscal transparency as openness toward the public at a large about government structure and function, fiscal policy intentions, public sector accounts and projections." According to Akintoye (2008), It involves ready access to reliable comprehensive, timely, understandable and internationally comparable information on government activities. Today, because of scarce resources, the management of money is more important than ever for public and private entities, budgeting plays an enormous role in controlling operations efficiently and effectively.

Effectiveness can be explained in terms of what is achieved and the number of goods and services produced. It is about whether targets are met or not. Performing effectively means that the right work is being completed. If a team is working really hard but not delivering what is needed, then they are not effective.

Effectiveness is measured by setting out clear objectives before work starts and then evaluating whether the objectives have been met or not (Olofin, 2003).

There are constitutional provisions spelling out the financial power of each arm of government. For instance, the 1999 Nigerian constitution section 81 (1) rests all executive powers in the chairman requiring him to prepare estimate of the revenue and expenditures of local government for the next financial year and lay them before the councilors for authorization before spending can take place. Under the same constitution, only the legislative arm has the power to authorize expenditure of public funds (Bamori, 2004).

In order to ensure financial prudence and accountability, the constitution provides for the annual auditing of the public accounts. The audited accounts of the local government councils are submitted to the public account committee of the state assembly for consideration. It is important that the priorities of government are established as this will drive the most appropriate measures to be used and lead to the best effectiveness. If institutions lead to a well conceived budget, the quality of expenditures depends on four conditions: Delivery units receiving budgeted funds on time; adequate processes and controls with respect to the use of these

resources; procurement methods generating value for money and government accountable for its managements of public funds (Ola and Effiong, 1999).

An effective mechanism to make progress on this front would be to develop financial reporting information which will be useful for all managers in the government. Making budget process more responsive to priorities required the establishment of priorities across expenditure. This according to Asiodu (2000) is based on three policy elements namely:

- (a) Fiscal rules applying variously to limits on budget deficit, expenditures, taxes, debts etc.
- (b) Strengthening the medium term perspectives of the budget process by identifying both the current and future impact and cost associated with spending programme.
- (c) Aligning budget allocation with policy priorities to reduce budget fragmentation.

Having identified the different entities responsible and involve in the budgetary process, the following are recipes for bringing about effective execution of the budget:

- (i) There must be competent and dedicated expert who should collect, process, analyses and apply data adequately to the budgetary process;
- (ii) There must be effective and strong communication network in the entire budgetary process.
- (iii) All involve in the planning in budgetary process should have regard for law and order, laid-down rules and regulations;
- (iv) There should be honesty of purpose, respect for each view points and less suspicious of each other view point and action;
- (v) Datelines, conditions and standards set for each of the units involves in the budgetary process should be standardized and not having double or triple standards;
- (vi) The critical role of the legislature in the budget process is the authorization of expenditure proposed by the chief executive and legislature of fiscal measure to generate revenue. Therefore, debates and final consideration by the legislature should be objective and less partisan. It should be noted however, that political consideration cannot be completely removed from budgetary process.
- (vii) Since the legislature have the power of the purse, it should not take advantage of such powers to unduly delay the authorization of the proposed expenditure by the chief executive of any of the three tiers of government.
- (viii) The budgetary personnel must have the capability through some built- in mechanism to check certain uncertainties in the economy, particularly, in view of the prevailing economic conditions. Political will is sometimes lacking to do this.
- (ix) There must be an up-to-date knowledge of the

progress and weaknesses of implementation processes. If up-to-date reports are not available, it becomes difficult to maintain effectiveness in the economy.

(x) The chief executive should bear in mind always his constituency that is, the entire local government area. Therefore, his proposed policies and the execution of such policies should be non-partisans.

(xi) Infrequent revisions of plans and targets could create uncertainties and if the economy is not kept in control, it could be disastrous for future planning and budgeting.

(xii) On the whole, attitude of justice, fairness and willingness to work together are crucial to the effective and successful implementation of budget. Planning and budgetary process, no matter how sophisticated the model adopted, will not work except those involved in all these processes are dedicated, diligent and honest in their respective roles.

The capital budget is largely concerned with the creation of long-term assets” (World Bank Institute, 2008). One test of a capital outlay is whether it adds substantially to the value of the assets of government (Olurankinse, 2011). It is one most appropriate means for planning for capital projects; supported by a capital improvement program. The term capital improvement refers to projects of relatively large size, nature and/or long life usually a minimum of fifteen to twenty years. Such expenditures are designed to provide new or additional governments facilities for public services. Since the objective is to provide major public facilities that have a relatively long life within the limits of available public resources, capital budgeting should involve planning, programming and formulation of policies in terms of the desired levels of public service to be provided goals and objectives. These goals and objectives should be related to population and economic levels and economic trends and projections to ascertain future demands for public services and facilities (Adubi and Oladapo, 2005).

MATERIALS AND METHODS

The study is a time series analysis and so a survey design was used. The population for this paper consists of the eighteen local governments in Ondo state. To reduce data to a manageable proportion, a stratified random sampling approach was adopted in selecting the sample. Data were obtained through secondary source, mainly from annual financial statements and publication of approved budget estimates from nine local governments. The use of student t-test of differences of means was employed in analyzing the data. The following local government areas of Ondo State were sampled:

- i. Ondo West Local Government Area (NDW).
- ii. Idanre Local Government Area (IDR).
- iii. Ile-Oluji Local Government Area (LEL).
- iv. Akure South Local Government Area (AKS).
- v. Akoko Northwest Local Government Area (AKNW).
- vii. Okitipupa Local Government Area (KTP).
- viii. Owo Local Government Area (WWW).

Model specification

The broad objective of this study is to find out if there is a significant difference between budgeted capital expenditure and the actual expenditure on some infrastructures with a view to determining their level of effectiveness. The research hypothesis can be summarized as finding the proportions of the budgeted capital actually spent on project. These projects are Education, Health, Agriculture and Social Development and Culture. This analysis was carried out using data from nine local government areas for the period of 12 years. This, therefore, calls for a construction of a microeconomic model which can be specified as follows:

$$PRO_{ni} = f(CBA_{ni}) \tag{1}$$

Where PRO = Particular capital project value observed, CBA = Capital Budget Allocation on the particular project, n = period = 1999 to 2010, i = individual local government. The projects are:

- VEDM = Value of educational materials.
 - VHE – Value of health equipment.
 - VAI = Value of agricultural inputs.
 - VSDCF = Value of social development and cultural facilities.
 - U = Stochastic (random) error term.
 - i = 1, 2, 3, ..., 9 = the 9 local government areas.
- The model is expressed exclusively as:

$$PRO_{ni} = \alpha_{oi} + \alpha_{1i}CBA \tag{2}$$

The model in Equation (2) is therefore a micro-determinant model where the parameters (α_1) are propensities. That is; α_0 = constant term, an autonomous determinant of capital Project. This may be termed as those factors (legal or illegal) that do determine capital project implementation outside the budgeted allocation for the project. α_1 = The parameter that measures the marginal propensity to spend budgeted allocation on education. α_2 = Parameter measuring the marginal propensity to spend budgeted allocation on Health. α_3 = Parameter measuring the marginal propensity to spend on Agriculture. α_4 = Parameter measuring marginal propensity to spend budgeted allocation on social development and cultural facilities.

Marginal propensity is the rate of change in a variable with respect to unit increase in another variable. For the purpose of this paper, it can be defined as the rate of change in capital budget allocation with respect to changes in each of the projects. That is, what proportion of a unit increase in capital budget allocation will be devoted to each of the projects in the foregoing. It is therefore the first derivatives of Equation (1) with respect to each variable.

Estimation technique

This study adopts one method of analysis, namely descriptive techniques. The descriptive analysis include measures of central tendencies, mean, median, mode and the test of equality among the means of budgeted capital allocation and expended capital on each project per local government. This test uses the student t-test of differences of means. The formula for the t-test is given as:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\delta \frac{1}{N_1} + \frac{1}{N_2}}} \quad \text{where } \delta = \frac{N_1\delta_1^2 + N_2\delta_2^2}{N_1 + N_2 - 2}$$

ANALYSIS AND RESULTS

The result of the data is presented in Tables 1.

Table 1. t-test of equality of means.

	VEDM	VHE	VAI	VSDCF
Ondo West				
Exp. Mean	9.808	24.04	17.96	19.78
Obs. Mean	2.436	50.46	12.61	5.77
t-stat.	3.053	0.97	1.63	2.25
Prob.	0.005	0.340	0.13	0.03
Akoko N.W				
Exp. Mean	4.05	53.95	15.27	6.69
Obs. Mean	56.4	25.06	5.73	4.17
t-stat.	0.94	0.89	1.41	0.77
Prob.	4.05	0.38	0.17	0.45
Akoko S.W				
Exp. Mean	25.44	24.03	2.08	146.65
Obs. Mean	25.45	19.38	6.302	70.89
t-stat.	0.0003	0.369	0.782	0.641
Prob.	0.99	0.72	0.44	0.52
Akure South				
Exp. Mean	4.59	18.87	17.48	23.6
Obs. Mean	1.47	17.96	3.99	5.33
t-stat.	1.935	2.34	1.39	1.52
Prob.	0.007	0.03	0.17	0.14
Idanre				
Exp. Mean	2.97	68.10	11.018	6.912
Obs. Mean	1.65	40.81	5.66	2.42
t-stat.	1.16	0.64	0.723	1.34
Prob.	0.258	0.52	0.477	0.19
Ile-Oluji				
Exp. Mean	5.2466	51.07	8.16	16.98
Obs. Mean	28.595	19.3867	1.993	8.823
t-stat.	0.902	1.1457	1.914	0.988
Prob.	0.3764	0.2642	0.068	0.3337
Odigbo				
Exp. Mean	5.157	55.57	8.45	21.02
Obs. Mean	2.1606	123.93	4.16	6.388
t-stat.	1.422	0.943	1.183	1.1969
Prob.	0.1689	0.3558	0.249	0.2433
Okitipupa				
Exp. Mean	3.18	111.45	25.97	17.41
Obs. Mean	3.142	48.02	6.44	3,261
t-stat.	0.0116	1.096	1.883	2.391
Prob.	0.9908	0.284	0.073	0.02
Owo				
Exp. Mean	3.59	8.996	2.896	5.665

Table 1. Contd.

Obs. Mean	4.25	14.85	3.549	7.295
t-stat.	0.357	0.665	0.390	0.827
Prob.	0.723	0.512	0.700	0.416

Table 2. Hypothesis testing for t-test.

Local government	VEDM	VHE	VAI	VSDCF
Ondo West	Reject	Accept	Accept	Reject
Akoko N.W	Accept	Accept	Accept	Accept
Akoko S.W	Accept	Accept	Accept	Accept
Akure South	Reject	Reject	Accept	Accept
Idanre	Accept	Accept	Accept	Accept
Ile-Oluji	Accept	Accept	Reject	Accept
Odigbo	Accept	Accept	Accept	Accept
Okitipupa	Accept	Accept	Reject	Reject
Owo	Accept	Accept	Accept	Accept

Critical value = 1.782, Level of significance = 0.95. Source: Authors Computation 2011.

Test of equality of means using t-test

This study prefers the use of t-test because of the small sample nature of the observation (1999 to 2010). The results of the t-test are presented in Tables 1. The common hypothesis being tested is:

H_0 : There is no significant difference between the mean of budgeted capital and expended capital for project "n".

Exp. Mean = Expected (budgeted) mean of capital allocation for the projects. Obs. Mean = Observed (actual expenditure) on the projects. VEDM, VHE, VAI, VSDCF, as earlier defined.

The test is conducted at 95% level of significance. The rule of thumb is to reject the null hypothesis if the t-statistics is greater than the critical value from the t-table at $(N_1 + N_2 - 2)$ degree of freedom. The critical value at 95% level of significance and $(12 + 12 - 2 = 22)$ degree of freedom is 1.782. This is also equivalent to rejection of the null hypothesis if the probability is less than or equal to 0.05. The results in Table 1 is interpreted as summarized in Table 2.

Acceptance of the null hypothesis implies that there is no significance difference in the budgeted allocation and the expended allocation on the particular project for the particular local government. It implies that on the average, all budgeted allocations are spent on the particular project without diversion of fund. On the other hand, rejection of the null hypothesis implies that there is a significance difference between the budgeted allocation

and the amount actually spent on the project.

FINDINGS

The result of the student t – test as presented in Table 2 shows that majority of the local governments show a high level of effectiveness in terms of spending the allocation on the appropriate projects. This is evidenced by the ratio of the percentage of the acceptance of the null hypothesis in relation to the overall hypothesis tested. Thirty six (4 hypotheses per each Local government X 9 Local governments) hypotheses were tested in all. The result as contained in Table 2 shows that twenty nine representing 80.6% were accepted while seven representing 19.4% were rejected. The acceptance of the majority of the Null hypotheses show that in all the local government under study, budgeted capital allocation were expended on the appropriate capital projects except for four local governments.

- (i) In Ondo West local government the value of educational materials (VEDM) does not justify the budgeted allocation to it. Likewise, the value of social development and cultural facilities are below the budgeted amount.
- (ii) In Akure South local government, the values of education materials and health equipment purchased fall below the capital budget allocated to the projects respectively.
- (iii) In Ile-Oluji Local Government, only the value of agricultural inputs falls below the budgeted allocation to the project.

(iv) In Okitipupa Local Government, only the value of social development and cultural facilities falls below the capital budget to the project on the average. This shows that capital allocation was effectively executed.

Conclusion

This study has empirically analyzed the effectiveness of capital expenditure budgeting in some selected local governments of Ondo State. The result of the empirical analysis shows that there is effectiveness in capital budget allocation and expenditure in these local governments. Nine local governments were sampled out for the study. All the nine local governments can be said to have shown effectiveness in capital budget allocation and expenditure except for few projects. Reasons adduced for budget effectiveness are highlighted below:

- (i) The issue of budgeting was taken seriously. Every spending was in adherence with budgetary provisions.
- (ii) There was total absence of extra-budgetary spending; a situation where a budget officer disburse money without recourse to budgetary provisions.
- (iii) There was a good coordination between plan and budget. Performances were measured against proposal on regular basis for the purpose of detecting variances.
- (iv) There was timely approval and release of capital votes and budget were implemented to the latter.
- (v) Expected revenues and incomes were adequately provided for. There was no issue of under or over provision for either revenue or expenditure.

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