

Determination of Projects Viability Using Capital Budget in the Local Government Areas in Ondo State Nigeria

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Abstract

Government in Nigeria oftentimes embark on capital projects without giving due consideration to the need of the people to which the project serves. Most of these projects do not have economic and social values hence after completion they are either not fully utilized or are jettison along the line. The paper looks into some projects of the local governments in order to find out their levels of viability in terms of need, usage and acceptability to its immediate community. In doing this, four key capital projects were examined in six local governments within a period of five years (2006-2010). Data for this study were mainly secondary. Both correlation and regression matrix were used to analyze the data. The study reveals that Water provision is mostly needed by the people and hence should be given adequate priority by the government.

Keywords: capital project, capital budget, viability, local government

1. Introduction

The general concept of local government is that authority of power established in a locality by a central or state government with a view to achieve effective government at the grassroots level (Nwankwo, 2004). The need for this kind of government cannot be overemphasized as it exists to bring the federal government closer to the people and makes its impact felt in all the nooks and crannies of the areas (Durmck, 2002). This impact of government can only be felt through the execution of basic capital projects. The term capital means the funds employed to finance fixed and long term assets. Capital budgeting involves making investment decisions concerning the financing of capital projects by government. Making investment decisions that will better the life of the rural dwellers is very germane since funds are scarce and there is a need to spend wisely the available scarce financial resources. Over the years, projects are executed on a continuous basis, but the reality is that majority of these executed projects are not viable both in terms of usage or benefits and acceptability. Government in Nigeria executes projects based on their political party priority rather than considering the social and economic benefits to the ultimate users. No wonder why we have several of these projects though completed but yet abandoned or under utilized for lack of social and economic benefits or due to wrong location. This paper intends to take a cursory look into some of these projects in order to determine their viability and frequency of execution.

2. Literature Review

The World Bank institute (2008) classifies budgets into two broad categories. According to this body, a traditional form of budgeting consists of separate estimates of recurrent revenue and expenditures and capital spending. Capital expenditure according to Akpan (2005) is the cost of bringing to existence new institutions, infrastructures, services and projects. Capital expenditures as expressed by kwanashie (2000) are designed to provide new or additional governments facilities for public services. Expenditures on capital projects 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 (Whyne, 2003).

The need for programming capital improvements arises from the limited fiscal resources available to any level of

government and the need for government to perform its numerous tasks (Schwartz, 2008). Programming should be based on a system of priorities tied to the goals and objectives set forth in the planning phase. Planning reveals need; programming provides the basis for ordering the sequence in which these needs can be met most effectively. The financing phase relates to any analysis of the sources of funds to be drawn upon and how the payments are to be made. There are a number of ways in which capital facilities can be financed- on a “pay-as-you-go” basis that is, from current revenue, from capital reserve funds, from long term leasing, and through long-term or short-term borrowing. These methods must be evaluated in terms of the overall fiscal capacity and in the light of the particular capital improvements needs. Governments commonly establish a uniform and organized multi-year capital investment plan. According to the World Bank institute (2002), the capital budget process includes the following steps:

- Inventory of capital assets
- Developing of a capital investments
- Developing of multi-year investment plan; and
- Implementing the capital budget

The first step on the development of a capital budget is to take inventory and provide an assessment of the current condition of all infrastructural facilities. A systematic process for capital investment planning can be built around a very simple information base that confers the need for new or replacement infrastructure. The currency of services usually provides the platform for determining future investment spending. More detailed analysis of the level and quality of service should be carried out as part of specific capital project analysis. From this existing inventory of investment needs, government can examine the areas of greatest need with respect to existing infrastructure programmes and can add potential capital investment projects.

In developing the capital investment plan; it is important to establish goals for the level and quantity of service in terms of measurable indicators. The use of service goals as a motivational instrument underpinning the investment plan enables jurisdiction to determine whether infrastructure should be replaced, upgraded, or extended, or whether entirely new investment should be undertaken. The multi-year plan establishes the time schedule and costs to complete these projects in the recommended period. The benefits of multi-year horizon capital investment plan include:

- Assisting the government in programming scarce financial resources;
- Allowing the government the opportunity to select alternative cost-effective solutions; and
- Allowing the government to engage in prudent borrowing and other public debt policies.

A central element of the capital budget is the financial analysis aimed at minimizing the financial effect of investment project(s) on the budget, while maximizing the impact or returns of the project in addressing the need of the community. The capital budget process is not only a management tool for guiding the expenditure of public resources over an extended period of time, but also represent a commitment by the government to provide its community with the desired and required level of service (Omolehinwa, 2005). In financial planning the government should investigate the financing options and fiscal feasibility of funding the various project requests. The number of public investments that a government can finance generally depends on the following non-exclusive list

- The level of recurring future operating expenditures.
- The cost recovery elements for individual projects and potential for the public investment to be revenue generating.
- The availability of cost sharing through public/private partnership.
- Debt structures and instrument (debt carrying capacity).

3. Methodology

The population for this study comprises of the eighteen local governments from which a sample size of six local governments were randomly selected. Data were sourced directly from published materials, which include annual financial statements and publication of approved budget estimates for the period under study. The six local governments selected are:

Ondo West	NDW
Idanre	IDR

Akoko North West AKNW

Owo WWW

Okitipupa KTP

Odigbo DGB

4. Results and Discussion

The analysis was done with the use of correlation and regression matrix using four key capital projects. The four projects are Water provision (VWP), Health facilities (VHF), School buildings (VSB) and Agricultural inputs (VAI).

4.1 Model Specification

The model is specified as follows:

$CB_{it} = F(VAI_{it}, VWP_{it}, VSB_{it}, VHF_{it})$ and it is expressed exclusively as

$$CB_{it} = (\alpha_0 + \alpha_1 VAI_{it} + \alpha_2 VWP_{it} + \alpha_3 VSB_{it} + \alpha_4 VHF_{it} + U_t)$$

U = Stochastic (random) error term

I = 1, 2, 3,.....6 = 6 local government areas

t = time

CB = Capital Budget

Other variables are as previously defined.

Table 1. Capital Budgeted and Capital Spending in Ondo West Local Government

YEARS	CB(N)	VAI(N)	VWP(N)	VSB(N)	VHF(N)
2006	85,880,970	644,250	18846528-75	(111,729-75)	645,1449-75
2007	90,188,405-25	846,7221-75	29117564-25	(2,003,110-5)	16,563,456
2008	110,705,016	101,212,5	66137139-75	(1,353,000)	5,060,250
2009	167,535,552	27,000	104,408,828-25	(6794250)	10,543,920-75
2010	248,482,292-3	9158812-5	228,246,102	-	9,199,195-5
TOTAL	702,792,235-6	19,309,409-25	446,756,163	(10,262,090-25)	47,818,272

Source: Annual financial statements.

Table 2. Capital Budgeted and Capital Spending in Idanre Local Government

YEARS	CB(N)	VAI(N)	VWP(N)	VSB(N)	VHF(N)
2006	14,904,750	1,095,000	18,690,441-75	-	4,809,750
2007	82,800,000	457,527	55,002,697-5	32,910,220-5	1,487,013-75
2008	41,044,444-5	33,750	29,992,611-75	2,910,373,373	1,614,304-5
2009	19,125,000	188,2,500	26,941,462-5	1,080,561	2,872,555-5
2010	403,500,000	4,497,900-75	167,236,792-50	779,092-5	2,115,061-5
TOTAL	561,374,194-5	7,966,677-75	297,864,006	37,694,247	12,898,685-25

Source: Annual financial statements.

Table 3. Capital Budgeted and Capital Spending in Akoko North West Local Government

YEARS	CB(N)	VAI(N)	VWP(N)	VSB(N)	VHF(N)
2006	17,625,000	50,550-75	13,446,750	(2,250,000)	-
2007	91,500,000	-	1,624,875	(19,152,535-5)	9,207,247-5
2008	99,091,125	-	2,790,840	19339875	8,332,875
2009	167,659,530	1,314,372-75	51,143,816-25	(15,960,241-5)	6,244,500
2010	337,762,500	132,887-25	139,454,650-5	(278,144,67-75)	11,536,107-75
TOTAL	713,638,155	1,497,810-75	5,271,698,741	(45,837,387-75)	35,320,730-25

Source: Annual financial statements.

Table 4. Capital Budgeted and Capital Spending in Okitipupa Local Government

YEARS	CB(N)	VAI(N)	VWP(N)	VSBN)	VHF(N)
2006	47,596,000-5	-	7,086,750	(37,854,529-5)	6,565,671.75
2007	134,459,016-75	1,321,500	6,750,000	27,350,333-25)	4,215,469.5
2008	200,625,000	-	20,120,655-75	(38,795,755-5)	6,859,552.5
2009	398,587,500	26,250,000	132,092,132-25	(60,232,500)	3,131,850
2010	455,152,212-5	-	253,714,233-75	-	-
TOTAL	1,236,419,730	39,456,000	419,763,771-7	(164,233,118-3)	20,772,543.75

Source: Annual financial statements.

Table 5. Capital Budgeted and Capital Spending in Owo Local Government

YEARS	CB(N)	VAI(N)	VWP(N)	VSBN)	VHF(N)
2006	9,450,000	3,686,406	6,041,220	8,070,971-25	6,349,041
2007	9,450,000	3,453,848-25	7,768,624-4	4,076,144-25	9,478,500
2008	18,931,713-75	3,214,296-75	3,953,111-25	(2,261,250)	8,687,811-75
2009	55,875,000	32,413,309-5	34,427,151	(431,178-25)	13,456,635-75
2010	42,375,000	562,500	2,675,990-25	(7,500,000)	4,017,591-75
TOTAL	136,081,713-8	13,330,360-5	54,866,097	2,339,687-25	41,989,580-25

Source: Annual financial statements.

Table 6. Capital Budgeted and Capital Spending in Odigbo Local Government

YEARS	CB(N)	VAI(N)	VWP(N)	VSBN)	VHF(N)
2006	46,087,500	-	13,682,812-5	(3,560,437-5)	4,970,559-75
2007	128,462,445-75	8,278,278	77,233,581-75	(4,643,319-75	6,943,476
2008	112,875,000	2,394,000	135,194,101	(12,610,851)	6,058,791-75
2009	113,625,000	1,462,500	14,437,500	(13,027,378-5)	9,061,800
2010	338,160,750	57,187,500	258,984,414	(8,013,757-3)	57,498,193-5
TOTAL	630,947,520-7	69,322,278	499,532,318-3	41,855,744-25	84,532,821

Source: Annual financial statements.

4.2 Correlation Analysis of Variables

Correlation analysis presents a pictorial view of the degree and existence of relationship between two variables. In this study five variables are involved for each local government. These are Capital Budget (CB), value of Agricultural inputs (VAI), values of Water provision (VWP), value of School buildings (VSB) and value of Health facilities (VHF). The result of correlation analysis among the variables for each local government is presented as follows.

Table 7. Correlation Matrix for Ondo west (NDW)

	CB	VAI	VWP	VSBN)	VHF
CB	1.0000				
VAI	0.6424	1.0000			
VWP	0.9505	0.6479	1.0000		
VSB	-0.3622	0.3128	-0.315	1.0000	
VHF	0.7145	0.7272	0.5390	0.1257	1.0000

Source: Computed from researcher's raw data.

The result in Table 1 shows that the variables in Ondo West local government Area have varied degrees of linear association among themselves; the correlation coefficients are interpreted in relation to capital budget. Table1 therefore shows that all the capital spending show positive correlation with capital budget except for the value of School buildings (VSB) which is negative (-0.3622). Value of Water provision (VWP) shows the highest correlation (0.95) with capital budget followed by the value of Health facilities (VHF) (0.71) and then VAI which is 0.64.

Table 8. Correlation Matrix for Idanre (IDR)

	CB	VAI	VWP	VSb	VHF
CB	1.0000				
VAI	0.6244	1.0000			
VWP	0.9595	0.5304	1.000		
VSb	-0.0142	-0.4622	0.0665	1.000	
VHF	0.005	0.0992	0.0577	-0.1870	1.0000

Source: Computed from researcher's raw data.

The result in Table 2 shows that the value of Water provision shows a very high (0.95) positive correlation with capital budget. Just like in Ondo West, the value of School buildings shows a negative relationship with capital budget (CB), while Health facilities show an insignificant (0.005) correlations with capital budget.

Table 9. Correlation matrix for Akoko North West (AKNW)

	CB	VAI	VWP	VSb	VHF
CB	1.000				
VAI	-0.1195	1.000			
VWP	0.8842	-0.0451	1.0000		
VSb	0.4724	0.2777	0.7948	1.000	
VHF	0.6037	0.3613	0.5933	0.6396	1.0000

Source: Computed from researcher's raw data.

The result of correlation analysis for Akoko North West shows that all the capital Spending shows a positive correlation with capital budget in the local government except for the value of Agricultural inputs is negative and insignificant (-0.1195). The value of Water provision shows the highest positive relationship (0.88) with capital budget in the local government.

Table 10. Correlation Matrix for Okitipupa (KTP)

	CB	VAI	VWP	VSb	VHF
CB	1.000				
VRAI	0.9093	1.0000			
VWP	0.9149	0.7675	1.000		
VSb	0.9144	0.8454	0.7903	1.000	
VHF	0.4001	0.4781	0.1717	0.6049	1.0000

Source: Computed from researcher's raw data.

From Table 4 all capital spending show positive correlation with capital budget. For example values of Agricultural inputs, Water provision and School buildings are respectively 0.91.

Table 11. Correlation Matrix for Owo (www)

	CBA	VA	VWP	VSb	VHF
CB	1.000				
VAI	0.2324	1.000			
VWP	0.7770	-0.1880	1.000		
VSb	0.1722	-0.0165	0.4898	1.000	
VHF	0.6488	0.2638	0.2532	0.1272	1.0000

Source: Computed from researcher's raw data.

Correlation coefficients among the capital spending and capital budget allocation are low and positive except for VWP and VHF which are 0.78 and 0.65 respectively.

Table 12. Correlation Matrix for Odigbo (DGB)

	CB	VAI	VWP	VSb	VHF
CB	1.000				
VAI	0.7478	1.000			
VWP	0.2112	0.1121	1.000		
VSb	0.6419	0.4400	0.0165	1.000	
VHF	0.8595	0.6592	0.0814	0.6442	1.000

Source: Computed from researcher's raw data.

The result in Table 6 shows that all the capital spending show positive correlation with capital budget. Relatively the correlation coefficient for value of Water provision (VWP) is lowest (0.21) in the local government, while correlation coefficient for value of facilities (VHF) is the highest (0.86) in the local government.

4.3 Result of Regression Analysis of Model

Two micro economic instruments are estimated from the regression results. These are the marginal propensities of capital spending (α) which measures the rate of change in capital budget with respect to change in particular project. The second instance is the coefficient of elasticity (ϵ) which measures the degree of responsiveness of changes in capital budget to the change in each capital project. The result in Table13 shows the following.

1. In Ondo West, the marginal propensity for Water provision and Health facilities are positive indicating that they are significant while that for Agricultural inputs and school buildings are negative meaning that they are not significant.
2. In Idanre, the marginal propensity for Water provision and Agricultural inputs are positive indicating that they are significant while that for Health facilities and school buildings are negative meaning that they are not significant.
3. In Akoko North West, the marginal propensity for Water provision, School buildings and Health facilities are positive indicating that they are significant while that for Agricultural inputs is negative meaning that it is not significant.
4. In Okitipupa, the marginal propensity for Water provision, Agricultural inputs and school buildings are positive indicating that they are significant while that for Health facilities is negative that is not significant.
5. In Owo, the marginal propensity for Water provision, Agricultural inputs and Health facilities are positive indicating that they are significant while that for School buildings is negative that is not significant.
6. In Odigbo, the marginal propensities for all the four projects are positive. This shows that all the four projects are significantly executed.

Table 13. Marginal Propensities and elasticity's of Capital Budget in the selected Local Government

	VAI		VWP		VSB		VHF					
	α_0	α_1	ϵ_1	α_2	ϵ_2	α_3	ϵ_3	α_4	ϵ_4	R ²	F-Stat	Prob
NDW	44.68	- 1.525*	0.04	0.851	0.50	-2.49*	0.36	5.67	0.38	0.99	166.57	0.0000
IDR	-27.015*	13.02	0.31	2.16	1.20	-0.10*	0.011	-6.04*	0.18	0.94	20.71	0.002
AKNW	-19.71*	-0.114*	0.12	1.797	0.89	2.124	0.07	4.85	0.54	0.81	7.594	0.01
KTP	-1739*	4.70	0.13	0.82	0.33	2.60	0.94	-204*	0.05	0.96	45.66	0.000
WWW	-2.567*	1.22	0.24	0.76	0.53	-1.91*	0.28	1.84	0.63	0.95	35.07	0.0001
DGB	-21.91*	11.19	0.29	0.071	0.10	3.03	0.17	9.72	0.69	0.83	8.2685	0.008

Source: Summary of Regression Results.

Note: α = Measure of marginal propensity; ϵ = Elasticity Coefficient; * = Not significant at 5% level but significant at lower level.

5. Conclusion

From the analysis done above, one can see that water provision is more prevalent and significantly executed in all the local governments. This suggests that water provision is much needed and more acceptable and should therefore form a larger part of the capital projects of the local governments. Majority of our local government in Nigeria are concentrated in the rural areas and are farther away from the state capital. The possibility of access to portable water is very remote and this accounted for the widespread diseases among the rural dwellers. These diseases are water related (water borne) ranging from Cholera, Typhoid and Dysentery to other venereal

diseases. Government huge capital investment on water provision is therefore believed to be the antidote to better living and good health since health is wealth.

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