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The Impact of Performance Based Budget (Pbb) on Projects Effectiveness, Quality and Sustainability *in Fako and Meme Divisions of the South West Region, Cameroon*

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ABSTRACT

The study examined the impact of performance based budget on projects effectiveness, quality and sustainability in Fako and Meme Divisions of the South West Region, Cameroon. Three specific objectives were formulated to guide this study. The objectives investigated the impact of performance based budget on the effectiveness of projects, the impact of performance based budget on the quality of projects and the impact of performance based budget on the sustainability of projects. Ex-post facto research design was used for this study. The sample of this study was made up 420 respondents comprising of service providers, beneficiaries of the projects and staff of the Regional Delegation of Water and Energy and the Regional Delegation of Public Works in Fako and Meme Divisions. A well validated structured questionnaire was used for data collection. Data collected were analyzed using descriptive statistics and dependent t-test. Findings revealed that there exist a significant difference in the quality of roads, water and electricity projects before and after implementation of performance based budget with the quality of roads higher after the full implementation than before the implementation of PBB. There exist a significant difference in the effectiveness of road, water and electricity projects before and after implementation of water projects, and there exist a significant difference in the sustainability of road, water and electricity projects before and after implementation of performance based budget. The study recommended that the effectiveness of the budgetary system should be improved so that the quality and sustainability of projects will be obtained. Moreover, good budget begets good results.

INTRODUCTION

Countries over the globe are being challenged to reform the public financial management, policies, and practices of their public sectors. These pressure come from a variety of sources including multilateral development institutions, government investors, parliaments, the private sector, growing competiveness, globalization, citizens' groups and civil society, and decline in confidence of government (Madhekeni, 2012). The culture of achieving results was first introduced in the 1950s by Peter Drucker's management by objective (MBO) and its principles which later evolved to results-based management (RBM) system (Drucker, 1954). The growing quest is to enhance effectiveness, efficiency, transparency, and accountability of government - specifically by measuring and reporting on government performance and assessing the results of government operations and programs (Gomez & Willoughby, 2008).

In the South West Region of Cameroon, out of the general budget allocation in the Region for the past four (4) years from 2013 to 2016, the share of 45%, 56.6%, 46.8% and 43.3% respectively goes for public investment budget in the region. Also, out of the percentage share mentioned above, Regional Delegation of Water and Energy (RD/MINEE) occupies 4.8%, 2.7%, 5.1% and 4.5% while Regional Delegation of Public Works (RD/PW) occupies 23.2%, 11.7%, 23.7% and 21.3% respectively. These funds were allocated to these delegations to carryout road infrastructure, provide water and electricity to the rural and urban communities of the region (Minepat, 2016). Yet roads, water and electricity remain the cry of the people as many divisions lack good roods, rampant electricity cuts or shortage in power supply and inadequate water supply in the region. This keeps the researcher wondering whether accurate or efficient feasibility studies were being carried out before implementing the projects, whether the budget allocated to execute the projects were in line with estimated bill, whether the projects were imposed to the community or were all the stakeholders involved in the designing and implementation of the projects?

Basically, in Cameroon, all state public establishment and Regional local authorities' services and projects are being done using performance based budgeting. This is in a bit to close the gap of limited resources to achieve required results, limitation of budgetary commitments to a year, insufficient account of the needs of the grass root population, poor quality of public spending, difficulty in measuring the impact of public spending, administrative bottlenecks, corruption, and poor accountability that the country had witnessed for decades with resource budgeting (Titi, 2011).

However, it is believed that, performance based budgeting can strengthen the overall performance of the public sector by improving on the overall budgetary discipline, enhancing the quality of public spending, increase in management flexibility, greater accountability of the authorising officers in the management of their funds or budget and in the achievement of results, improving the allocation of public resources in relation to the priority needs of the citizens and sustainability of projects (Ginny, Hager & Hobson, 2001).

For the past four years under studies, there has been a relatively long tradition of monitoring and more attention has been monitoring PBB than it evaluation. As a matter of fact this research seeks to examine some twelve (12) projects executed before and after the adoption PBB in some localities within Fako and Meme Divisions of the South West Region of Cameroon. This is to gauge out if the promises brought by PBB to solve problems that were faced with Resource Budget in the execution of projects. Based on these knowledge gaps, the researcher seeks to undertake this research.

RESEARCH OBJECTIVES

To examine the impact of PBB on projects effectiveness, quality and sustainability

Literature Review

Conceptual Review

i. Performance Based Budgeting

This concept started as far back in the 1950s as earlier mention in the background, and has been used under many labels: Management by Objective (MBO), Zero Based Budgeting (ZBB) and Planning Programing Budgeting System (PPBS) just to name a few (Thor, Allred, Ball,

Dinehart, Greer & Walthers, 1999). The concept has been implemented by many developed and developing countries particularly the United States and Uganda, there is no common definition of the term (Greg, 2003).

According to Thor, et al. (1999) PBB depends on a framework to measure results, and these framework includes:-
Vision or Mission statement of an ideal future giving purpose for an organization's existence.

Goals – the results the organization want to achieve for its citizens, it is a collection of related programs. The goal needs to be SMART that is specific, measurable, attainable, realistic and time bound.

Objectives - specific deliverables to be produced, it explains how the goal is to be achieved.

Measures – they are quantitative or qualitative indicators used to evaluate performance or progress towards an objective. Below are some types of measures they include.

Outcome: Measures the actual impact, result, or public benefit of an actions or project.

Efficiency: Measures the unit cost of a given outcome or output.

Input: Resources used to produce or deliver goods and services.

Impact: this can be direct or indirect, positive or negative long term effect on the beneficiaries of a service rendered or project.

Quality: Measures effectiveness in meeting expectations of the organization or beneficiaries of the project.

The National Conference of State Legislatures, for example, defines PBB in the following way: "PBB is a budget framework that allocates funding based on each programs' success in achieving measureable results".

Furthermore, the Organization for Economic Co-operation and Development OECD (2002) has defined performance budgeting as budgeting that links financial resources to measurable results.

Also, performance-based budgeting (PBB) aims at correlating, strategic planning objectives, expenditure appropriations and expected results from government programs. The system necessitates the availability of quantifiable data that "provides important information about program outcomes" (Willoughby & Melkers, 2000). PBB moves further from mere reporting of results to effectively and efficiently creating a mechanism to evaluate progress towards the defined goals (Altmayer, 2006). Also PBB has facilitated the attention to customer (citizens) satisfaction, the empowerment of civil servants, and the use of private sector process-improvement techniques (Swiss, 2005)". In addition performance budgeting according to Segal and Summers (2002), the Reason Public Policy Institute (RPPI), is an exercise that "costs out"

various activities that endeavour to achieve an end outcome. It facilitates the link of results to expenditures. This definition could be more acceptable to accountants and budget analysts.

The effectiveness, quality & sustainability on projects

i. Project Effectiveness (Timeliness)

Melkers & Willoughby, 2001 in a study in trying to get the views of States PBB their results showed that, states that effectively implement the PBB reforms had experienced improved programmatic effectiveness, it has affected cost and reduced duplication of project. Also in another survey found that performance budgeting was "effective" in improving effectiveness, decision making, and coordination. It was less effective though in eliminating duplication and cutting costs (Willoughby & Melkers, 2000). Furthermore, PBB was perceived to be more effective than resource budget. In addition though PBB was believed to encourage the allocation of funds based on objectives, Willoughby and Melkers (2000) in their results on the perceptions of effectiveness of state budget officials found that performance-based budgeting initiatives have been less successful in terms of appropriation levels than in management improvement in the state organization. However, if well implemented it will have an impact on the appropriation or allocation of funds, quality will be improved and will assist the state in meeting its objectives sustainably.

Klase & Dougherty (2008) in assessing the impact of PBB on state budget outcomes, the results revealed that performance-based budgeting does have an impact, a statistically significant and positive effect on budget outcomes, measured broadly in their research by constant per capital expenditures. According to Folscher, Mkandawire & Farogher (2012) in their study of trying to evaluate the implementation, efficiency and costs effectiveness on projects in Malawi, their findings revealed that, the projects or reform was inefficient compared to the targets and outputs. The projects were realized later than the originally targeted period, with some projects outputs still outstanding by the end of the period.

The concept of effectiveness is used differently in assessing different processes. In the context of project management where project managers or organizations always strive to make a balance of quality, time and costs (Sundqvist, Backlund & Chronèer, 2014). Moreover, according to some research scholars the success of a road construction, electrification work and water supply depends on the efficiency and effectiveness of the project (Crawford & Bryce, 2013). Also, the success of the project is measured against the general objective of the project that is, how the project objectives are met taking into account the (time, costs, quality and project mission) (Atkinson, 1999). In addition, efficiency and effectiveness is generally used to evaluate projects and at times used confusedly by researchers. Efficiency measure refers to the use of the available resources to obtain the defined objective (time, budget and specifications) (Pinto & Slevin, 1988), while effectiveness looks at the achievement of project, beneficiary's satisfaction and impact of the project (Takim, Alam & Adnan, 2008). Based on the aforementioned characteristics of project effectiveness, is relevant to this study as time, costs, effective communication and specification have been used to assess the results obtained in the various projects (Cooke & Davis, 2002). According to information gathered from the annual reports on the execution of the public investment budget in the South West Region for 2015 financial year, it revealed that, the timely delivery of projects, non-respect of project calendar by all actors and late payment to service providers remain a problem.

ii. Quality of a project

The quality of a project entails the process put in place to ensure that the project will satisfy the needs for which it was undertaken. These are based on (planning) expense measurement financial processes (budgeting), and (Control) costs reduction improvement (Juran, 1986). Some school of thought holds to the fact that, quality is based on the prize or costs of the product or project, others say it depends on the individual, the way he/she perceive, sees or use it and to others quality is defined by the consumer or beneficiaries. According to Juran (1986), he defined quality in terms of the output produced must be fit for use and free from deficiencies. He mentioned that, to ensure quality deliverables of project it must go through the following three steps; quality planning, quality control, and quality improvement.

Quality planning here refers to all the activities relevant to the project such as setting quality goals that will satisfy or impact positively the beneficiary, develop means that are able to produce those product features, control mechanism and how they will be put into action (Juran, 1988). Quality control verifies that the project meets standards as planned in the contract document, monitoring the implementation of each stage of the project so as to mitigate where required so that it performs with optimal effectiveness of meeting the project goal. Quality improvement this step tries to analyze the difficulties encountered in the execution of project and the lesson learned that can be applied to future projects. This is to avoid waste and make correction in subsequent projects (Juran & Gryna 1988).

Additionally, Juran in his book titled quality planning state different methodology to be used in all business ventures or projects to attain results or quality. Also, it will be of importance to mention some other scholars like Deming who introduced the Japanese company to the Plan-Do-Check-Act (PDCA) cycle developed by Shewart describing the process to achieve quality in any endeavour (Deming, 1972). To him the effective implementation of this process will increase quality by reducing waste, rework, motivation of staff and problem solving while increasing customer loyalty. Furthermore, according to Crosby (1979), holds to the idea that quality is free which signifies that a job or project is cheaper when done well or right for the first time than reworking or scraping it. He defines quality as conformity to requirement and added that, to achieve quality one needs dedication, patience and time. However, according to these three gurus Juran, Deming and Crosby holds to the fact that, a focus on quality will reduce production costs, the gains can be reinvested on other new projects.

According to a study carried out by Still (2014) on monitoring the supply and management of rural water projects in South Africa, he used performance indicators such as quality, reliability and sustainability of the water project. He found out that very little monitoring programmes are being done on project delivered to the communities to ensure that the water is of quality, working well and meeting the needs of the people. He concluded that effective monitoring and evaluation system should be put in place so as to ensure that the funds allocated for the projects are being used as planned, all specifications are being respected as indicated in the contract document, the needs of the people are met and management committee put in place to manage the water project. In addition taking into consideration some specification in the contract document for the construction of borehole at Kie in the South West Region of Cameroon, the type of materials, rules for the execution were duly specified (MINEE, 2015).

iii. Project Sustainability

Many organizations including the public sector have gained interest in the sustainability of projects in recent years, given the benefits projects offers to promote change and development. The integration of sustainability in projects management helps to promote the delivery of project sustainable (Agarwal, Kalmár & Semenova, 2015). Researchers have defined sustainability differently but all geared towards using the eight principle of project management. However, Ning, Zhang & Li (2009), defined sustainable project management as "meeting the needs of the day without compromising the benefit of the future generations". Also, Silvius & Schipper (2012), defined sustainability in project "as the development, management and delivery of project organization change in policies, processes, resources, assets or organization, with consideration of the six principles of sustainability in project, it result and it effect".

The six principles are; (1) Balancing or harmonizing social, environmental and economic interest; (2) Both short-term and long-term orientations; (3) Both local and global orientation; (4) Value and ethnics; (5) Transparency and accountability; (6) Consuming income not capital. Taking in to consideration some of the points mentioned in the definitions above, the researcher proposed an improved definition of sustainable project management as "the process of managing all project stages, it results and effect in a way to ensure positive gains and reduce negative impacts on resources by balancing or harmonizing social environment and economic interests, having local regional and global orientation, transparency and accountability consideration and both short-term and long-term orientation.

Agarwal, Kalmár & Semenova (2015), in their research work to investigate how the principles of sustainability are applied in projects, they found out that not all the eight principles are effectively followed. They concluded by using the eight principles of project management to develop a model that redefined these principles which if well respected at all levels will increase the sustainability of the projects without endangering the future generation. Since it is focused on the three Ps –People, Planet and Profit. In addition the author of this study did not make use of all the eight sustainable principles to access the sustainability of the project.

METHODOLOGY

Survey research design was adopted for this study. According to Kerlinger (1986) survey research design is the design that allows the researcher to used part of population for the study and then generalized the result on the whole. Survey research design was used for this study because the researcher intended to used quite a large population for the study, but because of lack of time and money, the research then used this design to allow her used part of the population (sample) for the study and then generalized the result on the whole population. The sample used for this study was made up of 32 service providers who were selected from the list of service providers at the Regional Delegation of Planning and Regional Development for the South West –Buea and 400 the beneficiaries of the project given a total of 432 respondents.

The main instrument for data collection for this study were structured questionnaire designed by researcher with help of information from literature. The questionnaire had two sections (A and C). Section A of the questionnaire was meant to elicit information of the demographic characteristics of the respondents while section C was meant to provide information on two of the project evaluation criteria (quality and sustainability) of the projects. Items in section B, C

and D of the questionnaire were measured on five point-Likert scale ranging from strongly agreed, agreed, neutral, disagreed, and strongly disagreed. Data collected were analyze using descriptive statistics and dependent t-test.

ANALYSIS AND DISCUSSION OF FINDINGS

Answer

To examine the extent to which performance based budgeting has helped on the project effectiveness, quality and sustainability by the Contractor (Service providers).

To examine the extent to which performance based budgeting has help on the Water project effectiveness of the project by service providers

Table 1 Descriptive statistics and dependent t-test analysis of the difference in effectiveness of water projects before and after implementation of performance based budget

	Before PBB		After PBB		1.96
Items	**Mean**	**SD**	**Mean**	**SD**	**t-values**
The project/program was achieved within the cost bided	2.83	1.34	3.24	0.54	2.82
The project calendar was fully respected by each actor in doing his/her part towards the achievement of the project	3.83	0.94	4.34	1.08	2.92
There was effective communication with all stakeholders in the implementation process	2.46	1.13	3.53	1.21	3.29
Payments were made in time	3.24	1.04	3.84	1.11	1.73
The project was delivered within the stipulated timeframe	3.21	1.15	3.65	1.2	2.43

Source: Field work, 2020

The result in Table 1 revealed that, three of the items before the implementation of Performance Based Budget (the project calendar was fully respected by each actor in doing his/her part towards the achievement of the project, payments were made in time and the project was delivered within the stipulated timeframe) had mean values less than the weighted mean of 3.0. But all the items (the project/program was achieved within the cost bided, the project calendar was fully respected by each actor in doing his/her part towards the achievement of the projects, there was effective communication with all stakeholders in the implementation process, payments were made in time, the project was delivered within the stipulated timeframe) after the implementation of performance based budget have mean values greater than the weighted average of 3.0. Repetition This means that, the execution of water projects in these areas were more effective after the implementation of performance based budget than before the implementation of performance based budget. The calculated t-values of 2.82 for item 1, 2.92 for item 2, 23.29 for items 3 and 2.43 for items 5 in the table all found to be greater than the critical t-value of 1.96 needed for significance at 0.05 level of significance. This implies that there is a significant difference in effectiveness of water project before and after implementation of performance based budget, with the project more effective after implementation of performance budget.

To examine the extent to which Performance Based Budgeting has help on the Quality of Water Projects by service providers and beneficiaries

Table 2 Descriptive statistics and dependent t-test analysis of the difference in quality of water projects before and after implementation of performance based budget

	Before PBB		After PBB		1.96
Items	**Mean**	**SD**	**Mean**	**SD**	**t-values**
The quality of material used in constructing the borehole were very low	2.93	1.34	3.24	0.54	3.84
The water tank was up to standard	3.04	0.94	4.34	1.08	4.73
The water stand was well constructed	2.83	1.13	3.53	1.21	3.21
The water flows very well	3.1	1.04	3.84	1.11	3.02
Good drainage were constructed	2.74	1.15	3.65	1.2	4.02
The quality of water is good (no colour, no taste)	3.34	0.87	3.64	1.18	1.89
Poorly executed	3	1.04	3.53	1.23	2.73

Source: Field work 2020

The result in Table 2 revealed that, only three of the seven items (the water tank was up to standard, the water flows very well and the quality of water is good that is no colour, no taste) before the implementation of Performance Based Budget had mean values greater than the weighted mean of 3.0. But all the items after the full implementation of performance based budget had mean values greater than the weighted average of 3.0. This means that, the quality of water projects in these areas was higher after the implementation of performance based budget than before the implementation of performance based budget. A further look at the result revealed that the calculated t-values for the items were higher that the critical t-values of 1.96 needed for significance at 0.05 level of significance. This means there exist a significant difference between the quality of water projects before and after the effective implementation of performance based budget. Thus, the quality of water projects were higher after the effective implementation of performance based budget before the implementation of performance based budget. In addition, it was observed by the researcher that the quality of water projects delivered before PBB was not good and so they easily get out of use. Whereas, those constructed after the implementation of PBB the quality has been improved (see pictures on page 127).

To examine the extent to which performance based budgeting has help on the sustainability of water projects by service providers and beneficiaries

Table 3 Descriptive statistics and dependent t-test analysis of the difference in the sustainability of water projects before and after implementation of performance based budget

	Before PBB		After PBB		1.96
Items	**Mean**	**SD**	**Mean**	**SD**	**t-values**
The beneficiaries participated in the selection, implementation and monitoring of the project results	1.34	0.54	2.04	1.1	1.92
Local project committees had been set to manage the project	1.73	0.83	2.83	1.03	1.78
The users are sensitized on how to use and maintain the project	2.54	1.03	3.05	1.16	1.82

Source: Field work 2020

The result in Table 3 revealed that, all the items before and after the implementation of Performance Based Budget (the beneficiaries participated in the selection, implementation and monitoring of the project results, local project committees had been set to manage the project and the users are sensitized on how to use and maintain the project) had mean values less that the weighted mean of 3.0. This implies that the sustainability of water projects before and after the full implementation of performance based budget is still low. A critical look at the result revealed that all the t-values for all the items in table 4.5 were smaller than the critical t-values of 1.96 needed for significance at 0.05 level of significance. It therefore means that, there is no significant difference in the sustainability of water projects before and after the effective implementation of performance based budget.

Also, as seen on the pictures on page 127, it could be seen that projects executed before PBB were not sustainable. Furthermore, according to information from some chiefs they decried the fact that, even the water projects executed after PBB, their sustainability is not guaranteed since they were not involved in the selection of the project nor trained on the usage and management (maintenance) of the projects.

To examine the extent to which performance based budgeting has help on the effectiveness of electricity projects by service providers

Table 4. Descriptive statistics and dependent t-test analysis of the difference in effectiveness of electricity projects before and after implementation of performance based budget

	Before PBB		After PBB		1.96
Items	**Mean**	**SD**	**Mean**	**SD**	**t-values**
The project/program was achieved within the cost bided	2.89	1.03	2.93	0.84	1.83
The project calendar was fully respected by each actor in doing his/her part towards the achievement of the project	2.94	1.21	3.02	0.78	3.24
There was effective communication with all stakeholders in the implementation process	3.02	1.32	3.21	0.92	1.43
Payments were made in time	2.83	0.94	3.14	1.04	2.82
The project was delivered within the stipulated timeframe	2.74	0.86	3.19	1.11	3.54

Source: Field work, 2020

The result in Table 4. revealed that, apart from item 4 of this section (there was effective communication with all stakeholders in the implementation process) that had mean value higher than the weighted mean value of 3.0 for before implementation of performance based budget, all the other items had mean values less that the weighted average of 3.0. On the other hand apart from item 1 of this section of questionnaire that had a mean value less than the weighted mean value of 3.0, all the others had mean values greater than the weighted mean value. This means that the electricity project was more effective after the full implementation of performance based budget that before the full implementation of performance budget. The result in Table 4.6, also showed that the calculated t-value of 3.24 for item 2, 2.82 for items 4 and 3.54 for items 5 were found to be greater than the critical t-value of 1.96 needed for significance at 0.05 level of significance. This implies that there exist a significant difference in the effectiveness of electricity projects before and after effective implementation of performance based budget with respect to items 2, 4 and 5.

To examine the extent to which performance based budgeting has help on the quality of electricity projects by service providers and beneficiaries

Table 5 Descriptive statistics and dependent t-test analysis of the difference in quality of electricity projects before and after implementation of performance based budget

	Before PBB		After PBB		1.96
Items	**Mean**	**SD**	**Mean**	**SD**	**t-values**
The poles are of good wood and were treated before use	3.74	1.08	3.82	1.13	1.04
The poles were well planted	3.54	1.11	3.65	1.22	1.43
The cables used for connection were of good quality	3.23	1.32	3.46	1.18	1.63
The transformer was of high quality	3.02	1.03	3.23	0.98	1.54
The connection is functioning	2.83	1.32	3.54	1.11	1.83

Source: Field Work, 2020

The result in Table 5 revealed that, apart from items 5 of the questionnaire on this section (the connection is functioning) that had mean value less that the weighed mean value of 3.0 for before the full implementation of performance based budget, all the other items had mean values greater than the weighted mean value of 3.0 before and after the full implementation of performance based budget. This means that the quality of electricity project were both high before and after the implementation of performance based budget. Though the performance was slightly higher after the full implementation of performance based budget. A further look at table 4.13 revealed that all the calculated t-values in Table 4.7 were smaller than the critical t-value of 1.96 needed for significance at 0.05 level of significance. This result means that, there is no significance difference in the quality of electricity project before and after the effective implementation of performance based budget. The researcher also observed that all the electrification projects executed before and after PBB were functioning well.

To examine the extent to which performance based budgeting has help on the sustainability of electricity projects by service providers and beneficiaries

Table 6 Descriptive statistics and dependent t-test analysis of the difference in the sustainability of electricity project before and after implementation of performance based budget

	Before PBB		**After PBB**		**1.96**
Items	**Mean**	**SD**	**Mean**	**SD**	**t-values**
The poles are planted in areas not affected by wind nor irrigation or where it does not endanger the users	3.08	1.07	3.52	0.78	2.82
The prescribed dimension of the pool and the deepness of the planting hole were respected	3.21	1.12	3.24	0.85	1.05
Cables and other accessories used were of good quality	3.18	0.86	3.45	1.03	1.48

Source: Field Work, 2020

The result in Table 6 revealed that all the items in this section of the questionnaire (the poles are planted in areas not affected by wind nor irrigation or where it does not endanger the users, the prescribed dimension of the pool and the deepness of the planting hole were respected, cables and other accessories used were of good quality) had mean values greater than the weighted mean value of 3.0 before and after the full implementation of the performance budget. This implied that the sustainability of the electricity project was high before and after the full implementation of performance based budget. A critical look at Table 4.8 showed that the calculated t-value of 2.82 for item 1 in this table was found to be greater than the critical t-value of 1.96 needed for significance at 0.05 level of significance. This implies that the sustainability of electricity projects was higher after the implementation of performance based budget and before the effective implementation of performance based budget.

To examine the extent to which performance based budgeting has help on the effectiveness of road projects by service providers

Table 7 Descriptive statistics and dependent t-test analysis of the difference in the effectiveness of road projects before and after implementation of performance based budget

	Before PBB		After PBB		1.96
Items	Mean	SD	Mean	SD	t-value
The project/program was achieved within the cost bided	2.89	1.32	3.24	1.08	2.14
The project calendar was fully respected by each actor in doing his/her part towards the achievement of the project	2.83	0.82	3.44	1.18	2.84
There was effective communication with all stakeholders in the implementation process	3.02	1.01	4.32	1.21	3.93
Payments were made in time	3.42	1.12	3.67	1.18	2.32
The project was delivered within the stipulated timeframe	2.58	1.06	2.94	1.06	2.73

Source: Field Work, 2020

The result in Table 7 revealed that, apart from items 3 and 4 of this section of the questionnaire (there was effective communication with all stakeholders in the implementation process and payments were made in time) that had mean values greater than the weighted mean value of 3.0 before the full implementation of performance based budget, all the other items had mean values greater than the weighted mean value of 3.0. On the other hand all the items had mean values greater than the weighted mean of 3.0 after the full implementation of performance based budget. This means that road projects in the region were more effective after the full implementation of performance based budget than before the implementation of performance based budget. The result in Table 4.9 revealed that all the calculated t-values for all the items were greater than the critical t-value of 1.96 needed for significance at 0.05 level of significance. This means that there exist a significant difference in the effectiveness of road projects before and after the effective implementation of the performance based budget with the projects more effective after the effective implementation of performance based budget.

To examine the extent to which performance based budgeting has help on the quality road projects by service providers and beneficiaries

Table 4.8 Descriptive statistics and dependent t-test analysis of the difference in quality of road projects before and after implementation of performance based budget

	Before PBB		After PBB		1.96
Items	**Mean**	**SD**	**Mean**	**SD**	**t-value**
The Tar used was good and long lasting	2.48	0.62	2.56	1.05	1.38
The grading of the road was well done respecting dimensions in the contract document	2.78	0.83	2.83	1.11	1.63
Gutters and culverts were built	2.63	0.74	2.84	0.98	1.73
The out wards appearance of the road was good	2.32	0.68	2.78	1.12	1.48
The landscape of the road and the sides were well constructed	2.55	0.78	2.94	1.02	1.83
Pedestrian and cycling path were provided	2.59	0.69	2.93	0.86	1.75
Poorly executed	2.12	1.03	2.34	0.92	1.58

Source: Field Work 2020

Table 4.8 revealed that all the items on this section of the section had mean values less that the weighted mean value of 3.0 before and after the full implementation of performance based budget. This implied that the quality of road before and after the full implementation of performance based budget was low and are all statistical insignificant. A critical look at Table 4.16 revealed that all the calculated t-values were smaller than the critical t-value of 1.96 needed for significance at 0.05 level of significance. This means that there is no significance difference in the quality of road projects before and after the effective implementation of performance based budget

To examine the extent to which performance based budgeting has help on the sustainability road projects by service providers and beneficiaries

Table 4.9 Descriptive statistics and dependent t-test analysis of the difference in the sustainability of road projects before and after implementation of performance based budget

	Before PBB		After PBB		1.96
Items	**Mean**	**SD**	**Mean**	**SD**	**t-value**
The quality of materials used assures the sustainability of the project results	2.13	0.73	2.43	0.58	1.43
Gutters and culverts were well ducked and covered to ease water passage	2.54	0.82	2.83	0.83	1.63
Good laterite were used in grading the roads	2.83	0.68	2.92	1.02	1.56

Source: Field Work, 2020

Table 4.9 revealed that, all the three items on this section of the questionnaire had mean values less than the weighted mean values of 3.0 before and after the full implementation of performance based budget. This means that the sustainability of road project were low before and after the full implementation of performance based budget in the study area. A critical look at Table 4.9 revealed that all the calculated t-values were found to be smaller than the critical

t-value of 1.96 needed for significance at 0.05 level of significance. This mean that there is no significance difference in the sustainability of road project before and after the effective implementation. See pictures on appendix.

Discussion of the Findings

The extent to which performance based budgeting has help on the project effectiveness, quality and sustainability

The findings of this objective revealed that, performance based budget had significantly influenced the level of effectiveness, quality and sustainability of the three types of project under study. This could be seen as nearly all the items had mean values higher than the weighted mean after the full implementation of performance based budget as compare to when performance based budget was not implemented. This finding is in line with the findings of Agarwal, Kalmár & Semenova (2015) who in their study on project sustainability discovered that project were more sustainable after the implementation of performance based budget than when performance based budget was not fully implemented. This finding is also in agreement with the findings Sundqvist, Backlund & Chronèer (2014) who in their study in Lulea discovered that performance based budgeting has greatly assisted in the effectiveness, quality and sustainability of projects. They also noted that the projects were more effective, sustainable after the implementation of performance based budget than before the implementation of performance based budgeting. This finding is equally in line with Takim, Alam & Adnan (2008) whom in a study in Malaysia noted that performance based budgeting has significantly affect the effectiveness and sustainability of projects.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The results of objective two showed that, performance based budget has significantly influenced firstly the effectiveness, quality and sustainability of electrification projects in these divisions of the South West Region. Secondly, PBB implementation has improved the effectiveness and quality of water projects but its sustainability is very low.

Finally findings on road projects showed that, the implementation of PBB has not influence the effectiveness, quality and sustainability of projects and the overall results is not satisfactory. A lot has to be done to improve on the outcome and impact of projects. Based on the findings obtained from the analysis of the objectives, the following conclusions were made:
The performance based budgeting is slowly and surely being implemented in areas like the allocation of multi-yearly budgets, objectives are defined before they are being financed.

All actors should embrace this new financial management reform and shun from the old budget of means, selfish interest and corruption, so that the benefits which the system intends to bring can be appreciated or encouraged.

From the analysis it could be summarized that the poor quality and sustainability of the projects lies on the available financial resources. In this light officials in charge of budgeting should step up the allocations respecting the bills of quantity submitted after feasibility studies.

However the benefits of PBB should not be criticized or questioned within a short period of implementation. Its' impart can only be felt after many years of implementation.

Recommendation according to objective two

The effect of PBB on the effectiveness, quality and sustainability of water, electrification and road projects.

The researcher recommends that the effectiveness of the budgetary system should be improved so that the quality and sustainability of projects will be obtained. Moreover, good budget begets good results.

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