Management of the budget by results and National Urban Sanitation Program in local governments, Lima 2015

Gestión del presupuesto por resultados y Programa Nacional De Saneamiento Urbano en los gobiernos locales, Lima 2015

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Abstract

This research aims to determine the relationship that exists between the budget for results and the National Urban Sanitation Program in local governments, Lima 2015. The study is of the applied type, of correlational level, of non-experimental, cross-sectional design, whit a methodology was hypothetical-deductive framed in the statement of the hypothesis that is later contrasted. It is concluded that there are indications to affirm that budget management by results has a moderate and positive relationship (R=0.616**), as well as significant (p <0.05).

Key words: Results budget, social programs, local governments

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Introduction

For many years there has been a traditionalist approach to how to spend state resources, as of 2007, the first legal stone is laid in Peru, on the implementation of budgets for results, where the effectiveness and efficiency of the resources managed by the state that in many cases are not used properly.

Despite more than eight years of its implementation, it has not been able to consolidate itself as the modern economic tool that directs the implementation of the budget. The resources that are assigned in favor of the population must be used in accordance with what has been stipulated and that they fulfill their role to provide the population with the satisfaction of their minimum needs.

It is a constant to search for efficient work to be carried out in the management capacity of public servants on the management of budgets, for this reason, the best employees must be at the service of the state, here the meritocracy must prevail.

Given that the basic needs of the population through the different governments on duty, be it central, local and/or regional, cannot yet be implemented not only at the Lima level but also at the national level, as is the case, of the provision of the urban sanitation, in that sense the objective of this research was to determine the relationship between the budget by results and the National Urban Sanitation Program in local governments, Lima 2015.

Likewise, the following previous international works have been taken into account. Aceves & Concepción (2012), whose objective was to achieve the specific results of the budget by results, concluded that the implementation would set the tone for taking on new challenges in public administration. On the other hand, Rodríguez & Repetto (2008), concluded that an effective comprehensive management control must be implemented by the government institutions that assume and execute said public control, as well as the new and adequate institutional designs. For Fernández (2011), local governments reflect the most decentralized public unit of the state and therefore...
represents the smallest jurisdictional unit of the government, in that sense they must be equipped with the legal instruments and tools to meet the demands of their powers (among which we can highlight the administration of public services and municipal assets to determine acceptable levels of quality of life in parishes, communities, sectors). Finally, according to Daher (2008), correctly assume the results of the evaluation of these programs, leads to face the challenge of analyzing and evaluating them taking into consideration the multidimensional universe that implies, which could be achieved following a comprehensive evaluation model.

Regarding previous national studies, Alvarado & Morón (2011) they establish that public decision-makers in Peru have decided in 2007 to modernize the way of budgeting and have started the implementation of the budget for results (PpR for its acronym in Spanish), which was tested in 2008. The working hypothesis was that the potential of the PpR was discovered, its implementation will have to overcome a series of difficulties that must be resolved and/or to promote at the sectoral level and at the level of the modernization of the State. On the other hand, Shack (2006) includes three topics: (i) What is a budget for results?, how do you implement a PpR in Public Management?; (ii) strategy, preconditions and instruments, what is their relationship with other budget innovations?; (iii) transparency and citizen participation.

Ricse (2007) is referred to four aspects: antecedents, objectives, implementation and challenges of the process. He addressed the issues to consider in the preparation and formulation of the PpR: the challenges of the PpR formulation process, and the roles and functions in the process of setting goals for the improvement of public services. Regarding the theoretical referential framework, the following variables have been taken into account: variable budget by results. For Álvarez (2010) “the Budgeting for Results aims to strengthen the effectiveness and equity of public spending, to contribute to the improvement of the performance of the State regarding the well-being of the population, in particular, the poor and excluded” (p. 521). Finally, for Reilly (2010) “the new approach to results-based budgeting points to an integrative vision between planning and the same budget and therefore associates actions and actors for the success of the results” (p. 6). The following dimensions of the variable budgets by result, dimension procedures and control mechanisms, were taken into account. This dimension has the following indicators: performance monitoring, “the Monitoring of the PP is the set of actions destined to continuously collect and analyze the information of the performance indicators, as well as their budget execution and the fulfillment of goals in their physical dimension” (Art. 83, Law No. 28411, General Law of the National Budget System); the accountability indicator, this is “social accountability and participatory budgeting within the framework of the design of the monitoring and evaluation system for public spending” (Ravina, 2005, p. 23 ); and the citizen participation indicator. Regarding the dimension of results-oriented management capacity, its indicators are: specialized personnel (Maravi, 2006); the indicator for training programs, according to Siliceo (2004) “training is the mean or instrument that teaches and develops systematically, and places in circumstances of competition and competitiveness, to any person” (p. 24); and the incentive systems indicator. As well as the dimension systems of measurement and evaluation of results, for Carmona (2012):
measurement and evaluation are the essential elements to know our starting point, what we need, what we have and where we are going, where measurement is related to knowing the quantity of something (an object, an action, a fact or phenomenon, a social impact, for example) and the evaluation consists of providing a value according to established standards of something (of a thing, of a phenomenon, a characteristic or a product). (p. 65)

For this dimension there are the indicators: monitoring and efficient control; desirable objectives, for Piqueras (2014) “fine-tuning the objectives represents the first step, to achieve them, future success will depend on it” (p.32). Finally, we have the dimension: determination of the results to be achieved. “The implementation of Strategic Planning in the public sector today constitutes an essential tool for the focus of priorities and of course the correct allocation of resources for the achievement from the results” (Armijo, 2005, p.65). For this dimension there are the following indicators: budgetary programming; and realistic objectives.

The variable National Urban Sanitation Program in local governments, that is the action that an organization, governmental or non-governmental, directs towards a type of population to improve, in some aspect, their social welfare. This variable has the following dimensions: dimension social action of the local government, according to Guillen (2015):

Privileging the study by local governments on social action, is very complex due to the variety of results for the benefit of citizens. For this reason, its action must also be articulated with the regional and central government in order to achieve greater effectiveness in social policies and programs. (p.22)

This dimension has the following indicators: political will; social inclusion; social policies.

The citizen participation dimension, for Esquivel & León (2007): “participation is a process where democracy is generated, that is, it is the intervention of civil society, in decisions and actions that affect the environment and them” (p.32). As indicators of this dimension we have: transparency; social control, according to Sisk & Sverdlik (1970): “Control is an extremely critical factor in the achievement of organizational objectives, with which it is intended to measure both qualitatively and quantitatively the execution of the plans to follow” (p. 8); and access to information. In today’s societies, social programs are linked to a series of conditions and their targeting represents the provision of social services that manage to reach the citizens living in poverty directly, with the aim of properly redistributing state resources.

The social impact dimension of the program, for Guillen (2015) the impact of a social project or program is “the quantitative magnitude of the change in the problem of the target population as a result of the delivery of products (goods or services) to it” (p. 43).
The indicators of this dimension were: effectiveness and scope; assessment and inspection tools, Vásquez (2011) indicated that “assessment and inspection are the primary tools for an adequate decentralization of the state, appropriately distributing public resources for the management of the various social programs” (p. 33); reduction of the poverty index, Vásquez (2011) stated that “the alleviation of poverty means temporarily solving a problem of unsatisfied basic need” (p. 105).

Finally, the dimension measurement of results. The indicators of this dimension are: reliable information systems (feedback) (Roberstshaw, Mecca, & Rerick, 1978); strategic evaluation, Van de Velde (2009) indicated that “really, within a new vision around the evaluative task, it is already widely recognized that evaluation as a functional technical capacity is a key component in the entire cycle of programs and projects” (p. 20).

A detailed study was carried out of important aspects such as the management of the budget by results related to the National Urban Sanitation Programs in local governments, because the budget by results (PpR) is a public management strategy that links the allocation of resources to products and measurable results in favor of the population. A general vision of the complexity of the phenomenon is presented, and the need to establish how the policies of the use of the budget improve the quality of life of the most needy population in public works such it is the provision of the urban sanitation. The research sought to contribute, with alternative of methodological strategies for monitoring the use of state resources.

This research had as a general problem: How is the management of the budget by results related and the National Urban Sanitation Program in local governments, Lima 2015? The specific problems were: How are the procedures and control mechanisms related to the National Urban Sanitation Program in local governments, Lima 2015?; how are results-oriented management capacity related to the National Urban Sanitation Program in the local governments, Lima 2015?; how are the results measurement and evaluation systems related to the National Urban Sanitation Program in local governments, Lima 2015?; how is the determination of the results to be achieved and the National Urban Sanitation Program in local governments, Lima 2015?

The general hypothesis was: there is a significant relationship between the management of the budget by results and the National Urban Sanitation Program in local governments, Lima 2015. As a general objective: determine the relationship that exists between budget by results and the National Urban Sanitation Program in local governments, Lima 2015.

Materials and Methods
The research used the hypothetical-deductive method of quantitative approach, according to Bernal (2015) the hypothetical-deductive method resides in “procedures that start from an assertion as hypotheses, deduction of the conclusions that contrast the facts” (p. 56); the research design was non-experimental, cross-sectional, in this sense there was no manipulation of any variable, nor was the study variables tested and
the instrument was also applied one time only. To carry out this research work, the total of 53 officials from the planning and budget management by results of the National Urban Sanitation Program will be considered as population, survey was used in the research as technique, in the form of a questionnaire, in order to collect relevant information on the management of the budget by results and the budget by results. As regard to the validity of the instrument, the instrument was validated with methodological and thematic experts, as stipulated by Universidad César Vallejo, in such a way that the pertinence, coherence and relevance of the instrument was verified.

For the reliability of the instrument, a pilot test was carried out on a sample made up of 15 officials and the Cronbach’s Alpha coefficient was applied, a value of 0.506 was obtained, a value very far from 1, so some items of the questionnaire were readjusted; in this sense, after carrying out this process, a higher value of Cronbach’s Alpha was obtained.

Table 1 shows the Cronbach’s Alpha reliability statistic with a value of 0.822, which is interpreted as high and therefore it can be indicated that the instrument is reliable.

| Table 1. Cronbach’s Alpha variable 1 |
|--------------------------------------|
| Cronbach’s Alpha | No. of elements |
| 0.822 | 20 |

Source: author’s own elaboration.

Table 2 shows the Cronbach’s Alpha reliability statistic with a value of 0.805, which is interpreted as high and, therefore, it can be indicated that the instrument is reliable.

| Table 2. Cronbach’s Alpha variable 2 |
|--------------------------------------|
| Cronbach’s alpha | No. of elements |
| 0.805 | 20 |

Source: author’s own elaboration.

For the data analysis method, the SPSS 23.0 software has been used, for descriptive statistics using frequency tables and figures, as for inferential statistics, hypothesis tests were performed. Regarding inferential statistics, hypothesis tests were carried out with a level of statistical significance of $p<0.5$ to reject the null hypothesis, according to the objectives set. Kolmogórov-Smirnov goodness-of-fit test was performed to determine whether the data approximated a normal distribution and to choose the appropriate type of statistic (parametric or non-parametric). Spearman’s correlation test, to determine the degree of relationship between the study variables (Guillén, 2015).

**Results**
Table 3 shows that of the 46 officials interviewed, 41.3 % (19) present a low level, 50 % (23) present a mean level and 8.7 % (4) have a high level; in addition, a percentage value of 100 % is observed, no missing data is presented.

Table 3. Levels of perception of the variable budget management by result

| Budget management by results (grouped) | Frequency | Percentage | Valid percentage | Cumulative percentage |
|----------------------------------------|-----------|------------|------------------|-----------------------|
| Valid                                  | Low       | 19         | 41.3             | 41.3                  |
|                                        | Mean      | 23         | 50               | 91.3                  |
|                                        | High      | 4          | 8.7              | 100                   |
| Total                                  | 46        | 100        | 100              |                       |

Source: author’s own elaboration.

In table 4 it is observed that of the 46 officials interviewed, 32.6 % (15) present a low level and 67.4 % (31) have a mean level; in addition a percentage value of 100 % is observed, no missing data is presented.

Table 4. Levels of perception of the dimension procedures and control mechanisms

| D1: Procedures and control mechanisms (grouped) | Frequency | Percentage | Valid percentage | Cumulative percentage |
|-----------------------------------------------|-----------|------------|------------------|-----------------------|
| Valid                                         | Low       | 15         | 32.6             | 32.6                  |
|                                               | Mean      | 31         | 67.4             | 100                   |
| Total                                         | 46        | 100        | 100              |                       |

Source: author’s own elaboration.

In table 5, it is observed that of the 46 officials interviewed, 37 % (17) present a low level and 63 % (29) have a mean level; in addition a percentage value of 100 % is observed, no missing data is presented.

Table 5.1 Levels of perception of the results-oriented management capacity dimension
Table 6 shows that of the 46 officials interviewed, 54.3 % (25) have a low level, 37 % (17) have a mean level and 8.7 % (4) have a high level; in addition, a percentage value of 100 % is observed, no missing data is presented.

Table 6. Levels of perception of the dimension systems of measurement and evaluation of results

Table 7 shows that of the 46 officials interviewed, 21.7 % (10) have a low level, 71.7 % (33) have a mean level and 6.5 % (3) have a high level; in addition, a percentage value of 100 % is observed, no missing data is presented.

Table 7. Levels of perception of the dimension determining the results to be achieved

Table 8 shows that of the 46 officials interviewed, 19.6 % (9) have a low level, 71.7 % (33) have a mean level and 8.7 % (3) have a high level; in addition, a percentage value of 100 % is observed, no missing data is presented.
Table 8. Levels of perception of the variable National Urban Sanitation Program in local governments

| National Urban Sanitation Program in local governments (grouped) | Frequency | Percentage | Valid percentage | Cumulative percentage |
|---------------------------------------------------------------|-----------|------------|------------------|-----------------------|
| Valid                                                          |           |            |                  |                       |
| Low                                                            | 9         | 19.6       | 19.6             | 19.6                  |
| Mean                                                           | 33        | 71.7       | 71.7             | 91.3                  |
| High                                                           | 4         | 8.7        | 8.7              | 100                   |
| Total                                                          | 46        | 100        | 100              |                       |

Source: author’s own elaboration.

Table 9 shows that of the 46 officials interviewed, 47.8 % (22) have a low level, 43.5 % (20) have a mean level and 8.7 % (4) have a high level; in addition a percentage value of 100 % is observed, no missing data is presented.

Table 9. Levels of perception of the social action dimension of the local government

| D1: Social action of the local government (grouped) | Frequency | Percentage | Valid percentage | Cumulative percentage |
|----------------------------------------------------|-----------|------------|------------------|-----------------------|
| Valid                                              |           |            |                  |                       |
| Low                                                | 22        | 47.8       | 47.8             | 47.8                  |
| Mean                                               | 20        | 43.5       | 43.5             | 91.3                  |
| High                                               | 4         | 8.7        | 8.7              | 100                   |
| Total                                              | 46        | 100        | 100              |                       |

Source: author’s own elaboration.

Table 10 shows that of the 46 officials interviewed, 39.1 % (18) have a low level, 52.2 % (24) have a mean level and 8.7 % (4) have a high level; in addition a percentage value of 100 % is observed, no missing data is presented.

Table 10. Levels of perception of the citizen participation dimension

| D2: Citizen participation (grouped)                  | Frequency | Percentage | Valid percentage | Cumulative percentage |
|-----------------------------------------------------|-----------|------------|------------------|-----------------------|
| Valid                                               |           |            |                  |                       |
| Low                                                 | 18        | 39.1       | 39.1             | 39.1                  |
| Mean                                                | 24        | 52.2       | 52.2             | 91.3                  |
| High                                                | 4         | 8.7        | 8.7              | 100                   |
| Total                                               | 46        | 100        | 100              |                       |

Source: author’s own elaboration.
Table 11 shows that of the 46 officials interviewed, 10.9 % (5) have a low level, 69.6 % (32) have a mean level and 19.6 % (9) have a high level; in addition a percentage value of 100 % is observed, no missing data is presented.

**Table 11. Levels of perception of the social impact dimension of the program**

| D3: Social impact of the program (grouped) | Frequency | Percentage | Valid percentage | Cumulative percentage |
|-------------------------------------------|-----------|------------|------------------|-----------------------|
| Low                                       | 5         | 10.9       | 10.9             | 10.9                  |
| Mean                                      | 32        | 69.6       | 69.6             | 80.4                  |
| High                                      | 9         | 19.6       | 19.6             | 100                   |
| Total                                     | 46        | 100        | 100              |                       |

Source: author’s own elaboration.

Table 12 shows that of the 46 officials interviewed, 30.4 % (14) have a low level, 60.9 % (28) have a mean level and 9.7 % (4) have a high level; in addition a percentage value of 100 % is observed, no missing data is presented.

**Table 12. Perception levels of the results measurement dimension**

| D4: Measurement of results (grouped) | Frequency | Percentage | Valid percentage | Cumulative percentage |
|--------------------------------------|-----------|------------|------------------|-----------------------|
| Low                                  | 14        | 30.4       | 30.4             | 30.4                  |
| Mean                                 | 28        | 60.9       | 60.9             | 91.3                  |
| High                                 | 4         | 8.7        | 8.7              | 100                   |
| Total                                | 46        | 100        | 100              |                       |

Source: author’s own elaboration.

**Discussion**

The research came to determine that there is a relationship between budget management by results and the National Urban Sanitation Program in local governments, Lima 2015. According to the results, a moderate correlation coefficient of \( R=0.616^{**} \), \( p=0.000 \) \((p<0.01)\) was obtained, so local governments should invest in budget management programs to obtain improvements in urban sanitation programs. These findings are related to Aceves and Concepción (2012), who describes the importance of the implementation of the results-based budget, it has caused a large number of administrative reforms to modern budgeting systems, all aimed at efficient cost control. It was possible to determine that there is a relationship between the dimension procedures and control mechanisms and the National Urban Sanitation Program in local governments. According to the results, a moderate correlation...
After the research, it was determined that there is a relationship between the results-oriented management capacity dimension and the National Urban Sanitation Program in local governments, according to the results, a moderate correlation coefficient of $R=0.578^{**}$, $p=0.000$ ($p<0.01$) was obtained. These findings are related to Fernández (2011), who considers that local governments should be equipped with the instruments and legal tools that allow them to meet the demands in their powers (such as the administration of public services and local goods) to determine acceptable levels of quality of life in parishes, communities, sectors, among others. Once the research was concluded, it was determined that there is a relationship between the dimension systems of measurement and evaluation of results and the National Urban Sanitation Program in local governments, according to the results, a low correlation coefficient of $R=0.576$, $p=0.026$ ($p<0.05$) was obtained. So local governments should improve the systems for measuring and evaluating results and the National Urban Sanitation Program in local governments, because they are related. These findings are related to Daher (2008), for whom the evaluation of these programs, leads to facing the challenge of analyzing and evaluating them, taking into account consideration of the multidimensional universe that implies it, which could be achieved by following an integral evaluation model.

It was possible to determine that there is a relationship between the dimension determining the results to be achieved and the National Urban Sanitation Program in local governments, according to the results, a moderate correlation coefficient of $R=0.533$, $p=0.000$ ($p<0.01$) was obtained. So the determination of the results to be achieved and the National Urban Sanitation Program in local governments are related. These findings are related to Alvarado and Morón (2011), who concluded that the correct implementation of the budgeting for results is effectively aimed at partially overcoming the low efficiency of the state acquisitions. One of the main tools of PpR is the use of the logical framework as part of programming, monitoring and evaluation.

Conclusions
It can be affirmed that the management of budgets for results has a moderate and positive relationship ($R=0.616^{**}$) and significant ($p=0.000$, $p<0.05$), with the National Urban Sanitation Program in local governments, Lima 2015. It can be stated that the control procedures and mechanisms have a moderate and positive relationship...
(R=0.653**) and significant (p=0.000, p<0.05), with the National Urban Sanitation Program in local governments, Lima 2015.

There are indications to affirm that results-oriented management capacity has a moderate and positive relationship (R=0.578**) and significant (p=0.000, p<0.05), with the National Urban Sanitation Program in local governments, Lima 2015. It can be affirmed that the systems of measurement and evaluation of results have a moderate and positive relationship (R=0.576**) and significant (p=0.026, p <0.05), with the National Urban Sanitation Program in local governments, Lima 2015. There are indications to affirm that the determination of the results to be achieved has a moderate and positive relationship (R=0.533**) and significant (p=0.000, p<0.05), with the National Urban Sanitation Program in local governments, Lima 2015.

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