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Multiannual Investment Programming and the Quality of Budget Execution at the Headquarters of the Regional Government of Moquegua, 2019

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Abstract

The main objective of the research carried out is to determine the relationship between the multiannual programming of investments and the quality of budget execution at the headquarters of the Regional Government of Moquegua, 2019; where the type of research is basic, the design is non-experimental, the level is correlational, the information was collected by cross section, the study sample is 92 workers, the technique used is the survey, the instrument is the questionnaire, and the approach used is quantitative. It was found that 59.8% of the workers consider that the process of multiannual programming of the investment portfolio is of a regular level, with the most outstanding dimension being "Investment portfolio" and the one focused on improving "Prioritization criteria", and 95.7% describe that the quality of budget execution is of a regular level, with the most outstanding dimension being "Prioritization of the social gap", and the one focused on improving "Prioritization of the environmental gap". It is concluded that multiannual investment programming is directly and moderately related to the quality of budget execution (Rho value = 0.492 and $p = 0.000$); Similarly, there is a direct but low relationship between multiannual investment programming and the prioritization of the social gap (Rho value = 0.242 and $p = 0.020$) and the prioritization of the economic gap (Rho value = 0.231 and $p = 0.026$), a direct and moderate relationship with the prioritization of the environmental gap (Rho value = 0.472 and $p = 0.000$) and with the prioritization of the institutional gap (Rho value = 0.490 and $p = 0.000$).

Keywords: *Multi-annual investment programming, quality of budget execution.*

Introduction

The main objective of this research is to determine the relationship between multiannual investment programming and the quality of budget execution at the headquarters of the Regional Government of Moquegua, 2019. The main objective of this research is to determine the relationship between the multiannual investment programming and the quality of the budget execution in the Regional Government of Moquegua's headquarters in 2019 since the territorial gaps in social, economic, environmental, and institutional issues and prioritization criteria must be considered to obtain a multiannual investment portfolio that reflects the main regional problems, This has not been done in a participatory manner and considering the contributions of the various stakeholders, directly affecting the quality of the execution of investments, and with it the presence of complaints from citizens, since they had generated expectations on the prioritization of certain ideas identified in the participatory budget based on results.

The investigated entity has planning documents where the investment program is prioritized, but when analyzing the actual execution of its budget, it is found that the approved budget is not fully considered, affecting the significant decrease of its indicators related to economic problems and regional growth.

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1.1 Research problem

In the Moquegua region there is something similar to that described in the previous item since the Regional Government has its Regional Development Plan Agreed to 2021 and its Institutional Strategic Plan 2018 - 2020, where the institutional strategic objectives were identified: Improve learning achievement, guarantee comprehensive health care services, improve the coverage of basic services, strengthen institutional management, improve economic competitiveness, increase road infrastructure, promote the sustainable use of natural resources, and promote disaster risk management; which have their respective strategic actions that consider investment projects that allow reducing the gaps.

But when analyzing the investment program, for example in 2019, it is noted that the investments prioritized in the management documents are not fully considered for execution, since the current management seeks to prioritize new projects based on interests that are different from those that allowed the generation of the formally approved documents, in a participatory way and with the technical assistance of the National Strategic Planning Center - CEPLAN, and in addition to this, a level of investment execution of only 71.4% was obtained in the Regional Headquarters (see Table 1).

Executing Unit 001-880: REGION MOQUEGUA - HEADQUARTERS			
Source of Financing	PIM	Earned	Advance %
REGULAR RESOURCES	98,285,115	70,150,778	71.4%
RESOURCES FROM OFFICIAL CREDIT OPERATIONS	65,005,342	50,112,182	77.1%
DONATIONS AND TRANSFERS	18,162,306	11,395,875	62.7%
DETERMINED RESOURCES	510,125	498,151	97.7%
	14,607,342	8,144,570	55.8%

Table 1. Execution of the investments of the Regional Government of Moquegua Headquarters
Source: Friendly Consultation of the Ministry of Economy and Finance.

It also highlights the problems in the execution of budgetary programs, by gaps in 2019: 0091 - Increase in the access of the population from 3 to 16 years old to public educational services of regular basic education (social gap) with 61.2%, 0042 - Development of water resources for agricultural use (economic gap) with 63.1%, others, which are indicators of inadequate quality of the execution of public spending.

Therefore, the headquarters of the Regional Government of Moquegua has planning documents to manage the resources to implement the investment program to reduce the social, economic, environmental, and institutional gaps, but when analyzing the actual execution of its budget, it is found that they do not fully consider their management documents, and on top of that, they do not achieve quality and complete execution, since there is no significant decrease in their indicators related to the economic problems and regional growth.

The main function of the Regional Governments is to seek to reduce territorial gaps, in aspects related to social, economic, environmental, and institutional issues, for which they formulate development plans where the objectives and strategies to be prioritized are specified to meet the needs of the population. A key priority for this is the formulation of the multiannual investment programming where a diagnosis of the existing regional gaps is made, which allows, through some prioritization

criteria, to specify the medium-term investment portfolio that the entity will promote and manage the resources for its subsequent execution.

Therefore, this research is justified in that it is a priority to determine the level of knowledge of the entity's personnel on how the entity has managed to prioritize its strategic investment portfolio, and also their perception of how it is managing to execute the investment program, prioritizing the territorial gaps, and finally, how it manages to relate, this will allow clarity on the level of compliance of the management on duty for the prioritizations approved in the participatory management documents.

The results found, from the perspective of the entity's personnel, will be complemented with secondary information from the entity, regarding its investment program approved in its management documents, and what was effectively prioritized in the investments executed in the 2019 fiscal year.

The regulations issued by the Ministry of Economy and Finance related to investment management (INVIERTE.PE) describe the existence of four phases, the first being key for the alignment of the development plan with state intervention initiatives in the territory, which has to do with the formulation and implementation of an investment program focused on reducing social, environmental and economic gaps, among others, that are affecting the quality of life of citizens.

For this reason, the research is important because it aims to analyze the investment programming that has been prioritized in the management of the Moquegua Regional Government Headquarters, leading to facing the main regional problems, from the perspective of the personnel of the entity, which allows for an improvement in the quality of the execution of investments; in summary, it is relevant for:

- Theoretical relevance; since, for the analysis of the study variables, the theories, and guidelines described in the state of the art developed in the following chapter have been considered.
- Academic relevance; since the methodology used, conclusions and suggestions will serve as a guideline for other researchers developing similar topics.
- Practical relevance; since the contributions of the research will allow the entity's management team to prioritize the follow-up of the implementation of investment programming, to meet the expectations of the citizens.

2. Objectives

2.1 General objective

Determine the relationship between multiannual investment programming and the quality of budget execution at the headquarters of the Regional Government of Moquegua, 2019.

2.2 Specific objectives

- a) Analyze the relationship between the multiannual investment programming and the prioritization of the social gap in the Regional Government of Moquegua, 2019.
- b) Identify the relationship between the multiannual investment programming and the prioritization of the economic gap in the Regional Government of Moquegua, 2019.
- c) Analyze the relationship between the multiannual investment programming and the prioritization of the environmental gap in the Regional Government of Moquegua Headquarters, 2019.
- d) Identify the relationship between the multi-annual investment programming and the prioritization of the institutional gap at the Regional Government of Moquegua Headquarters, 2019.

3. Hypothesis

3.1 General hypothesis

H₀: There is no direct and significant relationship between the multiannual investment programming and the quality of budget execution at the headquarters of the Regional Government of Moquegua, 2019.

H₁: There is a direct and significant relationship between multiannual investment programming and the quality of budget execution at the headquarters of the Regional Government of Moquegua, 2019.

3.2 Specific hypotheses

a) **H₀: There is no** direct and significant relationship between the multiannual investment programming and the prioritization of the social gap at the headquarters of the Regional Government of Moquegua, 2019.

H₁: There is a direct and significant relationship between the multi-year investment programming and the prioritization of the social gap in the Moquegua Regional Government Headquarters, 2019.

b) **H₀: There is no** direct and significant relationship between the multi-year investment programming and the prioritization of the economic gap in the Moquegua Regional Government Headquarters, 2019.

c) **H₁: There is** a direct and significant relationship between the multiannual investment programming and the prioritization of the economic gap at the headquarters of the Regional Government of Moquegua, 2019.

d) **H₀: There is no** direct and significant relationship between the multiannual investment programming and the prioritization of the environmental gap at the headquarters of the Regional Government of Moquegua, 2019.

H₁: There is a direct and significant relationship between the multiannual investment programming and the prioritization of the environmental gap at the headquarters of the Regional Government of Moquegua, 2019.

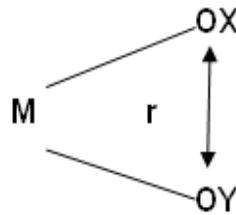
e) **H₀: There is no** direct and significant relationship between the multiannual investment programming and the prioritization of the institutional gap at the headquarters of the Regional Government of Moquegua, 2019.

H₁: There is a direct and significant relationship between the multiannual investment programming and the prioritization of the institutional gap at the headquarters of the Regional Government of Moquegua, 2019.

4. Methodology

4.1 Type of research

Regarding the type of research, it is specified that it is pure or basic, which implies that it sought to contribute to existing knowledge; on the level, it is detailed that it is correlational, which implies that the descriptive behavior of the study variables was analyzed to then relate them (Hernández *et al.*, 2014), with the scheme being:



- M = Sample.
- OX = Data from the variable “Multiannual investment programming”.
- OY = Data for the variable “Quality of budget execution”.
- r = Correlation of variables.

4.2 Research design

The research design used was non-experimental, which implies that the variables were not deliberately altered; regarding the collection of information, it is specified that it was cross-sectional, which implies that it was done in a moment in time (Hernandez *et al.*, 2014).

4.3 Population and sample

4.3.1 Population

The study population is the employees of the Moquegua Regional Government Headquarters who are directly related to the investment cycle, in this case, 120 people (considering the Post Assignment Table - PAC, which is the table of the Regional Government of Moquegua).

4.3.2 Sample

The following formula and criteria were used:

- Confidence level of 95% ($Z = 1.96$).
- Margin of error + 5.00%. (e)
- Probability of occurrence of the phenomenon is 50%. (P)
- Population size is 120. (N)

$$n = \frac{N z_{\alpha/2}^2 P(1-P)}{(N-1)e^2 + z_{\alpha/2}^2 P(1-P)} \tag{1}$$

$$n = \frac{120 * 1.96^2 * 0.50 * (1 - 0.50)}{(120 - 1) * 0.05^2 + 1.96^2 * 0.50 * (1 - 0.50)}$$

$$n = 92$$

After replacing the proposed values in the formula, a value of 92 workers was obtained, who were randomly surveyed.

4.4 Techniques and instruments for data collection

Regarding the technique used to collect field data, it is specified that it was the survey; regarding the instrument used, it was the questionnaire, which specifically are:

- Questionnaire on the multiannual investment programming of the Regional Headquarters.
- Questionnaire on the quality of budget execution at the Regional Headquarters.

Regarding the validation of the field instruments, the Expert Judgment criterion was used, whose reports are attached to determine the level of reliability of the instruments, a pilot test was applied to 15 employees of the entity, obtaining a Cronbach's Alpha statistic value of 0.828 for the variable "Multiannual investment programming" and 0.747 for the variable "Quality of budget execution"; since these values exceed 0.70, the questionnaires are adequate for use in fieldwork (George and Mallery, 2003).

The number of questions considered for the analysis of each of the dimensions for both variables is detailed below:

VARIABLE	DIMENSION	ITEMS
Multiannual investment programming	Gap diagnosis	01, 02, 03
	Strategic objectives	04, 05, 06
	Prioritization criteria	07, 08, 09
	Investment portfolio	10, 11, 12

Table 2. Multiannual investment programming: Relationship item - dimension
Source: Multi-year Investment Programming" Questionnaire"

VARIABLE	DIMENSION	ITEMS
Quality of budget execution	Prioritization of the social gap	01, 02, 03, 04, 05
	Prioritization of the economic gap	06, 07, 08, 09, 10
	Prioritization of the environmental gap	11, 12, 13, 14, 15
	Prioritization of the institutional gap	16, 17, 18, 19, 20

Table 3. Quality of budget execution: Item-dimension ratio
Source: Questionnaire "Quality of budget execution".

5. Results

For drafting purposes in this document, dimensions 1 and 2 of the variable Multiannual investment programming and the variable Quality of budget execution will be presented, as well as the compilation of the 4 dimensions studied in each of the variables, without altering the conclusions and recommendations that may arise from the execution of the tool applied to the sample indicated.

5.1 Variable "Multiannual investment programming"

Level	Frequency	Percentage	Valid percentage	Cumulative percentage
Regular	65	70,7	70,7	70,7
Adequate	27	29,3	29,3	100,0
Total	92	100,0	100,0	

Table 4. Dimension N° 01 - “Gap diagnosis”.

Source: Questionnaire “Multiannual investment programming”.

Table 4 shows the results of the dimension called “Gap diagnosis”, where 70.7% of the employees of the Moquegua Regional Government Headquarters consider that the work of diagnosing territorial gaps carried out by the sector and the regional entity is at a regular level, while 29.3% perceive that it is at an adequate level.

Table 5 presents the analysis by the question, where the most outstanding aspect is that the regional management is considered to have succeeded in identifying territorial gaps, while the lowest evaluation was the socialization of the management team of the Regional Headquarters on territorial gaps to the personnel of the entity.

Question		Count	% of N columns
Regional management has succeeded in identifying territorial gaps.	Never	0	0,0%
	Almost never	0	0,0%
	Sometimes	23	25,0%
	Almost always	58	63,0%
	Always	11	12,0%
Regional management has prioritized infrastructure gaps over other gaps.	Never	0	0,0%
	Almost never	0	0,0%
	Sometimes	28	30,4%
	Almost always	61	66,3%
	Always	3	3,3%
The management team of the Regional Headquarters has socialized the territorial gaps with the entity's personnel.	Never	0	0,0%
	Almost never	14	15,2%
	Sometimes	38	41,3%
	Almost always	40	43,5%
	Always	0	0,0%

Table 4. Dimension N° 01 - “Gap diagnosis” (per question)

Source: Questionnaire “Multiannual investment programming”.

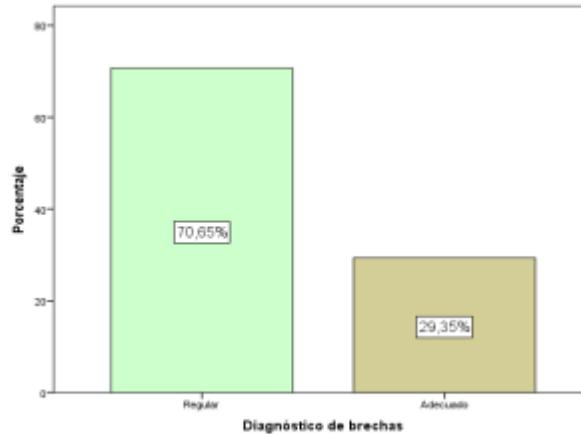


Figure 1. Dimension N° 01 - “Gap diagnosis”.

Source: Questionnaire “Multiannual investment programming”.

Level	Frequency	Percentage	Valid percentage	Cumulative percentage
Regular	58	63,0	63,0	63,0
Adequate	34	37,0	37,0	100,0
Total	92	100,0	100,0	

Table 6. Dimension N° 02 - “Strategic objectives”.

Source: Questionnaire “Multiannual investment programming”.

Table 6 presents the results of the dimension called “Strategic Objectives”, where 63.0% of the employees of the Moquegua Regional Government Headquarters consider the level of detailed knowledge of the institutional strategic objectives to be fair, while 37.0% perceive it to be adequate.

Table 7 presents the analysis by the question, where the aspect most highlighted by the personnel is that they consider that the strategic objectives are equally important for the management of the Regional Headquarters, while the aspect with the lowest evaluation was that the strategic objectives have been efficiently disseminated and socialized by the management team to the personnel of the entity.

Question		Count	% of N columns
The strategic objectives of the Regional Headquarters have been disseminated and socialized by the management team to the staff of the entity.	Never	0	0,0%
	Almost never	11	12,0%
	Sometimes	35	38,0%
	Almost always	42	45,7%
	Always	4	4,3%
The strategic objectives are equally important for the management of the Regional Headquarters.	Never	0	0,0%
	Almost never	0	0,0%
	Sometimes	10	10,9%
	Almost always	69	75,0%
	Always	13	14,1%
The achievement of the strategic objectives is constantly monitored by the management	Never	0	0,0%
	Almost never	8	8,7%

team.	Sometimes	38	41,3%
	Almost always	43	46,7%
	Always	3	3,3%

Table 7. Dimension N° 02 - “Strategic objectives” (by the question)
Source: Multiannual investment programming” questionnaire”

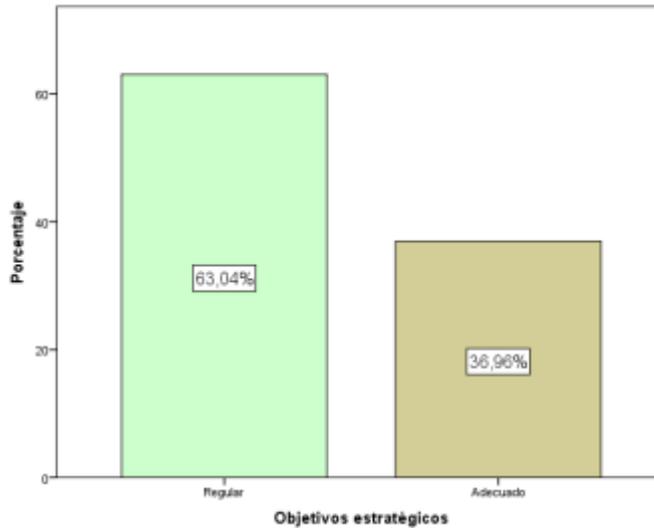


Figure 2. Dimension N° 2 - “Strategic objectives”.
 Source: Questionnaire “Multiannual investment programming”.

Table 8 shows the analysis by dimension, showing that the most outstanding dimension was the “Investment portfolio”, while the lowest rated dimension was the “Prioritization criteria”.

Dimension	Count	% of N columns
Gap diagnosis	Inadequate	0, 0,0%
	Regular	65, 70,7%
	Adequate	27, 29,3%
Strategic objectives	Inadequate	0, 0,0%
	Regular	58, 63,0%
	Adequate	34, 37,0%
Prioritization criteria	Inadequate	17, 18,5%
	Regular	62, 67,4%
	Adequate	13, 14,1%
Investment portfolio	Inadequate	0, 0,0%
	Regular	39, 42,4%
	Adequate	53, 57,6%

Table 8. Variable 1 - “Multiannual investment programming” (by dimension)

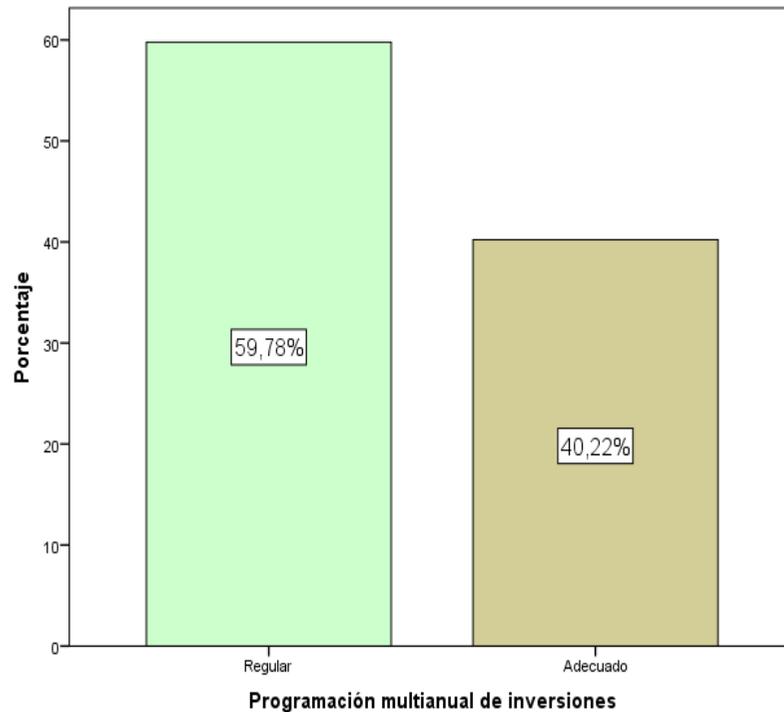


Figure 3. Variable 1 - “Multi-year investment programming”.
Source: Questionnaire “Multiannual investment programming”

5.2 Variable “Quality of budget execution”.

Level	Frequency	Percentage	Valid percentage	Cumulative percentage
Regular	67	72,8	72,8	72,8
Adequate	25	27,2	27,2	100,0
Total	92	100,0	100,0	

Table 9. Dimension N° 01 - “Prioritization of the social gap”.
Source: Questionnaire “Quality of budget execution”.

Table 9 presents the results of the dimension called “Prioritization of the social gap”, where 72.8% of the employees of the Moquegua Regional Government Headquarters consider that the prioritization of investment resources to address social problems is at a regular level, while 27.2% perceive that it is at an adequate level.

Table 10 shows the analysis by the question, where the aspect most highlighted by the staff is that the educational problem is evident in the investments made by the current administration, while the lowest rating was that investments in security issues have not been prioritized in coordination with the municipal authorities.

Question		Count	% of N columns
Addressing educational issues is evidenced by the investments made by the current administration.	Never	0	0,0%
	Almost never	0	0,0%
	Sometimes	10	10,9%
	Almost always	68	73,9%
	Always	14	15,2%
Regional investments in the health sector are highlighted by the population.	Never	0	0,0%
	Almost never	22	23,9%
	Sometimes	37	40,2%
	Almost always	33	35,9%
	Always	0	0,0%
Regional investments consider social inclusion as a prioritization criterion.	Never	0	0,0%
	Almost never	4	4,3%
	Sometimes	22	23,9%
	Almost always	57	62,0%
	Always	9	9,8%
The execution of sanitation projects is key and is coordinated with municipal authorities.	Never	0	0,0%
	Almost never	4	4,3%
	Sometimes	14	15,2%
	Almost always	50	54,3%
	Always	24	26,1%
Investments in security issues have been prioritized in coordination with municipal authorities.	Never	7	7,6%
	Almost never	42	45,7%
	Sometimes	37	40,2%
	Almost always	6	6,5%
	Always	0	0,0%

Table 10. Dimension N° 01 - “Prioritization of the social gap” (by the question)

Source: Questionnaire “Quality of budget execution”.

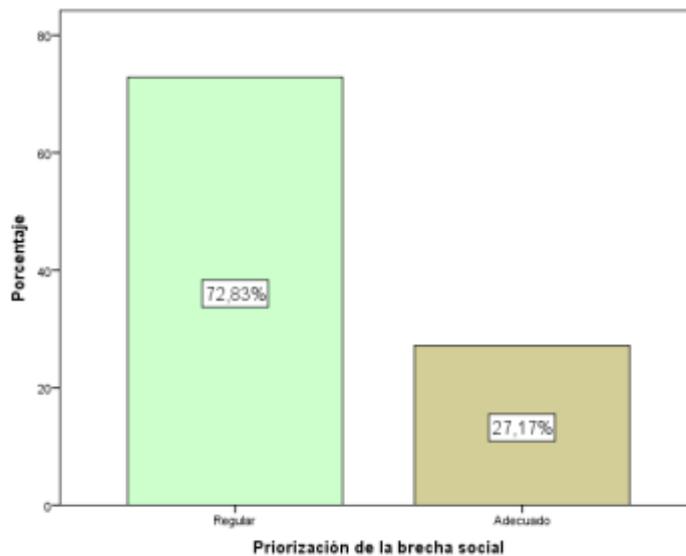


Figure 4. Dimension N° 01 - “Prioritization of the social gap”.

Source: Questionnaire “Quality of budget execution”.

Level	Frequency	Percentage	Valid percentage	Cumulative percentage
Regular	88	95,7	95,7	95,7
Adequate	4	4,3	4,3	100,0
Total	92	100,0	100,0	

Table 11. Dimension N° 02 - “Prioritization of the economic gap”.

Source: Questionnaire “Quality of budget execution”.

Table 11 presents the results of the dimension called “Prioritization of the economic gap”, where 95.7% of the employees of the Moquegua Regional Government Headquarters consider that the prioritization of investment resources to address economic problems is at a regular level, while 4.3% perceive that it is at an adequate level.

Table 12 presents the analysis by the question, where the most highlighted aspect by the personnel is that the Moquegua Regional Government Headquarters is characterized by promoting the main productive chains in the region, through the PROCOMPITE law, while the lowest evaluation was that the work of the Regional Council should be more key to promote investments in the region.

Question		Count	% of N columns
Regional investments are aimed at reducing unemployment in the region.	Never	7	7,6%
	Almost never	13	14,1%
	Sometimes	36	39,1%
	Almost always	29	31,5%
	Always	7	7,6%
Tourism investments have been increasing in recent periods, promoted by the regional executive.	Never	11	12,0%
	Almost never	22	23,9%
	Sometimes	42	45,7%
	Almost always	17	18,5%
	Always	0	0,0%
The headquarters of the Regional Government of Moquegua is characterized by promoting the main productive chains in the region through the PROCOMPITE law.	Never	0	0,0%
	Almost never	8	8,7%
	Sometimes	41	44,6%
	Almost always	32	34,8%
	Always	11	12,0%
The work of the Regional Council is key to promoting investment in the region.	Never	7	7,6%
	Almost never	31	33,7%
	Sometimes	51	55,4%
	Almost always	3	3,3%
	Always	0	0,0%
The execution of projects related to promoting the existence of a regional industry has been increasing during the regional administration.	Never	7	7,6%
	Almost never	17	18,5%
	Sometimes	68	73,9%
	Almost always	0	0,0%
	Always	0	0,0%

Table 12. Dimension N° 02 - “Prioritization of the economic gap” (by the question).

Source: Questionnaire “Quality of budget execution”.

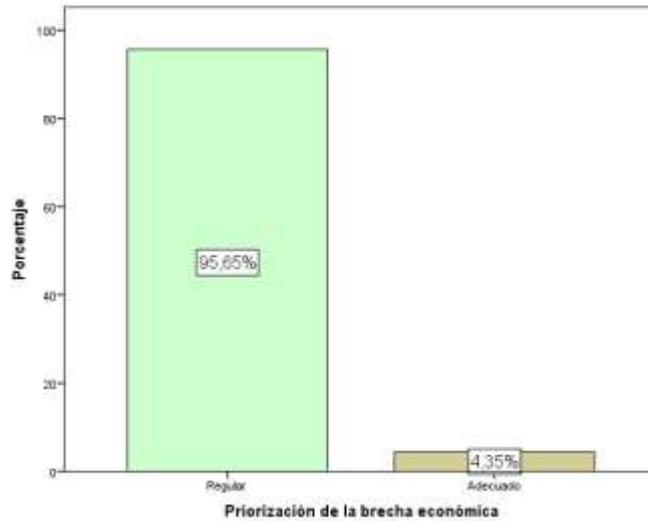


Figure 5. Dimension N° 02 - “Prioritization of the economic gap”.
Source: Questionnaire “Quality of budget execution”.

Table 13 presents the analysis by dimension, showing that the most outstanding dimension was “Prioritization of the social gap”, while the lowest rated dimension was “Prioritization of the environmental gap”.

Dimension		Count	% of N columns
Prioritization of the social gap	Inadequate	0	0,0%
	Regular	67	72,8%
	Adequate	25	27,2%
Prioritization of the economic gap	Inadequate	0	0,0%
	Regular	88	95,7%
	Adequate	4	4,3%
Prioritization of the environmental gap	Inadequate	12	13,0%
	Regular	77	83,7%
	Adequate	3	3,3%
Prioritization of the institutional gap	Inadequate	7	7,6%
	Regular	74	80,4%
	Adequate	11	12,0%

Table 13. Variable 2 - “Quality of budget execution” (by dimension)
Source: Questionnaire “Quality of budget execution”.

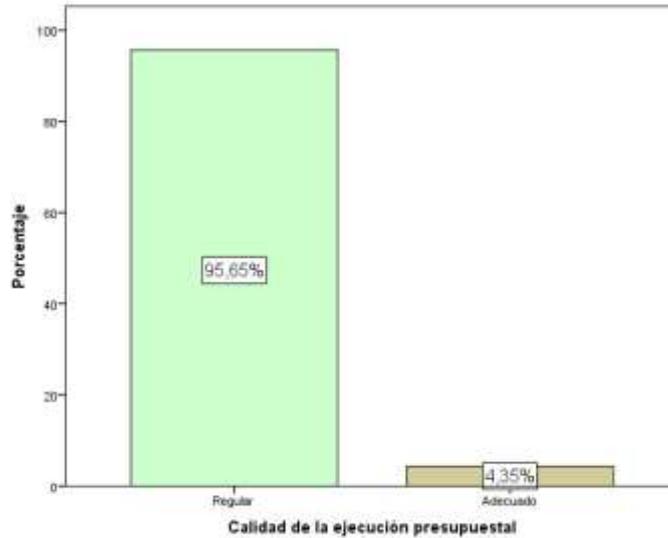


Figure 6. Dimension N° 02 - “Prioritization of the economic gap”.
Source: Questionnaire “Quality of budget execution”.

5.3 Hypothesis testing

5.3.1 Contrast of specific hypotheses

a) The first specific hypothesis is:

H₀: There is no direct and significant relationship between the multiannual investment programming and the prioritization of the social gap at the headquarters of the Regional Government of Moquegua, 2019.

H₁: There is a direct and significant relationship between the multiannual investment programming and the prioritization of the social gap at the headquarters of the Regional Government of Moquegua, 2019.

			Prioritization of the social gap	Multiannual investment programming
Rho of Spearman	Prioritization of the social gap	Correlation coefficient	1,000	0,242*
		Sig. (bilateral)	.	0,020
		N	92	92
	Multiannual investment programming	Correlation coefficient	0,242*	1,000
		Sig. (bilateral)	0,020	.
		N	92	92

*. The correlation is significant at the 0.05 level (bilateral).

Table 14. Contrast of specific hypothesis No. 01

Source: Both instruments

A value of $Rho = 0.242$ ($p\text{-value} = 0.020$) was obtained, since the “p” value was less than 5% significance, which implies that H_0 is rejected, therefore, there is a direct and low relationship between the multiannual investment programming and the prioritization of the social gap at the Regional Government of Moquegua Headquarters, 2019.

b) The second specific hypothesis is:

H_0 : There is no direct and significant relationship between the multi-year investment programming and the prioritization of the economic gap in the Moquegua Regional Government Headquarters, 2019.

H_1 : There is a direct and significant relationship between the multi-year investment programming and the prioritization of the economic gap in the Moquegua Regional Government Headquarters, 2019.

			Multiannual investment programming	Prioritization of the economic gap
Rho of Spearman	Multiannual investment programming	Correlation coefficient	1,000	0,231*
		Sig. (bilateral)	.	0,026
		N	92	92
	Prioritization of the economic gap	Correlation coefficient	0,231*	1,000
		Sig. (bilateral)	0,026	.
		N	92	92

*. The correlation is significant at the 0.05 level (bilateral).

Table 15. Contrast of specific hypothesis no. 02

Source: Both instruments

A value of $Rho = 0.231$ ($p\text{-value} = 0.026$) was obtained, since the “p” value was less than 5% significance, which implies that H_0 is rejected, therefore there is a direct and low relationship between the multiannual investment programming and the prioritization of the economic gap at the headquarters of the Regional Government of Moquegua, 2019.

c) The third specific hypothesis is:

H_0 : There is no direct and significant relationship between the multi-year investment programming and the prioritization of the environmental gap at the Moquegua Regional Government Headquarters, 2019.

H_1 : There is a direct and significant relationship between the multi-year investment programming and the prioritization of the environmental gap at the Moquegua Regional Government Headquarters, 2019.

			Multiannual investment programming	Prioritization of the environmental gap
Spearman's Rho	Multiannual investment programming	Correlation coefficient	1,000	0,472**
		Sig. (bilateral)	.	0,000
		N	92	92
	Prioritization of the environmental gap	Correlation coefficient	0,472**	1,000
		Sig. (bilateral)	0,000	.
		N	92	92

** . The correlation is significant at the 0.01 level (bilateral).

Table 16. Contrast of specific hypothesis no. 03
Source: Both instruments

A value of Rho = 0.472 (p value = 0.000) was obtained since the “p” value turned out to be less than 5% of significance, this implies that we proceed to reject H0, therefore there is a direct and moderate relationship between the multiannual programming of investments and the prioritization of the environmental gap in the Headquarters of the Regional Government of Moquegua, 2019.

d) The fourth specific hypothesis is:

H0: There is no direct and significant relationship between the multi-year investment programming and the prioritization of the institutional gap in the Moquegua Regional Government Headquarters, 2019.

H1: There is a direct and significant relationship between the multiannual investment programming and the prioritization of the institutional gap at the headquarters of the Regional Government of Moquegua, 2019.

			Multiannual investment programming	Prioritization of the institutional gap
Spearman's Rho	Multiannual investment programming	Correlation coefficient	1,000	0,490**
		Sig. (bilateral)	.	0,000
		N	92	92
	Prioritization of the institutional gap	Correlation coefficient	0,490**	1,000
		Sig. (bilateral)	0,000	.
		N	92	92

** . The correlation is significant at the 0.01 level (bilateral).

Table 17. Contrast of specific hypothesis No. 04
Source: Both instruments

A value of $Rho = 0.490$ (p value = 0.000) was obtained, since the “ p ” value was less than 5% significance, which implies that H_0 is rejected, therefore, there is a direct and moderate relationship between the multiannual investment programming and the prioritization of the institutional gap at the headquarters of the Regional Government of Moquegua, 2019.

5.3.2 Contrast of the general hypothesis

The general hypothesis is:

H_0 : There is no direct and significant relationship between the multiannual investment programming and the quality of budget execution at the headquarters of the Regional Government of Moquegua, 2019.

H_1 : There is a direct and significant relationship between multiannual investment programming and the quality of budget execution at the headquarters of the Regional Government of Moquegua, 2019.

		Multiannual investment programming	Quality of budget execution
Spearman's Rho	Multiannual investment programming	Correlation coefficient	1,000
		Sig. (bilateral)	.000
		N	92
Quality of budget execution	Quality of budget execution	Correlation coefficient	0,492**
		Sig. (bilateral)	.000
		N	92

** . Correlation is significant at the 0.01 level (bilateral).

Table 18. Contrast of the general hypothesis
Source: Both instruments

A value of $Rho = 0.492$ (p -value = 0.000) was obtained, since the “ p ” value turned out to be less than 5% of significance, which implies that we proceed to reject H_0 , therefore, there is a direct and moderate relationship between the multiannual investment programming and the quality of budget execution at the headquarters of the Regional Government of Moquegua, 2019.

6. Discussion

The results found indicate that there is a direct and moderate relationship between multiannual investment programming and the quality of budget execution at the headquarters of the Regional Government of Moquegua since a value of $Rho = 0.492$ (p -value = 0.000) was obtained. This implies that an improvement in the way of prioritizing project ideas and in the identification of territorial gaps that serve as a basis for deciding which projects will be promoted by the management to identify the investment portfolio would significantly improve the quality of investment execution since the use of public resources would be prioritized in the investment priorities technically agreed upon in the prioritization and formulation stages.

These results disagree with those found by Quispe *et al.* (2019) who conclude that there is a low level of execution of the investment program since there was no adequate health infrastructure to address health problems in the department of Santa Cruz; while in the case of the Moquegua Regional

Headquarters, 71.3% (70 077 545 soles) of a PIM of 98 285 115 soles for the year 2019 was executed, from which the level of execution of investments was at a regular level, with the “Education” function having the highest budget ceiling (33 216 580 soles), of which 77.0% was executed, followed by the “Transportation” function with a framework of 16 476 062 soles, of which 76.7% was executed

Similarly, there is no agreement with Tovar and Vega (2017) who conclude that in the IESS Ambato Hospital there is no adequate coordination between areas, there is a lack of knowledge of the regulations on budget execution and the contracting process, and there is an influence of the level of budget execution on the satisfaction of the affiliates. In the present investigation, it was found that 45.7% of the personnel perceive that “Almost always” the strategic objectives of the Regional Headquarters are disseminated and socialized by the management team to the personnel of the entity, and that 71.3% of the investment budget was executed in 2019, which shows that there is an acceptable knowledge of the budget regulations, contracting and investments.

There is also disagreement with Quispe (2018) who concludes that there is no significant influence of public investment management on the quality of spending in the provincial municipality of Tacna, period 2011 to 2014; since in the present research, it was found that there is a direct and moderate relationship ($Rho = 0.469$ and $p = 0.000$) between the multiannual programming of investments and the quality of budget execution in the Regional Government of Moquegua Headquarters.

Finally, there is an agreement with the work of Cubas and Haro (2016) who conclude that there is a significant influence of the public budget on the execution of public works by direct administration in the provincial municipality of San Miguel, Department of Cajamarca, the year 2015”; since it was found that there is a direct and moderate relationship between the multiannual programming of investments and the quality of budget execution in the investigated entity.

7. Conclusions

FIRST

Multiannual investment programming is directly and moderately related to the quality of budget execution at the headquarters of the Regional Government of Moquegua (Rho value = 0.492 and $p = 0.000$); in addition, 59.8% of the workers consider that the multiannual programming process of the investment portfolio is at a regular level, and 95.7% describe that the quality of budget execution is at a regular level; This implies that an improvement in the strategy of prioritizing project ideas and in the identification of territorial gaps to define the investment portfolio would improve the quality of investment execution.

SECOND

The multiannual investment programming is directly and poorly related to the prioritization of the social gap at the headquarters of the Regional Government of Moquegua (Rho value = 0.242 and $p = 0.020$); this happens because although 40.2% of the personnel consider that they have an adequate portfolio of investments in the sectors, they specify that there are very few investments in security issues in coordination with the municipal authorities, similarly, the regional investments in the health sector are poorly highlighted by the population.

THIRD

The multiannual investment programming is directly and poorly related to the prioritization of the economic gap at the headquarters of the Regional Government of Moquegua (Rho value = 0.231 and p

= 0.026); this happens because although 40.2% of the personnel consider that they have an adequate portfolio of investments in the sectors, they state that the work of the Regional Council is weak in the objective of promoting investments in the region and that the execution of projects related to the regional industry has not been prioritized by the management.

FOURTH

The multiannual investment programming is directly and moderately related to the prioritization of the environmental gap at the headquarters of the Regional Government of Moquegua (Rho value = 0.472 and $p = 0.000$), since regional investments are increasingly prioritizing the problems related to wastewater treatment.

FIFTH

The multiannual investment programming is directly and moderately related to the prioritization of the institutional gap at the headquarters of the Regional Government of Moquegua (Rho value = 0.490 and $p = 0.000$); since investments in technological aspects at the regional headquarters have made it possible to promote institutional transparency (Rho value = 0.490 and $p = 0.000$).

8. Recommendations.

FIRST

It is suggested to the management team responsible for the management of the investment cycle that to improve the level of multiannual programming of investments, they should focus on the dimension “Prioritization Criteria”, for which they should request the Technical Team of the Regional Planning Management. The Technical Team of the Regional Management of Planning, Budget, and Land Development should be asked to report on the prioritization criteria of the project ideas, to review, refine, and validate them, as this is crucial to assign scores on the impact of the requested state intervention, which will maximize the possibility that resources will be allocated and prioritized in the multiannual investment programming. This will contribute significantly to improving the quality of budget execution at the Regional Government of Moquegua's headquarters.

SECOND

It is suggested to the management team responsible for the management of the investment cycle at the headquarters of the Regional Government of Moquegua that to improve the “Gap Diagnosis” dimension, they focus on socializing the territorial gaps with the staff of the entity, which allows strengthening the coherence and alignment of the decisions adopted regarding the prioritization of investments, which allows providing better information to the citizens interested in improving their living conditions.

THIRD

It is suggested to the management team responsible for the management of the investment cycle at the headquarters of the Regional Government of Moquegua that to improve the “Strategic Objectives” dimension, they focus on disseminating and socializing the strategic objectives of the entity to all personnel, which will strengthen the strategies for their achievement since each work area will have clarity on how their work contributes to the fulfillment of the regional development plan; this will contribute significantly to the improvement of the quality of budget execution.

FOURTH

It is suggested to the Technical Team of the Regional Management of Planning, Budget, and Land Development of the Regional Government of Moquegua, responsible for the multiannual programming of investments, that to improve the “Prioritization Criteria” dimension, the criteria to be used should consider aspects of impact, territoriality, reduction of gaps, etc., which will allow prioritizing the most important investments for regional development; this will contribute significantly to the improvement of the quality of the budget execution.

FIFTH

It is suggested to the management team responsible for the management of the investment cycle at the headquarters of the Regional Government of Moquegua that to improve the “Investment Portfolio” dimension, they should focus on ensuring that the investment portfolio is agreed with the staff of the entity, which will improve their level of commitment to management, and can adequately disseminate the prioritization of regional investment resources; this will contribute significantly to improving the quality of budget execution.

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