MANAGEMENT BY RESULTS IN PUBLIC WORKS AND ITS RELATION TO THE QUALITY OF LIFE OF THE POPULATION OF THE DEPARTMENT OF AMAZONAS

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ABSTRACT

Purpose: The purpose of the study is to examine the evidence and substantive contributions of managing for results in public works projects and their impact on quality of life.

Theoretical framework: It is based on the results-based management approach, which refers to the allocation of resources based on the achievement of measurable and quantifiable results. Also mentioned is the PRISMA statement, which sets out guidelines for conducting a systematic literature review.

Design/Methodology/Approach: The study is based on a systematic literature review of descriptive typology. It follows the guidelines set out within the PRISMA statement to ensure a rigorous and replicable approach. Inclusion and exclusion criteria were established to select relevant papers, which were then synthesised into a matrix to conduct a content analysis by year, country of resource, areas of knowledge and substantive contributions of the review.

Findings: The findings indicate that results-based management contributes significantly to the improvement of public works projects and to the overall quality of life. Evidence is cited from the perspectives of both specialists and those within government units. However, deficiencies in budget implementation capacity and weak budget execution are also identified, which have affected the achievement of sustainable development goals.

Social, practical and research implications: At the social level, the study highlights the importance of efficient results-based management to improve the quality of life of society at large. In practical terms, it identifies gaps in budget implementation capacity that need to be addressed to achieve significant impact. In terms of research implications, the need for further study and evaluation of the relationship between results-based management, quality of life and sustainable development is highlighted.

Originality/value: Workers at the Regional Planning and Budgeting Office of the Regional Government of Amazonas - Headquarters have a generally positive view of budget results and quality of spending, but a more negative view of budget management due to a number of shortcomings in budget execution capacity.

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GESTÃO POR RESULTADOS EM OBRAS PÚBLICAS E SUA RELAÇÃO COM A QUALIDADE DE VIDA DA POPULAÇÃO DO ESTADO DO AMAZONAS

RESUMO

Objetivo: O objetivo do estudo é examinar as evidências e as contribuições substanciais da gestão por resultados em projetos de obras públicas e seu impacto na qualidade de vida.

Estrutura teórica: baseia-se na abordagem de gestão baseada em resultados, que se refere à alocação de recursos com base na obtenção de resultados mensuráveis e quantificáveis. Também é mencionada a declaração PRISMA, que estabelece diretrizes para a realização de uma revisão sistemática da literatura.

Projeto/Metodologia/Abordagem: o estudo baseia-se em uma revisão sistemática da literatura de tipologia descritiva. Ele segue as diretrizes estabelecidas na declaração PRISMA para garantir uma abordagem rigorosa e replicável. Foram estabelecidos critérios de inclusão e exclusão para selecionar artigos relevantes, que foram então sintetizados em uma matriz para realizar uma análise de conteúdo por ano, país do recurso, áreas de conhecimento e contribuições substanciais da revisão.

Conclusões: Os resultados indicam que a gestão baseada em resultados contribui significativamente para a melhoria dos projetos de obras públicas e para a qualidade de vida em geral. As evidências são citadas a partir das perspectivas tanto de especialistas quanto dos órgãos governamentais. No entanto, também foram identificadas deficiências na capacidade de implementação orçamentária e fraca execução orçamentária, o que afetou a realização das metas de desenvolvimento sustentável.

Implicações sociais, práticas e para a pesquisa: Em nível social, o estudo destaca a importância de uma gestão eficiente baseada em resultados para melhorar a qualidade de vida da sociedade em geral. Em termos práticos, ele identifica lacunas na capacidade de implementação orçamentária que precisam ser abordadas para se obter um impacto significativo. Em termos de implicações para a pesquisa, destaca-se a necessidade de mais estudos e avaliações sobre a relação entre a gestão baseada em resultados, a qualidade de vida e o desenvolvimento sustentável.

Originalidade/valor: Os funcionários do Escritório Regional de Planejamento e Orçamento do Governo Regional do Amazonas - Sede têm uma visão geralmente positiva dos resultados orçamentários e da qualidade dos gastos, mas uma visão mais negativa da gestão orçamentária devido a uma série de deficiências na capacidade de execução orçamentária.

Palavras-chave: gestão, gestão pública, qualidade de vida, população, desenvolvimento social.

INTRODUCTION

The international experience in results-based budgeting in public works (RPB), such as New Zealand with incentive plans to achieve objectives, considers performance...
management contracts, rewards and penalties based on performance; managers are responsible for the products they execute, approach methodologies, among others. (He, Kamisah, 2023).

According to Hyndman and McKillop (2019), the United Kingdom presented certain advances in performance-based management within results-based management under greater accountability, flexibility, and freedom in the years prior to the pandemic. This result is not exclusive to government action, but involves, in some way, collaborative digitalization between business and government (Breaugh, Rackwitz and Hammerschmid, 2023) and citizen participation, as it is these as a result of their expectations and specific requirements with the municipalities that make better budget execution possible. (Quispe, et. al., 2022).

To further clarify what the Budgeting for Results process implies, it is important to remember that a primary objective of public administration is to have a State that can effectively, quickly, efficiently and fairly provide the public goods and services that the population needs. For this, we have the Public Budget as the main financial and economic planning tool for the realization of the State’s designation, distribution and stabilization responsibilities (Hernández and Orduña, and Lagunes, 2020; Villasmil, Romero, F, and Socorro, C, 2021).

The characteristics of the Results-Based Budgeting strategy make it clear why it is said to represent a departure from the conventional method of budgeting by isolating and not articulating the State’s interventions. It proposes the design of actions based on the resolution of critical problems affecting the population and requires the participation of various actors, who align their actions in that direction; and it is based on an integral vision of planning and budgeting and on the articulation of actions and actors for the achievement of results (Mohammad, 2022).

The proposed reforms in the federal budget may bring about changes in the public administration, which could affect the functioning of government agencies (Mappong et al. 2023, Roman et al. 2023). To this end, the National Public Budget Directorate (DNPP) has introduced reforms to the budget process that will align it with the results-based budgeting framework. In this regard, the Peruvian government approved Chapter IV of Law 28927, "Public Sector Budget Law for Fiscal Year 2008", which contains the fundamental elements for introducing performance budgeting in the country. This law
also establishes a plan to progressively implement performance budgeting in a
generalized manner in the Peruvian public administration.

The Ministry of Economy and Finance established that in the first semester low
levels of public investment were observed in the country due to weak subnational and
national budget execution. Thus, by the middle of 2019, regional governments had only
spent 20% of their budget. All Peruvian regional governments spent less than that on average,
including Piura, Cajamarca, Junín, Amazonas, La Libertad, Ayacucho and Lima (López
and Ortún, 2022).

Local governments in Peru should commit to investing in programs to improve
basic services and in health and nutrition initiatives to raise the standard of living of the
population. In addition, municipal budgets should prioritize major social gaps, and
evaluation methods should not be limited to reporting how much money has been spent
(Cernadas, Chao and Pidena, 2016). An efficient use of resources allows for better
performance and, therefore, better results in the short, medium and long term (Señalín,
Olaya and Herrera, 2020).

The Ministry of Economy and Finance of the Nation (2021) delivers annually to
the Regional Government of Amazonas a budget, which it must manage and allocate
according to the rules of the Budget by Results. If we look at the data from 2017, we can
see that the budget execution has been systematically below 80% for several years.
Therefore, it is necessary to evaluate the budget execution, or the quality of spending
aimed at improving the quality of life of citizens according to the results of the Budget
Plan (Nurhalieva, et. al., 2017).

The contribution of this study lies in the examination of the use of public resources
by local governments; to this end, it proposes an analysis of the performance of the
Performance Budgeting system and an evaluation of the quality of public spending by
Amazonian municipalities to improve the quality of life of citizens. It will help the central
government understand how to allocate funds to states and municipalities, while
providing local governments with the information they need to make decisions that
improve the lives of their constituents. If done correctly, it will have a profoundly positive
effect on the country's poorest residents.

There is a clear need to deepen the application of the Results-Based Budgeting
framework to increase the efficiency of financial and budgetary spending and ultimately
improve people's quality of life (Cavero-Arguedas, et. al. 2017). Therefore, the following
research question is formulated: how does results-based budgeting affect quality of life in the department of Amazonas? The objective of this study is to analyze the relationship between results-based budgeting (PrR) management and quality of life in the department of Amazonas. This will be achieved through a methodical review of relevant literature that encourages critical discourse.

2 MATERIALS AND METHODS

The present investigation was based on a systematic review of the literature of descriptive typology, where the guidelines established within the PRISMA declaration were faithfully followed, adopting the recommendations of scientific quality necessary for the assurance of the necessary quality for the systematization of the information, which is why the following are proposed: a) formulation of the objective b) definition of the search equations, c) establishment of the inclusion and exclusion criteria, d) flow chart of the systematic process, e) review of the bibliographies, f) analysis of the secondary sources of information and g) organization and discussion of the results (Bayuo, et. al., 2023)

2.1 PROCESSING FOR INFORMATION SEARCH

For the inquiry of the research, the world's best known and prestigious database such as SCOPUS was used, this for its relevance and easy access to documents to be reviewed by authors, referees and readers, consequently, the following inclusion criteria were set: 1) inquiry period 2016-2023, 2) review and original articles, 3) textual studies, 4) studies that address issues related to management by results in public works and their relationship with the quality of life of the inhabitant and 5) descriptive studies with extra contributions such as master's theses and academic dissertations. In addition, the following exclusion criteria were established: 1) studies with duplicity, 2) removal of access URL, 3) studies with content outside the research approach, 4) studies outside the selected databases, and 4) academic studies.

Consequently, the search was conducted after determining the keywords that led to the construction of the search equations, which were formulated by combining the Boolean term "AND"; and, in order not to limit the results, descriptors were included in the international construct, which were duly translated, deriving expressions such as "management by results" AND "public works" AND "quality of life" AND "town of
amazonas” AND "management", identifying studies that explore each of the categories or units of analysis by means of these keywords reconciled in the titles of the research, summaries and thematic development.

2.2 DATA COLLECTION AND REVIEW

The bibliography was systematically reviewed and selected according to: a) date of publication, b) author, c) title and d) country of origin of the study. Figure 1 shows the process of document exclusion, first discarding research outside the period of inquiry, then dissertations, academic resources, research of other scope and finally excluding articles with restricted access. Consequently, after this process, 25 articles were condensed for the approach of this research, which were reviewed and analyzed in an artisanal way by means of the use of a word repetition emulator available at: http://www.repetition-detector.com/?p=online, being this an efficient tool for the condensation of sufficient keywords that give scientific support to the articles; and, also promoting the thematic suitability.

Finally, the selected documents were processed through an open access content analysis tool, such as Estilector, which was useful for identifying the most repeated words.
in the files. In addition, a bibliographic record was prepared to systematize the data to be reviewed. In addition, the analysis of the systematization of information was divided into 3 main stages: thematic area of analysis, country of origin of the resource and frequency of publications, which were analyzed using R-Studio statistical software for the descriptive graphic definition of the analysis.

3 RESULTS AND DISCUSSION

Next, the synthesis matrix (Table 1) is presented, a product of the systematic review, elaborated after applying the process of exclusion of the reviewed documents, which allowed for a broader vision and a logical structure of the information, whose purpose was to provide readers with an easy reading and understanding, specifying fundamental aspects that supported the scientific research and propitiated the visualization of the findings that were considered for triangulation, comparison and discussion.

Table 1 Synthesis matrix of the articles considered for review

<table>
<thead>
<tr>
<th>N.</th>
<th>Year</th>
<th>Authors</th>
<th>Title</th>
<th>Knowledge area</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2020</td>
<td>Aguiló</td>
<td>Investment in public works for economic recovery. Public Works Journal</td>
<td>Engineering</td>
<td>Ecuador</td>
</tr>
<tr>
<td>2</td>
<td>2023</td>
<td>Boyuo et al.</td>
<td>A metasynthesis of the transition experiences and career progression of African migrant nurses.</td>
<td>Health</td>
<td>Ghana</td>
</tr>
<tr>
<td>3</td>
<td>2020</td>
<td>Bernardo et al.</td>
<td>Overall quality of municipal education and the influences of public expenditures</td>
<td>Public Management</td>
<td>Brazil</td>
</tr>
<tr>
<td>4</td>
<td>2018</td>
<td>Bherer and Gauthier</td>
<td>Forty years of public participation in environment, land planning and urbanism in Quebec: between conflict expression and consensusal management.</td>
<td>Public Management</td>
<td>Canada</td>
</tr>
<tr>
<td>5</td>
<td>2023</td>
<td>Breaugh et al.</td>
<td>Leadership and institutional design in collaborative government digitalization: Evidence from Belgium, Denmark, Estonia, Germany, and the UK.</td>
<td>Public management</td>
<td>Germany</td>
</tr>
<tr>
<td>6</td>
<td>2017</td>
<td>Cavero et al.</td>
<td>The effects of social programs on the health of the population living in poverty: evidence from impact evaluations of the budget for results of social programs in Peru.</td>
<td>Health</td>
<td>Peru</td>
</tr>
<tr>
<td>7</td>
<td>2016</td>
<td>Cerdenas et al.</td>
<td>Citizen participation: from participation in management to management of participation.</td>
<td>Public management</td>
<td>Spain</td>
</tr>
<tr>
<td>8</td>
<td>2021</td>
<td>Da Costa</td>
<td>Earnings management and electoral cycle in Brazilian municipalities</td>
<td>Public management</td>
<td>Brazil</td>
</tr>
<tr>
<td>9</td>
<td>2018</td>
<td>Fernandez</td>
<td>Impact of the economic crisis on the activity and efficiency of a tertiary teaching hospital.</td>
<td>Health</td>
<td>Spain</td>
</tr>
<tr>
<td>11</td>
<td>2017</td>
<td>Gutierrez</td>
<td>Evaluation of health programs and interventions within the framework of health budget programs.</td>
<td>Public management</td>
<td>Peru</td>
</tr>
<tr>
<td></td>
<td>Year</td>
<td>Authors</td>
<td>Title</td>
<td>Discipline</td>
<td>Country</td>
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</tr>
<tr>
<td>12</td>
<td>2020</td>
<td>Hernandez and Lagunes</td>
<td>Online information systems to evaluate the performance of public utility services provided by municipalities.</td>
<td>Public management</td>
<td>Mexico</td>
</tr>
<tr>
<td>13</td>
<td>2023</td>
<td>He and Ismail</td>
<td>Do staff capacity and performance-based budgeting improve organizational performance? Empirical evidence from Chinese public universities.</td>
<td>Social sciences</td>
<td>Malaysia</td>
</tr>
<tr>
<td>14</td>
<td>2019</td>
<td>Hyndman and McKillop</td>
<td>Accounting for the Public Sector at a Time of Crisis</td>
<td>Public management</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>15</td>
<td>2018</td>
<td>Pire and Núñez</td>
<td>The mediating role of virtuosity in human resource management and work performance</td>
<td>Public management</td>
<td>Brazil</td>
</tr>
<tr>
<td>16</td>
<td>2022</td>
<td>López and Ortún</td>
<td>Rebuilding the healthcare system: governance, organization and digitalization. SESPAS Report 2022</td>
<td>Public management</td>
<td>Spain</td>
</tr>
<tr>
<td>17</td>
<td>2022</td>
<td>Lizana and Huamán</td>
<td>Managing for Results in Public Health Organizations: A Systematic Review.</td>
<td>Public management</td>
<td>Peru</td>
</tr>
<tr>
<td>18</td>
<td>2023</td>
<td>Manes et al.</td>
<td>Features and drivers of citizen participation: Insights from participatory budgeting in three European cities.</td>
<td>Public management</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>19</td>
<td>2022</td>
<td>Maureira et al.</td>
<td>Political attitudes and requests for direct assistance to local governments in Latin America.</td>
<td>Public management</td>
<td>Brazil</td>
</tr>
<tr>
<td>20</td>
<td>2022</td>
<td>Melati and Janissek</td>
<td>Intelligence in public management: an analysis from an institutional perspective.</td>
<td>Public management</td>
<td>Brazil</td>
</tr>
<tr>
<td>21</td>
<td>2022</td>
<td>Best</td>
<td>Salutogenic strategies for the regeneration of run-down neighborhoods</td>
<td>Social sciences</td>
<td>Spain</td>
</tr>
<tr>
<td>22</td>
<td>2022</td>
<td>Mohammad</td>
<td>Institutionalization of results-based budgeting in the public sector: political and economic pressures</td>
<td>Public management</td>
<td>United Arab Emirates</td>
</tr>
<tr>
<td>23</td>
<td>2021</td>
<td>Molina et al.</td>
<td>Mapping of community assets for health in an informal settlement in Medellin (Colombia)</td>
<td>Health</td>
<td>Colombia</td>
</tr>
<tr>
<td>24</td>
<td>2021</td>
<td>Moran and Ayyar</td>
<td>Municipal efficiency and public services in Michoacán, Mexico</td>
<td>Public management</td>
<td>Mexico</td>
</tr>
<tr>
<td>26</td>
<td>2020</td>
<td>Ordemar and Del Carmen</td>
<td>Intervening factors for the execution of the budget for donations and transfers at the Lambayeque Regional Hospital - Peru</td>
<td>Public management</td>
<td>Peru</td>
</tr>
<tr>
<td>27</td>
<td>2022</td>
<td>Palacios et al.</td>
<td>Future impact of land cover and land use change on indigenous Yagua communities in the Peruvian Amazon.</td>
<td>Social sciences</td>
<td>Peru</td>
</tr>
<tr>
<td>28</td>
<td>2022</td>
<td>Palumbo</td>
<td>Citizen participation and public management in Lima, Peru</td>
<td>Public management</td>
<td>Peru</td>
</tr>
<tr>
<td>29</td>
<td>2018</td>
<td>Pavone and Sanchez</td>
<td>Determinants of out-of-pocket health expenditure of the poor population served in public health services in Peru, 2010-2014.</td>
<td>Public management</td>
<td>Peru</td>
</tr>
<tr>
<td>30</td>
<td>2022</td>
<td>Pineda</td>
<td>Public-private partnership contracts: limits on contributions from the State's public budget.</td>
<td>Public management</td>
<td>Peru</td>
</tr>
<tr>
<td>31</td>
<td>2023</td>
<td>Pulkkinen et al.</td>
<td>Premises for sustainability - participatory budgeting as a way to build collaborative innovation capacity in local government</td>
<td>Public management</td>
<td>Finland</td>
</tr>
<tr>
<td>32</td>
<td>2022</td>
<td>Quispe et al.</td>
<td>Participatory budgeting and public expenditure management.</td>
<td>Public management</td>
<td>Peru</td>
</tr>
<tr>
<td>33</td>
<td>2023</td>
<td>Rincón et al.</td>
<td>Influence of results-based budgeting on the effectiveness of public administration.</td>
<td>Public management</td>
<td>Peru</td>
</tr>
<tr>
<td>34</td>
<td>2022</td>
<td>Ruiz et al.</td>
<td>Retrospective of public management from the point of view of the rural communities of Pastaza, Amazonia, Ecuador.</td>
<td>Public management</td>
<td>Ecuador</td>
</tr>
<tr>
<td>35</td>
<td>2018</td>
<td>Sanchez</td>
<td>Cuts in healthcare budgets and waiting lists.</td>
<td>Health</td>
<td>Brazil</td>
</tr>
</tbody>
</table>

It can be evidenced that the studies included in the review point to the analysis of management by results and quality of life within Latin America, studies that are addressed in Latin America such as Peru are also evidenced; which, mark elemental milestone of complement to the study. Likewise, approaching the knowledge of the development of these tools within the analytical approach part of the different areas of knowledge that describe the continuity of the same, focusing great concentration in the framework of engineering, health, social sciences and public management.

3.1 PUBLICATIONS BY AREA OF KNOWLEDGE

Figure 2 shows the studies organized by area of knowledge. Although the selection of these areas is limited to the public management context, it is important to show the trend of this type of research. In this sense, the analysis algorithm for R-Studio processing was outlined as follows:

BD1$Percentage <- sprintf("%.0f%%", BD1$Percentage * 100)

Create the horizontal bar chart

barplot(as.numeric(gsub("%", "", BD1$Percentage)), names.arg=BD1$Career, horiz=TRUE, main="Percentage by race", xlab="Percentage", ylab="Race", xlim=c(0,100))

Add labels to the side of the bar

text(x = as.numeric(gsub("%", "", BD1$Percentage)),
y = 1:length(BD1$Run),
labels = BD1$Percentage,
pos = 4)

Source: own elaboration.
It can be seen that the largest number of scientific publications focused on the area of knowledge of public management, representing 70% (28) of the selected systematization sample, followed by a prevalence of 20% (8) in publications in the area of health; it is also evident that 7.5% (3) belong to the area of social sciences; and finally, 3% (1) are broken down into areas belonging to engineering.

3.2 PUBLICATIONS BY COUNTRY OF ORIGIN

Figure 3 shows the studies organized by country of scientific production. Although the selection of these areas is mostly limited to Peru, it is important to show the trend in this type of research. In this sense, the analysis algorithm for R-Studio processing was outlined as follows:

Convert the percentage to a character string with the % symbol.

```
BD2$Percentage <- sprintf("%.0f%%", BD2$Percentage * 100)
```

Set the margins so that the country labels are displayed further away from the y-axis.
par(mar=c(5, 8, 4, 2) + 0.1, mgp=c(2, 0.7, 0))

Create the horizontal bar chart with horizontal text labels and smaller axis labels.

barplot(as.numeric(gsub("\%", ",", BD2$Percentage)), names.arg=BD2$Country, horiz=TRUE, main="Percentage by Country", xlab="Percentage", ylab="">

Set ylab as an empty string.

xlim=c(0,100), las=1, cex.axis=0.7, width=0.5)

Adjust the width of the bars.

Add percentage labels to the right side of the horizontal bars.

text(x=as.numeric(gsub("\%", ",", BD2$Percentage))+2, y=0.58*(1:length(BD2$Country)), # Multiply the value of "y" by 0.5 labels=BD2$Percentage, pos=4, cex=0.5)

Figure 3. Publications by country.

Source: own elaboration.
The review has allowed an analysis of the countries of relevance of scientific production within the systematization of information, showing an increase in the frequency of production in Peru representing 35% (14) of the scientific production, while 12.5% (5) is predominant in Brazil, 10% (4) in Spain, 7.5% (3) in Ecuador, and finally, 2.5% (1) in countries such as Venezuela, China, Finland, Kazakhstan, United Arab Emirates, Malaysia, Canada, Ghana, Germany and Colombia.

3.3 FREQUENCY OF PUBLICATION

Regarding the annual production of the articles selected for systematic discussion, it can be seen that the year 2022 had higher prevalence of scientific production representing 28% (11) of the study sample, likewise 20% (8) of production is reflected in the year 2023; 15% (6) for the year 2018, 12.5% (5) for the year 2020, 10% (4) in the year 2021, 7.5% (3) for the year 2017, 5% (2019) for the year 2019; and finally 2.5% (1) for the year 2016, this is clarified in Figure 4. In such sense, the analysis algorithm for R-Studio processing was outlined as follows:

```r
library(ggplot2)

BD3$Percentage <- as.numeric(BD3$Percentage)

ggplot(data = BD3, aes(x = Year, y = Percentage)) +
geom_line() +
geom_text(aes(label = paste0(scales::percent(Percentage),"%")), hjust = 1.2, vjust = 0.5) +
labs(title = "Percentage per year",
x = "Year",
y = "Percentage") +
scale_y_continuous(labels = scales::percent_format())
```
At this point it is necessary to emphasize that the information presented is fluctuating, i.e., the annual approach to this topic depends on the scientific need to provide foundations related to the subject of study. However, current trends or within the research period of this systematic review point to the approach of the necessary elements to lead to a results-based management in public works and its relation to the quality of life of the population within the Peruvian framework.

Within the development of the systematic review and screening, 5 elementary aspects or aspects that structure and form the foundations of results-based management to have a satisfactory impact on the quality of life of the existing population in the Amazon region and the entire Peruvian territory have been reconciled. In this sense, these aspects refer to the methodological and transitive cycle of results-based management outlined in Figure 5.
The Ministry of Economy and Finance (2018) states that budgeting for results is a public management strategy that links the allocation of resources to measurable outputs and results in favor of the population and finances. Within the studies addressed within the review, cases have been addressed such as, for example, in 2019 in Peru where the central government provided 3000 million soles in the health sector which were transferred to regional governments demonstrating a low budget execution ultimately requiring more budget that does not demonstrate efficiency in spending (Vasquez, 2020).

Forty percent say that the results-based budgeting instruments are adequate, agreeing with Rincón (2023) who argues that the implementation of results-based management is a good public management decision from the outset. Given the scarcity of financial resources as a result of low tax collection and evasion, the use of this approach allows the State to prioritize available resources according to the problems and interventions to be carried out (Bernardo, 2020).

The Ministry of Economy and Finance (2018) defines budget evaluation as "the set of analytical processes to determine, continuously over time, the physical and financial progress obtained at a given time of the budget by results." Revenues collected directly by the Amazonas regional government have also increased in recent years, reaching a
new high in 2018 and 2019 compared to the rest of the 2017-2023 timeline (Lizana and Huamán, 2022). This indicates that the Amazon regional government is improving in this regard. Execution is still weak, as it does not reach 95% in any year throughout the time studied. According to Manes-Rossi et. al. (2023), international experience shows how the use of a Results-Based Budgeting tool can help in the continuous improvement of budget execution and evaluation.

According to the Ministry of Economy and Finance (2018), the quality of spending is achieved through efficient use of public resources that meets the needs of the population. The quality of public spending refers to the factors that provide the most effective and efficient use of public funds to increase economic growth (Alsharari, 2022). Public spending in the Amazon region has improved between 2010 and 2017 because more is allocated to strategic programs that should be implemented to meet the needs of the population. This coincides with the assertions (Camila, 2016), who argues that one of the main reasons for the historical vulnerability of the Ashaninka to diseases such as TB is the lack of political will on the part of the national government to increase public spending on health.

According to the indicators, the quality of public spending and quality of life in the Amazon region has improved, which means that resources are being used more efficiently, in line with Pavone's (2018) recommendations for budget management. This period covers 2016 to 2023. That is why, the participation of the public sector, as well as the economic and social agents of the territory have the main responsibility for the elaboration of territorial development strategies based on spatial analysis, priority problems, and strategies for the coordination of resources at the central, local and private levels (Lurence 2018).

The exploratory analysis of these 40 scientific resources on results-based management in public works reveals elements that make us stop and think about whether or not they are, in fact, instruments that guide management and are inserted as Performance Budgets to improve the lives of people in the territories that correspond to Peru. Among the most important findings are:

First, not all management indicators follow the same trend over time; some show improvements while others deteriorate, depending on their specific characteristics. What is sought is for public administration to have efficiency as its central focus, thereby seeking to reduce prices and obtain optimal results (Melati, 2020). However, there is a
move away from indicators focused on the delivery of goods or social services and towards those focused on more agile and systematic approaches to management. As a consequence of the above, fewer social indicators are collected throughout the study (Morán and Ayvar, 2021).

It is also clear that the success of the various programs is measured mainly by the achievement of the desired results by the executors of public works for the benefit of society; in other words, more weight is given to quality of life dependent indicators (Yeung, 2023). Thus, it is possible to show that there is a single indicator of effect and a small number of dependent indicators. At the same time, the indicators with the greatest risk are those with the least weight in the H formula (López and Ortún, 2022; Lizana and Huaman, 2022).

When results management is broken down into its components, these indicators lean more toward those that measure social benefit. This finding suggests that public works providers in the Peruvian Amazon, as was the case in the Ecuadorian Amazon, prioritize fostering strong relationships with their clients and receiving direct feedback on how they can improve their services (Gonzales, 2023). This finding shows that the government has been putting a lot of effort recently to ensure that those who are eligible for social assistance programs obtain such benefits, as well as demonstrating the importance of public works in a territory as a means of economic advancement (Pavone, 2018; Aguiló, 2020).

It is striking that there is only one impact indicator and one process indicator, while the vast majority focus on indicators of intermediate or final results, ignoring the commitments associated with measuring the results of the intervention in favor of measuring intermediate and final stages that do not commit the service to achieving management objectives (Molina et al., 2021). This characteristic is directly related to the fact that there are fewer and fewer indicators that oblige management to achieve success through third parties, and that these same indicators are becoming less and less stringent (Morán and Ayvar, 2021; Mureira and González, 2022).

Another important conclusion from the analysis of performance management of public works is that only 23% of these are quality indicators, while the remaining 76% are work efficiency indicators, which continues to confirm the hypothesis that such works favor low-risk performance indicators that do not place an excessive burden on management (Rincón, 2023; Breaugh et al., 2023). Along the same lines, the role of
budget management is called into question when these types of indicators are authorized despite the fact that neither efficiency nor balance improves in all indicators (Rodriguez, 2022).

Finally, a critical perspective that may arise from the management by results of public works is the lack of transformative vision that these systems may have, since the various tools that comprise it provide elements of reportability of information for decision making (Montesinos, 2012; Carrillo, 2012). For example, numerical indicators that show trends, projections and tangible results of the implementation of social works programs without necessarily seeking the transformation of the programs themselves; almost a mechanically materialistic system made up of significant numbers that keep track of percentages, averages and data according to standards established by the subjects themselves who generate and use the numbers as indicators that consecutively evaluate the quality of life (Velázquez and Rivera, 2017; Gutiérrez, 2017).

4 CONCLUSIONS

The development of a management model contributes significantly to the improvement of public works projects, as shown by the diagnostic evidence of the processes addressed in the context of the study. This evidence is present not only in the perspectives of various specialists, but also in the perspectives of those who are part of the units themselves, such as the managers.

Workers at La Gerencia Regional de Planeamiento y Presupuesto del Gobierno Regional de Amazonas - Sede Central have a generally positive view of budget results and spending quality, but a more negative view of budget management due to a number of shortcomings in the budget's ability to be implemented. The Amazon Regional Government's results-based budget for 2016-2023 has grown in recent years, as has its direct revenue collection, but budget execution has been weak, with no year reaching 95% of allocated spending. To better meet the needs of its citizens, the Amazonas regional government has increased the proportion of its budget allocated to strategic programs from 2016 to 2023. Indicators show that the quality of public spending in the Amazonas regional government has improved following the implementation of performance budgeting in 2016-2023. This means that scarce resources have been used more efficiently.
In light of the above, it is essential to stress that the scope of this study was limited by technical and methodological considerations regarding the samples used, since other publications hidden in different databases and possibly contributing to a deeper understanding of quality management engineering were immediately disqualified due to database restrictions.

Another element that limited the research is related to the introduction and elimination criteria, since studies of a professorial and thesis type that would have allowed us to recognize the new proposals and trends on the subject of study were not considered, therefore, it is recommended for future research to include works of this type.
REFERENCES


