



IMPACT OF PERFORMANCE AUDITS ON THE MANAGEMENT OF PUBLIC COMPANIES

Marín Eléspuru César Ulises ¹

E-mail: cesar.marin@unapiquitos.edu.pe

ORCID: <https://orcid.org/0000-0003-1210-8847>

Melgarejo Mariño David Miguel ¹

E-mail: david.melgarejo@unapiquitos.gob.pe

ORCID: <https://orcid.org/0000-0001-8777-6562>

Solsol Hidalgo Edgar Alberyo ¹

E-mail: edgar.solsol.044@unapiquitos.edu.pe

ORCID: <https://orcid.org/0000-0001-9072-8692>

Balbuena Hernández José Ricardo ¹

E-mail: Jose.balbuena@unapiquitos.edu.pe

ORCID: <https://orcid.org/0000-0002-8483-7048>

Chiroque Sernaqué Domingo ¹

E-mail: dchiroque@unjfsc.edu.pe

ORCID: <https://orcid.org/0000-0001-6416-9671>

¹ Universidad Nacional de la Amazonía Peruana. Perú.

² Universidad Inca Garcilaso de la Vega. Perú.

ABSTRACT

The Performance Audit seeks to provide information, analysis or perspectives, and recommendations for improvement. In Peru, the performance audit in public institutions is an examination of the effectiveness, efficiency, economy and quality in the production and delivery of public goods and services. This investigation has the objective of evaluating the impact that the performance audits carried out by the Supreme Audit Institution of Peru have had on the management of companies. The sample was of the probabilistic type and was finally made up of 12 public companies framed in Lima that have received performance audits in the last 5 years. It is verified that the execution of performance audits in public companies in Peru conditions an improvement of their performance indicators. It is assumed that the performance indicators of public administration companies improve after the execution of audits, with changes between the measurements made before and after the execution, with a statistically significant impact. For the observed indicators, a statistically significant impact was found, enhancing the improvement of the aspects associated with each of them, except for the efficiency and economy indicators.

Keywords: performance audits, performance indicators, public companies

INTRODUCTION

Accounting and auditing are essential functions in both public and private companies. Accounting involves the collection, synthesis, analysis and interpretation of financial information, as well as its evaluation. Both private and public companies have information needs about the quality of their management that must be satisfied. The most expeditious way to know the state of business management is by conducting audits. (Comas Rodríguez, Montes de Oca Sánchez, Cunuhay Ante & León Naranjo, 2022)

Recent years have witnessed numerous financial scandals that have increased the need to ensure adequate control mechanisms over corporate governance. On the other hand, the increase in the volume of companies, the geographical extension and the complexity of the business world make it increasingly difficult for management to directly control operations (Pérez & Pérez, 2014). Likewise, the uncertainty of the current scenarios in which business activity is developed, coupled with the need to respond adequately to continuous changes and changing customer demands, entail a

significant modification in terms of business management, being essential in this sense, the role of internal control; as an element of the management process that most contributes to improving system performance (Vega et al, 2017).

The State and especially the current one requires a control that is effective, in order to be able to make changes based on implementing policies at the public level, knowing the public expenditure, requiring internal and external control in order to ensure transparency in the investments made by the state through the different works, government and other purchases in order to meet the needs of the population. Therefore, it is important to point out that the control body in an entity plays a very important role through audit actions in accordance with the provisions of the public sector auditing standards.

Performance indicators are instruments that provide quantitative information on the development and achievements of an institution, program, activity or project in favor of the population or object of its intervention, within the framework of its strategic objectives and mission. Performance indicators establish a relationship between two or more variables, which, when compared with previous periods, similar products or established goals, allow inferences to be made about the progress and achievements of institutions and programs. According to (Peru. Ministry of Economy and Finance, 2010) The importance of the use of indicators is associated with the usefulness of these for:

- Improve the internal management of an organization to meet its objectives.
- Improve efficiency in the allocation of resources.
- Improve transparency vis-à-vis internal and external actors
- Monitor the achievement of the objectives and strategic products of an institution in favor of the population it serves or the object of its competence.

The indicators are analyzed individually or totally according to the information available, to know the evidence and conclusions on the performance in relation to the production and delivery of a good or service for the benefit of the community. Among the dimensions are:

- a) Effectiveness: It is the result obtained by the level of compliance with the objectives, and the goals formulated.
- b) Efficiency: Refers to the ratio expressed as a percentage between the production of goods and services and the resources consumed.
- (c) Economy: Measures the acquired conditions of financial, human and material resources in relation to their cost, quantity and quality.
- d) Quality: It refers to the degree of compliance with the standards established for its application in accordance with the vital needs of the population that must be expressed with precision, continuity, timeliness in accordance with the technical characteristics considered for the reception of goods and services as they have been required for the satisfaction of the population.

The Performance Audit seeks to provide information, analysis or perspectives, and where appropriate, recommendations for improvement. Performance Audits provide information, knowledge or value by providing analytical insights of greater breadth and depth, making existing information more accessible to various stakeholders, providing an independent and guiding view or conclusion based on audit evidence, providing recommendations based on an analysis of audit results.

The Fundamental Principles of Performance Auditing come from the International Standards of Supreme Audit Institutions (ISSAI), issued by INTOSAI that have been issued by the International Organization of Supreme Audit Institutions (INTOSAI). INTOSAI issues the International Standards of Supreme Audit Institutions (ISSAI), which establish general principles and guidelines for the development of Supreme Audit at the international level.

According to (INTOSAI, 2019) The main objective of the performance audit is to constructively promote economic, effective and efficient governance. It also contributes to accountability and transparency. Performance auditing promotes accountability by assisting those responsible for governance and oversight tasks to improve performance. It does this by assessing whether the decisions of the legislature or the executive are prepared and implemented efficiently and effectively, and whether taxpayers or citizens have received fair value for their money. This does not call into question the intentions and decisions of the legislature, but examines whether deficiencies in laws and regulations or their implementation have prevented the achievement of the determined objectives.

Performance auditing focuses on areas where you can add value to citizens, and where you have the greatest potential for improvement. It provides constructive incentives for responsible parties to take appropriate action. It promotes transparency by providing parliament or congress, taxpayers and other sources of funding, government policy target groups and the

media with an overview of the administration and outcomes of different government activities. This contributes directly by providing useful information to the citizen while serving as a basis for learning and improvement. In performance auditing, Supreme Audit Institutions (SAIs) are free to decide, within their mandate, on what, when and how to audit, and should not be limited in the publication of their findings.

In Peru, the performance audit in public institutions is an examination of the effectiveness, efficiency, economy and quality in the production and delivery of public goods and services, in order to achieve results that benefit the citizen, is constructive and uses a problem-oriented approach, looking for the causes that generate them to overcome them. In this regard, the Office of the Comptroller General of the Republic of Peru issued Resolution No. 002-2022-CG of January 9, 2022, Performance Evaluation and Performance Evaluation Guide, which constitutes an indispensable daily tool for auditors of the basic practice that must continue on a regular basis in the performance of these audits. (Guillén, Humpiri, Cabel, & Aguilar, 2022).

The ISSAI Implementation Manual (2020) states that one of the reasons for carrying out follow-up actions is to determine the impact that the audit has had on the improvement of public policies and service delivery. In that sense, it determines the ways to measure the impact of the implementation of its recommendations (Arroyo T. H., Rojo, & Yarlequé, 2021).

In this context, the need to know the impact of performance audits on the management of public companies is identified as a problem. That is why this research aims to evaluate the impact that the performance audits executed by the Supreme Audit Institution of Peru have had on the management of companies. The following general hypothesis is also proposed: The execution of performance audits in public administration companies in Peru conditions an improvement in their performance indicators.

MATERIALS AND METHODS

For the development of the research, the following methods and tools were used.

- The methodology used was exploratory, with a qualitative-quantitative orientation. The character was exploratory, manifested in the analysis and synthesis of the study of the different approaches and methodologies used to carry out audits and analysis of their impact.
- The qualitative in the induction, deduction and logical analysis for understanding, in their perspectives regarding the subject in question.
- Historical-logical and descriptive-systematic: to analyze the problematic situation of the research, it is intended to make a current observation of the phenomena for their interpretation.
- The descriptive, in the intention of analyzing with a systemic approach the possible repercussions of conducting performance audits in companies.
- Bibliographic review of the theoretical framework that supports the foundation of the research objective.
- Document review to compile information related to the results of the performance indicators in each entity
- The survey was used as a data collection instrument, which allows the investigation, exploration and collection of data, through questions formulated directly or indirectly to the subjects that constitute the unit of analysis of the research study. Questionnaires were prepared aimed at obtaining information on the real problem and issuing possible solutions, to obtain valid conclusions and support the results.
- The technique of data processing and analysis is through descriptive statistics. Data were processed using SPSS version 25.

The sample was probabilistic, and was finally constituted by 12 public companies framed in Lima that have received performance audits in the last 5 years by the Superior Audit Entity of Peru. Considering that the population is finite, the following formula was applied:

$$n = \frac{Z^2 * p * q * N}{E^2(n - 1) + Z^2 * p * q} \quad (1)$$

Where:

n= desired sample

N = Population size

Z = 95% confidence level (z= 1.96)

p = Probability of success, assumed 50%, p = 0.5

q = Probability of no hit, 50% is assumed, $q = 0.5$

E = Maximum permissible error which shall be 5% and equal to 0,05.

For information processing, the Mann–Whitney U test was used, which is a statistical technique used to demonstrate that there are differences between independent groups with quantitative variables that have free distribution (Rivas et al, 2013). That is, it contrasts whether two populations are equivalent in their position. The impact of performance audits was established as the dependent variable and the independent variable was performance indicators, with 2 groups made up of entities that provide services and production. The Likert scale was used to assess the impact for each indicator. The following general hypothesis was proposed: The execution of performance audits in public companies in Peru conditions an improvement in their performance indicators.

RESULTS AND DISCUSSION

The Comptroller General of the Republic (CGR) was created on February 28, 1930 by Law No. 6784 Creating the Comptroller General of the Republic as part of the Ministry of Finance and Trade, having among its functions the control of budget expenses and accountability, in the same way it was established for the first time the control prior to expenses and organization of the accounting of the Ministerial Accounting Offices. The constitutional rank of the CGR was recognized on March 29, 1933 in the new constitution that remained in force for 46 years. Subsequently, by Law No. 14816 Organic Law of the Functional Budget of the Republic of Peru of January 16, 1964, the CGR became a Special Organism, autonomous, with administrative and functional independence. Likewise, its functions were expanded, such as exercising external subsequent control of the acts and processes of public sector entities, as well as the use of funds by other entities, whatever their legal nature. (Paquiyaui & Durand, 2022).

On December 29, 1992, Decree Law No. 26162 on the National Control System was promulgated, consisting of the CGR, Internal Audit Offices and Audit Firms. The following year, in 1993, a new Constitution was promulgated, recognizing the CGR as a decentralized entity of public law, autonomous and superior organ of the National Control System. On 23 July 2002, Law No. 27785, the Organic Law on the National Control System and the Office of the Comptroller General of the Republic, was published, which is still in force. The Political Constitution of Peru and the Organic Law of the National Control System establish as the governing body of said system the CGR, which is responsible for issuing the General Standards of Government Control, developed based on international regulations and good practices on the exercise of government control and auditing. among which the International Standards of Supreme Audit Institutions (ISSAI) and the International Standards on Auditing (ISA) stand out.

The General Norms of Government Control contain the mandatory provisions, developed from Law No. 27785 Organic Law of the National Control System and the Office of the Comptroller General of the Republic, which regulate the exercise of government control that lies in four important aspects: supervision, surveillance and verification of the acts and results of public management, according to the principles established in this area such as the degree of efficiency, effectiveness, transparency and economy in the use and destination of all resources and assets of the Peruvian State. In addition to the respect and compliance with the legal bases, the policy guidelines and action plans in order to evaluate the administration, management and control systems, to improve through the protection of pertinent preventive and corrective actions.

Similarly, the performance audit does not have the function of identifying functional, civil or criminal administrative responsibility, in this sense when the matters are evaluated, the problems identified are not considered, including criminal, administrative, complaints of acts of corruption, however, it considers that a complementary evaluation must be carried out through the organic unit of its competence. (Congress of the Republic of Peru, 2016).

Public organizations are generally characterized by guaranteeing public services to their citizens, rather than achieving economic profit. However, this does not indicate that these companies are not directly profitable, but that they prioritize their objectives according to the needs of the population. Private companies pursue profitability above all else, while public companies may have goals other than profit, such as redistributing wealth or defending public interests.

The importance of corporate participation of the State in the economies of developing countries is now undoubted, which is reflected not only in the notable increase in the number of State enterprises in recent decades but also in their growing participation in national production or investment, occupying generally important sectors in the economy. (Alvarez, 1985).

In Peru the experience of the entrepreneurial state was disastrous for the country in the 70s and 80s, so from the Constitution of 1993 many state companies were privatized. Despite this privatization process, some companies remained in the hands of the State for strategic reasons or because they were not profitable. In order to have a governing body in

budgetary matters, the National Fund for the Financing of State Business Activity (FONAFE) was created in 1999, covering the entire country, in the branches of services, production and finance. (The Chamber, 2021).

The results obtained for the hypothesis test are presented below.

General hypothesis: The execution of performance audits in public companies in Peru condition an improvement in their performance indicators.

Table 1. Pre-post Wilcoxon nonlinear W analysis

Pre-prototype	Post-prototype
Z	-9.523
P	0
Rbis	0.8

Source: Authors.

For a Z= -9.523 score, a significance of 0.000 is obtained. Therefore, it is assumed that the execution management of public administration companies improves from the execution of performance audits, with change (z = -9.523, p>0.05) between the measurements made before and after execution. Likewise, the Rosenthal Rbis is reported for the representation of the effect size, for which a large effect of 0.80 is obtained. That is, the difference between the evaluation before and after the audit is very significant.

Table 2. Comparative inferential analysis of the improvement of the efficiency indicator.

Criteria	Activity	N	Average range	Test
Resource optimization	Services	6	68.63	U= 1844.0
	Production	6	75.02	P = 0.395
Reduction of operational costs	Services	6	69.92	U= 1972.0
	Production	6	71.9	P = 0.792
Improvement of process management times	Services	6	68.57	U= 1838.5
	Production	6	75.16	P = 0 .375
Use of financing for investments	Services	6	69.05	U= 1885.5
	Production	6	74.01	P = 0 .508

Source: authors.

In the Mann Whitney U statistical test, the results show that conducting performance audits in public companies favors the improvement of the efficiency indicator significantly, enhancing the improvement of the aspects associated with it. Since the sample means do not differ significantly, it is established that there are no significant differences between the type of activity, demonstrating that for both groups the same impact is obtained, and it is concluded that the observed difference is not attributable to chance.

Efficiency evaluates the relationship between the resources and inputs used against the results obtained, it is the proportion between the use of inputs, resources, costs, time, therefore, to greater efficiency more rationality and optimization. It also measures with management indicators and rates the journey between means and ends. Its degree is given by the relationship between the goods acquired or produced or services rendered, with the management of human, economic and technological resources to obtain them. Therefore, from the results obtained in the statistical test it is inferred that in general the efficiency

indicators improve in those companies that have received performance audits, without distinguishing the type of activity to which the company is dedicated.

Table 3. Comparative inferential analysis of the improvement of the efficacy indicator.

Criteria	Activity	N	Average range	Test
Fulfillment of sales plans	Services	6	70.61	U=2019.0
	Production	6	70.24	P = 0 .962
Decrease in claims	Services	6	71.24	U=1956.5
	Production	6	68.72	P = 0.737
Customer satisfaction	Services	6	53.83	U=1864.5
	Production	6	69.76	P = 0.88
Regulatory Compliance	Services	6	71.01	U=1999.5
	Production	6	69.28	P = 0 .814

Source: Authors.

In the Mann Whitney U statistical test, the results show that conducting performance audits in public companies favors the improvement of the effectiveness indicator significantly, enhancing the improvement of the aspects associated with it. In this case there is a difference in the means for both groups in criteria of Decrease in complaints and Customer satisfaction between the type of activity. For the rest of the criteria there are no significant differences, demonstrating that for both groups no difference is established, obtaining the same impact, not attributable to chance.

Effectiveness is the ability to achieve programmed objectives and goals with available resources at a predetermined time. It is the degree to which an activity or program achieves its objectives, goals or other effects that it had proposed. It is determined by comparing what has been done with the previously established objectives, that is, the measurement of the fulfillment of objectives and goals. In this case, it is concluded that performance audits positively favor the achievement of effective business management, based on compliance with the Action Plans derived from the deficiencies and gaps detected. In the observed sample, the same impact is not obtained for the indicators Decrease in complaints and Customer satisfaction, nor for the type of activity.

Table 4. Comparative inferential analysis of the improvement of the economic indicator.

Criteria	Sex	N	Average range	Test
Fiscal discipline	Services	6	54.52	U=1979.5
	Production	6	70.81	P = 0 .814
Budget execution	Services	6	69.76	U=1933.0
	Production	6	71.01	P = 0 .654

Cost-benefit ratio	Services	6	69.28	U=1999.0
	Production	6	79.53	P = 0 .441
Return on investments	Services	6	72.85	U=1958.3
	Production	6	59.34	P = 0.88

Source: Authors.

In the Mann Whitney U statistical test, the results show that conducting performance audits in public companies favors the improvement of the economic indicator significantly, enhancing the improvement of the aspects associated with it. In this case there is a difference in the averages for all groups in criteria, except for budget execution, with different impact on both types of activity. For both groups, a difference is established in the impact, not attributable to chance, in the ability to properly manage the financial resources of the entity.

Therefore, conducting performance audits significantly impacts the efficient use of the resources they manage, financial, administrative, economic and other operations in accordance with the legal, statutory and procedural standards that are applicable to them.

Table 5. Comparative inferential analysis of the improvement of the quality indicator.

Criteria	Sex	N	Average range	Test
Customer satisfaction	Services	6	71.01	U= 1979.5
	Production	6	69.28	P = 0 .814
Customer wait times	Services	6	69.53	U= 1933.0
	Production	6	72.85	P = 0 .654
Competence	Services	6	68.83	U= 1864.5
	Production	6	74.52	P = 0 .441
Continuous improvement	Services	6	70.81	U= 1999.0
	Production	6	59.76	P = 0.88

Source: Authors.

In the Mann Whitney U statistical test, the results show that conducting performance audits in public companies favors the improvement of the quality indicator significantly, enhancing the improvement of the aspects associated with it. Since the sample means do not differ significantly, it is established that there are no significant differences between the type of activity, demonstrating that for both groups the similar impact is obtained, and it is concluded that the observed difference is not attributable to chance.

Quality is the degree of compliance with the standards defined to respond to the needs of the population, which are expressed, among others, in terms of opportunity, technical characteristics, precision and continuity in the delivery of goods

or services or user satisfaction, together with a process of continuous improvement that allows its improvement. In the observed sample, performance audits have a significant impact on the quality indicators of these entities.

CONCLUSIONS

In Peru, the performance audit in public institutions is an examination of the effectiveness, efficiency, economy and quality in the production and delivery of public goods and services, in order to achieve results that benefit the citizen, is constructive and uses a problem-oriented approach, looking for the causes that generate them to overcome them.

The execution of performance audits to public entities, whether services or production, allows a vision of the state in which their management is, in addition to evidencing the efficiencies and deficiencies, so that they constitute a tool for the process of continuous improvement.

The general hypothesis that the execution of performance audits in public companies in Peru conditions an improvement in their performance indicators is verified. It is assumed that the performance indicators of public administration enterprises improve from the execution of performance audits, with change between the measurements made before and after execution.

For the observed indicators, it was found that the results of the Mann Whitney U statistical test show that conducting performance audits in public companies favors their improvement significantly, enhancing the improvement of the aspects associated with each of them, except for the efficiency and economy indicators.

The performance audits positively favors the achievement of effective business management, based on compliance with the Action Plans derived from the deficiencies and gaps detected, however, in the observed sample the same impact is not obtained for the indicators Decrease in complaints and Customer satisfaction, nor for the type of activity.

The performance audits in public companies favors the improvement of the economic indicator significantly, enhancing the improvement of the aspects associated with it. However, there is a difference in the impact, not attributable to chance, in the ability to adequately manage financial resources for both types of entity.

REFERENCES:

- Alvarez, R. (1985). The Business Activity of the State in Peru. Notes: Journal of Social Sciences, 16, 3-29. <http://revistas.up.edu.pe/index.php/apuntes/article/view/208>.
- Arroyo T. H., Rojo, S. Á., & Yarlequé, E. M. (2021). Main limitations identified by auditors of the Office of the Comptroller General of the Republic that prevent compliance with the implementation of the recommendations in the control reports of the Performance Audits issued from January 2016 to November 30, 2020. (Research work to opt for the academic degree of Master in Public Management), Peruvian University of Applied Sciences Peru. Retrieved from <https://upc.aws.aopenrepository.com/handle/10757/659161>
- Comas Rodríguez, R., Montes de Oca Sánchez, J. E., Cunuhay Ante, I. M., & León Naranjo, M. A. (2022). Administrative audit at the hostel "The Black Sheep Inn". University and Society, 13(s1), 371-380. Retrieved from <https://rus.ucf.edu.cu/index.php/rus/article/view/2046>**
- Congress of the Republic of Peru. (2016). Organic Law of the National System of Internal Control and the Office of the Comptroller General of the Republic. Peru: Retrieved from https://doc.contraloria.gob.pe/docuemntos/TILOC_Ley27785.pdf.
- Guillén, M. L., Humpiri, M. E., Cabel, D. J., & Aguilar, J. E. (2022). Performance audits in public institutions 2022: proposed model for improving the management of public resources. Journal of Applied Social Sciences, 2(4), 11-20.
- INTOSAI. (2019). Principles of Compliance Audit. Mexico: INSOTAI Retrieved from https://www.intosai.org/fileadmin/download/documents/open_acces/ISSAI_100_to_400/issai_400/ISSAI_400_es_2019.pdf.
- The Chamber. (2021). Public enterprises and their results. (The Chamber website). Retrieved from <https://lacamara.pe/categoria/noticias-del-dia/>
- Peru. Ministry of Economy and Finance. (2010). Instructions for the formulation of performance indicators Lima, Peru: Dirección General del Presupuesto Público Retrieved from https://www.mef.gob.pe/contenidos/presupuesto_publico/normativa/Instructivo_Formulación_Indicadores_Desempeño.pdf.

- Paquiyauri, O., & Durand, J. (2022). Performance and Management Audit in the Regional Government of Ayacucho – 2018. (To Opt for the Professional Title of Public Accountant), Universidad Peruana Los Andes, Huancayo, Peru. Retrieved from <https://repositorio.upla.edu.pe/handle/20.500.12848/4336>
- Pérez, A. V., & Pérez, J. A. (2014). Proposed safeguards for the independence of the internal audit function. Management Studies, 30(131), 115-123.**
<https://www.sciencedirect.com/science/article/pii/S0123592314000023>
- Rivas-Ruiz, R., Moreno-Palacios, J., & Talabera, O. (2013). Difference of medians with the Mann-Whitney U. Revista Médica del Instituto Mexicano de Seguro Social, 51(4), 414-419.
http://revistamedica.imss.gob.mx/es/system/files/recurso_diverso/rm-recop-caic-04-rm2013-4-11-xvi.pdf
- Vega, L. O., Lao, Y. O., & Nieves, A. F. (2017). Proposal of an index to evaluate the management of internal control. Accounting and Administration, 62(7), 683-698.**
http://www.scielo.org.mx/scielo.phpscript=sci_arttex&pid+S0186-10422017000200683