Perception of Corporate Social Responsibility and Its Influence on the Quality of Service of the Sanitation Service Provider Tacna S.A., 2021

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Abstract

The objective of this research is to determine the influence of the perception of corporate social responsibility on the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021; of pure or basic type, explanatory scope, non-experimental design, the data were collected by cross section, the sample is of 383 users, under the quantitative approach. It was found that 83.0% of the users perceive as inadequate the corporate social responsibility that characterizes the entity, the most worrying dimension being "Environmental balance"; and 58.7% perceive as inadequate the quality of the entity's service, the most worrying dimension being "Reliability". It is concluded that the perception of corporate social responsibility significantly influences the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., given that a chi-square value = 333.586 and p = 0.000 was obtained, complemented by the Nagelkerke coefficient = 0.744; and similarly, there is an influence of each of the CSR dimensions on the quality of service.

Keywords: *Corporate social responsibility, service quality.*

Introduction

The main objective of the research is to determine the influence of the perception of corporate social responsibility on the quality of the service provided by the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021; since there are many complaints regarding the service provided by this entity, that the complaints are not attended on time, the water quality is not optimal and the service is not provided 24 hours a day, among others, and now in the Covid-19 pandemic scenario, there are claims that the entity does not provide greater facilities for users to meet their debts, especially those who have problems of reduced monthly family income; As a result, there is a perception that the quality of service is not adequate, which may be one of the factors that generate this, the failure to prioritize a policy of corporate social responsibility.

It is important to listen to the clarifications made by users, hence the relevance of this work, since, in these difficult scenarios of unemployment, border closures, economic recession, among others, it is necessary to analyze the causes of delays or lack of payment by clients, which will allow EPS Tacna S.A. to propose strategies for improving service, considering family circumstances. Regarding the development of the sections, the first one described the problem, detailed the objectives and relevance of the work; the second one developed the methodology, specifying the type, design, level, population, sample, technique, instrument, approach, among others, highlighting the reliability and validation of the questionnaires.

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Finally, the fourth section presents the results obtained, grouped in dimensions and by item, for both variables, the contrast of the hypotheses was carried out, to develop the discussion; conclusions and recommendations aligned with the objectives were specified.

2. Objectives

2.1 General Objective

To determine the influence of the perception of corporate social responsibility on the quality of service of Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.

2.2 Specific objectives

a) Analyze the influence of the perception of the environmental balance on the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.
b) Analyze the influence of the perception of the social balance on the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.
c) Analyze the influence of the perception of the economic balance on the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.
d) Develop a corporate social responsibility model to improve the quality of service of Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.

3. Hypothesis

3.1 General assumptions

The perception of corporate social responsibility has a significant influence on the quality of service of Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.

3.2 Specific hypotheses

a) The perception of the environmental balance significantly influences the quality of service provided by Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.
b) The perception of the social balance significantly influences the quality of service of Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.
c) The perception of the economic balance significantly influences the quality of service of Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.
d) The corporate social responsibility model would improve the quality of service of Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.

4. Methodology

4.1 Type of research

The type of research for the development of the thesis is pure or basic since it seeks to generate a contribution to the already existing knowledge (Hernández et al., 2014); deepening the study in the variables of social responsibility and quality of service. Regarding the research approach, it is quantitative because it is based on the measurement that characterizes the variables to study a certain phenomenon, and because of the contrast of hypotheses carried out.

4.2 Research level

This research has an explanatory level because the behavior of the variables corporate social responsibility and service quality was analyzed with a high level of depth (Hernández et al., 2014).
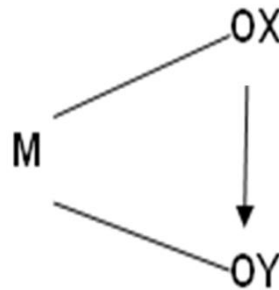
- M: Sample of users of Entidad Prestadora de Servicios de Saneamiento Tacna S.A.

- Ox: Independent variable = Corporate social responsibility.

- ↓: Influence.

- Oy: Dependent variable = Quality of service.

4.3 Research Design

The present research has a non-experimental design, given that the variables were not deliberately altered; with a cross-sectional cut, because data collection was carried out in a single determined time, its purpose is to describe and analyze the variables at a particular time already established (Hernández et al., 2014).

4.4 Population and sample

4.4.1 Unit of study

The unit of study of the research is made up of the users of the service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A.

4.4.2 Population

The study population is made up of 94,000 users registered with the Entidad Prestadora de Servicios de Saneamiento in the Tacna region, as of October 2020 (obtained from statements made by the General Manager of the EPS, Juan Seminario Machica to the newspaper Correo on December 2, 2020).

4.4.3 Sample

To define the sample size, a confidence level of 95%, a proportion equal to 0.5, and an estimation error of plus or minus 5% were considered. The following formula was used:

$$n = \frac{(Z^2 x\ P\ x\ Q\ x\ N)}{((N-1)x\ E^2 + Z^2\ x\ P\ x\ Q)} \qquad (1)$$

- N = Population.

- P = Probability of success (50%).

- Q = Probability of failure (50%).

- E = Margin of error (5%).

- n = Sample.

- Z = 95% confidence level (1.96).

$$n = \frac{((1,96)^2 x\ 0,5\ x\ 0,5\ x\ 94000)}{((94000-1)x\ (0,05)^2 + (1,96)^2\ x\ (0,5\ x\ 0,5)} \qquad (2)$$

$$n = 383$$

Therefore, the sample is made up of a total of 383 users of the service provider in the Tacna region, the application of the survey was random; the main criterion for inclusion was the holder of the service in the family.

4.5 Instrument

The instrument selected to collect the field information was the questionnaire, of which there were two to analyze the behavior of both variables, which were validated through the Expert Judgment:

- Questionnaire to gather information on the opinion of users (external clients) regarding the corporate social responsibility that characterizes the entity.

- Questionnaire to gather information on the opinion of users (external clients) regarding the quality of the service that characterizes the entity.

For the analysis of the dimensions and variables, the Likert scale of 05 response options was used, which are Never/strongly disagree = value 1; Seldom/disagree = value 2; Sometimes/indifferent = value 3; almost always/agree = value 4 and always/strongly agree = value 5; such responses will be grouped into 03 levels: inadequate, regular and adequate, considering the equal amplitude criterion for their determination.

- Inadequate = (1.00 - 2.33).

- Regular = (2.34 - 3.66).

- Adequate = (3.67 - 5.00).

5. Results

5.1 Description of field work

Regarding the data obtained, these were collected in May 2021, for which the authors visited the homes of users of the drinking water service provided by the Sanitation Service Provider in the region of Tacna, in the main districts of the province of Tacna. The interview procedure began by asking for the person "head of household" to explain the objective of the fieldwork and to request his informed consent; after accepting that he would answer the items, each question was read, and then his answer was marked on a summary board; on average, both instruments took approximately 15 minutes per person to fill out, advancing more or less 20 people per day.

After 30 days, it was possible to cover the entire sample requested, whose manual database was transferred to the SPSS format, allowing the respective analysis of the results to be carried out.

5.2 Design of the presentation of results

For the analysis of the results, the responses were grouped in support columns representing the dimensions of both variables, which made it possible to obtain frequency tables for the dimensions, based on three levels: Inadequate, regular, and adequate; in addition to inserting a bar chart, the general results were similarly presented to analyze the behavior of the variable. It should be noted that to write this article, the results of the variable "Corporate Social Responsibility" are shown as an example of the execution of the methodology proposed for this document, without altering the presentation of the conclusions, contrast of hypotheses, and recommendations.

For the hypothesis testing, since the variables are qualitative because they were analyzed from the customers' perspective using the Likert scale, ordinal regression models were applied to analyze the level of influence.

5.2.1 Results of the variable "Corporate social responsibility".

The results presented in Table 1 and Figure 1 refer to the "Environmental Balance" dimension, where 85.4% of the users who are registered with EPS Tacna S.A. perceive as inadequate the prioritization of the entity's strategies to collaborate in facing the environmental problems existing in the region, and 14.6% consider that it is of a regular level; therefore, it was found that the majority of the users specify that the entity has not prioritized in its strategic actions, the promotion of environmental awareness and care of the environment in the population.

Level	User	%
Inadequate	327	85,4%
Regular	56	14,6%
Total	383	100,0%

Table 1. Dimension n° 01 - "Environmental balance sheet".

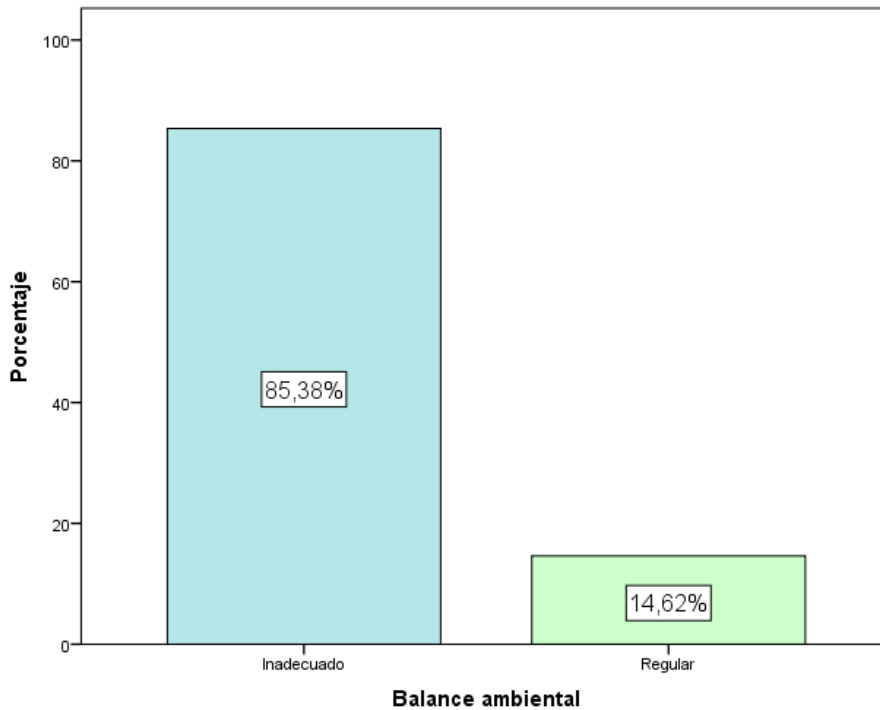**Source:** Questionnaire "Corporate Social Responsibility".

Figure 1. Dimension No. 01 - "Environmental balance sheet".
Source: Questionnaire "Corporate Social Responsibility".

Table 2 shows the descriptive results per question that make up the dimension, from which it is clear that the most worrisome aspects indicated by the users are the following: The entity should promote the implementation of an environmental audit of its management, similarly it should be characterized by communicating to its clients its environmental practices, and the development of programs for the reduction of pollution.

Question		User	%
The entity implements policies for the protection of the environment.	Never	179	46,7%
	Almost never	125	32,6%
	Sometimes	67	17,5%
	Almost always	12	3,1%
	Always	0	0,0%
The entity develops programs for pollution reduction.	Never	171	44,6%
	Almost never	141	36,8%
	Sometimes	69	18,0%
	Almost always	2	0,5%
	Always	0	0,0%
The entity is characterized by encouraging the population to avoid wasting resources, especially water.	Never	95	24,8%
	Almost never	197	51,4%
	Sometimes	69	18,0%
	Almost always	22	5,7%
	Always	0	0,0%

The entity implements programs to disseminate energy savings.	Never	119	31,1%
	Almost never	189	49,3%
	Sometimes	61	15,9%
	Almost always	14	3,7%
	Always	0	0,0%
The company is known for promoting a recycling culture among the population.	Never	81	21,1%
	Almost never	218	56,9%
	Sometimes	74	19,3%
	Almost always	10	2,6%
	Always	0	0,0%
The entity promotes the environmental audit of its management.	Never	199	52,0%
	Almost never	143	37,3%
	Sometimes	41	10,7%
	Almost always	0	0,0%
	Always	0	0,0%
The entity is characterized by communicating its environmental practices to its customers.	Never	192	50,1%
	Almost never	148	38,6%
	Sometimes	41	10,7%
	Almost always	2	0,5%
	Always	0	0,0%
The company is characterized by investing in environmentally friendly technology.	Never	168	43,9%
	Almost never	146	38,1%
	Sometimes	53	13,8%
	Almost always	16	4,2%
	Always	0	0,0%
The entity is characterized by promoting the proper treatment of waste among the population.	Never	139	36,3%
	Almost never	151	39,4%
	Sometimes	85	22,2%
	Almost always	8	2,1%
	Always	0	0,0%

Table 2. Dimension n° 01 - "Environmental balance sheet" (per question)
Source: Questionnaire "Corporate Social Responsibility".

The results presented in Table 3 and Figure 2 refer to the "Social Balance" dimension, where 79.4% of the users who are registered with EPS Tacna S.A. perceive the prioritization of the entity's strategies to contribute to addressing regional social problems as inadequate, and 20.6% consider it to be regular; therefore, it was found that users maintain that the entity mostly does not support the implementation of strategies that contribute to improving regional educational, health, sanitation, and other indicators.

Level	User	%
Inadequate	304	79,4%
Regular	79	20,6%
Total	383	100,0%

Table 3. Dimension No. 01 - Dimension No. 02 - "Social balance sheet".
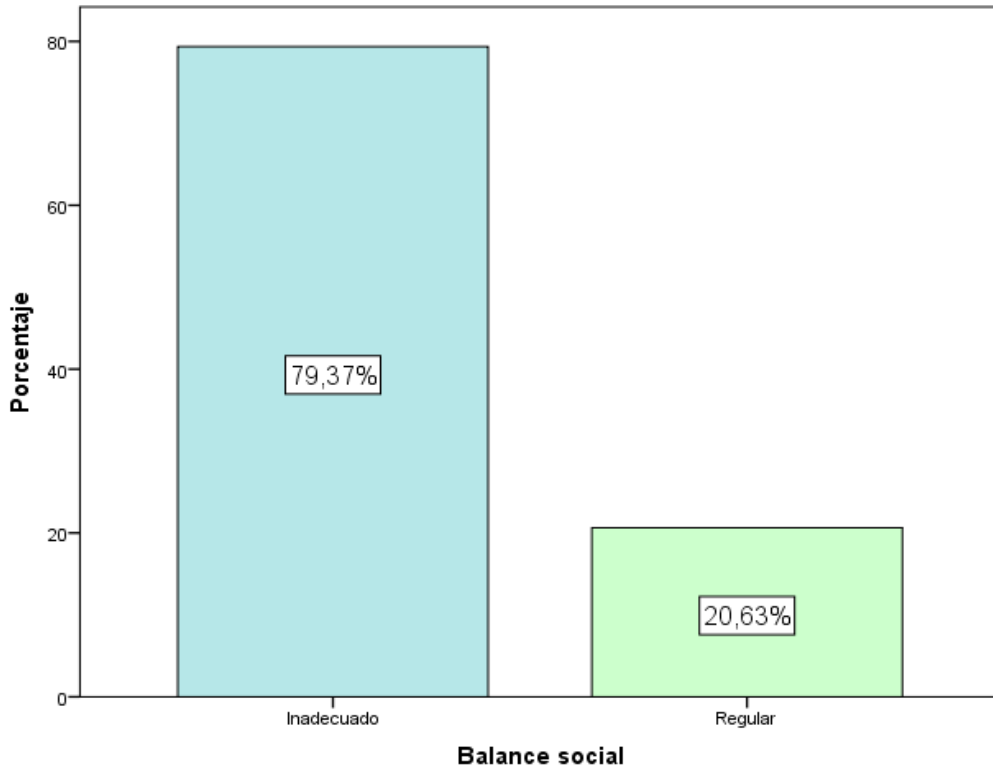**Source:** Questionnaire "Corporate Social Responsibility".

Figure 2. Dimension No. 02 - "Social balance sheet".
Source: Questionnaire "Corporate Social Responsibility".

Table 4 shows the descriptive results per question that make up the dimension, from which it can be seen that the most worrisome aspects indicated by the users are: The entity should carry out management and accountability reports to the population on the use of institutional resources aligned with its strategic plan, in addition to promoting ethical behavior in its actions, and there should be a greater commitment to the welfare of the population where it operates.

Question		User	%
The entity is characterized by its contribution to the solution of social problems in the region.	Never	133	34,7%
	Almost never	161	42,0%
	Sometimes	85	22,2%
	Almost always	4	1,0%
	Always	0	0,0%
The entity is characterized by its commitment to the welfare of the population where it operates.	Never	143	37,3%
	Almost never	183	47,8%
	Sometimes	57	14,9%
	Almost always	0	0,0%
	Always	0	0,0%
The entity is characterized by its sponsorship of social activities in support	Never	181	47,3%
	Almost never	141	36,8%

of the community.	Sometimes	59	15,4%
	Almost always	2	0,5%
	Always	0	0,0%
The entity is known for promoting the fair treatment of people.	Never	71	18,5%
	Almost never	186	48,6%
	Sometimes	97	25,3%
	Almost always	27	7,0%
	Always	2	0,5%
The company is characterized by promoting the development and professional growth of its personnel.	Never	123	32,1%
	Almost never	165	43,1%
	Sometimes	95	24,8%
	Almost always	0	0,0%
	Always	0	0,0%
The entity is characterized by marketing water considering the standards of a responsible service.	Never	91	23,8%
	Almost never	199	52,0%
	Sometimes	73	19,1%
	Almost always	20	5,2%
	Always	0	0,0%
The entity is characterized by its management reports and accountability to the population.	Never	200	52,2%
	Almost never	138	36,0%
	Sometimes	45	11,7%
	Almost always	0	0,0%
	Always	0	0,0%
The entity is characterized by promoting ethical behavior in its actions.	Never	184	48,0%
	Almost never	151	39,4%
	Sometimes	44	11,5%
	Almost always	4	1,0%
	Always	0	0,0%

Table 4. Dimension No. 02 - "Social balance" (per question)
Source: Questionnaire "Corporate Social Responsibility".

The results presented in Table 5 and Figure 3 refer to the dimension "Economic Balance"; 80.7% of the users who are registered with EPS Tacna S.A. perceive as inadequate the prioritization of strategies of this entity to contribute to facing the problems of economic recession experienced by Tacna families, and 19.3% consider that it is of regular level; therefore, it was found that users maintain that the entity mostly does not support providing better payment conditions for the water and sewerage service received.

Level	User	%
Inadequate	309	80,7%
Regular	74	19,3%
Total	383	100,0%

Table 5. Dimension No. 03 - "Economic balance sheet".
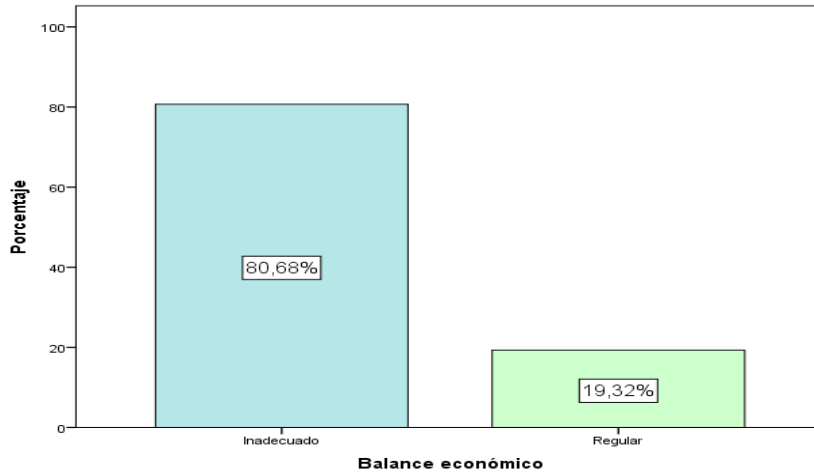**Source:** Questionnaire "Corporate Social Responsibility".

Figure 3. Dimension No. 03 - "Economic balance sheet".
Source: Questionnaire "Corporate Social Responsibility".

Table 6 shows the descriptive results per question that make up the dimension, from which it can be seen that the most worrisome aspects indicated by the users are: The entity should generate transparent job opportunities, promote local economic development more proactively, and that the entity should prioritize that the service provided is competitive.

Ask		User	%
The economic benefits received by the entity for the provision of the service are following the coverage and quality of the resource offered to the population.	Never	105	27,4%
	Almost never	174	45,4%
	Sometimes	80	20,9%
	Almost always	24	6,3%
	Always	0	0,0%
The entity prioritizes investment in water quality improvement.	Never	148	38,6%
	Almost never	166	43,3%
	Sometimes	59	15,4%
	Almost always	10	2,6%
	Always	0	0,0%
The entity is characterized by quick and efficient attention to the population's complaints about the service received.	Never	108	28,2%
	Almost never	163	42,6%
	Sometimes	83	21,7%
	Almost always	27	7,0%
	Always	2	0,5%
The entity invests in technological improvements to provide a better service.	Never	152	39,7%
	Almost never	163	42,6%
	Sometimes	54	14,1%
	Almost always	14	3,7%
	Always	0	0,0%
The entity is characterized by providing a competitive service.	Never	161	42,0%
	Almost never	149	38,9%
	Sometimes	59	15,4%
	Almost always	14	3,7%

	Always	0	0,0%
The entity is characterized by promoting local economic development.	Never	166	43,3%
	Almost never	147	38,4%
	Sometimes	68	17,8%
	Almost always	2	0,5%
	Always	0	0,0%
The entity promotes the generation of transparent job opportunities.	Never	174	45,4%
	Almost never	153	39,9%
	Sometimes	48	12,5%
	Almost always	8	2,1%
	Always	0	0,0%

Table 6. Dimension No. 03 - "Economic balance" (by question)
Source: Questionnaire "Corporate Social Responsibility".

The results presented in Table 7 and Figure 4 refer to the variable "Corporate social responsibility"; 83.0% of the users registered with EPS Tacna S.A. perceive the implementation of corporate social responsibility strategies that characterize the entity as inadequate, and 17.0% consider it to be at a regular level; therefore, it was found that users maintain that the entity has not prioritized the development of actions related to environmental, social and economic issues in favor of the regional population.

Level	User	%
Inadequate	318	83,0%
Regular	65	17,0%
Total	383	100,0%

Table 7. Independent Variable - Corporate Social Responsibility
Source: Questionnaire "Corporate Social Responsibility".
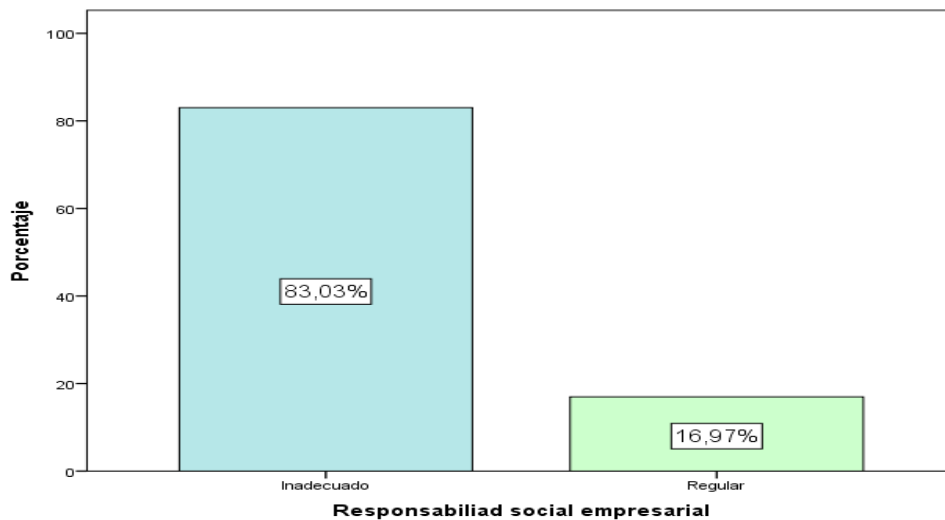

Figure 4. Independent Variable - Corporate Social Responsibility
Source: Questionnaire "Corporate Social Responsibility".

Table 8 shows the summary results for the dimensions analyzed, showing that the most worrisome aspect is related to the "Environmental Balance" dimension, followed by the "Economic Balance" and finally the "Social Balance".

Dimension		User	%
Environmental balance	Inadequate	327	85,4%
	Regular	56	14,6%
	Suitable	0	0,0%
Social balance	Inadequate	304	79,4%
	Regular	79	20,6%
	Suitable	0	0,0%
Balance sheet	Inadequate	309	80,7%
	Regular	74	19,3%
	Suitable	0	0,0%

Table 8. Independent variable - Corporate social responsibility (by dimension)
Source: Questionnaire "Corporate Social Responsibility".

5.4 Statistical test

The fieldwork was based on the opinions or perceptions of the clients of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A.; therefore, these are qualitative variables, and ordinal logistic regression was used to contrast the hypotheses to determine the influence.

5.5 Hypothesis testing

5.5.1 Testing the specific hypotheses

a) The specific hypothesis 01 is "The perception of the environmental balance significantly influences the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021".

Where the hypothesis statement is:

H_0 : There is no influence of the "Environmental balance" on the "Quality of service".

H_1 : There is an influence of the "Environmental balance" on the "Quality of service".

Table 9 presents the results of using ordinal logistic regression, where the chi-square = 150.036 and p = 0.000, since "p" is less than 5% significance, it implies that the environmental balance influences service quality; the Nagelkerke coefficient = 0.415; therefore, there is a 41.5% dependence of the quality of service on the environmental balance; H_0 is rejected, i.e., the perception of the environmental balance significantly influences the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S. A., S. de Saneamiento.A., 2021.

Model fit information				
Model	Logarithm of the likelihood -2	Chi-square	gl	Sig.
Intersection only	220,314			
Final	70,278	150.036	21	0,000

Pseudo R square	
Cox and Snell	0.324
Nagelkerke	0.415
McFadden	0.258

Table 9. Contrasting specific hypothesis 1
Source: Both questionnaires

b) The specific hypothesis 02 is "The perception of the social balance significantly influences the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021". Where the hypothesis statement is:

H_0: There is no influence of "Social balance" on "Quality of service".

H_1: There is an influence of the "Social balance" on the "Quality of service".

Table 10 presents the results of using ordinal logistic regression, where the chi-square = 283.281 and p = 0.000, since "p" is less than 5% significance, it implies that social balance influences service quality; the Nagelkerke coefficient = 0.669, therefore, there is a 66.9% dependence of the quality of service on the social balance; H_0 is rejected, i.e., the perception of the social balance has a significant influence on the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.

Model fit information				
Model	Logarithm of the likelihood -2	Chi-square	Gl	Sig.
Intersection only	283,281			
Final	0,000	283,281	19	0,000

Pseudo R square	
Cox and Snell	0,523
Nagelkerke	0,669
McFadden	0,486

Table 10. Testing specific hypothesis 2
Source: Both questionnaires

c) The specific hypothesis No. 03 is "The perception of the economic balance significantly influences the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021". Where the hypothesis statement is:

H_0 : There is no influence of the "Economic balance" on the "Quality of service".
H_1 : There is an influence of the "Economic balance" on the "Quality of service".

Table 11 presents the results of using ordinal logistic regression, where the chi-square = 256.647 and p = 0.000, since "p" is less than 5% significance, it implies that the economic balance influences service quality; the Nagelkerke coefficient = 0.625, therefore there is a 62.5% dependence of the quality of

service on the economic balance; H_0 is rejected, i.e., the perception of the economic balance has a significant influence on the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.

Model fit information				
Model	Logarithm of the likelihood -2	Chi-square	gl	Sig.
Intersection only	256,647			
Final	0,000	256,647	19	0,000

Pseudo R square	
Cox and Snell	0,488
Nagelkerke	0,625
McFadden	0,441

Table 11. Contrasting specific hypothesis 3
Source: Both questionnaires

5.5.2 Testing the General Hypothesis

The general hypothesis is "The perception of corporate social responsibility significantly influences the quality of service of Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021".

Where the hypothesis statement is:

H_0 : No influence of "Corporate Social Responsibility" on "Quality of Service".

H_1 : There is an influence of "Corporate Social Responsibility" on "Quality of Service".

Table 12 presents the results of the use of ordinal logistic regression, where the chi-square = 333.586 and p = 0.000, since "p" is less than 5% significance, it implies that corporate social responsibility influences service quality; the Nagelkerke coefficient = 0.744, therefore there is a 74.4% dependence of the quality of service on corporate social responsibility; H_0 is rejected, i.e., the perception of corporate social responsibility has a significant influence on the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021.

Model fit information				
Model	Logarithm of the likelihood -2	Chi-square	gl	Sig.
Intersection only	333,586			
Final	0,000	333,586	47	0,000
Pseudo R square				
Cox and Snell	0,581			
Nagelkerke	0,744			
McFadden	0,573			

Table 12. Contrasting the general hypothesis
Source: Both questionnaires

5.6 Discussion of results

The results obtained allowed to conclude that there is an influence of the perception of corporate social responsibility on the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021; this is evidenced by the chi-square value = 333.586 (p = 0.000), complemented by the Nagelkerke coefficient = 0.744; which implies that if the quality of service perceived by the entity's clients is to be improved, the managers must prioritize improving their corporate social responsibility strategy, especially in times of pandemic, where greater organizational flexibility is required to provide payment facilities for drinking water consumption in households with greater economic problems.

These results differ from those obtained by Rojas et al. (2020), who conclude that social responsibility has very low dependence on the quality of service provided by the companies analyzed since it was found that there is a 74.4% dependence on the quality of service on the perceived corporate social responsibility of EPS Tacna S.A.

On the contrary, there is an agreement with the results found by Tarí and García (2011) who conclude that of the companies analyzed, those that have a higher level of quality management are those that show greater awareness of certain dimensions of social responsibility; given that in this work it was found that the quality of service is significantly influenced by the corporate social responsibility that characterizes the entity.

Similarly, there is agreement with the results found by Pacompía (2020) who concludes that there is a positive and moderate relationship (Rho = 0.480 and p = 0.000) between CSR and perceived service quality since it was found that there is an influence of corporate social responsibility perceived by the customer on service quality, which implies that these variables are necessarily related.

There is also agreement with the work carried out by Flores (2015) who concludes that there is a direct and high relationship (r = 0.798) between USR and academic quality; since it was found that the perceived CSR influences the quality of service provided by EPS Tacna S.A.

Finally, there is a discrepancy with the results of the work carried out by Pastor (2014) who concludes that the average satisfaction with EPS services is 72.9%; while in the present work it was found that 58.7% of the users who are registered with EPS Tacna S.A. perceive the quality of the water and sewage services provided by the entity as inadequate.

6. Conclusions

FIRST

The perception of corporate social responsibility significantly influences the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021; given that a chi-square value = 333.586 and p = 0.000 was obtained, complemented by the Nagelkerke coefficient = 0.744; in addition, 83.0% of the users perceive corporate social responsibility as inadequate, the most worrying dimension being "Environmental balance"; and 58.7% perceive the quality of service as inadequate, the most worrying dimension being "Reliability".

SECOND

The perception of the environmental balance significantly influences the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021; given that a chi-square value = 150.036 and p = 0.000 was obtained, complemented by the Nagelkerke coefficient = 0.415.

THIRD

The perception of the social balance significantly influences the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021; given that a chi-square value = 283.281 and p = 0.000 was obtained, complemented by the Nagelkerke coefficient = 0.669.

FOURTH

The perception of the economic balance significantly influences the quality of service of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A., 2021; given that a chi-square value = 256.647 and p = 0.000 was obtained, complemented by the Nagelkerke coefficient = 0.625.

7. Recommendations

FIRST

The officials of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A. are suggested to prioritize the proposal and implementation of the "CSR Program for the improvement of the quality of service in EPS Tacna S.A. to improve the perception of users regarding corporate social responsibility in a Covid-19 pandemic scenario" (attached), which should be formalized as an institutional policy; such activities will contribute to the improvement of the perception of the quality of service provided.

SECOND

In order to improve the "Environmental Balance" dimension, the officers of Entidad Prestadora de Servicios de Saneamiento Tacna S.A. are suggested to prioritize the implementation of programs focused on encouraging the population to avoid wasting water resources, contributing to the reduction of pollution and the proper treatment of solid waste, among others, which will contribute to changing the attitudes and behaviors of citizens in favor of the environment. These activities will contribute to improving the perception of the quality of the service provided.

THIRD

The officials of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A. are suggested to improve the "Social Balance" dimension, they should prioritize the sponsorship of some social activities to support the community, raise funds to meet family emergencies related to sanitation and educational issues, among others, where they are accountable for the progress of management, the use of resources collected and the commitment made to citizens regarding their demands for sanitation services. These activities will contribute to improving the perception of the quality of the service provided.

FOURTH

The officials of the Entidad Prestadora de Servicios de Saneamiento Tacna S.A. are suggested to improve the "Economic Balance" dimension, and prioritize giving greater payment facilities to users, since the Covid-19 pandemic has generated economic recession, unemployment, etc., allowing them to meet their obligations considering their family reality, in addition to strengthening the work team that allows them to quickly and efficiently respond to the population's complaints about the service received; these activities will contribute to improving the perception of the quality of the service provided.

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