El clima organizacional y su correlación con la calidad en el servicio en una institución de educación de nivel medio superior

The organizational climate and its correlation with the quality of service in a higher education institution

O clima organizacional e sua correlação com a qualidade do serviço em uma instituição de ensino superior

Jesús Guillermo Sotelo Asef
Universidad Juárez del Estado de Durango, México
chuy_sotelo@hotmail.com

Ernesto Geovani Figueroa González
Universidad Juárez del Estado de Durango, México
geovanifigueroa@yahoo.es

Resumen

El propósito de este trabajo es determinar la relación que existe entre clima organizacional y calidad en el servicio percibido por los trabajadores de una institución de nivel medio superior, particularmente dos colegios de bachilleres del estado de Durango, México. Para la recopilación de la información se utilizó la técnica de la encuesta. El cuestionario "Medición del clima organizacional gubernamental utilizando calidad en el servicio como parámetro" se aplicó en el segundo semestre del año 2014 a los docentes y administrativos. Se utilizó la técnica de análisis estadístico de regresión lineal simple; se revisó la validez y ajuste del modelo; se propuso una ecuación de regresión y se realizó el análisis de supuestos. Se concluye que la correlación entre ambas variables es positiva y el modelo de regresión lineal cumple con los supuestos para estudios de las ciencias sociales.

Abstract

The purpose of this paper is to determine the relationship between organizational climate and quality of service perceived by workers of a higher secondary level institution, particularly two high school colleges in the state of Durango, Mexico. For the collection of information, the survey technique was used. The questionnaire "Measurement of government organizational climate using quality in the service as a parameter" was applied in the second semester of 2014 to teachers and administrators. The technique of statistical analysis of simple linear regression was used; the validity and fit of the model was reviewed; A regression equation was proposed and the analysis of assumptions was made. It is concluded that the correlation between both variables is positive and the linear regression model fulfills the assumptions for social science studies.

Resumen

O objetivo deste trabalho é determinar a relação que existe entre o clima organizacional e a qualidade do serviço percebido pelos trabalhadores de uma instituição de ensino secundário superior, particularmente duas faculdades do ensino médio no estado de Durango, no México. Para a coleta de informações, utilizou-se a técnica de pesquisa. O questionário "Medição do clima organizacional do governo com qualidade no serviço como parâmetro" foi aplicado no segundo semestre de 2014 aos professores e administradores. Foi utilizada a técnica de análise estatística de regressão linear simples; A validade e ajuste do modelo foi revisado; Uma equação de regressão foi proposta e a análise de premissas foi feita. Conclui-se que a correlação entre ambas as variáveis é positiva eo modelo de regressão linear cumpre os pressupostos para estudos de ciências sociais.

Introduction

At present, organizations are in a stage of competencies, due to which they have to be in optimal conditions from within to provide a good service, hence the concepts of organizational climate and quality in the service are fundamental to strengthen their reason for being and as a consequence to be able to take decisions that lead them to develop within the context of competitiveness and its managers contribute to the improvement of institutions.

Maldonado Pérez and Bustamante Uzcategui in 2006, cited by Visbal (2014) in their work on Organizational Climate and Management, agree that there are three reasons that justify the application of the Organizational Climate study:

1. As Organizational Climate is developed from the everyday, is able to trigger obstacles or facilitate the achievement of the objectives and goals of the organization.

2. The Organizational Climate, is an important factor to evaluate organizations in a holistic, systemic way and considering the global phenomenology.

3. The Organizational Climate, allows the self-reflection of the shared perception in the workers consulted. Due to this, the design of shared and constructive actions is facilitated, motivating team work and generating efficiency within the organization.

On the other hand Escobar and Mosquera (2013) affirmed that the quality of organizations can and should be constantly improved, seeking to raise it to levels of excellence, that is, to obtain sustainable results with growing trends; This is how quality models have emerged, seeking to focus this quality service towards the improvement of the competitiveness and sustainability of organizations and in which other concepts are involved that need to be related in order to understand the extension of the concept of quality.

The main objective of this paper is to establish the relationship between the organizational climate and the quality of service in the Colleges of Bachelors of the State of Durango, Lomas and Santa Clara. The total number of teachers and administrators was interviewed through the application of the questionnaire "Measuring the organizational organizational climate using quality in the service as a parameter", which considers seven dimensions of the organizational climate (structure, communication, training and development, team work, environment physical and cultural, identity, leadership) and seven dimensions of quality in the service (strategic direction and improvement cycle, process management, improvement teams and projects, improvement of regulations, e-government, knowledge management, contributions and suggestions from public officials).

We proceeded to the analysis of the results through the statistical program IBM SPSS, to propose a simple linear regression model. It was concluded that there is a high correlation between the organizational climate variable and the quality variable in the service and that the proposed linear regression model is valid, that is, it is a model that can be applicable to social science studies.

In the present document reference is made to some theories that allow to validate the information on the variables under study; subsequently, the method used to carry out the research is presented, as well as the operationalization and definition of the variables; An analysis of the assumptions is made to validate the model (linearity, independence, normality and homoscedasticity) Finally, the results and conclusions of the study are presented.

The problem

Is there a significant correlation between the variable organizational climate and the quality variable in the service?

General purpose

Analyze the correlation between organizational climate and quality in the service using a linear regression model.

Specific objectives

Verify if the analysis of the variables meets the assumptions of a linear regression model in terms of linearity, independence, normality and homoscedasticity.

Question

Does the analysis of organizational climate and service quality meet the assumptions of the linear regression model?

Literature review

Organizational climate

Uribe, Patlán and García (2015), mention Forehand and Gilmer (1964), who define the organizational climate as a set of characteristics perceived by workers to describe an organization and distinguish it from others, its stability is relative in time and influences the behavior of people in the organization.

On the other hand, the definition of Hospinal (2013) is taken, which mentions Rodríguez et al. (2007), who in turn cite the definition of Litwin & Stringer (1968), which states that the organizational climate is a property of the organizational environment described by its members. In this sense, the organizational climate originates products of subjective effects perceived from the formal system, from the informal style of the administrators and from organizational factors. These factors would affect the attitudes, beliefs, values and motivation of the people in the organization.

Bernal, Pedraza and Sánchez (2015) comment that the work carried out by Elton Mayo between the years 1927 to 1939, in the Hawthorne factories belonging to the company General Electric, may be considered the first contribution in the history of the Organizational Climate, since the experiments carried out in these factories highlight the importance of human relations and other variables of perception, such as working conditions, employees' feelings, sense of belonging and collective interests, as determinants of the productivity and employee satisfaction, aspects that, among them, are part of the Organizational Climate.

Esparragoza, Sánchez and Martínez (2014) mention diverse definitions of climate chronologically; they show the differences and convergences that various authors representative of the specialized literature have about the concept. An orientation of greater structure can be seen as it advances in time, since it includes concepts richer in variants and reaches in interactivity and space relation; It can be considered as a common factor the fact that most authors define the construct as the set of perceptions that the employees have about the organization.

As Bernal (2010) points out, the investigations carried out throughout human history show that organizations have always existed. Probably its importance and importance were not as recognized as they are today. However, the inevitable need for people to meet with each other to obtain personal ends has led to the formation of groups and associations of individuals over the years to facilitate the achievement of results, because it is more productive and less expensive to carry out the activities when forming part of an organization.

Ucros (2011), In order to establish the validity of the different theoretical-practical approaches to the study of the Organizational Climate, consider the need to discuss, compare and compare the different approaches and their psychological, group and organizational dimensions on Organizational Climate. In order to describe the social environment in organizations, the concept of Organizational Climate has been used to a

greater extent, which reflects the perceptions that people have of the Organizational context and the interaction processes of each individual with the members of the Organization. organization. However, there are no agreements between the authors regarding the factors or dimensions to be considered in the measurement and explanation of the Organizational Climate.

Dimensions of the organizational climate

Over the years, the dimensions that have been identified as components of the Organizational Climate have been very different, which has given rise to different visions leading to confusion and a slow theoretical progress according to Hernández, et al. (2014).

Neal, Ashkanasy, Celeste, Wilderom, Mark and Peterson, (2011) comment that in the operationalization of the organizational climate it can be said that there are insufficient validated measurements of the construct.

Rodriguez (2010) quotes Litwin and stringer (1968), tries to explain important aspects of the behavior of individuals working in an organization, using concepts such as motivation and climate. According to this theory, the perceptions and responses that comprise the organizational climate originate in a great variety of factors. Some cover leadership factors and management practices as types of authoritative, participatory oversight. Other factors are related to the formal system and the structure of the organization such as the communication system, dependency relationships, promotions, salaries, among others and others are the consequences of behavior at work such as incentive systems, social support, interaction with the other members, among others.

According to Segredo (2013), who mentions García and Bedoya (1997), within an organization there are three strategies that allow measuring the organizational climate: the first is to observe the behavior and development of its workers; the second is to conduct direct interviews with the workers; and the third and most used, is to conduct a survey to all workers through questionnaires designed for it. There is a great variety of questionnaires that have been applied in the process of measuring the organizational climate.

Según Tamayo y Traba (2010) To measure the state of the organizational climate, a theoretical construct is necessary that, adjusted to a methodological procedure, allows to detect the necessary requirements in the internal client regarding the work environment, the necessary attributes that can be articulated with the management of human capital and good organizational performance. Once the main problems are detected, it is proposed to include an action plan that, applied in the entity, contributes to eliminate the deficiencies detected and therefore contributes to the improvement of business management. The procedure and its application contemplate two fundamental objectives:

1. Define the state of the organizational climate in the entity, based on the behavior of the selected variables.
2. Propose an action plan to improve management in the organization.

The analysis starts with the knowledge of the distinctions of the organization, consecutively, based on the study of the theoretical conceptions, to expose the organizational climate model, which concentrates the fundamental dimensions in the conformation of the organizational environment in the entity.

Cardona and Zambrano (2014), conducted a study in Colombia that presented a characterization of different instruments for evaluating the Organizational Climate. For this purpose, a systematic review study of publications literature was carried out in the last 15 years, where 10 articles were found that presented instruments for the evaluation of Organizational Climate; an analysis was made of the psychometric properties and the evaluated dimensions of said articles. It was found that there is a group of 8 dimensions that are repeated in most of the instruments: decision making, organizational clarity, leadership, social interaction, institutional motivation, system of rewards and incentives, organizational openness and supervision.

Quality in service

The quality of service is the horizon that should guide all members of an organization and its operations, therefore the success of these is based on customer service, according to Najul (2011).

The quality of the service has reached great relevance since the 90s. Its growing importance lies in the fact that it has ceased to be a differentiating strategy used to increase productivity, becoming an instrument to gain the loyalty of employees. customers or to improve the image of the organization and therefore achieve market share and presence which leads to obtaining a competitive advantage (Gálvez, 2011).

Most of the ideas and basic concepts of quality, according to Gutiérrez (2010), matured during the 1980s and 1990s; It is necessary to take them into account, because they generated a lot of changes in organizations: management styles, priorities of an organization, understanding of quality, productivity, competitiveness and customer evolved.

Given these new purposes, the concept of quality is shown as a concept of integration in the activity developed by any organization.

On the other hand, some of the service definitions include the following:

- That activity that relates the company to the client, so that he is satisfied with this activity. Activities oriented to a task, other than proactive sales, that include interactions with clients in person, through telecommunications or by mail. This function must be designed, performed and communicated with two objectives in mind: customer satisfaction and operational efficiency.
- Any activity or benefit that one party can offer to another that is essentially intangible and does not result from the ownership of something, and may be associated not with a physical product.
- Activity or series of activities that are of intangible nature that normally, but not necessarily, take place in the interactions between the client and the employees and / or resources or physical assets of the service provider, which are provided as a solution to a customer's problem

- Any primary or complementary activity that does not produce a physical product directly, that is, the non-tangible part of the transactions between the clients and the supplier (Lascurain, 2012).

Dimensions of quality in the service

Some of the dimensions that it is important to evaluate to meet the client's needs are:

- The amount of time you have to wait to be treated
- Having customer service available at convenient times
- The time it takes to completely resolve an issue or problem
- Access the service through multiple channels
- The time it takes to read and understand the information that the company sends you and
- The availability to answer questions or issues by itself or without the need to go to an employee (Trujillo, 2011).

On the other hand Lascurain, (2012) cites Gronroos (1994), who mentions that there are three dimensions of quality in the service that are:

- Technical quality. Involves what the customer is receiving from the provider. This can be measured by the client more objectively.

- Functional quality. Involves the way in which the service is delivered. This refers to the psychological interaction between the buyer and the provider. It is perceived in a rather subjective manner and can influence elements such as: attitude and behavior of employees, approach of service personnel, accessibility to service, appearance of staff, relationship between employees and relationship between employees and the client.

- Corporate image. It is the dimension of quality that results from how customers perceive the company and is expected to be built primarily by the technical dimension of quality as it affects the perception of the service by the customer.

Montaudon (2010) pointed out that the quality according to Garvin has eight dimensions that are: a) performance: main characteristics of the product that allow it to operate in the expected manner; b) characteristics: everything that is not part of the main function, but represents an important attraction; c) reliability: the probability that the product fails within a certain period; d) conformity: is the degree to which the design and operating characteristics of a product meet established standards; e) durability: measures the useful life of the product in terms of economic and technical issues; f) service provision: speed of response, courtesy, competence; g) aesthetics and h) perceived quality: they are merely subjective.

The present study is aimed at the quality of the service perceived by the employees of the institution, making reference to the principles and recommendations of CLAD, and which mentions the following:

The Ibero-American states will promote the regulatory development that facilitates the application of actions, techniques and instruments for quality in the public management of the different Administrations, bodies, entities and administrative units (CLAD, 2008).

In the Ibero-American Charter on Public Management issued by CLAD, some actions, techniques and basic quality instruments are recommended, in which bodies and public entities can be supported for the implementation of quality in public management, of which, for In this study, the following dimensions were taken into account: strategic direction and improvement cycle, process management, improvement teams and projects, improvement of regulations, e-government, knowledge management, contributions and suggestions from the public workers.

Materials and methods

The research is non-experimental, quantitative, correlational and transversal. To collect the information, the survey technique was used and in the second semester of 2014 the questionnaire "Measuring the organizational organizational climate using quality in the service as a parameter" was applied to teachers and administrators. The linear regression statistical analysis technique was used, and the reliability of the applied instrument obtained a Cronbach's alpha coefficient = 0.954.

It is worth mentioning that for the realization of the present study a representative random sample was taken among the participants, composed of 28 teachers and 24 administrative staff of the total population.

The study population, operationalization and definition of the variables are described below.

Population under study

The population is integrated as shown in Table 1.

Table 1. Composición de la población.

Trabajadores por plantel	No.	Puesto	No.
Lomas	32	Docente	28
Santa Clara	20	Administrativo	24
Total	52	Total	52

Fuente: Elaboración propia

In the following tables we observe the operationalization and definition of the variables studied.

Table 2. Operacionalización de las variables.

Variable	Indicadores	Modalidades	No. de preguntas en el instrumento	Tipo de variable
Perfil de los participantes	Puesto	1 Docente 2 Administrativo	S/n	Cualitativa/ordinal
	Tipo de contrato	1 Base 2 Indefinido	S/n	Cualitativa/nominal
	Máximo nivel de estudios	1 Primaria 2 Secundaria 3 Preparatoria 4 Licenciatura 5 Maestría 6 Doctorado	S/n	Cualitativa/ordinal
	Sexo	1 Masculino 2 Femenino	S/n	Cualitativa/nominal
	Antigüedad	Años trabajados dentro de la institución	S/n	Cuantitativa/discreta
	Edad	Años del trabajador	S/n	Cuantitativa/discreta
Clima Organizacional	Estructura	Percepción del encuestado del clima organizacional	49,37,25,13,1,50	Cualitativa/ordinal
	Comunicación		38,26,14,2,51	Cualitativa/ordinal
	Capacitación y desarrollo		39,27,15,3,52	Cualitativa/ordinal
	Trabajo en equipo	Muy de acuerdo / Muy en desacuerdo 4 / 3 / 2 / 1	40,28,16,4,53	Cualitativa/ordinal
	Ambiente físico y cultural		41,29,17,5,54,42	Cualitativa/ordinal
	Identidad		30,18,6,55	Cualitativa/ordinal
	Liderazgo		43,31,19,7,56,44	Cualitativa/ordinal
Calidad en el servicio	Dirección estratégica y ciclo de mejora	Percepción del encuestado de calidad en el servicio	32,20,8,57,45	Cualitativa/ordinal
	Gestión por procesos		33,21,9,58,46,34,22	Cualitativa/ordinal
	Mejora de la normatividad	Muy de acuerdo / Muy en desacuerdo 4 / 3 / 2 / 1	10,59	Cualitativa/ordinal
	Gobierno electrónico		47,35,23,11	Cualitativa/ordinal
	Gestión del conocimiento		60,48,36,24	Cualitativa/ordinal

Aportaciones de los funcionarios	12	Cualitativa/ordinal

Fuente: Elaboración propia.

Table 3 shows the definitions of the organizational climate dimensions of the instrument "Measurement of the governmental organizational climate using quality in the service as a parameter".

Table 3. Definiciones de las dimensiones utilizadas en el instrumento de medición.

Dimensión	Definición	Referencia
Estructura	La dimensión estructura está vinculada con las reglas organizacionales, los formalismos, las obligaciones, políticas, jerarquías y regulaciones. En otras palabras, es el respeto a los canales formales que se encuentran presentes en la organización. Representa la percepción que tienen los miembros de la organización acerca de la cantidad de reglas, procedimientos, trámites y otras limitaciones que se ven enfrentados en el desarrollo de su trabajo.	(Litwin y Stringer, 1968).
Comunicación	Es la percepción general sobre el estado de comunicación y capacidad de escuchar por parte de la organización, así como, la libertad para comunicarse abiertamente con los superiores, para tratar temas sensibles o personales con la confidencia suficiente de que esa comunicación no será violada o usada en contra de los miembros.	(Chiang, Salazar, y Nuñez A., 2007).
Capacitación y desarrollo	Es la percepción de los empleados referente a los cursos de capacitación que reciben, tomando en cuenta que estos sean apropiados y estén acorde con sus necesidades.	(Valenzuela, ECL. Encuesta de Clima Organizacional, 2003).
Trabajo en equipo	Es el grado de percepción de los empleados sobre el contacto que tienen con sus compañeros de trabajo, la confianza y apoyo que reciben y las relaciones de amistad y compañerismo que existe entre ellas.	(Chiang, Salazar, y Nuñez A., 2007).
Ambiente físico y cultural	Es el grado de percepción de los individuos en relación a las instalaciones de su trabajo, considerando aspectos tales como limpieza, disposición de materiales entre otros.	(Valenzuela, ECL. Encuesta de Clima Organizacional, 2003).
Identidad	Es el sentimiento de pertenencia a la organización, el cual es un elemento importante y valioso dentro del grupo de trabajo. En general, es la sensación de compartir los objetivos personales con los de la organización.	(Litwin y Stringer, 1968).
Liderazgo	Liderazgo: La influencia que ejerce un individuo en el comportamiento de otras personas en la búsqueda, eficiente y eficaz, de los objetivos previamente determinados, por medio de la habilidad de orientar y convencer a otros para ejecutar, con entusiasmo, las actividades asignadas.	(Marín, 2003).

Fuente: Sotelo (2015).

Table 4. Dimensiones de la calidad en el servicio del instrumento "Medición del clima organizacional gubernamental utilizando calidad en el servicio como parámetro"

Dimensión	Definición
La dirección estratégica y el ciclo de mejora	La dirección estratégica supone un enfoque flexible, que se anticipa y adapta a las necesidades de la sociedad. Permite analizar y proponer soluciones, para orientar a la Administración Pública a una visión u horizonte en un plazo determinado.
Gestión por procesos	La gestión por procesos implica el desarrollo de las actuaciones siguientes: la identificación de los requerimientos, necesidades y expectativas, los procesos necesarios para la prestación del servicio público, los objetivos de cada uno de los procesos, las diferentes actividades, las obligaciones y los indicadores.
La mejora de la normatividad	La mejora de la normatividad persigue el establecimiento de un marco normativo sencillo que facilite la eficacia, eficiencia, agilidad y adaptabilidad de los procesos y procedimientos, y, por ende, la mejora en la prestación del servicio a los ciudadanos, así como la productividad nacional.
El gobierno electrónico	De conformidad con la "Carta Iberoamericana de Gobierno Electrónico", la Administración Pública buscará la optimización de las tecnologías de la información y la comunicación, para la mejora y acercamiento del servicio a las necesidades ciudadanas, así como de la propia gestión pública, mejora de la atención, trámites en línea, participación y transparencia
La gestión del conocimiento	La gestión del conocimiento requiere: El desarrollo de procesos de gestión de los repositorios de información: , documentos e informes, definición de procedimientos y métodos documentados, guías, manuales, entre otros elementos, el establecimiento de mecanismos de intercambio de experiencias, la generación de valor entre distintos grupos de personas relacionadas con la gestión pública, el trabajo colaborativo, así como la interacción entre los funcionarios.
Aportaciones y sugerencias de los funcionarios públicos	Los empleados públicos son el principal y más valioso capital con que cuenta la Administración Pública, y su experiencia y conocimiento es clave en la aportación a través de sugerencias para la mejora continua de la calidad de la gestión pública. En dicho sentido, es conveniente disponer de sistemas que regulen y promuevan su participación.
Adopción de modelos de excelencia	La adopción de modelos de excelencia, integrales u holísticos, facilita la comprensión de las dimensiones más relevantes de la realidad de los órganos y entes públicos y permite establecer unos criterios orientadores, homogéneos, tanto para el análisis sistemático y riguroso como para lograr la acción coherente.

Fuente: CLAD. (2008). Carta Iberoamericana de la Calidad en la Gestión Pública. Latinoamérica: Centro Latinoamericano de Administración para el Desarrollo.

Simple Linear Regression

The simple linear regression analysis is a statistical technique to determine the relationship between a dependent variable and an independent variable, in order to model and predict the behavior of the dependent variable with respect to the independent variable. The objective is to obtain a valid equation of the form $y = b_0 + b_1 x$, where:

and it is the dependent variable

x is the independent variable

b_0 is the ordered to the origin

b_1 is the slope of the line

To carry out a regression analysis, the following three aspects were taken into account:

1. Validity and adjustment of the model

For a model to be valid it must be fulfilled that $b_1 \neq 0$, since if $b_1 = 0$ then the variable x would not contribute anything to the model, this would be $y = b_0$, so it would not make sense to talk about a model in which y depends on x.

To verify if $b_1 \neq 0$, a hypothesis test was performed that we can see in the ANOVA table, where the null hypothesis is that $b_1 = 0$, which we intend to reject, so we expect its p-value to be very low. If the null hypothesis is rejected, the model makes sense, and it is concluded that it is valid.

How good would the model be? The adjustment answers this question with the adjusted R, R2 and R coefficients, $-1 \leq R \leq 1$, $0 \leq R2 \leq 1$ and $0 \leq Stressed \leq 1$. They are usually used R2 and corrected Fixed for the adjustment of the model, if they are close to 1, the model has a very good fit, and if it is close to zero, then it is bad.

2. Regression equation

Once we have accepted that the model is valid and has enough adjustment that we need, we proceed to review the coefficients b_0 and b_1, to have the model. In theory, in order to generate a regression model, the data need to comply with a series of conditions, without which, it makes no sense to model.

3. Analysis of the assumptions

There are four assumptions that must be met:

Linearity

To verify this assumption we can perform a previous linear correlation test to verify if it makes sense to apply a linear regression, but if we already started with the test, we can set the coefficient R (Pearson correlation), R must comply with being close to 1 or -1.

Independence

We must verify that the sample observations are independent. If it is not fulfilled, the estimators and therefore the predictions lose effectiveness, and the contrast in the ANOVA table is not reliable. To verify this assumption, we look at the Durbin-Watson d statistic, $0 < d < 4$. (d must be close to 2 to conclude that there is independence), if it is close to 4 or 0 then there is not, recommends that d be between 1.5 and 2.5

Normal

This assumption refers to the errors or residuals of the model follow a normal distribution. If this hypothesis is not met, the parameters cease to be the most likely, and lose effectiveness, but if the sample is large, it is not necessary that this assumption be met with all rigor. We will use the histogram and the P-P chart to make the contrast of the residuals with the normal distribution. In case the sample is large, in the histogram the bars should resemble the normal curve, and in the P-P graph the data should resemble the 45° line.

Homocedasticity

The last assumption is the homoscedasticity of the residuals, that is, that the residuals have equal variances, if it is not fulfilled we say that there is heteroscedasticity and the parameters lose the property of generating a model with minimal variance and lose efficiency. To verify this hypothesis we look at the scatter plot, which must present a good dispersion of data so that homoscedasticity is fulfilled, that is, if we observe a data cluster recharged to the left or right then there is heterocedasticity.

Results

Regression analysis

Linear regression analysis with the independent variable Organizational climate and the dependent variable Quality in the service.

The following figure shows the point cloud of the studied variables and a marked linear trend is observed since the dependent variable quality in the service grows as the independent variable this means that there is a positive linearity according to that in a simple linear regression model there is a direct relationship when the variable Y grows as the variable X also does.

Figure 1. Nube de puntos de las variables estudiadas
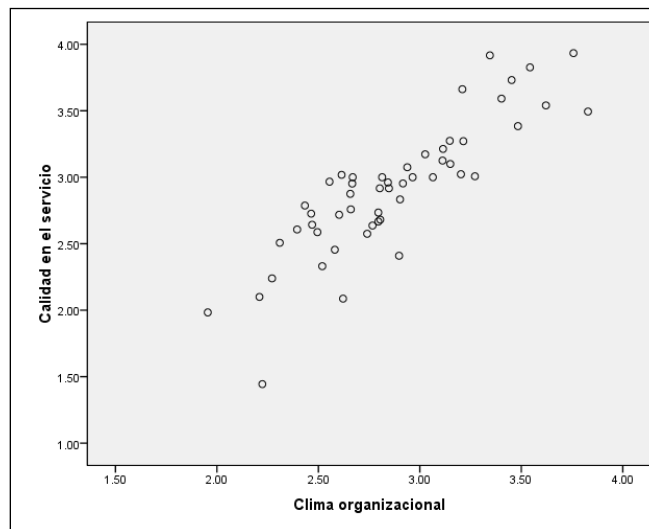
Fuente: Elaboración propia

Table 5. Resumen del modelo.

Resumen del modelo[b]

Modelo	R	R cuadrado	R cuadrado corregida	Error típ. de la estimación	Durbin-Watson
1	.864[a]	.746	.741	.25351	1.925

Fuente: elaboración propia
A. Variables predictoras: (Constante), Clima organizacional
B. Variable dependiente: Calidad en el servicio

In Table 5 we can verify the adjustment and two assumptions; linearity and independence. As R = 0.864, there is linearity, since the correlation is great between the variable of organizational climate and quality in the service. The adjustment is also significant R2 = 0.746, and this shows that the analysis performed is good to validate the regression model in studies similar to the present. The correlation is 0.864, its square 0.746, which indicates a proportion of explained variation of 74.6%. To compensate for the effects of the sample size on R squared, a small adjustment is usually made with which we obtain a value closer to 0.741. On the other hand, the typical error of the estimate is not more than the square root of the residual variance, which we will see in table 6.

The Durbin-Watson coefficient is 1,925, very close to 2, so we accept the independence hypothesis taking into account the independence between the residuals by means of the Durbin-Watson statistic that takes value 2 when the residuals are completely independent (between 1.5 and 2.5 it is considered that there is independence).

Table 6. Anova

Anova[b]

Modelo		Suma de cuadrados	Gl	Media cuadrática	F	Sig.
1	Regresión	9.423	1	9.423	146.621	.000[a]
	Residual	3.213	50	.064		
	Total	12.636	51			

Fuente: Elaboración propia

A. Variables predictoras: (Constante), Clima organizacional

B. Variable dependiente: Calidad en el servicio

In the previous table an F of 146,621 can be observed, whose associated probability according to the expectations of the null hypothesis is less than 0.0001. Highly significant, in terms of the data obtained from the individuals under study, which leads to an overvalued R squared, which also verify that the model is valid. Since the p-value is almost zero, the model is valid.

As for the regression equation, its values are:

Table 7. Coeficientes[a]

| Modelo		Coeficientes no estandarizados		Coeficientes tipificados		
		B	Error típ.	Beta	T	Sig.
1	(Constante)	-.060	.248		-.240	.811
	Clima organizacional	1.036	.086	.864	12.109	.000

Fuente: Elaboración propia

A. Variable dependiente: Calidad en el servicio

With Table 7 we obtain the regression equation, we verify the parameters b0 = -.060 and b1 = 1.036, and we construct the equation: y = -0.060 + 1.036x which means that the aforementioned formula slopes in a positive slope in the graphic representation demonstrating that the organizational climate is a factor that directly influences the quality of service of the institution under study.

Now with the histogram and the P-P chart we verify the assumption of normality.
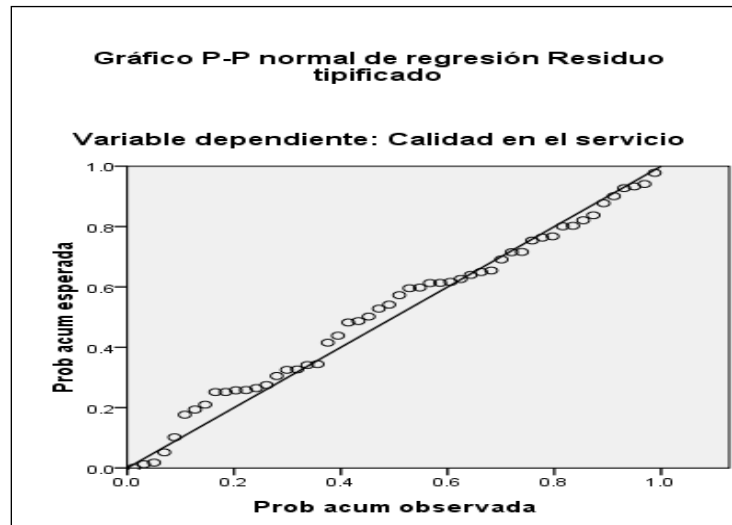
Figure 2. Histograma.
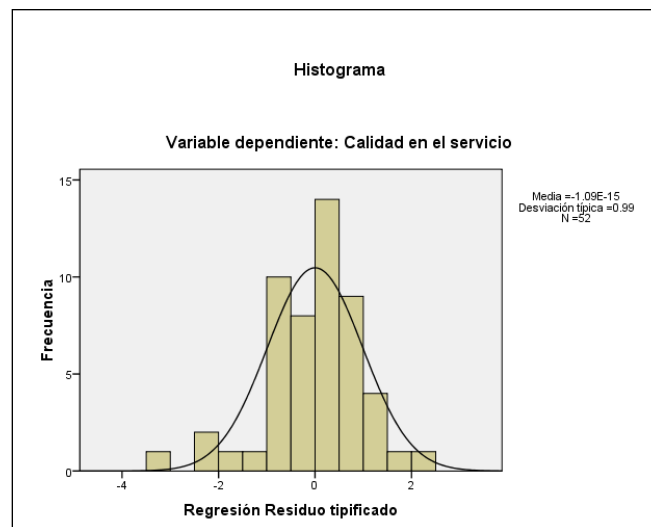
Fuente: Elaboración propia

The histogram shows that the bars have a behavior similar to the normal curve, where the average is at -1.09, between the values of -4 and 2, meaning that the quality in the service is acceptable within the model, deviating of the average in a 0.99 considered the population of 52 workers.

Figure 3. Gráfico P-P.

Fuente: Elaboración propia

When looking at the PP graph we observe that the data is concentrated around the line, therefore the assumption of normality is accepted, since most of the data of the quality variable in the service are aligned to the positive slope on the straight line , which indicates that the data have a normal distribution.

Figure 4. Gráfico de dispersión.
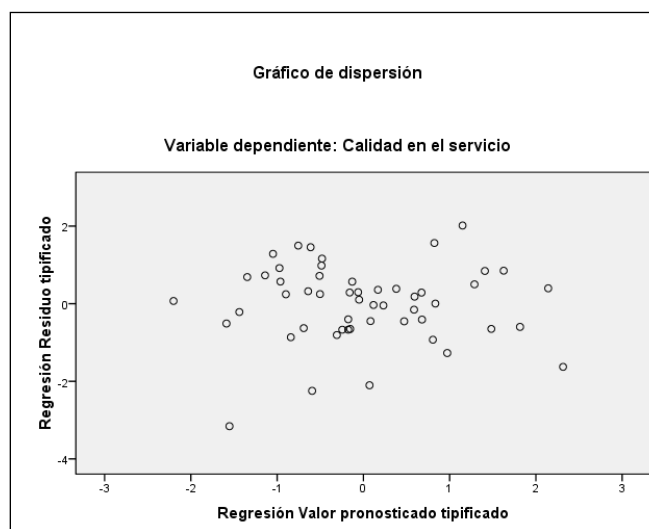
Fuente: Elaboración propia

In graph 3 we verify the assumption of homoscedasticity, accepting it since we observe a good distribution of the data and there is not a cluster where most of them are concentrated. The scatter diagram shows the relationship between two variables in a population of the same group of individuals.

Conclusions

It is concluded that there is a high correlation between the variable organizational climate and the variable of quality in the service since according to the results it can be discerned that the better organizational climate there is better quality in the service.

That the proposed linear regression model fulfills the assumptions shown in addition to the adjustment of the model is good and valid. This leads us to conclude that the measurement of the organizational climate and the quality of service in the institutions is a very important factor for the best performance of the same.

There is a significant correlation between the organizational climate and the quality of service among the staff. The organizational climate affects Quality in the service that is presented in the institution according to the perception of the workers and statistically demonstrated the existence of a close correlation between both variables.

The results of this study will allow institutions to become aware of the importance of creating and maintaining a good organizational climate within it, and that in this way they can make a difference with other institutions in terms of providing good quality service and therefore face the changes currently required by institutions in the globalized world, because not only must be prepared inwardly but also to external factors that influence, either directly or indirectly, in organizations and that at the same time, they are a challenge for competitiveness in the world.

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Rol de Contribución	Definición (solo poner nombre del autor)
Conceptualización	Jesús Guillermo Sotelo Asef
Metodología	Ernesto Geovani Figueroa González
Software	No Aplica
Validación	Ernesto Geovani Figueroa González
Análisis Formal	Ernesto Geovani Figueroa González
Investigación	Jesús Guillermo Sotelo Asef
Recursos	Jesús Guillermo Sotelo Asef
Curación de datos	Jesús Guillermo Sotelo Asef
Escritura - Preparación del borrador original	Jesús Guillermo Sotelo Asef
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Visualización	Jesús Guillermo Sotelo Asef
Supervisión	Jesús Guillermo Sotelo Asef
Administración de Proyectos	Jesús Guillermo Sotelo Asef
Adquisición de fondos	Ernesto Geovani Figueroa González