

# INFLUENCE OF THE PERCEPTION OF SERVICE QUALITY ON CUSTOMER LOYALTY IN TACNA'S BANKING AGENCIES

<sup>1</sup>RUBENS HOUSON PÉREZ-MAMANI, <sup>2</sup>FELIPE YONY GÓMEZ CÁCERES, <sup>3</sup>ELKIN AMADO OSORNO AGUDELO, <sup>4</sup>MARTÍN PAUCARA ROJAS, <sup>5</sup>CARLOS SANTIAGO DE LA FUENTE BARREDA, <sup>6</sup>MÓNICA DEL PILAR CRISOSTO FARFÁN

<sup>1</sup>Universidad Nacional Jorge Basadre Grohmann  
rperezm@unjbg.edu.pe  
<https://orcid.org/0000-0001-9279-2057>

<sup>2</sup>Universidad Nacional Jorge Basadre Grohmann  
fgomezc@unjbg.gob.pe  
<https://orcid.org/0000-0002-1232-3267>

<sup>3</sup>Universidad de Tijuana  
elkinosorno@gmail.com  
<https://orcid.org/0000-0001-9711-6744>

<sup>4</sup>Universidad Nacional Jorge Basadre Grohmann  
mpaucarar@unjbg.gob.pe  
<https://orcid.org/0000-0002-5169-102X>

<sup>5</sup>Universidad Andina del Cusco  
cdela fuente@uandina.edu.pe  
<https://orcid.org/0000-0002-8526-5141>

<sup>6</sup>Universidad Privada de Tacna  
moncrisosto@upt.pe  
<https://orcid.org/0000-0001-9175-4788>

## ABSTRACT

*The general objective of the research is to determine the influence of the perception of service quality on customer loyalty in Tacna's banking agencies. The type of research was explanatory level with a non-experimental design, the data were collected by the cross-section; the sample was composed of 170 customers, the technique used was the survey and the instrument was the questionnaire, and the approach was quantitative. It was found that 54.7% of the clients perceive that the quality of service in Tacna's bank branches is adequate, where the most important dimension was the "Physical aspect"; 49.4% considered their loyalty to their preferred entity to be fair, where the most important dimension was "Relative attitude". It is concluded that there is an influence of perceived service quality on customer loyalty (Nagelkerke coefficient = 75.7%); similarly, physical appearance (Nagelkerke coefficient = 31.7%), service delivery (Nagelkerke coefficient = 57.9%) and new technologies (Nagelkerke coefficient = 79.5%) have a significant influence on customer loyalty (Nagelkerke coefficient = 79.5%).*

**Keywords:** Quality of service, customer loyalty, customer satisfaction, banking agency, perception.

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## 1. INTRODUCTION

Quiroga and Real (2018) proposed the improvement of the quality of service in financial institutions in Bogota, which in its diagnostic part of the identified problem, states that in such institutions there are complaints from customers, which are mainly characterized because they perceive that they are not provided with detailed information about the products and/or services offered, they consider that they

have been charged some fees that are not justified, that there is often inadequate attention, among others, and part of them was formalized in the consumer ombudsman's office. Therefore, this is a situation that needs to be analyzed, allowing those responsible for these organizations to improve their strategy of how to reach their customers, allowing them to have a greater chance of generating their loyalty.

González (2015) conducted a study where he analyzes the quality of service based on the evaluation of customers on how they perceive the perceived quality, therefore, the customer becomes the judge of the service provided by the financial institution, whose criteria should be taken into account by managers, to seek to improve banking processes; this analysis is based on the proposal made by Cronin & Taylor (1992).

Gray & Harvey (2009) point out that the provision of banking services, in terms of the financial products offered are similar, which is why the difficulty in becoming more competitive is centered on the quality of service, for which it is necessary to emphasize the intangible aspects of service, where it is essential to have an empathetic staff that identifies with the institution. This is a factor in which financial institutions should be improving frequently since customers need to be listened to, receive individualized treatment, and have clarity about the characteristics of the services offered by the institution, among others, and this is not fully provided, generating in some opportunities complaints and adverse comments about the service received. This is complemented by Skowron & Kristensen (2012) who highlight the relevance of adapting to the technological variations of the environment, where management decisions are vital in terms of investing in innovation, which allows seeking to differentiate to be more competitive, and thus achieve customer loyalty.

Alcaide (2015) describes that a factor highly valued by clients when analyzing the quality of service is related to the physical appearance of the institution, which implies that it is located in an easily accessible place for most clients, the solidity of the construction, that it is attractive to the eye, that it is a clean agency, that it has adequate surveillance, that the appearance of the staff is elegant and neat, among others. Skowron & Kristensen (2012) specify the importance of investment in new technologies for a financial institution seeking to be competitive in its industry, pointing out that it is increasingly essential, to provide better customer service, technological investment and innovation are required as a strategy that allows the bank to improve its customer loyalty levels. Therefore, providing a differentiated service, supported by having a greater number of ATMs, and a user-friendly institutional page that facilitates transactions, among others, is a central aspect to be addressed to provide a faster service and not saturate bank branches with a physical presence, aspects in which there is already evidence that bank managers have prioritized resources to meet such expectations since the financial sector considers it as basic operating conditions for their entities to be competitive; but despite this, there are still many complaints from customers regarding the quality of service they perceive, mainly focused on the lack of an adequate explanation of the contractual conditions of the credits assumed, some charges that are considered excessive and that were not specified.

Zenteno (2017) points out that in Peru, 80% of the structure of the financial system is behaved by four entities: Banco de Crédito del Perú, BBVA Continental, Scotiabank and Interbank, thereby affecting the cost of money lent. He also points out that despite Peru's economic growth, the levels of financial deepening are not high, which implies that there is 60% of the population that does not use the services of the financial system due to low personal income generating conservative operating practices (low level of leverage), and in parallel there is a weak payment culture, thereby increasing the levels of credit delinquency, and with it the cost of money in the country; to this is complemented by what was published by the media OjoPúblico (2018), where it is specified that in the report of the Association of Banks of Peru - ASBANC there are approximately 1.8 million complaints (5. 000 daily complaints), where customers of the Peruvian financial system express their discomfort regarding the quality of the service they receive, stating that they feel cheated by the banks since they perceive that they were not informed in detail about the agreements they were assuming when signing the credit contract, that they are frequent victims of electronic crimes and cloning of cards, among

others, of which, almost 13,000 semi-annual complaints are produced in INDECOPI, where 15.5% are for BCP, 12.36% are for Finances Oh! 11.29% are for Interbank, 9.2% are for Scotiabank and 8.41% are for BBVA Continental.

The present research focuses on the clients of the financial system in the region of Tacna, which according to the National Household Survey - ENAHO (2017) of the National Institute of Statistics and Informatics there are 14% of inhabitants are considered in conditions of poverty or extreme poverty, which implies that this is a region that is not part of the Poverty Map of the country, where the main business activities are focused on commercial activities and the provision of services (70% of the EAP), having a large daily influx of Chilean tourists, who are the ones that energize the regional economy through direct and indirect jobs. Therefore, the level of use of the services of the national financial system is much higher than the national average, where the level of competition of the various agencies is higher and focuses mainly on providing a better quality of service, but despite having adequate infrastructure, support technology according to the requirements of the sector, others, there are complaints from customers, similar to what was expressed in the previous paragraph, related to the customer's perception that they feel dissatisfied with the quality of service provided by banks.

This regional problem of the financial system in Tacna was analyzed by analyzing the customer's perception of the quality of service provided by banks, focusing on the physical aspect, service delivery and new technology, and how it influences their loyalty to the bank of their choice.

The general objective is to determine how the perception of the quality of service influences customer loyalty in Tacna's banking agencies, and the specific objectives are to analyze how the physical appearance, service delivery and new technologies influence customer loyalty in Tacna's banking agencies. In addition, the general hypothesis is that there is a significant influence of the perception of service quality on customer loyalty in Tacna's banking agencies.

Regarding the definition of the customer's perception of the quality of service, Kotler & Armstrong (2013) point out that it is generated when the customer agrees with the entity to be provided with a service, and when this happens, the person begins to perceive a set of evidences and realities as a result of its use; it may be tangible as when the interaction with the entity's staff occurs; they highlight that in the service sector, the analysis of quality is subjective, and depends on how the customer perceives, considering: The needs of the person (who is in search of satisfaction through a service), the expectations (generated by the publicity made by the entity about the service or by references in his environment) and his own experience (since he could have already received the requested service or in another entity). And Cobra (2000), points out that it is generated through the consumer's perception regarding the fulfillment of the specifications that characterize the product or service, which were offered by the entity. He also points out that it is made up of two dimensions: the instrumental one that refers to the physical aspects of the service and the functional characteristics that represent the intangible or psychological aspects of the service.

The relevance of prioritizing quality in the entities is also described by Deming (2000) who points out that the more acceptance there is for the product, the better its quality; also Parasuraman et al. (1988) describe that it arises as a difference between what is expected and what is perceived when consuming. Teas (1993) also states that it is the gap between the standards and what is perceived. Finally, Cronin & Taylor (1992) point out that quality is measured based on the perceptions of the use of what has been acquired.

About the financial system, these measurements are prioritized to be frequent, given that not only is there competition for a better interest rate for the customer, but also the existence of a more empathetic treatment, transmitting trust and security, etc. Therefore, models are described that allow analyzing the quality provided in the banking service, which is based on identifying gaps between what is expected and what is perceived, and on analyzing the customer's perception of what he/she consumed:

Mersha & Adlakha's model (1992) uses the SERVQUAL proposal but makes some contributions, including the characteristics of knowing the service, accuracy, reliability, acceptable cost, error correction and timeliness of service.

Ennew, Reed & Binks' model (1993) proposes that it is necessary to analyze the customer's expectations, perceptions and total satisfaction, and proposes the attributes of knowing the business in detail, the characteristics of the industry and its market, with diverse services, competitive costs and rates, timely decision making, and better access to loans.

Avkiran's model (1994), based on Cronin and Taylor's (1992) proposal, from the point of view of the bank client, emphasizes staff behavior, communication, credibility, and better access to tellers.

Model by Joseph et al. (1999) highlight the potential of technology to manage claims, have more agile processes, have greater access, provide personalized attention and manage queues.

Sureshchandar et al. (2001) model applies the SERVQUAL proposal and proposes to measure quality by having trained personnel, systematizing service, total service, and being socially responsible.

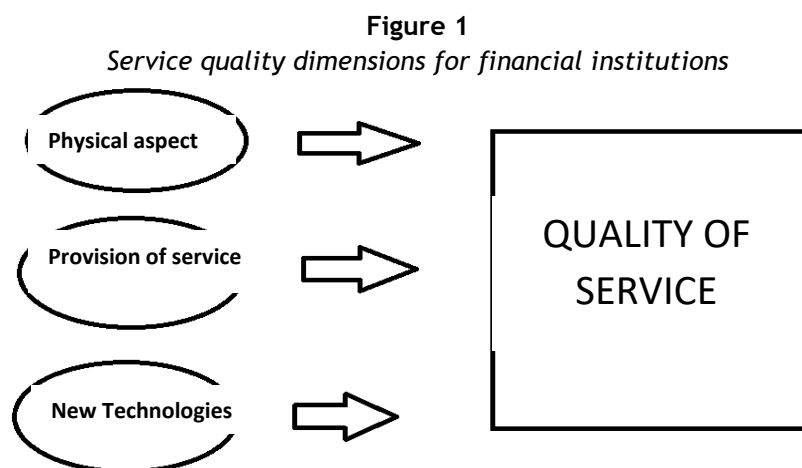
Al-Hawari et al. (2005) model promote the application of technological and electronic tools, with the factors to be considered being the availability of an adequate number of ATMs, telephone and Internet banking, the sales price and the service received.

Karatepe et al. (2005) model, where customer opinions are considered for the analysis of quality, considering empathetic treatment, adequate interaction, a good working environment, and the generation of trust.

For the development of this research, the model developed by Miguel and Florez (2008) was considered, which is applied to financial institutions, being its main theoretical support what is explained in the SERVPERF methodology (Cronin & Taylor, 1992), therefore, the perceptions that customers have about the service they receive are considered, and which mainly consider the factors indicated in the previous item:

- a) Physical appearance: Considers the appearance of the infrastructure where the banking service is provided, in addition to the security conveyed by the entity and its personnel; specifically, it includes the following indicators:
  - Location: It implies whether the location of the main agency and other branches of the financial entity is characterized by being easily accessible in the city.
  - Physical appearance: This includes whether the financial institution's infrastructure looks good, is clean and spacious, among others.
  - Technological equipment: This includes whether the financial institution has the necessary amount of equipment to provide customer service, in addition to technology in line with market requirements.
  - Surveillance: It considers whether the financial institution has sufficient security measures in the agency to give the client the confidence to attend and be able to carry out their financial transactions with peace of mind.
  - The appearance of the personnel: Consider whether the financial institution is staffed by personnel who are neat, clean and of good appearance.
- b) Service provision: This implies that the personnel has adequate knowledge of their functions, that priority is given to personalized treatment, that there is a client orientation regarding the services offered, and that the entity is solvent and competitive:
  - Confidence: Covers whether the financial institution conveys confidence in the fulfillment of the offer, promptly and under the agreed conditions.
  - Knowledge of functions: It covers whether the financial institution's personnel has full knowledge of its functions and can demonstrate it in the provision of the service.
  - Staff willingness: This includes whether the financial institution's staff is characterized by their timely willingness to provide adequate service.
  - Personalized attention: It implies whether the financial institution prioritizes personalized attention to meet your demands and queries.
  - Kind and courteous treatment: This includes whether the financial institution's personnel are characterized by their kindness and courtesy when providing the requested service.

- Service hours: Considers whether the financial institution applies service hours that are following the availability of time, either physically, by telephone, through the web portal, or other.
  - Products and services offered: This includes whether the financial institution offers competitive products and/or services that meet your expectations.
  - Minimizing errors: It implies whether the financial institution does not make errors when implementing its procedures to provide the service offered.
  - Speed: Considers whether the financial institution provides quick service with a short waiting time.
  - Clarity of guidance: Covers whether the financial institution's staff provides clear and accurate explanations about the queries made.
  - Reputation: Implies whether you consider the financial entity to be responsible, financially solvent and enjoy an adequate reputation in the sector.
  - Lending: Covers whether the loans offered by the financial institution meet your needs and repayment capacity.
  - Rates: Represents whether the financial institution uses competitive rates (funding and placement) concerning those used by other organizations.
- c) New technologies: This involves the ease of use of technologies such as automatic services, ATMs, telephone banking, and on-line banking, among others, which allow customers to carry out their transactions with the financial institution more easily and safely; specifically, it includes the following indicators:
- Awareness of use: Considers whether the financial institution implements strategies to raise client awareness of the correct use of automated services.
  - Automatic teller machines (ATMs): It implies whether the distribution of ATMs in the city is adequate, easily accessible and sufficient.
  - Telephone banking: Implies whether telephone banking is characterized by fast service, availability of information and security.
  - Website: Covers whether the institutional website is easy to navigate, allows you to reduce the time to perform financial transactions and is secure.



Source: Own based on Miguel and Florez (2008)

Regarding the definition of customer loyalty, Rodriguez et al. (2002) define it as an effective behavior, which materialized in the repetition of purchases of the same product, brand or supplier, without appreciating the intentions declared by the customer regarding future purchases; Mejia (2004) points out that it is a process implemented by the entity referred to prioritize marketing strategies that allow buyers or users of services to maintain stable and continuous business relationships with the organization; Cabarcos (2010) defines that the existence of a loyal customer implies that the entity was able to fulfill the commitments made to customers, whether implicit or explicit and that these were the main reasons for which the acquisition was made. Alcaide (2010) defines that having loyal customers implies that the customer can accept the characteristics of the product and/or service

acquired and that he/she applied behavior of recidivism by continuing to use it. Domínguez (2014) specifies that when a customer portfolio is maintained for a long time, this implies that the company has loyal customers who approve of the benefits of the products and/or services offered, and who are frequently consulted about the reasons for their preferences for the entity, generating the existence of a greater closeness with the customer that allows the generation of an emotional bond with the organization; and Molinillo (2014) defines that customer loyalty encompasses the fulfillment of the entity with what is offered for its products and/or services to achieve satisfaction, and this would make the customer return to buy; thus generating passionate and loyal people with the brand, which is reflected in their promoting behavior in favor of the entity in their family and work environments, among others.

Molinillo (2014) describes a set of factors that affect the task of achieving customer loyalty with the company: Product quality, mainly represents the attributes that describe the product and/or service offered by the entity, and that has the mission of seeking to meet the needs that characterize customers, in terms of accuracy, durability, handling, others. Competitive price, refers to the fact that the value that the company charges for the sale of its products and/or services considers the prices offered by the competition, that is, that it is reasonable for the customer; quality of service mainly represents the perception that characterizes the customer about the service provided by the entity, which complements the transaction carried out, including timely delivery, treatment received, etc.; trust, the perceived value is represented by the gap generated by comparing the advantages that the customer finds when using the product and/or service acquired and the price of buying it (which is not only the economic aspect, but also the psychological aspect, opportunity, etc.); when this difference is positive, it implies that the customer values the benefits of what he/she has acquired; psychological costs, the company's managers must minimize that the customer goes through unpleasant moments, displeasure, frustration, etc., when having contact with the company and its products; and time costs, implies that the company must minimize the time invested by the customer in mobilizing and/or visiting the entity to learn about the characteristics, prices, promotions, etc., that are offered.

For the measurement of the loyalty that characterizes the customer, several approaches show that its construction is characterized by multidimensionality. In this regard, the contributions of Delgado (2004) and Gil et al. (2007) are described in the following passage.

*The behavioral approach* focuses its analysis on the set of actions that are executed after receiving the service, for which it uses certain indicators such as the repurchase rate or the level of customer retention, from which it is a priority to infer real behaviors based on secondary data to identify the level of historical loyalty. Setó (2003) criticizes this approach since he considers that it does not take into account the psychological aspect of a purchase, which reinforces customer loyalty.

*The attitudinal approach* is based on the analysis of the level of commitment that characterizes the customer concerning the organization, for which it measures the intention of behavior (cause indicators), therefore they focus on measuring before the service is implemented, making projections that allow identifying alerts on the performance of the behaviors that the customer will assume. In this regard, Zeithaml et al. (1996), who applied a scale grouped in loyalty, price sensitivity, complaints and switching costs, stand out. There are some criticisms, such as those made by Mazursky & Geva (1989) who point out that before conducting the research, it is already assumed that there is a direct association between intention and behavior and that there is a similarity with the instruments used to analyze satisfaction.

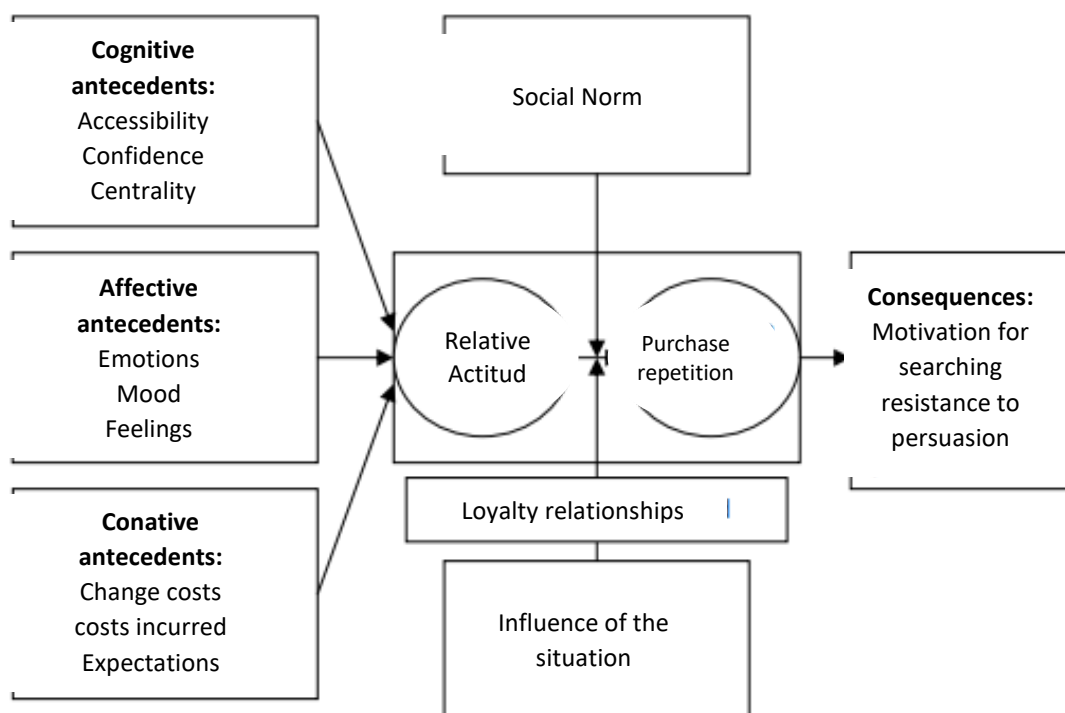
*The attitudinal-behavioral approach* is characterized by combining the characteristics of the behavioral approach with the attitudinal approach, where Delgado (2004) states that it is the most appropriate to develop the construct of loyalty. Ball et al. (2004) propose that the behavioral approach uses observation to measure customer loyalty, while the attitudinal approach uses questionnaires.



Berné et al. (1996) establish loyalty as the degree of repeat purchase of an individual towards a brand, using for this purpose the percentage of total expenditure that the customer buys from the company; but in addition, to repeat purchase behavior, attitudinal elements that measure the degree of commitment that the customer has managed to generate should also be considered.

Dick & Basu (1994) developed a scheme that manages to analyze loyalty as a combination of the relative attitude towards the entity, which includes the cognitive, affective and conative antecedents, and the repetitive purchase behavior.

**Figure 2**  
*Customer loyalty model*



Source: Dick & Basu (1994).

Based on this model, the dimensions used to analyze the level of customer loyalty in the financial system have been determined, as follows:

- a) **Relative attitude:** This refers to the posture or behavior that characterizes the customer concerning what a company, its products and personnel represent, which is built based on the customer's perception of the entity's performance; specifically, it is evidenced in the following indicators:
  - **Cognitive background:** Implies whether the financial institution prioritizes the use of its resources to have more and better access channels to clients, strengthens the generation of trust in the institution, and the centralization of information to provide a clear and comprehensive service.
  - **Affective antecedents:** Covers whether the financial institution prioritizes the use of its resources to generate in people feelings of attachment to the institution, states of mind that encourage them to be better citizens, and to strengthen the formation of values in its personnel.
  - **Conative antecedents:** Covers whether the financial institution prioritizes strategies to offer better financial conditions for the competition, generates greater expectations regarding the improvement of service quality and uses its resources to seek to modify behavior and preferences in favor of the institution.
- b) **Repetition of purchase or repetitive behavior:** It mainly covers the action of buying again the goods and/or services offered by the company, from which the customer had already

purchased previously, and it is done frequently, which is built based on the customer's perception of the company's frequent compliance with what was offered; specifically, it is evidenced in the following indicators:

- Motivation for the search: It covers whether the financial institution prioritizes actions aimed at improving the level of motivation to continue consuming from the company, to transmit the benefits of the company to friends and family, and above all, to feel that being part of the institution has been an appropriate decision.
- Resistance to persuasion: Covers whether the financial entity prioritizes its resources so that there is clear information on products and/or services that allows strengthening the attitude and decision to continue being part of the company, for the preparation of its personnel in terms of providing good treatment and service that promotes satisfaction for being a client of the entity.

## 2. MATERIAL AND METHODS

The type of research is applied, given that existing knowledge was used; it is of an explanatory level given that the descriptive behavior of the variables was analyzed, which served as a basis for determining the cause-effect relationship between them; the research design is non-experimental, given that the variables were not deliberately altered, the information collected being cross-sectional (Hernández et al., 2014).

The following table details the operationalization of both variables, it is specified that all the indicators are evaluated based on the perception of the clients.

**Table 1**  
*Operationalization of variables*

VARIABLE	CONCEPTUAL DEFINITION	OPERATIONAL DEFINITION	DIMENSION	INDICATORS	MEASURING SCALE
Independent variable: Quality of service	It is generated based on the consumer's perception of compliance with the specifications that characterize the product or service (Cobra, 2000).	It involves meeting the consumer's expectations about the specifications of the product and/or service.	1. Physical appearance  2. Provision of the service  3. New technologies	1.1 Location. 1.2 Physical appearance. 1.3 Technological equipment. 1.4 Surveillance. 1.5 Appearance of personnel.  2.1 Confidence. 2.2 Knowledge of functions. 2.3 Staff willingness. 2.4 Personalized attention. 2.5 Kind and courteous treatment. 2.6 Hours of operation. 2.7 Products and services offered. 2.8 Minimizing errors. 2.9 Promptness. 2.10 Clarity of guidance. 2.11 Reputation.	Ordinal: - Inadequate level. - Regular level. - Adequate level.



				2.12 Lending.	
				2.13 Rates.	
				3.1 Awareness of use	
				3.2 ATMs.	
				3.3 Telephone banking	
				3.4 Webpage.	
Dependent variable:	Effective behavior	Involves the	1. Relative attitude	1.1 Cognitive background.	-
Customer loyalty	materialized in the repetition of purchases of the same product, brand or supplier, without appreciating the customer's stated intentions with respect to future acquisitions (Rodríguez et al., 2002).	continued consumption of a company's products and/or services, considering the relative attitude and repetitive behavior.	2. Repetitive behavior	1.2 Affective antecedents.	
				1.3 Conative antecedents.	
				2.1 Search motivation.	
				2.2 Persuasion resistance.	

Source: Own elaboration.

The study population was defined considering the Compendio Estadístico Perú 2014 issued by INEI, on the ranking of direct loans granted by financial institutions (banks only) in the country, being the order: Banco de Crédito del Perú, BBVA Continental, Scotiabank Perú and Interbank, whose approximate population of clients are shown in Table 2.

**Table 2**  
*Approximate client population in Tacna*

BANK	NUMBER	%
Banco de Crédito del Perú	15,000	33.33%
BBVA Continental	12,000	26.67%
Scotiabank	10,000	22.22%
Interbank	8,000	17.78%
Total	45,000	100.00%

Source: INEI (2015)

The inclusion criterion was to consider customers of the 04 private banking agencies that have the largest market share in the city of Tacna, and that have a savings account in the entity and/or have applied for a loan, with at least one year of seniority, and that will continue until 2022; regarding the determination of the sample, the following formula was used for finite populations and assumptions:

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

Population size of 45,000 (N); error + 7.50% (e), confidence level 95% (Z = 1.96) and probability of 50% (P); after replacing these values, a value of 170 customers was obtained, which were selected non-randomly (for the convenience of the researcher), given that they should be customers with a savings account and/or a loan of more than one year, and proportionally (Table 3).

**Table 3**  
*Sample distribution*

BANK	NUMBER	PERCENTAGE
Banco de Crédito del Perú	57	33.33%
BBVA Continental	45	26.67%
Scotiabank	38	22.22%
Interbank	30	17.78%
Total	170	100.00%

Source: Own elaboration.

Regarding the fieldwork, the strategy to collect the responses to the instruments from the bank customers, mainly involved the use of questionnaires at the exit of each agency in the Tacna region, previously consulting if they are customers of the entity for at least one year, valid until 2022; then the respective consultations were made as indicated in the instruments used; therefore, the source of information was primary.

The research technique used was the survey, being the instrument used the questionnaire, which was made by the researcher considering the relevant theoretical bases developed in the previous chapter; the instruments were: Questionnaire to determine the perception of the quality of service that characterizes a bank agency, based on the dimensions and indicators developed in the model of Miguel and Florez (2008); Questionnaire to determine the perception of the quality of service that characterizes a banking agency, based on the dimensions and indicators developed in the model of Miguel and Florez (2008); questionnaire to analyze the level of customer loyalty of a banking agency, for which their perceptions in this regard were considered based on the dimensions and indicators developed in the model of Dick and Basu (1994).

For the analysis of the results, the use of the Likert Scale was considered, considering the following values: "Never" (Value = 1), "Seldom" (Value = 2), "Sometimes" (Value = 3), "Almost always" (Value = 4) and "Always" (Value = 5). Regarding the validation of the content of the instruments, the Expert Judgment criterion was used; to determine the reliability of the instruments, a Pilot Test of 30 customers was used, where the value of Cronbach's Alpha for the variable "Perception of service quality" was 0.949 and for the variable "Customer loyalty" was 0.912, since both values are higher than 0.90, which implies that the instruments are very suitable to be applied in fieldwork (George and Mallery, 2003).

### 3. RESULTS

Table 4 shows the general characteristics considered in the field instrument to describe the study unit: regarding the sex of the client, 50% of the respondents are male and 50% are female; regarding the age of the client, 42.9% of the respondents are between 30 and 45 years old, 30.60% are under 30 years old and 26.5% are over 45 years old; regarding the district of origin, 26.5% of the respondents reside in the Cercado de Tacna, 23.5% in the district of Coronel Gregorio Albarracín Lanchipa, 18.8% in the district of Alto de la Alianza, 18.2% in other districts and 13.0% in the district of Ciudad Nueva; regarding the level of education, 40.0% stated that they had higher education, 31.8% had basic education and 28.2% had technical education, and regarding their time as a client of the bank, 64.1% indicated that they had between 1 and 5 years, 18.8% had more than 10 years and 17.10% had between 5 and 10 years.

Table 4

*General customer characteristics*

Characteristics		n= 170	%
Sex	Male	85	50.00
	Female	85	50.00
Age	Under 30 years old	52	30.60
	Between 30 and 45 years old	73	42.90
	Over 45 years old	45	26.50
District of origin	Cercado	45	26.50
	Coronel GAL	40	23.50
	Alto de la Alianza	32	18.80
	Ciudad Nueva	22	13.00
	Otros	31	18.20
Level of education	Basic	54	31.80
	Technique	48	28.20
	Superior	68	40.00
Customer time	Between 1 and 5 years	109	64.10
	Between 5 and 10 years	29	17.10
	More than 10 years	32	18.80

Source: "Perception of service quality" Questionnaire

Table 5 presents descriptive results for each dimension, where the most highlighted by the customers of the banking agencies is the "Physical aspect" which implies aspects related to infrastructure, equipment, and staff appearance, among others; being the dimension "New technologies" and the dimension "Service provision" the ones focused to improve, which has to do mainly with the banking agency to have more current technology, that its interest rates are more competitive, that more personalized service is provided, among others.

Table 5

*Variable "Perception of service quality" (by dimension)*

Dimension		Customer	Percentage
Physical appearance ( $\bar{x}$ = 4.14; S = 0.514)	Inadequate	1	0.6
	Regular	28	16.5
	Adequate	141	82.9
Provision of the service ( $\bar{x}$ = 3.69; S = 0.601)	Inadequate	0	0.0
	Regular	69	40.6
	Adequate	101	59.4
New technologies ( $\bar{x}$ = 3.53; S = 0.692)	Inadequate	11	6.5
	Regular	76	44.7
	Adequate	83	48.8

Source: "Quality of service" questionnaire

Table 6 shows the general results related to the variable "Perception of the quality of service", where 54.7% of the clients perceive the quality of service that characterizes the banking agencies in Tacna as adequate, 44.7% as regular and 0.6% as inadequate; from which it is understood that a significant number of clients perceive that the quality of service provided by the banking entities in Tacna is not optimal.

Table 6

Variable "Perception of service quality"

Level	Customer	Percentage
Inadequate	1	0.6
Regular	76	44.7
Adequate	93	54.7
Total	170	100.0

Source: "Quality of service" questionnaire

Table 7 presents descriptive results for each dimension, where the most highlighted by the customers of the banking agencies is the "Relative attitude" which covers the attitude that characterizes the customer to the characteristics, products and/or services, personnel, among others, of the banking entity, being the dimension "Repetitive behavior" the one focused to improve, which implies that the customer returns or visits the banking entity's web portal more frequently.

Table 7

Variable "Customer loyalty" (by dimension)

Dimension	Customer	Percentage
Relative attitude ( $\bar{x}$ = 3.65; S = 0.570)	Inadequate	2
	Regular	86
	Adequate	82
Repetitive behavior ( $\bar{x}$ = 3.52; S = 0.660)	Inadequate	10
	Regular	89
	Adequate	71

Source: Questionnaire "Customer Loyalty".

Table 8 shows the general results related to the variable "Customer loyalty", where 49.4% of customers consider their loyalty to their preferred banking agencies in Tacna to be fair, 47.6% adequate and 2.9% inadequate, which shows that customers are not characterized by a high level of loyalty to their preferred banking institution in Tacna.

Table 8

Variable "Customer loyalty"

Level	Customer	Percentage
Inadequate	5	2.9
Regular	84	49.4
Adequate	81	47.6
Total	170	100.0

Source: Questionnaire "Customer Loyalty"

The influence of each of the dimensions of the independent variable on the dependent variable was analyzed, obtaining the following results by applying ordinal logistic regression:

- A chi-square value = 49.683 ( $p$  = 0.000) was obtained, given that the value of " $p$ " < 5% significance, this implies that physical appearance influences customer loyalty, and the Nagelkerke coefficient = 31.7%, therefore there is a 31.7% dependence of customer reliability on physical appearance, from which there is a significant influence of physical appearance on customer loyalty of bank branches in Tacna.
- A chi-square value = 105.760 ( $p$  = 0.000) was obtained, given that the value of " $p$ " < 5% significance, this implies that service delivery influences customer loyalty, and the Nagelkerke coefficient = 57.9%, therefore there is a 57.9% dependence of customer reliability on service delivery, from which there is a significant influence of service delivery on customer loyalty of bank branches in Tacna.

- A chi-square value = 171.900 ( $p = 0.000$ ) was obtained, given that the value of " $p$ " < 5% significance, this implies that new technologies influence customer loyalty, and the Nagelkerke coefficient = 79.5%, therefore there is a 79.5% dependence of customer reliability on new technologies, from which there is a significant influence of new technologies on customer loyalty in Tacnac bank branches.

Regarding the contrast of the general hypothesis, the  $H_0$  that there is no influence of the perception of service quality on customer loyalty, and  $H_1$  that there is an influence; therefore, the report of the results of the ordinal logistic regression was obtained (see Table 9), where it is specified that a chi-square value = 158.382 with a p-value = 0.000, given that the " $p$ " value < 5% significance, which implies that the perception of service quality influences customer loyalty, considering the Nagelkerke coefficient = 75.7%, it is specified that there is a 75.7% dependence of customer reliability on the perception of service quality; this implies that  $H_0$  is rejected, therefore there is a significant influence of the perception of service quality on customer loyalty in Tacna's bank branches.

**Table 9**  
*Contrasting the general hypothesis*

<i>Model fit information</i>				
Model	Logarithm of the likelihood -2	Chi-square	gl	Sig.
Intersection only	203.263			
Final	44.880	158.382	57	0.000

<i>Pseudo R square</i>	
Cox y Snell	0.606
Nagelkerke	0.757
McFadden	0.578

Link function: Logit.

Source: Both questionnaires

#### 4. DISCUSSION

The results allow determining that there is a significant influence of the perception of service quality on customer loyalty in Tacna's bank branches since based on Nagelkerke's coefficient, it was found that there is a dependence of 75.7% of customer reliability on the physical appearance of the branches. This implies that the strategies implemented by the managers of the bank branches to improve the quality of service by improving the physical appearance of the branches, providing services in line with customer expectations, and using new technologies are influencing the customer's loyalty to the bank, as evidenced by their repetitive purchasing behavior and their relative attitude of preferring the bank.

Regarding the dimension "Physical Aspect", finding that 82.9% perceive the physical aspects that characterize the banking agencies as adequate, it is understood that the customers highlight that the entities have invested in infrastructure and equipment to provide a better service; where the cleanliness of the banking agencies is mainly highlighted and that they work with a staff characterized by an elegant appearance, but they also identify that the aspect that needs to be improved is that the banking entity continues investing in more advanced technology that allows providing a more efficient service.

Regarding the "Service delivery" dimension, 59.4% who perceive the service provided by bank branches as adequate, it is understood that customers do not fully highlight the service provided by the entity, indicating that there are aspects of the service that need to be improved. The main points that stand out are the courtesy and kindness that characterizes the bank's personnel, but it was also identified that there are aspects that should be improved, such as the speed of attention within the bank agency, the offer of interest rates (capture and placement) that are more competitive for other banking and non-banking entities, and that the loans can be better adapted to the diverse needs of the clients.

Concerning the "New Technologies" dimension, 48.8% who perceive the new technologies that characterize the banking agencies as adequate, it is clear that the clients consider that the technology used by the entities should be updated and provide more advice for its correct use; where it is highlighted that telephone banking provides them with the necessary security to carry out the transactions and consultations they require, but it was also identified that there are aspects that should be improved, such as that the client perceives that using the bank's web page to carry out financial transactions provides security, that the client values that the use of the web page allows them to save time in their objective of carrying out financial transactions, and that the location and use of the automatic teller machines is more secure.

Regarding the dimension "Relative attitude", 50.6% considered that their relative attitude towards the bank agency of their preference is of a regular level, it is understood that their posture or behavior towards the entity is not solid or consistent concerning continuing to be a customer for a long time; where it is mainly highlighted that the requirements requested by the entity to obtain its services are clear, but it was also identified that there are aspects that need to be improved, such as the generation of strategies leading the customer to be more excited and to make inquiries when new campaigns are generated, and to practice by example the values that the banking agency radiates.

And on the dimension "Repetitive behavior", 52.4% considered that the repetitive behavior that characterizes them in front of the bank agency of their preference is of regular level, it is understood that the frequency of acquisition of products and/or services, attention to doubts, interrelation with the bank agency on the part of the client, among others, is not usual. It was also identified that there are aspects that need to be improved, such as the client being able to recommend more frequently the benefits of the banking agency in his family and work environment, among others, and to provide a more adequate service to the client that allows him to frequently highlight the good treatment and service received in the banking agency.

## 5. CONCLUSIONS

It is concluded that 54.7% of the clients perceive that the quality of service that characterizes the banking agencies in Tacna is adequate, with the most important dimension being "Physical appearance", followed by "New technologies" and "Service provision"; 49.4% of the clients consider the loyalty that characterizes them towards the banking agencies of their preference to be regular. 49.4% of the clients consider their loyalty to the bank branches of their choice to be fair, with "Relative attitude" being the most important dimension, followed by "Repetitive behavior"; therefore, the perceived quality of service influences client loyalty (Nagelkerke coefficient = 75.7%).

82.9% of the clients perceive the physical aspects that characterize the bank branches as adequate, where the cleanliness of the bank branches and the elegant appearance of the personnel stand out; therefore, the physical appearance has a significant influence on client loyalty (Nagelkerke coefficient = 31.7%).

59.4% of the clients perceive that the service that characterizes the banking agencies is adequate, the most outstanding aspect being the courtesy and kindness that characterizes the personnel and the priority to improve the speed of attention within the banking agency; it is found that the provision of service influences client loyalty (Nagelkerke's coefficient = 57.9%).

48.8% of the clients perceive that the new technologies that characterize the banking agencies are adequate, highlighting the security of using telephone banking to carry out transactions and consultations, with the priority to improve being that the use of the bank's web page is considered secure; the new technologies have a significant influence on client loyalty (Nagelkerke coefficient = 79.5%)



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