PRODUCT QUALITY AND CUSTOMER LOYALTY: THE CASE OF A CHOCOLATE PRODUCTION COOPERATIVE, PERU

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ABSTRACT

Purpose: The objective was to determine the effect of product quality on customer loyalty in a cooperative that produces chocolate in Peru.

Theoretical framework: The combination of information studied in advance by several authors and with the contribution of the findings presented in this work allows maximizing the knowledge of future researchers who decide to study product quality and customer loyalty together.

Design/methodology/approach: Grounded theory and non-experimental, descriptive-correlational basic design were considered. In addition, a sample of 53 people was considered, of which three were representatives of the cooperative and 50 were customers of the cooperative; the interview and the survey were considered as techniques. The approach considered was a mixed qualitative-quantitative one.

Findings: The qualitative data revealed that the cooperative is interested in improving product quality since it considers the opinion during and after sales, which has allowed it to increase customer loyalty little by little, but it still needs to expand its business since its production is minimal. In the quantitative findings, product quality with customer loyalty (0.842), cognitive loyalty (0.784) and affective loyalty (0.632) maintain a medium to very strong connection since they achieved a Pearson of 0.842. On the other hand, with conative loyalty there is no favorable connection since the sigma was higher than 0.05.

Research, Practical & Social implications: The benefits that the studied cooperative can receive is to know the bottlenecks that are generating that they cannot expand their market and get the loyalty of their customers in the established brand. Customer loyalty can be
achieved by offering quality products that specify in the labeling the health benefits of chocolate consumption and the ingredients it contains.

**Originality/value:** The peculiarity of this work is that it examines selected cooperative that have not been performed in previous works and tests the soundness of the theories used.

**Keywords:** product, quality, customer, customer loyalty, cooperative, chocolate.

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**QUALIDADE DO PRODUTO E FIDELIDADE DO CLIENTE: O CASO DE UMA COOPERATIVA DE PRODUÇÃO DE CHOCOLATE, PERU**

**RESUMO**

**Objetivo:** O objetivo era determinar o efeito da qualidade do produto na lealdade do cliente em uma cooperativa que produz chocolate no Peru.

**Estrutura teórica:** A combinação de informações previamente estudadas por vários autores e com a contribuição das descobertas apresentadas neste trabalho permite maximizar o conhecimento de futuros pesquisadores que decidem estudar juntos a qualidade do produto e a lealdade do cliente.

**Design/metodologia/abordagem:** Foram consideradas teoria de base e não experimental, descritivo-correlacional. Além disso, foi considerada uma amostra de 53 pessoas, das quais três eram representantes da cooperativa e 50 eram clientes da cooperativa; a entrevista e o levantamento foram considerados como técnicas. A abordagem considerada foi mista qualitativa-quantitativa.

**Constatações:** Os dados qualitativos revelaram que a cooperativa está interessada em melhorar a qualidade do produto, pois considera a opinião durante e após as vendas, o que lhe permitiu aumentar a fidelidade do cliente pouco a pouco, mas ainda precisa expandir seus negócios, pois sua produção é mínima. Nos achados quantitativos, a qualidade do produto com lealdade do cliente (0,842), lealdade cognitiva (0,784) e lealdade afetiva (0,632) mantêm uma conexão média a muito forte, uma vez que alcançaram uma Pearson de 0,842. Por outro lado, com lealdade relativa, não há conexão favorável, uma vez que o sigma era superior a 0,05.

**Pesquisa, implicações práticas e sociais:** Os benefícios que a cooperativa estudada pode receber é conhecer os gargalos que estão gerando que eles não podem expandir seu mercado e obter a lealdade de seus clientes na marca estabelecida. A lealdade do cliente pode ser alcançada oferecendo produtos de qualidade que específicam na rotulagem os benefícios para a saúde do consumo de chocolate e os ingredientes que ele contém.

**Originalidade/valor:** A peculiaridade deste trabalho é que ele examina cooperativa selecionada que não foram realizadas em trabalhos anteriores e testa a solidez das teorias utilizadas.

**Palavras-chave:** produto, qualidade, cliente, fidelidade do cliente, cooperativa, chocolate.
1 INTRODUCTION

Nowadays, the quality of a product is a fundamental aspect for the growth of organizations in the market. That is why, seeing the importance of this, organizations have started to work based on it to obtain a good product and position themselves in international markets. In this sense, companies focus on the characteristics and attributes that consumers look for in order to offer a quality good and achieve loyal and satisfied customers (Severo & De Guimarães, 2022, Garnov et al. 2022).

In the international context, Restrepo and Collogo (2022) point out that the deficiency in the quality review in the different stages of the elaboration of goods has resulted in a contaminated product, which can cause damage to the customer's health, causing the customer to choose not to purchase the company's product.

Likewise, in Ecuador, Thevenin and Brahimi (2022) indicate that there is a certain lack of operational and logistical processes in the companies, i.e. there are certain deficiencies in sharing information on product stock, let alone warehouse coordination methods, which has caused some difficulties that affect the shipping and storage time of products, such as: not complying with the timely delivery of products and causing buyers to purchase products from competitors.

Strategic planning and product integration are necessary processes to achieve high customer acceptance and low organizational dysfunction in global markets (Kim & Chang, 1995; Qiuzhu et al., 2023).

Among studies reflecting this promising research paradigm, outsourcing to emerging markets has been found to hinder the quality performance of multinationals, leading to quality failures and market withdrawals (Steven et al., 2014; Steven & Britto, 2016; Bruccoleri et al., 2019).

After-sales support of high-value products is a crucial task in a vertically integrated supply chain. Because first-rate after-sales support does more than increase product durability; it also increases customer satisfaction, loyalty, and brand promotion (Xiao & Zhang, 2023; Wang et al., 2015; Zhang et al., 2017).

In this sense, the marginal demand effect of the service will increase in proportion to its quality and warranty period. Supply chain coordination and quality assurance issues were also the subject of a number of articles (Chan et al., 2018; Liu et al., 2020; Luo & Wu, 2018).
In Peru, it is evident that within the cooperatives, the lack of technical assistance to collaborators regarding cultivation practices has led to defective beans, which prevents the production of quality chocolate and therefore customers are dissatisfied with the product purchased Villalva et al. (2019).

On the other hand, the lack of little detailed information, font size and abbreviations of unknown meaning in the labeling of a product, make customers feel dissatisfied with it and do not consume the product to the company Figueroa et al. (2019).

In a cooperative in Bagua, it is evident that the company is not constantly concerned about communicating to its customers about the attributes contained in its product because the employees in charge of the production area do not provide information about the content of the product and do not innovate in terms of design and labeling of the product, causing dissatisfaction among consumers.

This work was justified theoretically in all the academic contributions that different authors have published before the elaboration of this research, and also because when this study is published it will provide important information for those professionals, students and businessmen who wish to increase their knowledge regarding product quality and customer loyalty. Also, it was justified in a practical way because through the analysis of the information obtained and analyzed, the board of directors of the cooperative will be able to make better decisions in order to increase the quality of their product, having a direct and positive impact on the loyalty of their customers. Likewise, it was justified in a methodological way since a new methodology is being proposed that in all the theories reviewed a mixed study has not been used.

The general objective is to determine the effect of product quality on customer loyalty in a cooperative that produces chocolate in Peru. Likewise, two specific objectives were considered, the first was to analyze whether product quality guarantees customer loyalty in a cooperative that produces chocolate in Peru. The second specific objective was to describe the effect of the dimensions of product quality on the dimensions of customer loyalty in a cooperative that produces chocolate in Peru.

Therefore, the following research hypothesis was considered: Hi: There is a significant effect of product quality on customer loyalty in a cooperative that produces chocolate in Peru. And the specific hypothesis was: Hi: There is a significant effect of the dimensions of product quality on the dimensions of customer loyalty in a cooperative that produces chocolate in Peru.
2 LITERATURE REVIEW

Within the international panorama, we considered the contribution of Silva et al. (2021) since they identified that it has a good relationship in terms of the service quality variable with buyer's conformity and concluded that an adequate customer service is essential to ensure the profitability and development of the company over time.

Likewise, Azero and Almeida (2021) demonstrated that there are differences concerning customer preferences and behavior at the time of purchase, concluding that the quality of service has a greater impact on users. Similarly, Vera (2013) pointed out that the characteristics of service quality correlate satisfactorily with customer loyalty, determining that there are some attributes that are relevant to customer loyalty.

In Peru, Norabuena et al. (2021) showed that there is a significant effect between service quality and customer loyalty in rural savings and credit banks, concluding that managers and tellers should better implement their quality policies. On the other hand, Quintero et al. (2019) stated that there is a dependence between service quality and loyalty, which allowed them to conclude that loyalty in the service sector is a consequence of good service quality since a customer will always choose to buy a certain quality product when that company offers it.

In relation to the concept of product quality (PC), Machado. (2018) indicates that it is based on the customer's perception regarding its purpose, in relation to other alternatives, where such perception is fundamental for purchase options. For Prieto et al. (2008) point out that product quality consists of the attributes that are present in order to generate consumer satisfaction. On the other hand, quality is based on the ingredients used to manufacture a good. Likewise, organizations must have a quality control in the production stages of any product in order to build consumer loyalty and thus have greater demand in the market. (Marin & Torres, 2022).

With respect to the commodity, Kotler, and Armstrong. (2017) are the characteristics of the product offered that seek to meet the consumer's expectations at the time of acquiring the good. The basic product are those characteristics or attributes that users are looking for when obtaining a product or service and that these satisfy their needs (Diaz, 2022).

Next, we have the Augmented Product, it consists of the presentation of a product, this must have attributes such as branding, labeling, and packaging. (Kotler & Armstrong, 2017). The augmented product includes a series of services, functions or features that
distinguish the company from competitors, i.e. it is not limited to satisfying a need, but incorporates something beyond what consumers expect to differentiate itself (Feijoo et al., 2018).

On the other hand, we have the Real Product which is part of the basic and real product that provides a variety of extra services and benefits such as after-sales service and guarantee (Kotler & Armstrong, 2017). According to Feijoo et al. (2018) is a tangible product, i.e. the product in a physical form because it is visible to us and can be touched, seen, smelled, etc. Regarding the CP variable, we have the Input that for (Bravo, 2022) mentions inputs are the elements that are used to manufacture a product.

The perceived value according to Machado (2018) perceived value is the appreciation that the consumer has regarding the benefits of a product or service and thus pay a price. As for the brand is a name or symbol that identifies the product or service of an organization distinguishing it from the others (Kotler & Armstrong, 2017). And labeling and packaging, according to Valdés et al. (2022) are fundamental aspects for a product since they fulfill the function of protection, information, and identification of a product.

The guarantee consists of the support offered by a company to its customers regarding the quality and proper functioning of a product (Vanina, 2018). In addition, according to (Fuentes & Rojas, 2018) mention that after-sales service is the follow-up provided to the customer after having obtained the product to build consumer loyalty.

Customer loyalty is understood as a favorable behavior towards a company, which is expressed through the probability that a user will buy again by preferring a certain brand (Molinillo et al., 2022). For Zanchett et al. (2019) customer loyalty is the way in which a customer tends the choice or preference regarding a brand, or store because of the loyalty work done by the company to build loyalty among its consumers. Juwaini et al. (2022) defines customer loyalty as the relationship between the customer and the organization manifesting the customer's commitment to repeatedly purchase a product or service.

Data envelopment analysis (DEA) provides uncertainty values and benchmarking information simultaneously, proving to be a useful tool for evaluating identical decision-making units in a multiple-input, multiple-output production relationship (Chao et al., 2023; Charnes et al., 1978).
But, as it is based only on input and output data at the level it treats the production process as a black box and thus ignores the internal transformation process (Akther et al., 2013; Färe & Grosskopf, 2000; Fukuyama & Mirdehghan, 2012; Yu, 2010; Lozano, 2017).

Cognitive Loyalty focuses on comparing the characteristics of the good and the utility it has at the time of making a purchase where it considers one brand over another (Yulianto, 2022). Also (Avalos, 2014) indicates that cognitive loyalty is the evaluation of the attributes of the product brand where the information linked to the offer such as price and quality is determined. Here, the customer makes a purchase based on their past experiences.

Affective loyalty is a state of loyalty like a commitment to purchase in such a way that the customer chooses to "repurchase" because it is the result of the repeat purchase of a branded product. (Paramo, 2020). On the other hand, (Ríos & Almeida, 2022) define affective loyalty as the favorable attitude that a customer has towards a specific brand, where he recognizes the organization and feels pleasure in acquiring products that meet his expectations.

Conative loyalty, is the consumer's desire to obtain products from a single brand continuously, demonstrating loyalty to the brand (Avalos, 2014). Conative loyalty occurs when the customer feels more committed to a brand and makes frequent purchases creating emotional ties. (Paramo, 2020). Regarding the indicators of the LC variable, we have the attribute that for (Zapana, 2021) are those characteristics that differentiate one product from another. These tangible attributes can be packaging and design. Regarding price (Kotler & Armstrong, 2013) define price as the amount of money paid to acquire a product or service. In other words, it is the value given to a product in exchange for the utility received from it.

Concerning satisfaction is when the customer obtains maximum benefits from a product or service offered by a company, feeling satisfied Silva et al. (2021). Regarding commitment Haro et al. (2022) refers to emotional behaviors that the customer has with respect to a brand of an organization, i.e. it is an important link because the customer feels satisfied towards a brand. And finally, the purchase intention refers to the decision made by the consumer which influences their actual behavior when buying a service or product and is influenced by the level of trust and consumer experience. (Al-Abbadi et al., 2022).
In this sense, Abbas et al. (2023) emphasize that supporting and embracing overall quality will pay off as a successful business philosophy for the continued existence of the company by establishing appropriate requirements and conditions. Customers who are satisfied with the services they receive are more likely to recommend the business to their friends and co-workers, which in turn helps the company grow (Shanmugam & Chandran, 2022).

3 METHODOLOGY

A mixed study was taken into account, it is qualitative because non-numerical data will be analyzed through the interview and it is quantitative, since the data were collected to verify the hypotheses, and the results were calculated using numerical and statistical analysis (Ñaupas et al., 2014).

The grounded theory and descriptive design were considered for the qualitative part. For the quantitative part, the non-experimental and descriptive-correlational design was considered (Puican y otros, 2023). The sample consisted of the manager and two collaborators from the production and sales areas of the cooperative who were interviewed, as well as 50 customers of the cooperative who were surveyed.

It was taken into consideration to use as a technique the interview that was applied to the manager and some workers of the cooperative. In addition, it was decided to use as an instrument the survey that is made up of variables and dimensions that were applied to the clients since it allowed to obtain the necessary ideas to satisfy their needs since it allows to establish the access points for the evidence of the investigation (Puican y otros, 2023).

Descriptive statistical methods will be used to understand the perceptions of the subjects participating in the sample of this work on the variable and each of its dimensions. In addition, inferential statistical methods will be used to determine the level of influence between the dimensions and the study variables.

4 RESULTS AND DISCUSSION

Figure 1 shows the data obtained from the qualitative coding program ATLAS TI, where it is evident that in the subcategory commodity, the interviewees agree that the inputs used to make chocolate are the native cocoa provided by the partners (farmers) and that they verify that it has a maximum of 7% humidity.
They also pointed out that the equipment used to make the chocolates is small-scale because very little is produced, but they also have laboratory equipment used to make chocolate. They also stated that they did not conduct a market study before launching the brand, which has caused their positioning to be slow, but a design was done with a company in Lima that had experience, and the Bagua brand was used for chocolate because of the province's history.

Regarding the subcategory real product, the interviewees agree that the chocolate brand has managed to position itself in the consumer's mind since customers always come back to buy because they have identified that their customers feel identified with the brand, which is due to the quality of the product and the different presentations that we offer in the market. They also point out that innovation in labeling and packaging is very important because nowadays customers pay close attention to the way the product is presented and the design in which it is presented, as these factors are determining factors in the purchase decision.

In addition, they mentioned that it is extremely necessary for product labeling to contain information on the health benefits of the product for customers, since the customer's tendency is to consume healthily, so clear, simple and accurate information about the product must be shown.

With respect to the subcategory increased product, the interviewees agree that the added value that they have been giving to their chocolate products has led the brand to position itself in the consumer's mind because the chocolate is very good, it is organic, has a pleasant aroma and has natural and healthy properties, which differentiates us from our competitors.

At the same time, they indicated that the products they offer are of high quality because they have organic cocoa, and we also process it ourselves and we have organic certifications.

Similarly, they mentioned that after-sales service is important because it allows us to know the customer's satisfaction with the product; the company asks customers how the product went, and they have not had any problems so far. If for any reason the product is not up to expectations, we have the option to change the product or provide a solution.

Two emerging subcategories were found, the first is quality control, where the interviewees agree that it should be applied from the cultivation to the processing of the product, so the cooperative emphasizes working on these points to put high quality
products on the market. The second emerging subcategory is the purchase decision, where the interviewees agree that in order to encourage the client to decide to buy the product, constant work must be done on the way the product is presented, taking into account the opinions of the clients and technological advances.

In view of this, it is necessary to consider what Silva et al. (2021) established, since they pointed out that adequate customer service is essential to ensure the profitability and development of the company over time. Similarly, Azero and Almeida (2021) because they determined that service quality generates greater impact on users. In the same sense, Vera (2013) revealed that the characteristics of service quality correlate satisfactorily with customer loyalty, determining that there are some attributes that are relevant to customer loyalty.

That is why product quality according to Machado (2018) is the one based on the customer's perception regarding its purpose, in connection to other options that exist in the market, being necessary that within the organization a previous quality control is performed before going to market.
Figure 1 analysis of product quality to ensure customer loyalty of a chocolate cooperative in Peru

Source: Own elaboration based on ATLAS TI data version 22 (2023).
Table 1 shows data on product quality, where respondents indicated that the inputs used by the cooperative to produce its products are almost always (36%) of high quality; they also mentioned that the value they perceive in the product almost always (32%) meets their needs. Similarly, 36% indicated that they sometimes decide to buy the product again because the brand is recognized in the city, and that the labeling and packaging is sometimes (40%) eye-catching. They also indicated that the cooperative's after-sales service sometimes (34%) solves the mishaps that occur during the use of the product. They also indicated that the cooperative almost always (30%) provides guarantees on the use of the products.

With respect to customer loyalty, the respondents stated that sometimes (42%) the attributes of the products meet their expectations, in addition, they indicated that the price sometimes (38%) is in line with the market and its competitors, at the same time they indicated that sometimes (32%) they prefer to buy the products again from this cooperative. They also mentioned that almost always (34%) the cooperative's products satisfy their needs, and that the company always (46%) assumes its commitments when they request it, and above all that they always (34%) intend to buy the products offered by this cooperative. It is important to consider what Prieto et al. (2008) establish because they point out that product quality focuses on the attributes that are present in order to generate consumer satisfaction, and quality is based on the ingredients used to manufacture a good; therefore, each organization must control the quality in the production stages of any product in order to build consumer loyalty and thus have greater demand in the market, as established by Marín and Torres (2022).

Table 1 Descriptive analysis by indicator of product quality and customer loyalty dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicators</th>
<th>Percentage scale</th>
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<tbody>
<tr>
<td></td>
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<td>Never</td>
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<tr>
<td>Basic Product</td>
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<td></td>
<td>Perceived Value</td>
<td>4</td>
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<tr>
<td></td>
<td>Perceived Value</td>
<td>4</td>
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<tr>
<td>Real Product</td>
<td>Brand</td>
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</tr>
<tr>
<td></td>
<td>Labeling and Packaging</td>
<td>2</td>
</tr>
<tr>
<td>Increased Product</td>
<td>After Sales Service</td>
<td>4</td>
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<tr>
<td></td>
<td>Warranty</td>
<td>2</td>
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<tr>
<td>Cognitive Loyalty</td>
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<td></td>
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<td></td>
<td>Satisfaction</td>
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<tr>
<td></td>
<td>Commitment</td>
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</table>
Table 2 shows that product quality with customer loyalty (0.842), cognitive loyalty (0.784) and affective loyalty (0.632) maintain a medium to very strong connection since they achieved a Pearson of 0.842. It is necessary to consider the contribution of Norabuena et al. (2021) since they indicated that there is a significant effect between service quality and customer loyalty in rural savings and credit banks, concluding that managers and tellers should better implement their quality policies.

In the same sense, Quintero et al. (2019) since they pointed out that there is a dependence between service quality with loyalty, which allowed them to conclude that loyalty in the service sector is a consequence of a good service quality since a customer will always choose to buy a certain quality product when such a company offers it.

Similarly, there is no favorable connection with conative loyalty, since the sigma was greater than 0.05. The basic product dimension does not maintain a connection with the customer loyalty variable and with each of its dimensions since both achieved a sigma greater than 0.05. The real product dimension maintains a positive connection with customer loyalty (0.759) and with cognitive loyalty (0.671) and affective loyalty. On the other hand, with the affective loyalty and conative loyalty dimensions they are not related because it reached a p-value higher than 0.05.

The increased product dimension is positively associated with customer loyalty (0.992) and with cognitive loyalty (0.534), while the affective loyalty and conative loyalty dimensions are not related, since they exceeded the 0.05 sigma.

<table>
<thead>
<tr>
<th>Conative Loyalty</th>
<th>Purchase Intention</th>
<th>4</th>
<th>0</th>
<th>38</th>
<th>24</th>
<th>34</th>
<th>100</th>
</tr>
</thead>
</table>

Source: Own elaboration based on SPSS data version 26 (2023).
5 CONCLUSIONS

The limitations encountered in the development of this work were shaped by the little information that exists on product quality and customer loyalty, both variables have been studied, but separately, in addition, no works were found that use a mixed approach, which caused a delay in the completion of this research, but little by little all these obstacles were overcome.

It is suggested that future researchers who decide to study these variables together use a mixed approach since this will allow them to know the opinion of both parties, the company's representatives, and its customers, since this will allow them to go deeper into product quality and customer loyalty. Likewise, it is suggested that they expand the study techniques, such as documentary analysis to know the reality of the management that the companies are executing in order to find the bottlenecks so that the partners can make the right decisions.

It is concluded that the managers of the cooperatives need to inform their workers about the set of properties and characteristics of their products because through this they will be able to attend and orient the clients about the benefits that these products have, since through this they will have the knowledge and the necessary capacity to satisfy the tastes, expectations and needs of the consumers.

Moreover, we concluded that the cooperative should conduct a market study to expand its sales to the Amazonas and Cajamarca regions, as these are departments that have the raw material cocoa, to evaluate the acquisition of new machinery to increase production throughout the year.
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