Price war in fast-food chains, Callao, 2025

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Abstract*– The implementation of SDG 8 contributes to ensuring job creation and adequate working conditions for entrepreneurs. In particular, target 8.2 aims to increase productivity and, consequently, improve efficiency in fast-food businesses that require high added value due to their labour demand. The objective of the study was to analyse the relationship between price wars and the associated dimensions: prices above, equal to, and below those of the competition, in the district of Callao during the year 2025. The research adopted a quantitative, applied approach with a non-experimental design. A 20-item questionnaire was administered to a sample of 385 fast-food customers. 63% of respondents indicated that these businesses almost always or always set prices similar to those of their competitors in order to attract consumers. It was concluded that the highest percentage association was between the dimensions of prices above the competition and prices equal to the competition, reaching 41.47%.

***Keywords*—Competition, Pricing, Strategies, Company, Fast-food.**

I. INTRODUCTION

In the competitive world of fast food, companies must constantly face an ever-changing environment, which requires them to adapt with agility and implement creative strategies. Diversity in product offerings and frequent changes in consumer preferences force brands to maintain a delicate balance between quality, customer service and affordable prices. One of the most pronounced challenges in this industry is the price war, a fierce competition in which brands lower their prices to attract customers. While this may benefit the consumer in the short term, it also poses a risk to the profitability and sustainability of businesses, which must find smart ways to deliver value without compromising their standards. Several marketing studies indicate that customer satisfaction and loyalty do not depend only on the lowest price, but also on the perceived quality of the product and the value that the consumer associates with what he/she pays [1]. Although equilibrium prices may encourage more efficient consumer search, high product differentiation may still generate welfare losses, as some consumers may refrain from buying. Moreover, when search costs decrease, firms tend to set stochastically higher prices, which increases their expected profits, but reduces the frequency of their sales [2]. Therefore, it is key to find a balance between the quality of the service offered and a strong brand image, as this combination reinforces the perception of a fair price, which contributes significantly to raising both customer satisfaction and long-term loyalty [3].

In a highly competitive environment, differentiation becomes essential to attract and retain customers. In addition, factors such as globalization, sustainability and technological advances directly influence the design of strategies that allow brands to stand out [4]. In this context, the present research will focus on analysing the interaction between price competition and above, equal or below price strategies in fast food companies. Understanding this relationship is key to attract consumers in a saturated market, since it directly influences the purchase decision and impacts on the increase of market share. It also makes it possible to adapt the offer to current trends, strengthening customer loyalty through an adequate price-quality perception.

For example, McDonald's recently launched a US$ 5 meal package to attract inflation-weary customers. According to Joe Erlinger, president of the chain in the U.S., this promotion generated a sustained increase in sales from its first day, with massive orders reflecting the public's good reception. Burger King responded quickly with its own US$5 package offer, assuring that theirs would have a longer duration, demonstrating how competition drives innovation in promotional pricing.

In addition, other fast food and casual dining chains, such as Starbucks, Applebee's and Chili's, have adopted similar strategies with attractive discounts and promotions, adapting to the growing demand for affordable prices among consumers, who are looking for value amid an inflationary context [5]. These actions reflect the importance of adjusting pricing strategies to maintain competitiveness and customer loyalty in an increasingly demanding market.

In Callao, fast food companies seek to attract and retain customers by offering quality products at competitive prices. To achieve this, it was proposed to implement pricing strategies based on the specific needs and characteristics of each business. This strategic customization could positively influence customer attraction and strengthen customer loyalty during the year 2025.

According to the United Nations [6], more equitable and sustainable development has been promoted, also ensuring job creation and decent working conditions, in line with Sustainable Development Goal 8 (SDG 8). This includes meeting targets aimed at improving productivity, which boosts efficiency in fast food companies that generate high value added and are highly dependent on labor (target 8.2). Likewise, policies are promoted to support the growth of productive sectors, their formalization, the creation of quality employment, as well as the promotion of entrepreneurship and innovation, thus contributing to the competitiveness of the fast-food sector (target 8.3).

The problem statement is a key phase of the research process, since it precisely establishes the objective of the study, justifies its relevance and places the phenomenon within a specific context [7]. In terms of research, Lack of in-depth analysis of consumer trends in Callao fast food chain hinders its ability to strategically adjust prices. This limitation can translate into a loss of competitiveness compared to those

that interpret and respond more effectively to market demands, which negatively affects their positioning and profitability. Likewise, the absence of a clear differentiation strategy prevents these companies from communicating the added value of their products compared to cheaper options, which can weaken consumer perception and hinder innovation. Finally, reducing prices without prior evaluation can lead to impulsive decisions with unfavourable long-term consequences.

Based on the problems identified, the general research problem is: How does the price war relate to related to the interaction of the dimensions of prices above competition, prices equal to competition and prices below competition in fast food chains in Callao in the year 2025?

And as for the specific problems were:

1. How are prices above competition and prices equal to competition in fast food chains in Callao, in the year 2025?
2. How are prices above competition and prices below competition in fast food chains in Callao in 2025?
3. How are prices equal to competition and prices below competition in fast food chains in Callao, in the year 2025?

On the other hand, the general objective was to determine how the price war is related to the interaction of the dimensions of prices above, equal to and below competition in fast food chains in Callao in the year 2025.

And as for the specific objectives, these were:

1. To determine the relationship between prices above the competition and prices equal to the competition in fast food chains in Callao in the year 2025.
2. To determine the relationship between prices above the competition and prices below the competition in fast food chains in Callao in the year 2025.
3. To determine the relationship between prices equal to the competition and prices below the competition in fast food chains in Callao in the year 2025.

Previous studies considered in this research were analysed and are described below:

Shi [8] studied the importance of pricing strategies for fast-moving brands in a changing business environment, using a descriptive-analytical quantitative approach. The results showed that adapting pricing strategies to the competitive environment allows for improving market share, responding to consumer needs, and strengthening brand image. Furthermore, having a defined target market and constant monitoring of the competition facilitates timely adjustments. It is concluded that active price management drives both sustainable growth and long-term profitability.

Bayona et al. [9] analysed price competition in homogeneous product markets within the framework of common shared ownership arrangements, which allow for diverse forms of business management. The results of the study show that there may be equilibria with favourable benefits, including the outcome of monopoly, provided that the economic agent values its own profits and the average profits of the other participating firms equally. It is concluded that, even in a context of high competition such as that proposed by the Bertrand model, it is possible for firms to achieve results similar to those of a monopoly under certain conditions of cooperation or shared interest.

Hossain et al. [10] using a qualitative approach, analysed pricing strategies in food and retail companies in Bangladesh. They highlighted cases such as Bengal Meat and Glazed, which maintain premium prices based on quality and positioning, while other companies employ high-low pricing to take advantage of the local bargaining culture and increase sales. They concluded that it is essential for companies to adjust their prices based on value, market dynamics, and cultural preferences to remain competitive.

Tahat [11] investigated pricing objectives and methods and their influence on business profitability, applying a quantitative approach and a theoretical review of previous studies. The sample consisted of companies that implement various pricing strategies. The results revealed a positive relationship between value-based strategies and high prices and profitability, while low prices showed a negative impact. It was concluded that the strategic management of pricing policies and processes is essential to ensure business profitability.

He and Ma [12] examined delivery strategies under a duopolistic competition scenario, focusing on pricing and service level decisions. The study showed that, in contexts where competition is based solely on price, platforms that offer higher quality can justify higher prices. However, when competition includes both price and quality, firms tend to homogenize their services and prices, obtaining similar results in terms of user share and profitability. Consequently, strategic decisions regarding price and quality depend on the market structure and the financial resources required to operate.

Zheng and Yu [13] analysed the equal pricing strategy of a manufacturer and its impact on market dynamics, using a basic quantitative approach and a theoretical model of competition between distribution channels. The results showed that this strategy strengthens the manufacturer's incentive to intervene in the market, especially in contexts of high competition and moderate entry costs. It was concluded that the commitment to equal pricing generates diverse effects, determined by market conditions and the distribution alternatives available to the manufacturer.

Villaseca [14] demonstrated a significant relationship between price, perceived quality and consumers' purchasing decisions. Using a mixed correlational approach, he studied a sample of 250 people from social class A, complemented by interviews with two experts and a focus group of 11 participants. The results showed a moderate and positive correlation between perceived quality and purchase intention

(0.582), as well as between premium price and purchase decision (0.541). It was concluded that perceived quality and premium prices favourably influence purchase intention, thus supporting the proposed hypothesis.

Miñano and Santos [15] using a quantitative approach and a hypothetical-deductive method, analysed how to improve commercial performance in a fast-food company. With a sample of 391 consumers, the results showed that prompt service and the use of promotions—especially through digital advertising, combos, and low prices—have a significant impact on increasing sales. It was concluded that both strategies are key to improving commercial efficiency in the fast-food sector.

Regarding the variable related to theories, we have:

Bertrand theory, formulated by Joseph Bertrand in 1883, analyses price-based competition between companies selling homogeneous products. This approach focuses on the way in which companies set their prices within an oligopolistic market, where a few major firms predominate [16]. The Bertrand Model is a classic model in economics that describes competition between firms that set prices, rather than quantities, for a homogeneous product. This model helps companies understand that, in markets with very similar products, competing on price alone can minimize profits, since consumers always choose the cheapest option. Therefore, it highlights the importance of differentiating products or services to avoid this destructive competition and allows anticipating competitors' reactions, facilitating more informed strategic decisions.

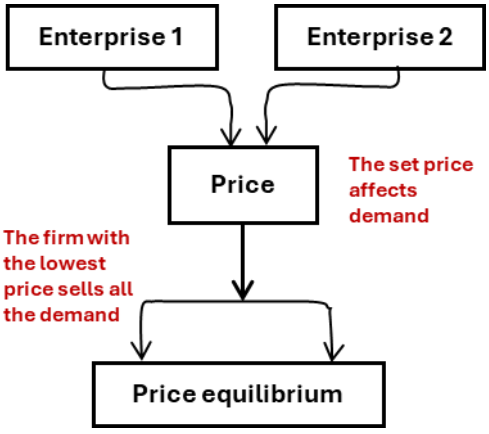

Fig. 1 Bertrand theory.

As shown in Figure 1, Bertrand's model describes a competitive situation between two firms selling a homogeneous product and taking price as a strategic variable. Each firm chooses a price, p1 and p2, with the objective of maximizing its profits.

If one firm sets a lower price than its competitor (p1 < p2), it will capture all the market demand, leaving the other firm with no sales. If both firms set the same price (p1 = p2), they share the demand equally or in a given proportion. On the other hand, if P1 > p2, the firm with the lower price takes the entire market.

Equilibrium in this model is reached when both firms set a price equal to marginal cost, which generates an outcome equivalent to perfect competition. This result shows how, even with only two competitors, competitive pressure on prices can lead to zero profit margins.

According to Chamberlin [17], the theory of monopolistic competition explains how several firms offering similar but differentiated products can operate simultaneously in a market, without any of them achieving total control. This occurs through a combination of product differentiation and the ability of other firms to freely enter or exit the market.

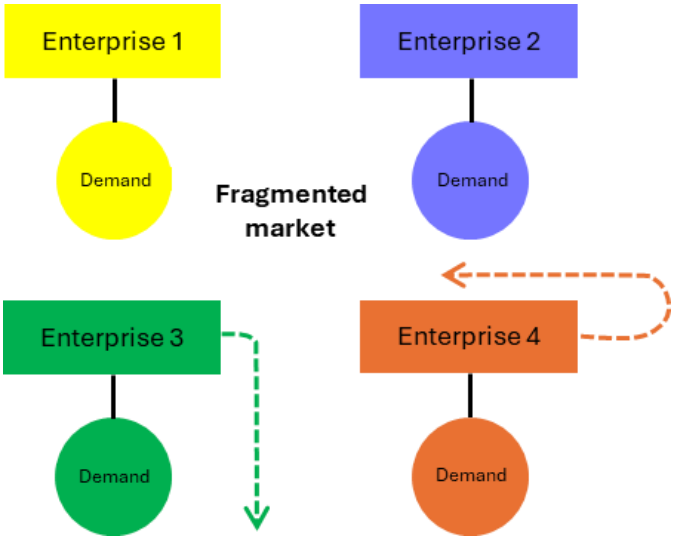

Fig. 2 Theory of Monopolistic Competition.

Market structure: Describes a market in which there are many firms offering similar, but not identical, products. Unlike perfect competition, here each firm has some pricing power through product differentiation.

Product differentiation: Products are differentiated by brand, design, quality or other attributes. This allows each firm to have its own consumer base and individual demand.

Limited market power: Although each firm has some pricing power, that power is limited by the existence of many other firms offering close substitutes. If a firm sets its price too high, consumers can easily switch suppliers.

Free entry and exit: New firms can enter the market if there are profits, and unprofitable firms can easily exit. This keeps the market competitive.

Long-run equilibrium: Over time, the entry of new firms reduces economic profits. In equilibrium, firms make only normal profits but maintain some market power through differentiation.

Finally, the general hypothesis was price wars are related to the interaction of the dimensions of prices above the competition, prices equal to the competition, and prices below the competition in fast-food chains in Callao, in the year 2025.

Similarly, the specific hypotheses were:

1. Prices above the competition and prices equal to the competition are significantly related in fast-food chains in Callao, in the year 2025.
2. Prices above the competition and prices below the competition are significantly related in fast-food chains in Callao, in the year 2025.
3. Prices equal to the competition and prices below the competition are significantly related in fast-food chains in Callao, in the year 2025.

II. METHODOLOGY

The research was conducted with a quantitative approach that allowed measuring the behaviour of price competition in the district of Callao. This analysis helps to understand the functioning of the local market and its effects on the community's economy, as well as to identify conditions that promote fair competition. According to Hernandez et al. [18] indicate that data collection is used as a method to test hypotheses, relying on quantitative and statistical analyses that make it possible to identify recurrent behaviours and confirm theories.

This research adopted a deductive approach, starting from general theories of market functioning to examine how pricing strategies are applied in competitive contexts. Reasoning based on structured premises and formulated as rigorous hypotheses has greater analytical value [19].

Similarly, the research was of the applied type, since its objective was to use theoretical knowledge to respond to current market problems. According to Mejía et al. [20], this type of study relies on the results of basic research to propose practical and concrete solutions.

In terms of its level, the research was correlational, since it analysed the relationship between price competition and the prices set by different stores, considering whether these are above, equal to or below the competition. As Bernal [21] points out, correlational studies seek to identify links between variables, but without asserting that there is a direct cause-and-effect relationship between them.

The research used a non-experimental cross-sectional design, which analysed without intervention the pricing strategies of fast-food companies at a single point in time. According to Cortés and Iglesias [22], this design observes phenomena in their natural context without modifying variables. Bernal [21] points out that in this type of study data are collected at a specific point in time. This made it possible to evaluate how prices are positioned vis-à-vis the competition and their impact on consumer behaviour.

Variable: According to De Jaime [23], price competition refers to the strategies employed by a company to respond to the prices set by its competitors and adapt to market conditions through a comprehensive competitive strategy. Sabry [24] stresses the importance of analysing the factors that influence consumer purchasing decisions, as well as building a value proposition that connects with the public, guarantees profitability and strengthens brand positioning. Finally, Sánchez [25] points out that the selling price should be set considering the pricing strategies used by the competition. This makes it easier to adapt to competitive market conditions, using prices that may be above, equal to or below those of the sector.

The study population was considered infinite, since the total number of consumers of fast-food companies in the district of Callao is not known exactly. According to Caballero [26], the population is the complete set of observations or measurements made on a group of individuals who share a specific characteristic.

For the study of the price war in fast food chains in Callao, the following characteristics were considered:

a) Customers over 18 years of age.
b) Customers of both sexes.
c) Customers with a medium-high socioeconomic level.

The exclusion criteria for the study of the price war in fast food chains in Callao, the following characteristics were taken into account:

a) Children and young people under 18 years of age.
b) People who are not customers of fast-food chains in Callao.

For this research, a sample of 385 consumers of these companies was selected. Ñaupas et al. [27] point out that a sample is representative when it adequately reflects the characteristics of the population from which it is drawn.

According to Gómez [28], simple random sampling is a procedure in which each member of the population has an equal chance of being chosen for the sample, and the selection of one individual does not affect the selection of another.

A survey of consumers of fast-food establishments in the district of Callao was used for data collection. According to Arias [29], this technique allows obtaining specific information from a group by means of a questionnaire. The instrument consisted of 20 written questions, which respondents answered using an ordinal Likert-type scale with the options: a) always, b) almost always, c) sometimes, d) almost never and e) never. It is important to note that the instrument was validated by three experts and obtained a reliability coefficient of 0.711, a value considered acceptable according to the range established by Cronbach's alpha.

The data collection process was carried out digitally, using platforms such as Google Forms to apply the questionnaire. The collection was carried out in March 2025.

Statistical methods were used for data analysis; first, descriptive statistics were used to present the information through graphs and tables, and then inferential statistics were applied through Spearman's Rho coefficient.

Regarding the ethical aspects of the study on the price war in fast food chains in Callao, the following were considered:

a) Informed consent: Participants were notified of the objectives of the study, their voluntary participation and the confidentiality of the information provided.
b) Confidentiality: The information collected was kept anonymous and was used exclusively for academic purposes.
c) Transparency in the use of results: It was ensured that the results obtained were used only to optimize the pricing strategies of the establishments, without causing harm to the participants.

III. Results

Demographic characteristics of the sample.

Figure 3 shows the age distribution of the 385 respondents who participated in the study. It can be seen that the age ranges with the highest presence correspond to 30 years of age, with 33 people; 21 years of age, with 31; and 31 years of age, with 26 respondents. These results indicate that the predominant public in fast food chains in Callao is mainly composed of young adults.

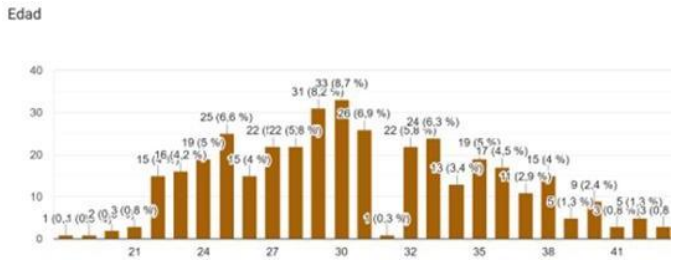

Fig. 3 Age distribution.

The descriptive analysis is presented below, which includes tables, figures, gap analysis, strategic objectives and activities, as well as measures of central tendency.

63% of respondents indicated that fast-food companies' prices are almost always or always similar to those of the competition in order to remain a viable option. 35% indicated that prices are sometimes higher, and 2% believed that low prices are almost never offered, as this could generate distrust. Sánchez [25], prices aligned with the market encourage customer traffic. Thus, if companies adjust their prices, the perception of the remaining 37% could improve until reaching full acceptance.

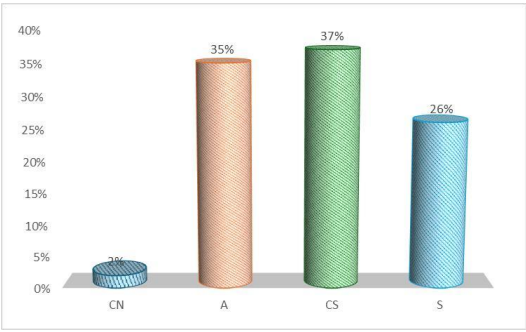

Fig. 4 Level of perception of the price war.

Hypothesis Testing Results.

Regarding the general hypothesis: The price war is related to the interaction of the dimensions of prices above the competition, prices equal to the competition, and prices below the competition in fast-food chains in Callao, in the year 2025.

TABLE I
GENERAL HYPOTHESIS TEST

PRICE WAR = 41.47% PAC + PEC; 29.38% PAC + PBC; 22.09% PEC + PBC
PAC X PEC = 41.47%
PAC X PBC = 29.38%
PEC X PBC = 22.09%

The price war in Callao's fast-food chains, corresponding to the year 2025, was constructed from the sum of the interrelationships between the dimensions: prices above the competition (PAC), prices equal to the competition (PEC), and prices below the competition (PBC). Among them, the PAC and PEC dimensions were the ones that most contributed to strengthening this dynamic. The interaction between the two allowed us to answer the problem posed, the general objective, and the hypothesis, demonstrating a significant relationship of 41.47% between these dimensions, which is beneficial for chains in the fast-food sector. Therefore, it is essential to maintain control over prices above those of the competition, as they are part of the marketing process by maintaining prices aligned with the market, allowing establishments to generate profitability.

For specific hypothesis 1: There is a significant relationship between prices above the competition and prices equal to the competition in fast-food chains in Callao, in the year 2025.

TABLE II
SPECIFIC HYPOTHESIS 1 TEST

		PAC	PEC
PAC	Rh. Sp.	—	0.644***
	p	—	<.001
	N	—	385
PEC	Rh. Sp.	0.644***	—
	p	<.001	—
	N	385	—

Table II shows the results obtained by applying the corresponding statistical test to verify specific hypothesis 1. In Callao fast-food chains, the PAC dimension correlates with the PEC dimension, which is statistically confirmed by a p-value less than 0.05 ($p < .001$). This allows us to reject the null hypothesis (Ho) and accept the working hypothesis (HE1), demonstrating a direct relationship between the two dimensions. The Spearman correlation coefficient (Rho) was 0.644, indicating a positive correlation of medium magnitude.

For specific hypothesis 2: There is a significant relationship between prices above the competition and prices below the competition in fast-food chains in Callao by 2025.

TABLE III
SPECIFIC HYPOTHESIS 2 TEST

		PAC	PBC
PAC	Rh. Sp.	—	0.542***
	p	—	<.001
	N	—	385
PBC	Rh. Sp.	0.542***	—
	p	<.001	—
	N	385	—

Table III shows the results obtained by applying the corresponding statistical test to verify specific hypothesis 2. The PAC dimension shows a correlation with the PBC dimension in Callao fast-food businesses, statistically supported by a p-value less than 0.05 ($p < .001$). This allows us to reject the null hypothesis (Ho) and accept the specific hypothesis HE2, which posits the existence of a direct correlation between the two dimensions. The Spearman correlation coefficient (Rh. Sp.) was 0.542, indicating a positive correlation of moderate magnitude.

For specific hypothesis 3: There is a significant relationship between prices equal to the competition and prices below the competition in fast-food chains in Callao by 2025.

TABLE IV
SPECIFIC HYPOTHESIS 3 TEST

		PEC	PBC
PEC	Rh. Sp.	—	0.470***
	p	—	<.001
	N	—	385
PBC	Rh. Sp.	0.470***	—
	p	<.001	—
	N	385	—

Table IV shows the results obtained by applying the corresponding statistical test to verify specific hypothesis 3. The PEC dimension correlates with the PBC dimension in fast-food businesses in Callao, as statistically confirmed by a p-value of less than 0.05 ($p < .001$). This allows us to reject the null hypothesis (Ho) and accept as valid the specific hypothesis HE3, which posits a direct relationship between the two dimensions. The Spearman correlation coefficient (Rh. Sp.) was 0.470, indicating a low-intensity positive correlation.

IV. DISCUSSION

As a general hypothesis, the objective was to analyse whether there is a relationship between price wars and the interaction of the dimensions: prices above the competition, prices equal to the competition, and prices below the competition in the district of Callao, in the year 2025. In parallel, the general objective of the research was to determine this relationship. The results showed a predominant interaction between prices above the competition and prices equal to the competition, reaching a coefficient of determination of 41.47%, which represents a statistical approximation close to 50%.

In line with these findings, studies by Shi [8] highlights the importance of customer perception based on perceived value, as well as a clear brand image and price differentiation. For their part, Bayona et al. [9] examine seller behaviour and argue that market rationality—whether limited or shared—can directly influence pricing. In both cases, the reviewed models agree that competition can generate both price increases and decreases. The data obtained in the research concur with Shi [8], in that fast-moving consumer brands must adjust their pricing strategies according to the competitive environment, choosing to maintain prices similar to or differentiated from their competitors, highlighting the need to constantly monitor the competition and adapt prices accordingly. Likewise, Bayona et al. [9] support the feasibility of maintaining prices equal to or even higher than those of the competition under certain market conditions.

Regarding the theoretical basis, González [26] refers that the theory of price competition, developed by Joseph Bertrand, maintains that competition focuses mainly on price, based on the assumption that products are homogeneous, and that therefore consumers decide their purchase solely based on price. In contrast, the theory of monopolistic competition proposed by Chamberlin [17] establishes that, although there are many companies that offer similar products, there are differences that allow each one to exercise some control over the price. Thanks to this differentiation, each company can attract a specific segment of the market and have limited power over its own price.

As specific hypothesis 1 (SH1), it was proposed to analyse whether there is a significant relationship between prices above the competition and prices equal to the competition in fast-food chains in Callao, in the year 2025. The corresponding specific objective (SO1) was to determine said relationship. Through the Spearman correlation test, a p-value less than 0.05 was obtained ($p < .001$), which allowed rejecting the null hypothesis (Ho). The correlation coefficient between both dimensions was 0.644, indicating a positive correlation of moderate magnitude. This supports the existence of a direct relationship between prices above the competition and prices equal to the competition in the fast-food chains analysed, accepting hypothesis SH1 as valid.

The reviewed authors agree that setting prices above the market average can be an effective strategy, provided it is supported by factors such as perceived value, product quality, and brand positioning. Hossain et al. [10] argue that premium prices are justified when companies guarantee high quality standards and adapt to market dynamics and cultural preferences, as demonstrated by the case of the Glazed brand, which maintains high prices despite strong competition. For his part, Tahat [11] concludes that value-based strategies—even if they involve high prices—tend to improve profitability, while opting for low prices can have a negative

effect. Villaseca [14] also demonstrates a positive relationship between premium prices, quality perception, and purchase intention, especially among consumers of high socioeconomic status, which validates the use of premium pricing strategies targeting specific market segments. These studies support the conclusion that companies can alternate between market-level pricing strategies and premium pricing strategies, as long as these are aligned with consumer perceived value and respond to the conditions of the competitive environment. This reinforces the empirical results obtained in the present study and validates hypothesis HE1.

From a theoretical perspective, it can be noted that Bertrand's theory is partially applicable in this context. Although this theory assumes competition focused exclusively on price, as evidenced by the significant relationship between above-competitive prices and prices at the same level as the competition, business practice shows that companies do not always compete solely by reducing prices. Rather, they incorporate elements of monopolistic competition theory, such as differentiation through quality, brand, or service, which allows them to maintain prices like or even higher than those of their competitors. This indicates that Bertrand's classic model does not fully reflect the strategic complexity of the fast-food market in Callao, where pricing decisions are influenced by both perceived value and contextual and positioning factors.

Specific hypothesis 2 (SH2) aimed to analyze whether there is a significant relationship between prices above the competition (PAC) and prices below the competition (PBC) in fast-food chains in Callao during the year 2025. The corresponding specific objective (SO2) was to determine this relationship. Using Spearman's correlation coefficient, a p-value of less than 0.05 ($p < .001$) was obtained, allowing the null hypothesis (Ho) to be rejected. The result was a coefficient of 0.542, indicating a positive correlation of medium magnitude between both dimensions. Consequently, it is concluded that there is a direct relationship between prices above and below the competition and working hypothesis SH2 is validated as true.

The reviewed background provides theoretical and empirical foundations that support this relationship. Hossain et al. [10] and Tahat [11] agree that an effective pricing strategy must reflect the value perceived by the consumer to achieve greater profitability and maintain competitiveness. Along these lines, Hossain et al. highlight examples such as Bengal Meat and Glazed, brands that implement premium prices supported by product quality and solid positioning, which coincides with Smith's perspective, who suggests that strategic framing allows companies to differentiate themselves and reduce competition focused solely on price. On the other hand, studies such as those by Miñano and Santos [15], and again Hossain et al. [10] emphasize that strategies based on low prices, promotions or high-low pricing schemes have proven effective in attracting customers, increasing sales and adapting to specific situations such as economic crises or cultural particularities of negotiation. This evidence reflects that high and low pricing strategies are not mutually exclusive but can be part of a flexible and dynamic policy, adjusted to the context. In this sense, it is confirmed that both dimensions—PAC and PBC—can coexist within the same market strategy, depending on factors such as audience segmentation, the product life cycle, or competitive conditions. This approach coincides with that expressed by Hossain et al. [10] and Miñano and Santos [15], who argue that adaptive pricing, combining differentiated tactics according to the environment, can be more effective than a single policy.

The findings of this research also align with the theory of monopolistic competition developed by Chamberlin [17], which recognizes that, in markets with multiple suppliers, companies can compete not only on price but also on differentiating elements such as quality, brand, or service. This theory supports the coexistence of diverse prices within the same sector, as occurs in the Callao fast food market, where chains can choose to maintain high or low prices depending on their value proposition, thus empirically validating hypothesis HE2.

Specific hypothesis 3 (SH3) aimed to determine whether there is a significant relationship between competitive prices and prices below the competition in fast-food chains in Callao during the year 2025. The corresponding specific objective (SO3) was to analyse this relationship. Applying Spearman's correlation coefficient, a p-value of less than 0.05 ($p < .001$) was obtained, which allowed us to reject the null hypothesis (H0). The result showed a correlation coefficient of 0.470, indicating a low-intensity positive correlation. Therefore, it is inferred that there is a direct relationship between competitive prices and prices below the competition, validating working hypothesis SH3.

The background information reviewed agrees that strategic pricing is a determining factor in demand, competitiveness, and commercial performance. Miñano and Santos [15] pointed out that, in the fast-food sector, promotions and low prices, combined with prompt service, are effective in increasing sales. In contexts of more limited competition, He and Ma [12], as well as Zheng and Yu [13] concluded that market structure and the interaction between price, quality, and profit distribution are key in the formulation of pricing strategies. He and Ma identified a tendency to match prices and quality in highly competitive environments, while Zheng and Yu highlighted that maintaining prices like those of the market can have different effects depending on the level of competition and entry costs.

Although the correlation between the two dimensions is not strong, a significant connection is recognized between equal prices and prices below the competition. This relationship is consistent with the arguments of Zheng and Yu [13], who emphasize the strategic utility of matching prices in contexts of intense competition, as well as with the observations of He and Ma [12], who recorded price-matching behaviours in response to market pressure. While the below-competitive pricing strategy may be linked to the logic of Bertrand's theory—which is based on competition focused

exclusively on price—its coexistence with the price-matching strategy suggests that the behaviour of the fast-food market in Callao is closer to the postulates of Chamberlin's theory of monopolistic competition [17]. This theory recognizes that, in markets with differentiated products, companies have a margin of freedom to set their prices, without necessarily implying a price war. Therefore, the market reflects a more complex dynamic, where pricing decisions respond to both business strategy and the conditions of the competitive environment, which empirically supports the validity of HE3.

V. Conclusions

1. It was established that the relationship of price competition with the interaction of the dimensions had more percentage association between prices above competition and prices equal to competition (41.47%); likewise, there was an association of 29.38% between prices above competition and prices below competition and; the lowest percentage association was between prices equal to competition and prices above competition (22.09%) generated in the price competition in fast food chains, Callao, 2025.
2. Statistically significant correlation of 0.644 (average positive correlation) was determined between prices above competition and prices equal to competition in fast food chains, Callao, 2025.
3. Statistically significant correlation of 0.542 (average positive correlation) was determined between prices above competition and prices above competition in fast food chains, Callao, 2025.
4. Statistically significant correlation of 0.470 (weak positive correlation) was found between prices equal to competition and prices above competition in fast food chains, Callao, 2025.

VI. Recommendations

First: It is suggested that managers of fast-food companies implement strategies based on clear objectives and aligned activities, using a competitive pricing model focused on the value perceived by the customer.

Second: It is suggested to managers to enhance and communicate differentiating attributes in the products that increase their value compared to the competition, as well as to improve the common product proposal through innovations in its presentation, packaging or complementary services.

Third: It is suggested that the manager generate a brand experience at the point of sale that makes the customer feel valued and unique, as well as adjust prices dynamically according to supply and demand to improve profitability and competitiveness.

Fourth: It is suggested that the manager personalize customer service to reinforce customer loyalty and preference, and differentiate the value proposition beyond price, highlighting elements such as service, quality and shopping experience.

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