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# Determinant factors of competitiveness for the positioning of the artisanal sector

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### Abstract

The purpose of this research was to understand the competitiveness factors that determine the positioning of the artisanal sector in a Peruvian city. The methodology used in the study followed a quantitative and explanatory approach, based on the analysis of relationships between variables through Structural Equation Modeling (SEM) to analyze the relationship between latent and observable variables. The population consisted of 82 artisans from the Lima Region of Peru, who were administered a 15-item Likert-scale instrument. The study determined that business competitiveness is related to the positioning of the artisanal sector in the Lima Region ( $\beta$ =0.761), confirming that greater business competitiveness leads to better market positioning. In this context, customer negotiation ( $\beta$ =0.024), the presence of substitute products ( $\beta$ =0.375), the emergence of new competitors ( $\beta$ =0.329), and the presence of current competitors ( $\beta$ =0.281) are significant determining factors that suggest the success of the artisanal sector. On the other hand, the explained variance (R²) for business competitiveness is 0.602, which means that 60.2% of its variability is determined by the variables in the model. Competitive positioning, for its part, has an R² of 0.578, indicating that 57.8% of its variability depends on business competitiveness, thus reinforcing their close relationship. This implies that the growth of the sector does not depend solely on creative talent or tradition, but on a business vision that allows anticipating market dynamics and differentiating itself in a constantly evolving competitive environment. Likewise, the sector must guarantee competitive prices for raw materials and strengthen the global handicraft value chain.

Keywords: Artisans, Competitiveness, Handicrafts, Positioning.

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**Transparency:** The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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### 1. Introduction

Competitiveness is a fundamental component for the growth of a country's economic sectors [1], and companies are not immune to this; they are seeking to improve their business capacity to allocate resources aimed at developing competitive advantages [2].

Currently, competitiveness depends on the productivity of its labor, capital, and natural resources for the production of high-quality goods and services. For this, it is necessary to have educated, safe, healthy workers with an adequate quality of life, motivated by a sense of opportunity [3]. Thus, access to training programs in management, marketing, and the use of digital technologies strengthens the capacities of artisans, improving performance in the market [4]. Likewise, it is argued that organizations that are successful in business not only show interest in obtaining profits but also place special emphasis on the needs of the stakeholder group, becoming more competitive organizations and resistant to the changes of an increasingly globalized world [5].

The so-called business competitiveness is derived from competitive advantage and its adaptation and innovation strategies [6]. Both are necessary conditions for the survival of companies, which constantly face new opportunities that generate changes, forcing them to promote an innovative culture that offers the possibility of adapting to new circumstances and market demands through a transformative idea based on the recognition of a need [7]. In this sense, the capacity for innovation in techniques, materials, and designs allows differentiation of handcrafted products and responsiveness to market trends, contributing to the creation of unique pieces with high added value [8].

#### 2. Literature Review

Crafts are recognized as a cultural and economic activity, part of the collective cultural identity of peoples, passed down from generation to generation. They involve a series of activities to create pieces, using mechanical means, but always emphasizing the artisan's handwork, which constitutes added value.

In Peru, the craft activity plays an important role in the economy, involving around 76 thousand artisans who generate income for their homes through the production and marketing of their craft pieces [9], highlighting the regions of Cusco (17.27%), Puno (10.94%), and Lima (8.74%) with greater participation in the market [10]. However, like any economic activity, the craft sector faces significant challenges due to the context in which it is located: a demanding, changing, globalized, and industrialized environment where craft pieces tend to compete with mass production and synthetics [11, 12]. This situation evidences an inefficient specialization process within the sector, an insufficient budget for investment that favors research and innovation of processes and products, the loss of ancestral techniques, the disuse of natural products in the development of craft pieces, and an inefficient choice of marketing channels for both the domestic and foreign markets, despite the growing recognition of the value of crafts and fair trade. Therefore, the integration of artisans into e-commerce platforms, participation in fairs, and retail sales offers more sales opportunities, strengthening their presence in local and international markets [13].

Meanwhile, it is important to consider the level of global exports and sales of our crafts to tourists. In the first scenario, tourism not only promotes tangible goods but also encourages the export of culture. Tourists experience traditions, gastronomy, and handicrafts, and this generates an international trade relationship [14]. Exchanges facilitate the creation of national brands recognized in foreign markets and promote cultural exchange. This is beneficial for all types of economies, and in our case, "Marca Perú" is the most recognized in the world today. In this regard, the certification of handicraft products provides greater credibility and confidence to consumers, where seals of quality and origin can be key elements for the competitiveness of the sector [15].

In 2021, handicraft exports grew to \$41 million, reaching a peak of \$65 million in 2012. After the pandemic, people made space in their homes to decorate and keep useful souvenirs. Taking advantage of an economic rebound, the sector developed; however, much remains to be done [16].

Peru exports handicrafts as a result of tourism, first to the United States, then to Spain, Chile, Germany, and Switzerland. In 2022, sales exceeded pre-pandemic levels by \$2.2 million; however, growth has not been constant. Among the most exported handicrafts are paintings and basketry (woven) items, followed by sculptures and other products. It should be noted that the instability in growth is due in the first instance to the poor positioning of the products, both in the tourism sector and in the export market, adding to the poor distribution channels, where many handicraft producers depend on informal means that limit their reach and competitiveness [17].

Once again, a drop was reflected in the year 2023 due to a dependence on exports to the United States, which is the main consumer of our crafts among the 42 destinations in the country. However, the resilience of Peruvian artisans is worthy of recognition, who, despite the difficulties, seek to overcome the challenges and improve their results [18].

For its part, the Handicraft Committee of the Association of Exporters (Adex) indicates that Peruvian handicrafts possess great artistic value and are widely used worldwide. This implies the need to strengthen the capacities of artisans, involving them in the development of business models that offer novelty, quality, and artistic added value for the benefit of the customer [19].

It should be noted that the competitive context of a sector presents four interrelated elements that impact potential productivity: the conditions of the factors of production, demand conditions, the context of strategy and rivalry, and related and supporting industries. These must be strengthened; otherwise, they could erode the competitiveness of a nation or region as a place of business [3].

In other words, competitiveness determines the success or failure of any organization and establishes the most convenient activities for its performance, such as innovation, cohesive culture or its adequate implementation, thus emerging explicit and implicit competitive strategies, the same one that seeks a favorable position within a sector and whose focus should be

towards the environment that competes in the market. In this regard, there are countries such as Mexico, where information is taken from the commercial information system and statistics to be able to identify the production areas by type of production of handicrafts for export, and even electronic sales, in this way the countries with the greatest acceptance of the purchase of handicrafts and trends until 2030 are identified, considering the needs of the client and the enhancement of the cultural value to be exported [20].

Therefore, Porter's competitive vision points out that the organization's strategies are limited by the situation of the environment, urging attention to the basis of the competitive strategy, which analyzes the 5 forces of competitiveness: a) Rivalry between existing companies, b) Potential entry of other companies, c) Threat of substitute products, d) Bargaining power of suppliers, e) Bargaining power of customers [21]. and for the transformation of a business to be effective, there must be a shared vision divided into different success factors or different milestones that lead to final success [22]. On this, eight factors of business success were found, which are the external environment, market accessibility, business quality, human resources and market support by the government in terms of pricing, delivery and service [23] which were reaffirmed and are considered as determinants of business success, requiring a competitive vision [24].

In this regard, the organization's strategies are limited by the situation of the environment, urging attention to the basis of the competitive strategy, which analyzes the 5 forces of competitiveness: a) rivalry between current companies, b) potential entry of other companies, c) threat of substitute products, d) bargaining power of suppliers, bargaining power of customers [21].

# 3. Materials and Methods

The methodology used in the study followed a quantitative and explanatory approach, based on the analysis of relationships between variables through Structural Equation Models (SEM) to analyze the relationship between latent and observable variables. The population consisted of 82 artisans from the Lima Region in Peru, to whom an instrument consisting of 15 items measured on a Likert scale corresponding to the latent variables: Bargaining Power of Customers (BC), Bargaining Power of Suppliers (BS), Threat of Substitute Products (SP), Threat of New Entrants (NE), Competitive Rivalry within an Industry (CI), Corporate Competitiveness (CC), and Competitive Position (CP) was applied. Data processing, such as the reliability test based on Cronbach's alpha coefficient, the first components factor analysis for the analysis of convergent validity at an exploratory level, and descriptive statistics, were processed using IBM SPSS Statistics software®, and to validate the structural model and hypotheses, were processed using SmartPLS software®.

Table 1.

Latent and observable variables

No.	Variable	Variable	Ítems		
	observable	latente			
1	Satisfaction of needs	BC1	I create handicrafts according to the needs and preferences of my clients.		
2	Profitability	BC2	The price at which I sell my handmade products allows me to make a good profit.		
3	Prices	BS1	I manage to get good prices when I buy raw materials, allowing me to make higher profit.		
4	Conditions of purchase	BS2	I managed to obtain good conditions in the purchase of raw materials to produce the handicrafts and make more profit.		
5	Risk	SP1	Products similar to my handicrafts are not a risk for my business.		
6	Price	SP2	Products similar to my handicrafts have a more affordable price compared to the price of my handicrafts.		
7	Product differentiation	SP3	In the presence of products similar to my handicrafts, I have sought ways to differentiate myself from others.		
8	Product quality	NE1	I believe that new handicraft businesses have more customers because they offer better quality handicrafts at a better price.		
9	Sale of products	NE2	I believe that new handicraft businesses do a better job of promoting their handicraft products to attract more buyers.		
10	Customer acceptance	CI1	I consider my competitors to be more popular with customers than my business.		
11	Product quality	CI2	The existing competition drives me to improve the quality of my handmade products.		
12	Design	CC1	I look for and make new design proposals for my handicrafts according to the client's needs.		
13	Market trends	CC2	I make it a point to know the latest design trends and colours for handmade products.		
14	Positive reactions	CP1	I perceive that my handicrafts generate positive reactions among customers.		
15	Good image	CP2	I consider that the handicrafts I sell have a good image in the market.		

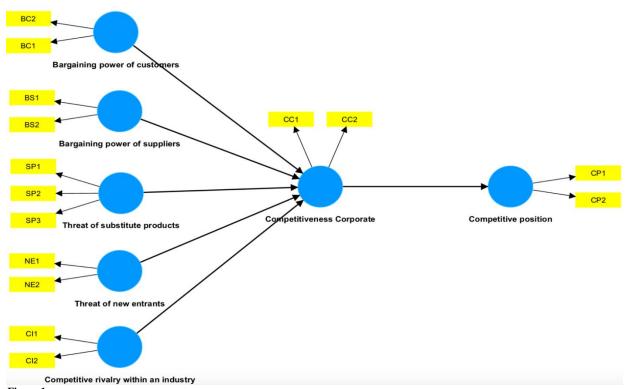


Figure 1.
Theoretical model of business competitiveness and competitive positioning.

Figure 1 explains the theoretical model of business competitiveness in the artisanal sector. It is based on Porter's five forces, which define the competitive environment and market dynamics in which artisans in the Lima Region operate. Through this approach, it is possible to understand how the structure of the artisanal sector impacts its ability to differentiate itself and consolidate its market position.

# 4. Results

## 4.1. Reliability of the Measuring Instrument

Table 2 shows the reliability results of the constructs, verifying the construct "negotiation with customers" with a Cronbach index of 0.791, "negotiation with suppliers" with an index of 0.916, "substitute products" with an index of 0.955, "new competitors" with an index of 0.959, "current competitors" with an index of 0.742, "business competitiveness" with an index of 0.969, and "competitive positioning" with an index of 0.938. Therefore, the data quality of each of the variables is acceptable.

**Table 2.** Reliability test.

Construct	Alfa de Cronbach		
Bargaining power of customers	0.791		
Bargaining power of suppliers	0.916		
Threat of substitute products	0.955		
Threat of new entrants	0.959		
Competitive rivalry within an industry	0.742		
Competitiveness corporate	0.968		
Competitive position	0.938		

**Table 3.**Validez convergente de variables latentes - Índices KMO-Meyer-Olkin y average variance extracted (AVE).

Constructo	Índice KMO-Meyer-Olkin (KMO > 0.50)	Average variance extracted (AVE > 0.55)
Bargaining power of customers	0.500	82.76
Bargaining power of suppliers	0.500	92.23
Threat of substitute products	0.766	91.75
Threat of new entrants	0.500	96.07
Competitive rivalry within an industry	0.500	79.56
Competitiveness corporate	0.500	96.91
Competitive position	0.500	94.20

Table 3 shows the results of the exploratory factor analysis of the latent variables, whose KMO-Meyer-Olkin indices were greater than or equal to 0.50. The results indicate that most constructs have a KMO of 0.500, which signifies an acceptable minimum threshold. However, only the construct "substitute products" demonstrates a higher value (0.766), indicating a better suitability of the data for the factor analysis.

On the other hand, the Average Variance Extracted (AVE) of all constructs present very high AVE values (greater than 79.56), which indicates that the items explain the variance of each construct well and that the model has good convergent validity.

## 4.2. Structural Model and Validation of Hypotheses

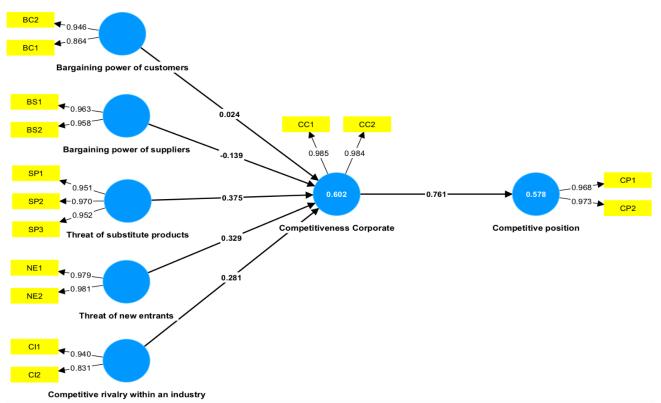


Figure 2. Structural model of enterprise competitiveness and positioning.

In Figure 2, the structural model of business competitiveness and positioning is observed, where it is explained that negotiation with customers shows a marginal effect on the competitiveness of the artisan sector ( $\beta$ =0.024), while negotiation with suppliers can negatively affect competitiveness ( $\beta$ =-0.139). Likewise, substitute products encourage artisans to improve their competitiveness ( $\beta$ =0.375), while the emergence of new competitors forces them to strengthen their competitive strategy ( $\beta$ =0.329), and current competitors encourage them to improve competitiveness ( $\beta$ =0.281). Finally, a strong and positive relationship is identified between business competitiveness and competitive positioning ( $\beta$ =0.761), confirming that the greater the business competitiveness, the better the market positioning.

On the other hand, an explained variance ( $R^2$ ) for business competitiveness of 0.602 was obtained, indicating that 60.2% of the variability in the competitiveness of the artisanal sector is explained by the independent variables of the model, while the  $R^2$  for competitive positioning of 0.578 indicates that 57.8% of the variability in competitive positioning is explained by business competitiveness, reinforcing the strong relationship between these two constructs. However, there are other factors that were not determined by the model that also influence the positioning of the artisanal sector.

**Table 4.** Hypothesis testing of variables.

Нуро	othesis	T (<1.96)	P-value	Hypothesis validation
H1	Negotiating with customers -> Business competitiveness	0.222	0.824	Rejected
H2	Negotiating with suppliers -> Business competitiveness	0.744	0.457	Rejected
Н3	Substitute products -> Business competitiveness	1.962	0.050	Accepted
H4	New competitors -> Business competitiveness	1.500	0.134	Rejected
H5	Existing competitors -> Business competitiveness	1.964	0.049	Accepted
Н6	Business competitiveness -> Competitive positioning	9.746	0.000	Accepted

Table 4 shows the significant values less than 0.05 with Student's t-test values greater than 1.92, with the exception of the constructs negotiation with clients and business competitiveness, negotiation with suppliers and business competitiveness, and new competitors and business competitiveness; for this reason, these hypotheses were rejected. However, the rejected hypotheses leave us with some proposals that should be reviewed and analyzed for better management in favor of artisans, tourists, and potential foreign clients.

#### 5. Discussion

This work finds some coincidences in its results as significant differences between research, statistical reports and theoretical positions. In this regard, Negotiation with customers and the competitiveness of crafts urgently require capacity building actions for artisans to develop products with cultural meaning and quality, it is remembered that customers want to pay a lower price, but they also recognize quality [19] For its part, in terms of negotiation with suppliers and their competitiveness, there is no balance in price management and especially in those raw materials that allow a significant production of crafts, suppliers always want to earn more, but they must have some limitation [23].

Regarding substitute products, the results are significant and it is highlighted that the quality of the craftsmanship and its massification are not the priority in its purchase as a souvenir, since what is expected is the mixture of the manual technique with the materials [11]. Regarding the new competitors, this is made more evident by the search for new forms of self-sufficiency, however, they do not survive due to their lack of ancestral experience, this even in recent times has shown a drop in sales due to COVID and the economic crisis [16, 18].

On the contrary, current competitors who are strengthened by family participation, techniques, and experience to survive may be the subject of another complementary investigation. In business competitiveness and positioning, the results are evident in the recognition of handicrafts worldwide, and sales projections can be made electronically, as in the case of Mexico [20].

### 6. Conclusions

Handicrafts are distinguished by their quality and authenticity, factors valued by a niche market seeking unique, handmade products. However, this is not associated with competitiveness because customers lack an understanding of the transfer of culture. Negotiating with suppliers involves considering raw materials at a realistic price while maintaining quality and preserving their pure nature; however, this is not associated with competitiveness because the origin or value of the raw materials is not valued. According to the data obtained, it is essential for artisans to pay special attention to substitute products entering the market, as many of them can displace handicrafts due to their similarity and the fact that they meet a simple decorative need. Taking advantage of an effective marketing mix, which must be addressed, is crucial. New competitors apparently do not all survive due to experienced competitors who do not yet manage prices because of installation costs and take time to learn the family-passed trade. Furthermore, studying current competitors is a determining factor for the competitiveness of the artisan sector in the Lima Region. Knowing their price, location, promotion, and presentation will give us a better chance of gaining greater market share in the local and international markets. As with any business endeavor, business competitiveness has quality standards that allow it to maintain its competitive position.

## 7. Implications

Artisans must be willing to innovate their products, adapting to market demands, maintaining high-quality standards, and preserving the authenticity of their techniques and materials, as well as the history and customs behind each craft. Suppliers must be selected and incorporated into the production chain after conducting a historical analysis of the local market by season and region. Therefore, artisans must be willing to innovate their products, adapting to market demands, maintaining high-quality standards, and preserving the authenticity of their techniques and materials. Consequently, artisans need to develop effective product and e-marketing strategies for local and international trade, taking advantage of state initiatives such as PROMPERU, and branding that communicates the history and value of their products in Latin America through the CAN (Association of Autonomous Communities) or the Pacific Alliance, Mercosur, the European Union, BRICS, and other ICTs. It is possible to form alliances with direct competitors to fulfill orders for large export volumes or international fairs or local clusters. Artisans must find a balance between maintaining their traditional methods and adapting to modern trends in design, functionality, and sustainability.

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