


## Business networks, a key element to promote the growth of artisans in the Mixteca Oaxaqueña region

### *Redes empresariales, elemento clave para impulsar el crecimiento de artesanos de la región Mixteca Oaxaqueña*

✉ María del Rosario Barradas Martínez\* 

✉ Gabriela Pérez Cruz<sup>1</sup> 

✉ José Rodríguez Lázaro<sup>1</sup> 

#### Abstract

Business networks as an associative strategy represent an option to promote business development and growth, companies of the same turn join efforts and interests to create competitive advantages; through the transmission of knowledge among the members of the organizations their technical and management skills are improved. The objective of this quantitative, descriptive and transactional research is to analyze the conditions and characteristics of the artisans of the Mixteca Oaxaqueña region to integrate a business network; and investigate the appropriate methodology for their integration. The case study method was applied to study the problem in depth. The results indicate that the creation of a business network among the artisans of the Mixteca Oaxaqueña region will promote greater collaboration and joint promotion, which will allow them to enter potential markets with greater competitiveness. The skills and competences they demonstrate to produce a wide range of artisanal products will allow them, together, to attract a greater number of customers and contribute to the generation of economies of scale. In the integration of the business network, five phases were proposed: network identification; trust relationships; monitoring, evaluation and autonomous management; strategic planning; and the pilot project.

**Keywords:** Business network, artisans, business development, associative strategy

#### Resumen

Las redes empresariales como estrategia asociativa representan una opción para promover el desarrollo y crecimiento empresarial, donde empresas del mismo giro unen esfuerzos e intereses para crear ventajas competitivas; mediante la transmisión de conocimientos entre los integrantes se mejoran sus habilidades técnicas y de gestión. El objetivo de esta investigación cuantitativa, descriptiva y transeccional consiste en analizar las condiciones y características de los artesanos de la región Mixteca Oaxaqueña para integrar una red empresarial; e investigar la metodología apropiada para su integración. Se aplicó el método estudio de caso, para estudiar a profundidad la problemática. Los resultados indican que la creación de una red empresarial entre los artesanos de la región Mixteca Oaxaqueña impulsará una mayor colaboración y promoción conjunta, que les permitirá incursionar en mercados potenciales con una mayor competitividad. Las habilidades y competencias que manifiestan para la producción de una gran diversidad de artesanías les permitirá en conjunto, captar un mayor número de clientes y contribuir en la generación de economías de escala. En la integración de la red empresarial se propusieron cinco fases: identificación de la red; relaciones de confianza; monitoreo, evaluación y gestión autónoma; planificación estratégica; y el proyecto piloto.

**Palabras Clave:** red empresarial, artesanos, crecimiento empresarial, estrategia asociativa

<sup>1</sup>Universidad Tecnológica de la Mixteca, Huajuapán de León, México.

\* Corresponding author

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## Introduction

Due to the growing and changing challenges that companies face in the market, as well as the rapid changes in demand and technology, leaders must rethink their competitive actions. From this perspective, business networks constitute a viable associative strategy for those companies seeking to enhance their competitiveness in the market through new forms and strategies of joint organization, increasing opportunities for individual and collective growth (Parrales-Reyes et al., 2022).

A business network is “a collaboration agreement among independent companies that agree to carry out, in a collaborative manner, a set of activities in order to achieve a common objective” (Wegner, 2021, p. 23). Networks emerge from the need for participants to remain in the market and strengthen their competitiveness, because the pooling of efforts contributes to the achievement of collective goals without losing their particular interests (Barradas & Rodríguez, 2022). According to Dini (2010), they are characterized by three key elements: positive identification as a group, a shared strategic goal, and a mechanism for decision-making.

In this context, business networks constitute a highly relevant associative strategy for microenterprises, since by bringing together a group of small entrepreneurs who cooperate with one another, knowledge is shared, their technical and managerial skills are improved, and they gain enrichment in technical knowledge without the need to lose their legal independence (Barradas & Rodríguez, 2022).

Other benefits obtained from joining a business network include greater efficiency in administrative, financial, and commercial processes, the generation of sustainable competitive advantages, and the achievement of a new way of competing in the market (Vélez et al., 2019). Nevertheless, strict care must be maintained because, just as the advantages are highlighted, it must also be noted that a lack of cooperativism, knowledge gaps, and inefficiency in long-term planning may lead to failure (Pérez, 2020).

To compensate for this disadvantage, it is necessary to define values, goals, and standards that facilitate the functioning of the network. In this regard, Becerra (2008) points out that the establishment of these elements facilitates the competitiveness and cooperation of all participants.

Business networks, as an associative strategy, are a viable option for artisans in the Mixteca Oaxaqueña region of Mexico. Because artisanal activity, like many other non-essential sectors of the Mexican economy, recorded a decline in its activities and sales during the COVID-19 pandemic due to the lockdown measures implemented by the health authorities to contain the spread of SARS-CoV-2 (Albarrán, 2020), artisans in the Mixteca Oaxaqueña region were no exception; they were also substantially affected because they lost the points of sale to which they had access, fairs and events they used to attend were canceled, and therefore there was no space to sell their products. Faced with this situation, they found themselves in need of resorting to barter in order to acquire basic necessities and to selling their products at a much lower price, which affected their economy.

The business network promotes business growth within the sector in which it is established, given that companies in the same line of business join efforts and interests to create advantages over larger and better-established companies. Business growth is a fundamental part of the decisions made in a company’s planning and programming process, as it involves the accumulation of resources, knowledge, and the demand for needs (García & Taboada, 2012). The greater the knowledge possessed by the members of the network, the greater the efficiency; this leads to better results for their companies and, consequently, greater business growth (Carmona et al., 2020).

It is important to consider that growth is a state of constant change; it is the process, not the goal, and efforts should be made to improve the company’s position as it evolves. It is not solely a matter of physical or economic expansion; it is also considered that, by making it a daily practice, greater resilience is achieved to face the externalities that affect it (Arreguin & Arreguin, 2020).

“The role of the artisan sector plays an important part in the economy of the state of Oaxaca; with its support, value chains are developed and strengthened in order to generate greater benefits for the state.” (Government of the State of Oaxaca, 2021, para. 12). In this regard, the importance of carrying out this research is highlighted, as its objective is to analyze the conditions and characteristics of the artisans of the Mixteca Oaxaqueña region in order to integrate a business network, as well as to propose the phases for its integration.

Con la integración de una red empresarial, se busca que los artesanos generen ventajas competitivas, creación de economías de escala y relaciones sólidas entre los integrantes. También, dentro de esta propuesta se plantea que esta impulse el crecimiento empresarial con el fin de potenciar los beneficios de sus integrantes.

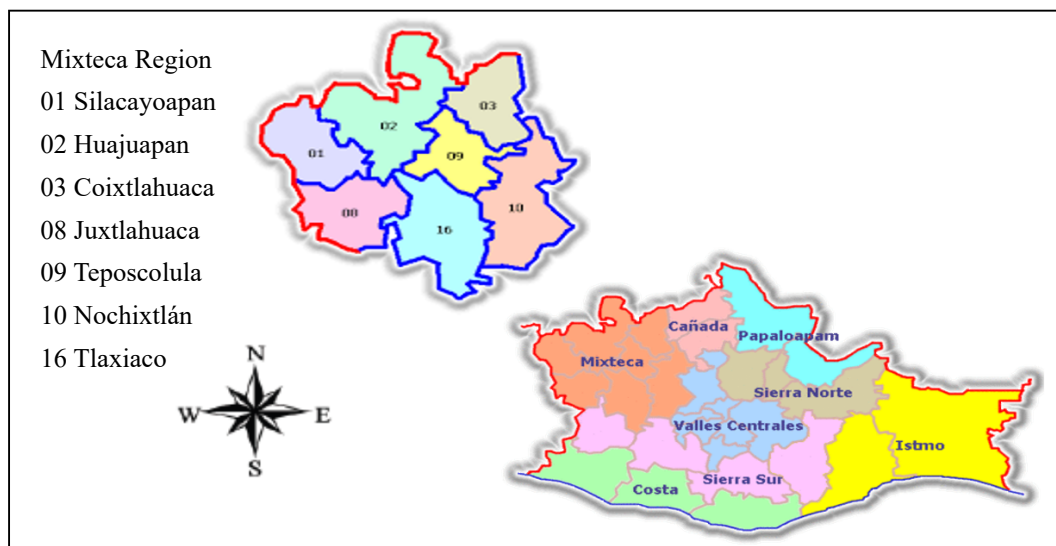
## Methodology

### 2.1 Study Region and Design

The Mixteca region is located in the northwest of the state of Oaxaca. It has a population of 496,601 inhabitants and is made up of 155 municipalities divided into seven districts: Silacayoapan, Huajuapán, Coixtlahuaca, Juxtahuaca, Teposcolula, Nochixtlán, and Tlaxiaco (see Figure 1). The municipality with the greatest presence is Huajuapán de León, which is the municipal seat of the region. The main economic activities are trade and direct services, which together account for 80.5% of participation, followed by secondary activities, with mining, manufacturing industries, and electricity accounting for 19% of participation (General Coordination of the State Committee for Planning the Development of Oaxaca

Figure. 1

Location of the Mixteca region and its districts



Note. The figure refers to the eight regions that make up the state of Oaxaca, in addition to the seven districts that comprise the Mixteca Oaxaqueña region. Adapted from <http://7regionedesoaxaca.blogspot.com/2012/10/mixteca.html>

The Mixteca is an area with the highest number of municipalities with migratory flows and ranks first at the state level in migration (Villareal, 2023); it also faces high levels of social lag associated with marginalization. According to figures from the National Population Council [CONAPO] (2021), this region has the highest number of municipalities with some degree of marginalization: 46 are classified as very high, 48 as high, and 59 as medium. Therefore, it is of vital importance to design actions that make it possible to achieve economic and social development for the inhabitants of this region.

Among commercial activities, the most predominant are retail trade, temporary accommodation services and food and beverage preparation services, and other services (National Institute of Statistics and Geography [INEGI], 2023).

The quantitative, descriptive, and cross-sectional research was based on the case study, an empirical research method used to “determine the how and why of phenomena that contributes to understanding phenomena in a holistic and real-life context” (Alpi & Evans, 2019, p. 2), “using multiple sources of evidence, quantitative and/or qualitative simultaneously” (Villareal & Landeta, 2010, p. 32).

To achieve the objective, first, documentary research was conducted in order to identify the phases involved in the integration of a network; subsequently, field research was carried out to identify key elements regarding the creation of a business network among artisans in the Mixteca Oaxaqueña region.

The instrument used to collect the information was the survey, which was divided into two parts: the first contained general information about the artisans, and the second was constructed with 38 items with dichotomous response options, as well as open-ended questions, through which key elements for the integration of the network were analyzed, such as awareness-raising, availability of resources, and elements related to business growth.

To validate the instrument, expert judgment was used, whereby individuals with experience in the subject participated by incorporating necessary information into the instrument and suggesting the elimination of those items that were irrelevant, in addition to supporting the wording in order to avoid redundancy (Perales, 2018), all with the purpose of “assessing the quality, coherence, and relevance of the instrument” (Flores & Terán, 2022, p. 221). In this case, four experts in the subject and two in methodology participated.

In determining the population, the information provided by the Honorable City Council of the city of Huajuapán de León was used, together with a database from the National Institute of Indigenous Peoples (INPI). The total number of artisans quantified in both databases, after analyzing the information, resulted in a total of 73. For the sample calculation, the finite population equation was used (Hernández-Ávila & Capió, 2019), where the Z confidence interval was 95%, with an estimation error of 5%, a favorable probability of  $p = 50\%$ , and an unfavorable probability of  $q = 50\%$ , yielding a sample of 41 artisans.

$$n = \frac{Z^2 N * p * q}{e^2 (N-1) + Z^2 * p * q}$$

$$n = \frac{.95^2 * 73 * .50 * .50}{.05^2 (73-1) + .95^2 * .50 * .50} = \frac{16.470625}{.405625} = 41 \text{ artisans}$$

Data collection was conducted face to face during the period from October 6 to November 2, 2023.

## Results

Based on the analysis of the information, it was identified that 22% of the artisans are in the age range of 31 to 35 years, followed by 15% who are between 26 and 30 and 36 and 40 years old. Regarding gender, it was identified that 68% of the people engaged in this activity are women. In addition, 39% have completed high school, 21% completed a bachelor’s degree, and only 6% have a primary education level; moreover, two artisans mentioned that they completed a technical degree program (see Table 1).

**Table N°1**

*Profile of the artisans participating in the study*

Criterion	Frequency	Percentage
<b>Age</b>		
25 and younger	3	7%
26-30	6	15%
31-35	9	22%
36-40	6	15%
41-45	2	5%
46-50	5	12%
51-55	5	12%
56-60	3	7%
61 and older	2	5%
<b>Total</b>		<b>100%</b>



<b>Sex</b>		
Male	13	32%
Female	28	68%
<b>Total</b>		100%

<b>Level of education</b>		
Primary education	6	15%
Secondary education	8	19%
High School	16	39%
Bachelor's Degree	9	22%
Other	2	5%
<b>Total</b>		100%

Of the total number of participants in the study, only 27% are registered with the Tax Administration Service (SAT), while the remaining 73% remain in the informal sector. This situation is generally attributed to a lack of knowledge about tax matters and the benefits of formally establishing themselves as a business. Regarding place of residence, it was identified that 85% reside in the city of Huajuapán de León, and the rest are located in the municipalities or localities of the Mixteca Oaxaqueña region (see Table 2).

**Table N°2**

*Artisan activities*

<b>Criterion</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Years spent on artisan work</b>		
1-10 years	23	56%
11-20 years	10	25%
21-30 years	6	15%
31-40 years	1	2%
41+ years	1	2%
<b>Total</b>		100%
<b>Number of people working in the business</b>		
1-2	32	78%
3-4	5	12%
5-6	4	10%
<b>Total</b>		100%
<b>Artisans registered with the SAT</b>		
Si	11	27%
No	30	73%
<b>Total</b>		100%
<b>Place of residence</b>		
Huajuapán de León	35	86%
Magdalena Peñasco	3	8%
El porvenir, Quijaltepec	1	2%
San Miguel, Copala	1	2%
Tlaxiaco	1	2%
<b>Total</b>		100%



In relation to the handicrafts produced by the respondents, it was found that palm products have the greatest presence at 19%, followed by jewelry at 12%; traditional clothing and embroidery account for only 9%. Regarding the place where they sell their handicrafts, 32% reported that they do so at fairs, 27% have their own shop, while 23% indicated that they do not have a fixed place and only use the internet as a means of selling their products (see Table 3).

**Table N°3**

*Production, commercialization, and perception of their activity*

<b>Criterion</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Handicraft they produce</b>		
Traditional clothing and embroidery	4	10%
Pottery and black clay	3	7%
Palm products	8	20%
Producer of organic foods	2	5%
Handmade notebooks and boxes	2	5%
<b>Continuation of Table 3</b>		
Mezcal and cured products	3	7%
Pictorial Art	3	7%
Traditional dolls	2	5%
Jewelry and costume jewelry	5	12%
Ixtle handicrafts	4	10%
Artisan ice cream	2	5%
Accessories for cacti and succulents	1	2%
Saddlery	2	5%
	<b>Total</b>	<b>100%</b>
<b>Place where they sell their handicrafts</b>		
Own business	16	27%
Market	8	14%
On the street	2	3%
Fairs	19	32%
Others	14	24%
	<b>Total</b>	<b>100%</b>

The artisans' future outlook was also explored. In this regard, 24% expect to have their own business; 19% expect to grow economically within their activity; 12% envision themselves exporting; and a minority see themselves with greater infrastructure or, in some cases, retired from the business.

Addressing the topic of business networks, the first questions raised concerned solidarity and experience within their activity. Sixty-three percent of the respondents have been part of a collective, and 92% state that they would be willing to be part of a group in which they interact with other artisans. With regard to support and guidance, 95% are willing to support other artisans so that they can strengthen their activity (see Table 4).

**Table N°4**

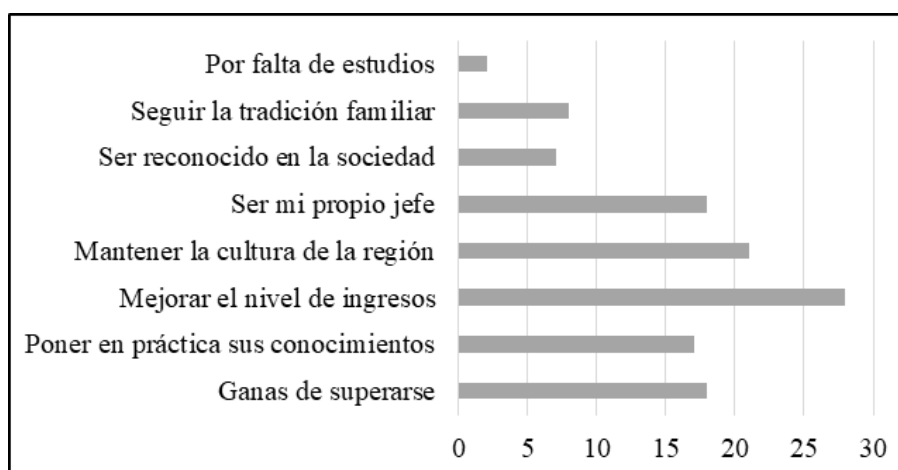
*Collaboration with other artisans*

Criterion	Frequency	Percentage
<b>Has been part of a collective of artisans</b>		
Yes	26	63%
No	15	37%
<b>Total</b>		100%
<b>Would be willing to share a sales space where they could interact with other artisans</b>		
Yes	38	93%
No	3	7%
<b>Total</b>		100%
<b>Would support another artisan in their artisanal activity</b>		
Yes	39	95%
No	2	5%
<b>Total</b>		100%

Among the reasons why they have remained in this activity, it was identified that the main ones are to improve their income level and to preserve the culture of the region. The foregoing information shows that artisans engage in this activity both out of interest and to generate income through the preservation of culture. Nevertheless, some respondents stated that the reason is their lack of formal education (see Figure 2).

**Figure 2**

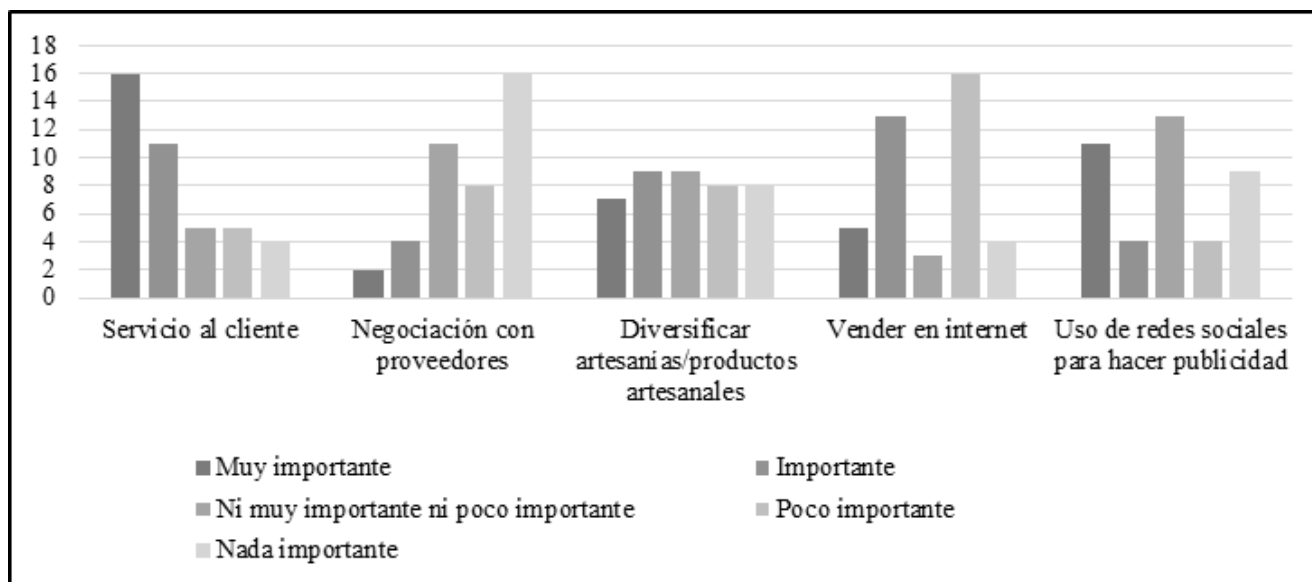
*Reasons for remaining in their artisanal activity*



Regarding the knowledge that artisans believe they need to improve in order to market their products, they indicate that it is necessary to strengthen customer service and use social media to advertise their handicrafts and, to a lesser extent, address negotiation with suppliers (see Figure 3).

**Figure 3**

*Knowledge that artisans need to improve in order to market their products*



This analysis made it possible to identify that more than 90% of the artisans are willing to share knowledge in order to improve their processes, in addition to obtaining a space for the sale of their products. Another important aspect found in this research is that all respondents are clear that the main advantage of forming networks is cost reduction and the generation of economies of scale.

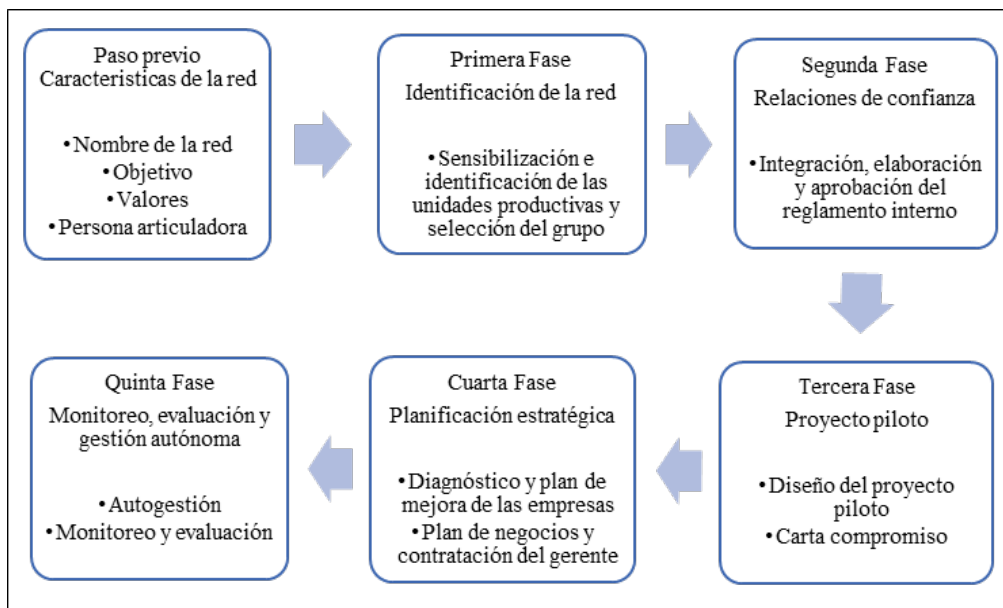
With regard to organizational growth, it was found that the respondents keep track of expenses and income, and they also consider that their profits have increased over the last five years. An essential aspect for artisans is knowing their competition; however, it was found that a significant percentage do not know who their main competitors are, which in the long run creates conflicts when selling their products.

With regard to their sales, the respondents indicated that the months with the highest level of sales are July, October, November, and December, because different institutions organize events and invite them to participate. As for financing, only one third have applied for a loan. Another aspect worth highlighting is that more than 50% of the artisans have a fund to cover emergencies or unforeseen situations arising from their activity.

Based on the review of the literature and the analysis of the information obtained from the survey, the proposal for a business network to promote the organizational growth of artisans in the Mixteca Oaxaqueña region was developed. This proposal is based on the methodology created by the United Nations Industrial Development Organization [UNIDO] (2008), which consists of five phases: network identification, which involves raising awareness and identifying the companies; building trust relationships, where the companies are integrated and the regulations are established; development of the pilot project, in which the network and the letter of commitment are designed; strategic planning, where a diagnosis, an improvement plan, and a business plan are prepared and the manager is hired; and finally, monitoring, evaluation, and autonomous management, in which self-management is assessed and the network is monitored and evaluated (see Figure 4), since the remaining phases involve the implementation of the idea.

Figure 4

Phases for the integration of a business network among artisans of the Mixteca Oaxaqueña region



Nota. The figure refers to the activities required in each of the phases to integrate the business network. Proposal based on UNIDO (2008).

It is important to note that from the preliminary step through the third phase, these were developed according to the characteristics and needs of the artisans of the Mixteca Oaxaqueña region; however, the fourth and fifth phases will not be designed until the business network is formalized.

## Discussion

Business growth and the creation of business networks among artisans in the Mixteca region are intrinsically linked to the current business environment. A company's ability to expand and prosper often depends on its ability to establish and maintain effective connections with other entities within its sector and beyond.

The creation of a business network among artisans in the Mixteca Oaxaqueña region will make it possible to enter broader markets by facilitating collaboration and joint promotion. Considering the diversity of artisanal products and the skills they possess, this will allow them to attract a greater number of customers. As Sánchez and Parra (2024) state, associativity among small entrepreneurs generates benefits such as economies of scale and greater penetration into the global market with differentiated products, which in turn makes it possible to "increase their market share, productivity, and profitability" (p. 3).

Collaboration within a business network fosters an environment in which artisans share knowledge, techniques, and experiences. This exchange enriches the creativity and quality of the products they make, contributing to both individual and collective growth. In this regard, Huamán et al. (2023), in their study on the associative strategy for the competitiveness of beekeepers, point out that associativity "raises productivity thanks to the exchange of learning and experiences, in addition to sharing standardized production methods and procedures, processes, marketing strategies, pricing, logistics, and distribution" (p. 7063).

The incorporation of artisans into a business network offers a collective platform for the promotion and visibility of their products through participation in joint events, promotion on social media, and other means that make it possible to attract the attention of a broader market. In this regard, Parrales-Reyes et al. (2022), in their study, conclude that small entrepreneurs in the municipal fruit and vegetable market, through the formalization of an association, would improve the image of their business and expand their market through digital advertising.

In addition to the above, it was found that this activity is carried out mostly by women as a means of subsistence, since the Mixteca Oaxaqueña region is characterized by high levels of migration.

Among the findings, it was identified that one of the reasons why artisans engage in this activity is to preserve the culture of the region. These results are consistent with the statement made by Paz et al. (2003) in their handicrafts project carried out by a group of Mixtec women in Oaxaca, Mexico: “many handicrafts are part of the culture of the people; therefore, a way must be found to preserve them in favor of universal culture” (p. 6). The formation of the network will make it possible to preserve part of the cultural identity by bringing together a diversity of products made by artisans from the Mixteca Oaxaqueña region.

## Conclusions

Business networks act as catalysts for business growth by providing a collaborative, shared, and enriching environment. The interconnection among members not only promotes the individual growth of each artisan, but also strengthens the artisanal sector as a whole. In addition, in the economic sphere, cost reduction, increased production, and the generation of economies of scale stand out.

The research focused on the Mixteca Oaxaqueña region, where there is a diversity of artisans facing numerous problems related to the commercialization of their handicraft products. The objective of the research was achieved through bibliographic and field research.

The results indicate that most artisans are willing to be part of the business network, as well as to share their knowledge with other members. This will make it possible to strengthen individual resources and skills in order to achieve joint objectives that could not be attained independently. Likewise, considering the conditions and characteristics of the artisans of the Mixteca Oaxaqueña region, the network proposal was developed. In this first stage of the research, all the elements from the preliminary step through the third phase were developed.

The contribution of this research is methodological and social. Regarding the methodological contribution, the approach was selected in a justified manner and an instrument was designed to collect information in which variables centered on the purpose of the research were considered.

An exhaustive analysis of the data was carried out, and the methodological approach has novel components within the field of study, since the topic of business networks and business growth applied to artisans of the Mixteca Oaxaqueña region has not been studied in the region. The methodological foundations are provided and initial bases are proposed that offer an opportunity for future lines of research.

With respect to the social contribution, the proposal to implement a network that offers benefits to the artisans of the Mixteca Oaxaqueña region is presented. It is expected to have a positive impact on the population for whom it is intended, and it is also expected that in the future social organizations will consider the creation of policies or programs in which practices that benefit artisans are incorporated.

Finally, with regard to future lines of research, it is suggested that further study be conducted on commercialization strategies and industrial property, focused mainly on handicraft products. This would result in a valuable contribution to the economic and social development of the artisans of the Mixteca Oaxaqueña region.

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## Authors' Contributions

Author	Contribution
María del Rosario Barradas Martínez	All the authors jointly and equally contributed to the conception, drafting of the article, data acquisition, analysis and interpretation, and revision of the article.
Gabriela Pérez Cruz	
José Rodríguez Lázaro	