








ORIGINAL

Sustainable e-commerce strategy as an alternative to preserve indigenous crafts

Estrategia de comercio electrónico sostenible como alternativa para preservar la artesanía indígena

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ABSTRACT

Due to the limitations of handicraft trade in indigenous communities, we propose an e-commerce strategy as an alternative for preservation. The research adopted an ethnographic approach focused on understanding the economic dynamics of handicraft trade in four Shawi indigenous communities in the Peruvian Amazon. The e-commerce strategy is based on four fundamental pillars: brand, product, team, and marketing. Each pillar includes components that must be developed in a structured and coordinated manner to ensure the sustainability of the marketing process of indigenous handicrafts. The study presents an innovative approach by proposing a sustainable e-commerce strategy specifically designed for indigenous handicrafts.

Keywords: Indigenous Communities; Cultural Preservation; Cultural Identity; Economic Sustainability; Digital Marketing.

RESUMEN

Debido a las limitaciones del comercio artesanal en las comunidades indígenas, proponemos una estrategia de comercio electrónico como alternativa para su conservación. La investigación adoptó un enfoque etnográfico centrado en comprender la dinámica económica del comercio artesanal en cuatro comunidades indígenas Shawi de la Amazonía peruana. La estrategia de comercio electrónico se basa en cuatro pilares fundamentales: marca, producto, equipo y marketing. Cada pilar incluye componentes que deben desarrollarse de forma estructurada y coordinada para garantizar la sostenibilidad del proceso de comercialización de la artesanía indígena. El estudio presenta un enfoque innovador al proponer una estrategia de comercio electrónico sostenible diseñada específicamente para la artesanía indígena.

Palabras clave: Comunidades Indígenas; Conservación Cultural; Identidad Cultural; Sostenibilidad Económica; Marketing Digital.

INTRODUCTION

Indigenous communities often face challenges in achieving full socioeconomic development that allows them to preserve their cultural legacy transmitted from generation to generation. These are mainly attributed to the impact of globalization that generates territorial displacement, cultural homogenization and loss of

traditional practices.⁽¹⁾ In addition, according to ⁽²⁾ indigenous communities face marginalization and lack of support from the government, which translate into deficiencies in education, health services and economic opportunities, making it difficult for them to integrate into broader social dynamics.

In this context, studies such as those by ^(3,4,5) have shown that the trade of handicrafts made from the ancestral knowledge of indigenous communities constitutes a viable alternative to generate income. Handicraft products, considered part of the intangible cultural heritage of humanity, are made manually under sustainable practices and represent a form of expression of the traditions, customs, myths and beliefs of each region. Therefore, they are recognized as a means of identity for indigenous peoples and, in addition, they have a growing demand.⁽⁶⁾

However ⁽⁷⁾ state that indigenous crafts face problems that arise from intermediation in marketing and the lack of fair compensation that values their knowledge; these difficulties were aggravated during the COVID-19 pandemic, which brought with it the interruption of tourist activities, the closure of local markets and the decrease in demand for handicraft products. As a result, artisans reduced their income, generating an unstable economic situation that affects their daily livelihood and further limits their ability to preserve and transmit their cultural traditions.

We also observe this reality in the indigenous communities of Peru. According to the Ministry of Culture's Database of Indigenous or ⁽⁸⁾ the country has 55 indigenous peoples, of which 51 are located in the Amazon and 4 in the Andes. In the specific case of the Shawi indigenous people (case study), they live mainly in the departments of Loreto and San Martín, and according to the last National Census of 2017, 12 997 people were officially identified as members of the Shawi community, who support themselves through agriculture and the trade of crafts. However, this last area has limited access to regional markets, since most of the crafts are marketed locally from the homes of indigenous families and, sometimes, at local fairs, restricting their income opportunities and commercial exposure.

Despite the great cultural and utilitarian value of the crafts produced by the Shawi indigenous people, which reflect their worldview through iconographies captured in ceramics, jewelry, carving and weaving, marketing channels remain limited; this can be attributed, in part, to the lack of knowledge and motivation within the communities to explore alternatives such as e-commerce ⁽⁹⁾ in addition, there is the scarce support from local governments and private investors, who do not implement strategies to promote cultural expressions in broader markets, making it difficult for them to access the national and international market and thus the loss of profit opportunities for indigenous people.⁽¹⁰⁾

The literature reveals few studies on strategies and implementation of sustainable e-commerce for the crafts of indigenous communities, especially in Latin America, evidencing low academic attention to this sector. Under this scenario, the objective of this research is to propose a sustainable e-commerce strategy as an alternative to preserve the indigenous crafts of the Shawi community. To do this, we carry out a diagnosis of the current problems and the limitations faced by traditional trade.

METHOD

Scope of study

The research covered four indigenous Shawi communities located in the hamlets of San Jorge, Santa Rosa, Nueva Luz and Canoa Puerto, accessible by land through the district of Balsapuerto, in the province of Alto Amazonas, department of Loreto, Peru. The communities under study have been officially recognized by the local government as indigenous Shawi due to the preservation of their language and cultural traditions. Likewise, prior to the development of the research, we were informed of the purpose of the intervention and requested authorization from the representatives of each community, also called Apus, to facilitate data collection.

Research design

We opted for ethnographic research focused on the observation and description of the process of commercialization of handicrafts of indigenous Shawi communities. Ethnography has been consolidated as one of the most used methods to address and highlight the descriptive and interpretive aspects of a specific sociocultural context. According to ⁽¹¹⁾ this approach involves direct observation of individuals and communities, using tools such as participant observation and interviews or surveys to understand their social behavior.

Participants

The research included 12 indigenous artisans from the Shawis communities, dedicated to the production and marketing of crafts such as ceramics, jewelry, weaving and carving; pieces rooted in traditions transmitted from generation to generation that reflect their worldview through iconographies integrated into the designs. The products are made with manual techniques and natural elements (seeds, soil, plant paint, among others) and have utilitarian finishes, allowing their use as clothing, utensils or decorative elements.

Data collection process

To analyze the problematic reality of the craft trade, we used the survey technique, with an ad hoc questionnaire designed specifically for this study. The instrument covered five dimensions: promotion, commercial relations, prices, product management and digital sales channels, distributed in a total of 23 indicators. The responses were collected using an ordinal Likert-type scale (1=Disagree, 2=Neutral, 3=Agree). The questionnaire was previously subjected to an internal validation process by three experts, and its reliability was evaluated using the Cronbach's Alpha coefficient, obtaining a value of 0,921, confirming its consistency and applicability in the field. We conducted the survey in a personalized manner during October 2023, with the support of Shawi language translators to ensure adequate understanding and response by the participants. Once the problematic reality was diagnosed, which was complemented by observation, we designed the sustainable e-commerce strategy as a proposed solution.

Data analysis

The data collected were tabulated in Excel 2019 and subsequently imported into the SPSS statistical software, version 26. In this program, we performed the percentage analysis to facilitate the interpretation of the findings.

Ethical aspects

We had the authorization and knowledge of the representatives of the four Shawi indigenous communities that participated in this research. In addition, we obtained verbal informed consent from the indigenous artisans, to whom the objective and benefits of the study were explained in detail. We carried out the intervention only with those people who voluntarily confirmed their participation. Likewise, we fully respected the worldview and cultural meaning of the crafts produced, a key aspect to support the proposed strategy.

RESULTS AND DISCUSSION

Diagnosis of traditional trade in indigenous crafts

The analysis of traditional trade in crafts produced by the Shawi indigenous communities, reflected in figure 1, shows that 67 % of the artisans surveyed expressed their disagreement with the implementation of promotional strategies, evidencing a low participation in local fairs, a limited narrative about their products and a lack of market segmentation. Furthermore, 58 % of artisans adopted a neutral stance regarding their business relationships, revealing difficulties in communicating effectively with buyers and in exploring new business opportunities through alliances.

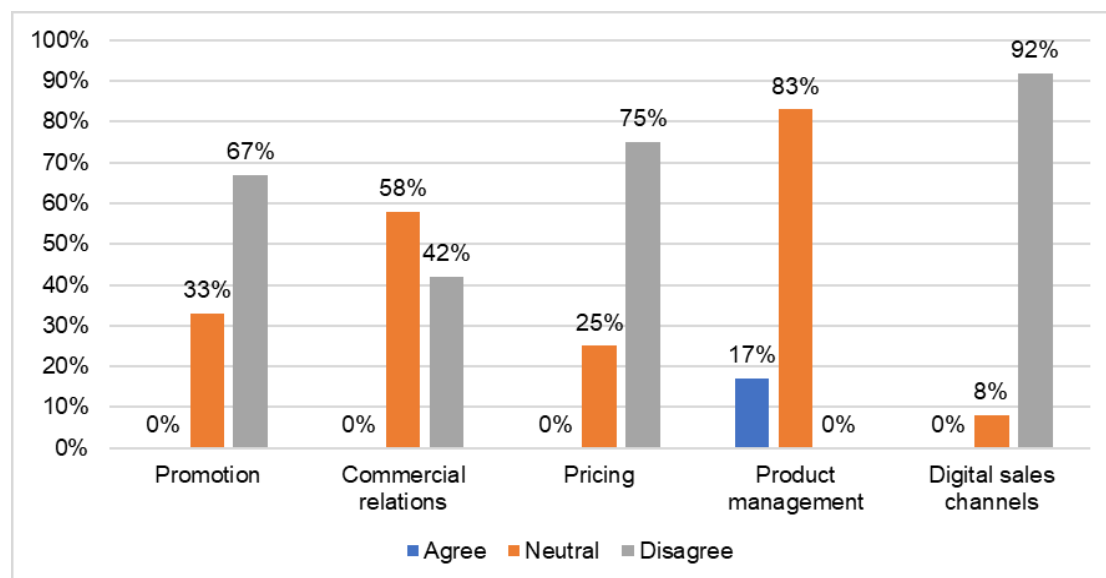


Figure 1. Situation of traditional handicraft trade in indigenous Shawi communities

Regarding prices, 75 % of artisans reported difficulties in setting prices to cover production costs and generate profits. They also reported a low capacity to apply pricing strategies such as volume discounts or adjustments based on demand. Regarding product management, 83 % of artisans showed a neutral stance, indicating a limited capacity to develop new products, customize them or highlight their cultural value. Finally, in relation to digital sales channels, 92 % of artisans acknowledged lacking the necessary knowledge to use online platforms, social networks and digital payment tools.

From the diagnosis presented, we identified that the trade of handicrafts in the Shawi indigenous communities is deficient due to limited market access, which coincides with the findings of ⁽¹²⁾ who state that the main challenge for the management of the production chain of conventional Colombian handicrafts is the difficulty in finding adequate marketing channels, since it depends largely on intermediaries who buy their products at low prices, preventing them from obtaining the desired profits. This is also consistent with the study by ⁽¹³⁾ who found that artisan producers in a Mexican province are dissatisfied with intermediaries, since they are the ones who decide the price and even request credit purchases; In addition, they express that they do not value their knowledge or the generation of cultural value in their products.

On the other hand, we observed that Shawi artisans have low skills in making sales and promotions through social networks, even though these platforms have proven to be useful for promoting artisanal products. ^(14,15) Even though the district near their villages has internet connectivity, this opportunity has been wasted. This situation highlights the need for digital literacy for this ethnic group, influenced by language barriers and traditional customs. ⁽¹⁶⁾ Therefore, the implementation of sustainable e-commerce is presented as an alternative to improve the marketing of their products as it would not only increase their sales and access to broader markets, but would also contribute to the cultural preservation of crafts, an invaluable legacy that must endure through generations. ⁽¹⁷⁾

Sustainable e-commerce strategy for indigenous crafts

The proposed strategy for the e-commerce of indigenous crafts, with a focus on sustainability, responds to the current need for companies to minimize the environmental impact associated with the commercialization of goods and services, promoting ecological practices, ^(18,19,20) an approach that is closely related to the crafts produced by the Shawis indigenous communities, since these products are made manually using largely ecological materials such as soil, vegetable paints, seeds, among others. Starting from this premise, and considering both the previously diagnosed problem and the observations made in the field on the commercialization of crafts, we designed the strategy presented in figure 2 based on four pillars.

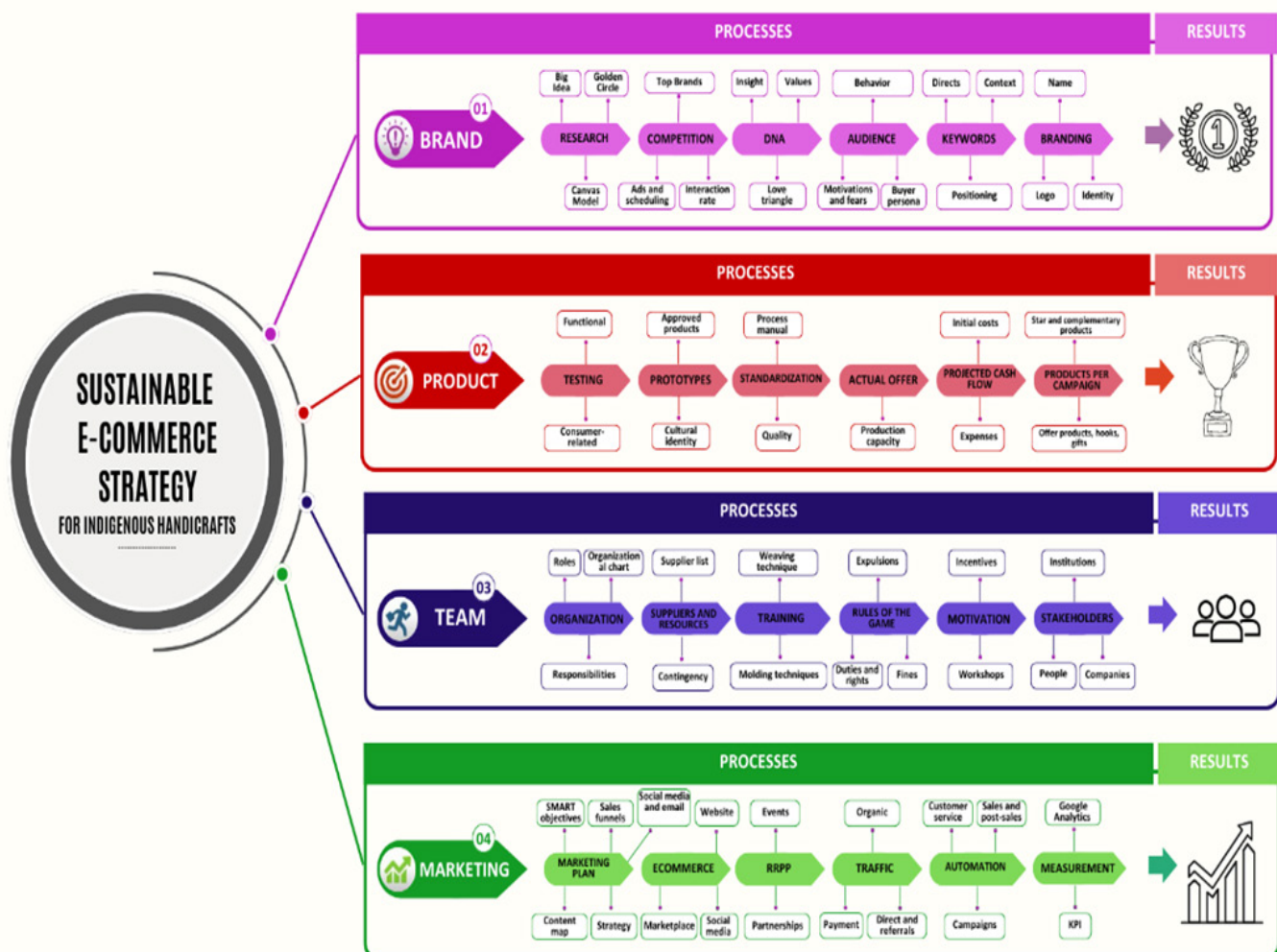


Figure 2. Sustainable e-commerce strategy for indigenous crafts

Brand

Since we observed that Shawi artisans do not have a defined brand for their products, the strategy would start with this pillar. Therefore, the first step should be to conduct research where the main brands in the artisan sector are identified to analyze their characteristics and success factors. An analysis of the target market should also be carried out using tools such as the Canvas Model. The values, behaviors and motivations of the audience should be evaluated to design a strategic approach that emotionally connects with consumers and reflects the cultural identity of the artisan products.

The next component is the analysis of the competition, where the interaction rates and strategies used by competitors in the field of indigenous crafts and similar products should be studied. The analysis will allow identifying market gaps and positioning opportunities for the future Shawi brand. In addition, an advertising model should be designed that highlights the cultural elements of the products, using triangulation techniques to integrate tradition, design and sustainability in a cohesive message.

Subsequently, the brand DNA must be defined, establishing the core values and mission that will represent Shawi crafts. The process must include the identification of the cultural and social elements that will form the basis of the brand identity, ensuring that these align with the traditions and worldview of the community. The connection between these values and consumer interests must be developed through messages that reflect the cultural and sustainable legacy of the products.

The audience component is also key in this pillar. Consumer segments must be identified, considering both local and international buyers interested in artisanal products with cultural and sustainable value. This step will involve an analysis of buyer personas, including their needs, motivations and preferred purchasing methods, allowing for the design of specific and effective communication strategies for each group.

Finally, work must be done on defining keywords and developing branding, which will ensure that the brand has a coherent and attractive name, logo and visual design, capable of transmitting the cultural identity of the Shawi indigenous community. The selected keywords will focus on positioning the brand in search engines and digital platforms, while the branding will establish the density and visual presence necessary to stand out in the market. Together, these actions can ensure that the Shawi brand is recognized and valued for its cultural authenticity and sustainable approach.

Figure 3 presents a proposed logotype that could be considered as part of the process of defining the “Artesanía Shawi” brand, which uses a stylized figure of a hand, symbolizing the artisanal work and manual labor that characterizes the Shawi community. The curved lines and colors represent diversity, creativity, and connection with nature, essential elements in their culture and worldview. The geometric base, decorated with an iconography that represents fishing time, evokes the cultural and ancestral heritage.



Figure 3. Proposed logotype

Product

The second pillar focuses on ensuring that the Shawi indigenous crafts meet quality and functionality standards that respond to both market expectations and the cultural identity of the community. The process

will begin with the testing stage, where the functionality of the products produced must be evaluated, ensuring that they are suitable for everyday use as utensils, clothing or decorative elements. In addition, it must be verified that each piece retains its cultural and aesthetic value.

Subsequently, prototypes must be developed that incorporate improvements based on the results obtained in the tests, such as glazing techniques to produce utilitarian ceramics. The prototypes will serve to explore new design ideas, integrating traditional iconographies and ecological materials. Likewise, a production manual must be developed, which standardizes the artisanal processes and facilitates the replication of the design without losing its authenticity.

In the standardization stage, the quality criteria and specifications necessary to ensure consistency in each product must be defined, including the identification of distinctive attributes that enhance the Shawi cultural identity, such as patterns and hand-made techniques; a phase that will allow crafts to be recognized not only for their originality, but also for their high quality.

The next component is the creation of a real offer, where production capacities and initial costs for each type of craft must be defined. The process will include the calculation of prices that are competitive and sustainable, both for the local market and for e-commerce. A cash flow must be projected that allows the income and expenses related to marketing to be foreseen, ensuring the economic viability of the project.

Finally, a system of products per campaign must be proposed, where crafts are grouped into thematic or seasonal collections, allowing the diversification of the offer and capturing the attention of different consumer segments. In addition, complementary products such as sustainable packaging or accessories should be included, which reinforce the eco-friendly brand identity and offer a comprehensive customer experience. Under this approach, it will be possible to ensure that Shawis crafts adapt to the demands of a globalized market.

Team

The third pillar focuses on the organization and training of the key actors needed to implement and maintain sustainable e-commerce of indigenous Shawi crafts. The pillar aims to ensure that production, management and marketing activities are carried out efficiently, respecting cultural traditions and promoting sustainable development.

The first step is to establish a clear organization, including the definition of specific roles and responsibilities within the team, creating a functional organizational chart that facilitates coordination between members. A list of suppliers should be drawn up to ensure the continuous supply of eco-friendly materials and craft tools. A contingency plan should also be designed to address possible interruptions in the production or distribution chain.

The second component is the development of a network of suppliers and resources, which will be responsible for managing the inputs and materials needed for the production of the crafts. The team will not only ensure the supply of quality materials, but will also seek strategic alliances with other local actors, such as public or private institutions, to strengthen the sustainability of the project.

Training is essential to improve the skills and competencies of artisans and other team members. Workshops should be given on modeling techniques, materials management and design trends, as well as training in digital tools for e-commerce management, including training in the use of sales platforms, digital marketing and logistics.

In addition, rules of the game should be established, which will define the duties and rights of each team member, as well as internal policies that will guide the operation of the project, which will foster an equitable work environment, where transparency, inclusion and motivation of all those involved are promoted. Incentives should also be implemented, such as prizes or benefits, to recognize the effort and commitment of participants.

Finally, work should be done to create alliances with stakeholders, such as companies, institutions and non-governmental organizations, that can provide financial, technical or logistical support to the project. The actors will play an important role in the long-term sustainability of Shawis crafts e-commerce, ensuring that the team has the necessary resources to prosper and adapt to market demands.

Marketing

The fourth pillar focuses on developing a comprehensive promotion and positioning plan that allows consumers to connect with the cultural and sustainable value of artisanal products, enhancing their reach in the local and international market. The first step is to design a marketing plan based on SMART objectives (specific, measurable, achievable, relevant and timely), which will include the creation of a content map that defines the messages, aligned with the identity of the Shawi brand, and the strategies to disseminate them on different channels, such as social networks, marketplaces and virtual fairs. Alliances must also be established with influencers and media outlets to amplify the visibility of the products.

The second component is the implementation of an e-commerce platform that is attractive, functional and aligned with the Shawi cultural identity. The site must include an online store that facilitates navigation,

product selection and the payment process. In addition, it must integrate sustainable shipping methods and an information section that highlights the story behind each craft, highlighting its ancestral value.

The third step is to establish public relations (PR) strategies, whose actions will seek to strengthen the perception of the Shawi brand through virtual events and collaborations with organizations that promote sustainability and indigenous culture. Likewise, campaigns must be developed to raise public awareness about the positive impact of supporting indigenous crafts, both in cultural and economic terms.

The fourth component will be the development of tactics to attract traffic to e-commerce, which may include the execution of social media campaigns, website optimization through SEO (Search Engine Optimization) and the use of SEM (Search Engine Marketing) strategies. Personalized emails and special promotions can also be used to build customer loyalty and attract new consumers.

Finally, a measurement system must be implemented to monitor the performance of marketing strategies, which can be achieved by using tools such as Google Analytics to evaluate website traffic and conversions, as well as the automation of follow-up and customer service tasks. In addition, key performance indicators (KPIs) must be defined to measure the impact of the actions implemented and make continuous adjustments to optimize the results. The proposed approach will ensure efficient marketing, aligned with the cultural and ecological mission of Shawi crafts e-commerce.

As described, the sustainable e-commerce strategy for indigenous crafts is based on four pillars that must be implemented systematically to ensure the success of the project. Although this proposal is specifically designed for the reality of the Shawi indigenous communities in Peru, it is highly likely that similar situations will occur in other communities in the region. Therefore, the adoption of this strategy represents an opportunity that should be explored in future research, with the aim of evaluating its impact on the socioeconomic development of various indigenous communities and promoting their sustainable integration into contemporary markets.

As far as the authors reviewed the literature, no research was found that proposes a sustainable e-commerce strategy for indigenous crafts. Therefore, the present study seeks to become a reference for future studies, contributing to address this limitation in the scope of current knowledge. It is important to note that the proposed strategy is based on the experience of researchers and the observed reality, complemented by theoretical references such as ^(21,22,23,24) who provide a conceptual framework for the development of this proposal.

CONCLUSIONS

The adoption of a sustainable e-commerce strategy is a viable alternative to overcome the limitations of traditional handicraft trade in the Shawi indigenous communities, preserving their cultural legacy and promoting their socioeconomic development. The previous diagnosis revealed deficiencies in promotion, pricing, product management and access to digital channels, limiting the commercial reach and economic opportunities of the artisans. The four-pillar proposal: brand, product, team and marketing, is presented as a comprehensive solution to address these problems, allowing for improved visibility of the crafts, optimized production processes and expanded access to markets.

In practical terms, the strategy contributes to the professionalization of the artisans through training in digital tools, improving the quality and standardization of products, and designing a brand identity that highlights the cultural value of the crafts. It also promotes economic sustainability by introducing a more efficient trade model, adapted to the demands of the current market and with the potential to be replicated in other indigenous communities.

From a social perspective, the proposal promotes the revaluation of the cultural identity of the Shawi indigenous communities, ensuring that their traditions and ancestral knowledge are preserved and recognized at national and international levels. It also promotes the economic inclusion of these communities, providing them with tools to compete in digital markets and reduce their dependence on intermediaries.

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