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Weaving the threads of the Philippines: Understanding the opportunities and challenges of the women embroiders of Lumban Laguna

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Abstract

The Philippines has a rich tradition of embroidery, particularly in regions like Laguna, where women artisans play a crucial role in preserving cultural heritage while facing economic and social challenges. This study aims to explore the specific obstacles and opportunities encountered by these women embroiderers, with the research question: What do you think is the contribution or what more do you think the embroidery industry can contribute to the economy and culture of the Philippines. Human Capital Theory was used in this study, it posits that investments in education, skills, and training improve individual productivity and economic outcomes. In the context of women embroiderers, this theory can be applied to understand how investments in skill development and training can enhance their craft and economic opportunities. The researchers employed an ethnographic study design, which is a great method for looking into the traditions and cultural practices of a particular community. This design allows for the exploration and understanding of the complex interaction that exists between women embroiderers, their vocation, and the broader cultural background of Lumban, Laguna. The focus on customary needlework in Lumban, Laguna, highlights the unique cultural heritage of the Philippines and the impact of craft on the way of life and means of survival for those who engage in it. The study on women embroiderers in Laguna reveals both challenges and opportunities shaping their craft and industry. Key challenges include material scarcity, with thread and fabric shortages impacting production timelines,

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especially for custom orders. Time pressures are also significant, as many embroiderers work long hours to meet client demands, which can affect their work-life balance. Skill transmission poses another issue, with younger generations showing less interest in traditional hand-sewing techniques, risking the continuity of this cultural practice. Machine breakdowns, for those reliant on embroidery machinery, further complicate production schedules. The study provides a comprehensive understanding of the current state of the embroidery industry, its challenges, and its long-term aspirations. The participants' responses reveal a clear need for support in skill development, financial resources, and market visibility. The integration of traditional craft with modern business practices, digital tools, and tourism-based strategies offers a pathway for the industry to thrive.

*Keywords:* embroiderers, cultural heritage, economic and social challenges, traditional craft, tourism-based strategies

# Weaving the threads of the Philippines: Understanding the opportunities and challenges of the women embroiders of Lumban Laguna

#### 1. Introduction

Embroidery is one of the significant cultures in the Philippines. This is an activity where many women participate most importantly in traditional settings (Fame, 2021). Embroidery is a significant cultural tradition in the Philippines, deeply rooted in the heritage and identity of its people. Nowhere is this more evident than in Lumban, Laguna, known as the "Embroidery Capital of the Philippines." Lumban has been home to skilled artisans who craft intricate, hand-embroidered designs that are admired both locally and internationally. This craft, passed down through families, is not just an art form but also a vital source of livelihood. Despite its cultural and economic value, embroidery in Lumban faces numerous challenges and opportunities that shape the lives of its embroiderers, most of whom are women. The integration of urban agriculture into city planning offers numerous benefits. Despite its potential, the effectiveness of urban agriculture models varies across different regions due to factors such as regulatory frameworks, access to technology, and socio-economic conditions. In the Philippines, urban agriculture has gained attention as a response to the increasing challenges of food security, poverty, and environmental sustainability in rapidly urbanizing areas. With more than 47% of Filipinos living in urban areas, the country faces growing pressure on its food supply chains, particularly in densely populated regions like Metro Manila (Philippine Statistics Authority, 2020). The COVID-19 pandemic further exposed vulnerabilities in the food system, leading to disruptions in supply chains, price fluctuations, and limited access to fresh produce, particularly for low-income households (Asian Development Bank, 2021).

This not The embroiderers of Lumban must identify difficulties such as financial constraints, limited access to equipment and insufficient support. Traditional hand embroidery is labor intensive and time consuming, making it challenging to compete in a fast paced, cost driven global market. According to the study of Berondo (2023), embroidery is a very remarkable Philippine art and now it has been associated with many other native Philippine products that are being exported to almost all parts of the world. Thus, embroidery was called "work" and evoked the notion that patience and perseverance go into embroidery. Thus, the ideology of femininity as service and selflessness and the insistence that women work for others, not for themselves, surfaced. The lack of opportunities for skills training and exposure to new technologies often hinders their ability to innovate and expand their craft. Additionally, in the study of Plaridel (2021), the fine and exquisite skill of Filipino embroiderers was acknowledged by other countries, and the Philippines became famous for its embroidery. Additionally, Filipino women and their daughters took to embroidery with a flair and with more than considerable enthusiasm

Additionally, a competition from machine-made embroidery and a decline in interest among younger generations, which threaten its future (Narra Studio, 2018) is one of the challenges the artisans are facing. A growing generational gap in embroidery expertise threatens the craft's survival, as fewer young people are learning traditional techniques. Embroiderers create intricate designs on fabric, reflecting the Philippines' rich cultural heritage. However, the craft faces significant challenges, including the labor-intensive nature of the work, financial instability, and lack of recognition for the artisans' skill like what most of the embroiderers in Lumban, Laguna is experiencing. Addition to this are the low wages and long hours, many embroiderers struggle to sustain their livelihood. If these issues are not addressed, the traditional craft of hand embroidery risks becoming obsolete.

In the Philippines, embroidery can be quite a delicate art form in much more by hand. In the study of Villareal (2024), there have been local initiatives to preserve this time- honored craft. Deeply rooted in the town's heritage, embroidery reflects the creativity and identity of the Filipinos since the era of colonization. Innovations such as digital platforms for selling, training programs for skill development, and the adoption of

new technologies like automated embroidery machines can help embroiderers reach wider audiences and improve production efficiency. Moreover, Lumban's cultural legacy and the global appreciation for Filipino craftsmanship position its embroidery industry as a potential driver of cultural preservation and economic growth. Thus, Lumban's burdeos masterfully weave with their nimble fingers and keen eyes, creating beautiful quality embroidery as detailed as ever. Usually, their hand embroidery is made with colorful threads and intricate designs, often with natural elements, traditional symbols, and cultural ones. In the study of Baroidan (2019), needles and threads have provided the livelihood of generations of families in this quaint town by the Pagsanjan River in Laguna.

In this study, researchers will focus on the opportunities and challenges of the women embroider in Lumban, Laguna. This will determine the various challenges faced by the embroidery craft such as challenges in technical, in financial constraints and on what are the lack in different institutions or organizations. This study will also focus on the experiences of women embroiderers in Lumban, Laguna, that will help the researchers to identify the challenges and opportunities they face in sustaining this traditional craft. By exploring their struggles such as technical difficulties, financial limitations, and the absence of institutional support alongside opportunities in market expansion, skills development and adaptation to trends, this study aims to shed light on the resilience and resourcefulness of Lumban's embroiderers. It also seeks to provide insights into how their contributions can be better supported and valued in preserving this timeless art form. Furthermore, this study will identify the opportunities for the embroiderers from Lumban, Laguna. Specifically, in the economic market, business opportunities and how it expands the business in the embroidery industry.

### 2. Background literature

According to Caballero et al. (2020), the minimal exposure of locally crafted embroidery in both domestic and international markets prevents artisans from maximizing their skills. In the absence of steady market demand, embroiderers struggle to secure a sustainable income, prompting some to abandon their craft in pursuit of more stable employment opportunities. Research indicates that the COVID-19 pandemic has further affected the industry, leading to reduced sales and order cancellations for artisans (Garcia & Dela Cruz, 2021). According to Bautista et al. (2020), despite the Philippines' rich cultural heritage in embroidery, there is a noticeable absence of targeted legislation or programs designed to protect and promote it as a viable livelihood. While, according to Cruz and Santiago (2021), embroiderers often work under informal arrangements without benefits or job security, making them vulnerable to exploitation. The lack of institutional support also has broader implications for the embroidery industry's survival in a rapidly modernizing economy. Reyes (2022) emphasizes that, without policies actively promoting traditional crafts, younger generations are increasingly disinclined to pursue embroidery, which may lead to the erosion of this cultural heritage.

Studies have shown that these conditions are worsened by the absence of ergonomic tools and appropriate workstations, which are often unavailable to embroiderers operating from home or in informal settings (Lalitha et al., 2021). This lack of peer interaction and absence of a supportive community can intensify stress and adversely affect mental health (Kaur & Singh, 2022). Women embroiderers, especially those in informal sectors, often lack health insurance or the financial means to address their physical or mental health needs (Ali & Habib, 2020). As modernization and globalization increasingly impact local crafts, the interest among the youth in acquiring traditional techniques is markedly low. This trend is amplified in a digital age, where younger individuals tend to favor careers in technology-centric fields over artisan crafts (Teodoro & Reyes, 2021). The general perception of embroidery as a craft that demands extensive time and effort contributes to this waning interest, as young people are more drawn to faster and more lucrative job opportunities (Javier & Aguilar, 2022).

Studies have highlighted the tension between preserving traditional methods and capitalizing on economic prospects offered by global markets (Gonzalez, 2023). Cultural organizations and local government entities are working to integrate traditional skills into educational curricula and provide opportunities for younger generations to engage with their cultural heritage. Despite these initiatives, they remain limited in scope,

necessitating more substantial policy measures to ensure the craft's survival amid rapid modernization (Ramos, 2024. As public awareness increases regarding the environmental repercussions of conventional production methods—such as water waste and chemical use—companies that prioritize sustainable practices will gain a competitive advantage in the marketplace (Jones et al., 2021).

Organizations can investigate alternative, non-toxic dyes, energy-efficient machinery, and waster-reduction techniques to minimize their carbon footprint (Martinez & Ramirez, 2022). This shift creates opportunities for smaller, artisanal embroidery firms to flourish by embracing sustainable practices. With a focus on craftsmanship and eco-consciousness, the embroidery industry can expand into new markets while supporting the broader global movement towards sustainability (Brown & Roberts, 2020). This tendency, alongside a growing appreciation for the cultural heritage inherent in handmade products, equips the embroidery sector to leverage both environmental and consumer preferences, thus providing an exciting opportunity for long-term growth (Hernandez, 2021). These collaborations are vital in organizing formal training programs and workshops that can provide specialized skills in modern embroidery techniques and business management (Rodriguez et al., 2022).

A collaboration between NGOs and LGUs in the Philippines has led to the implementation of skill development programs, where participants gain certifications and knowledge that boost their competitiveness in global markets (Agustin, 2021). The embroidery industry can benefit from a more comprehensive and inclusive growth model, ensuring the sector's continued success and its capability to navigate contemporary challenges (Dela Cruz & Torres, 2023). The use of targeted ads, influencer partnerships, and online storytelling, helps embroidery artisans market their products more effectively, reaching niche markets in the fashion and tourism industries (McKinsey & Company, 2020). Collaboration between the embroidery industry and sectors such as fashion and tourism is increasingly facilitated by digital platforms. For instance, these platforms allow fashion designers and brands to discover and integrate traditional embroidery into their collections, thus introducing artisanal techniques to international markets (Smith, 2021).

The rising demand for sustainable and authentic fashion, as highlighted by trends favoring eco-conscious and heritage-based designs, fosters a natural synergy between embroidery artisans and the fashion industry (McKinsey & Company, 2020). This experience could be marketed as a crucial part of promoting Philippine cultural heritage, which is increasingly appealing to both domestic and international travelers. Moreover, these collaborations could position Lumban as a key destination for cultural tourism, enhancing awareness of traditional art forms and promoting sustainable economic growth within the community (Dizon, 2021). The local craft industry could expand its market reach, attract new clientele, and foster greater appreciation for the artistry of Filipino craftspeople, while also supporting the economic and cultural vibrancy of the region (Tiu, 2022). Embroidery, which has been traditionally led by women in many areas, enables them to utilize their skills to support their families' financial stability and foster self-reliance (Cordero, 2021). The introduction of online training modules during the pandemic enabled artisans to learn marketing strategies, such as leveraging social media to reach broader audiences (Lopez & Bautista, 2023).

## 3. Findings

**Table 1** *Intervention Plan Recommendations by Participants for Local Government and Tourism Stakeholders* 

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PARTICIPANTS	KEY THEMES	KEY QUOTES	ANALYSIS	SUMMARIZED COOPERATIVE RELATIONSHIP
Informant 1 (Casedo's Embroidery Employee 1)	Training and Social Media for Marketing	"Local governments could help smaller embroidery shops by giving them access to training and workshops on modern designs and techniques social	The participant emphasizes the need for skill building in design and social media, highlighting a gap in marketing knowledge among embroiderers. This	Participants emphasize financial support, visibility, and marketing to bolster the embroidery industry. They also highlight youth engagement, trade promotion, and resource-sharing as key

		media attract new customers."	insight suggests local government	factors.
			involvement could enhance business visibility and appeal to	
Informant 2 (Casedo's Embroidery Owner)		"The government could organize trade fairs and	The owner views government organized fairs as essential for	
		exhibitions to be seen by a wider audience present embroidery as a respected career	broader visibility and public education about Filipino embroidery, underscoring the potential to cultivate	
		choice."	national pride and position embroidery as a viable career path.	
Informant 3 (Casedo's Embroidery Employee 2)	Curriculum Integration	"We would benefit from partnerships with schools to introduce embroidery as part of the curriculum they	By integrating embroidery into the school curriculum, the participant sees potential to inspire youth and sustain the	
		will be more likely to consider it in the future."	craft through generational knowledge transfer, emphasizing an educational approach	
			to career path awareness in embroidery.	
Informant 4	Financial Support	"It's important for the government to	The focus here is on financial support	
(Casedo's Embroidery Employee 2)		provide more accessible loans or grants for smaller embroidery businesses allow them to compete with	through loans and grants, which could help small businesses purchase quality materials and increase their market	
		bigger companies."	competitiveness, including potential entry into international markets.	
Informant 5	Tourism Integration and Partnerships	"Local tourism offices [could]	The participant proposes partnerships	
(Burdahand Embroidery Owner)		include our shops in tourism maps Collaborations with hotels or tour	with local tourism to promote embroidery shops as part of travel itineraries, tapping into	
		groups could boost visibility for smaller shops."	tourism-driven revenue opportunities by presenting embroidery as a unique sou	
Informant 6 (Local Embroiderer 1)	Resource Sharing and Cooperative Workspaces	"Affordable workspace shared spaces or cooperatives for small artisans to share skills with	Suggesting a communal approach, this response highlights the value of shared workspaces and resources, which could	
		younger people who are interested but can't afford tools."	support artisans financially and foster a learning environment for young aspiring embroiderers.	
Informant 7 (Local Embroiderer 2)	E-commerce and Social Media	"Government- led training on e- commerce could help us build an	Emphasizing digital literacy, the participant sees ecommerce as crucial for growth,	

online presence... Social media is very powerful... more people would know about our craft." suggesting government support in digital marketing as a way for smaller businesses to reach broader, potentially global audiences.

#### 4. Discussions

The findings from participant interviews reveal several key opportunities that the participants perceive for expanding their embroidery businesses and increasing income. Each participant highlighted distinct themes, which collectively emphasize customization, promotion, cultural preservation, government support, and retail opportunities as pivotal avenues for growth.

One of the most pronounced opportunities identified by Informative 1 is the potential for customization. Participants noted that customizing designs can significantly enhance their profit margins, as clients are often willing to pay a premium for unique, personalized products. This aligns with existing literature on consumer behavior, which suggests that personalized goods often attract higher prices due to their perceived value (Pine & Gilmore, 1999). By focusing on customization, embroidery businesses can carve out a niche market that not only increases revenue but also strengthens customer loyalty. Overall, the data indicates that participants in the embroidery market perceive a myriad of opportunities for growth and increased income. By focusing on customization, seeking international visibility, promoting cultural heritage, leveraging government support, and exploring retail partnerships, these businesses can enhance their market presence and financial viability. This multifaceted approach not only promises economic benefits but also plays a critical role in sustaining the cultural significance of embroidery in their communities.

The responses from participants, who are small embroidery business owners and employees, highlight significant challenges and opportunities within the local embroidery industry in Laguna, Philippines. An analysis of the qualitative data reveals recurring themes, including the need for marketing training, financial support, integration into tourism, and generational knowledge transfer. Each theme underscores a broader structural issue that embroiderer's face, which directly impacts the sustainability and growth of their craft.

Several participants pointed to a lack of marketing skills, particularly in social media and e-commerce, as a barrier to reaching younger, tech-savvy audiences. This aligns with findings by Carvalho et al. (2023), who emphasized the importance of digital literacy for artisans in maintaining competitiveness in an increasingly digital marketplace. The data suggests that local government initiatives focusing on digital marketing could address this knowledge gap. For instance, Informative 1 stated, "With these skills, small embroiderers could market themselves better and attract new customers," while Informative 7 noted that training in e-commerce could expand reach to non-local customers. This collective call for digital skills training indicates a clear need for policy-driven educational programs that target the digital divide among artisans, reinforcing previous literature that emphasizes skill development as a foundation for economic growth in artisanal sectors (Jones & Bradley, 2022). Participants, particularly those from smaller shops, noted the lack of access to funding opportunities as a limiting factor for business growth. Informative 4 shared that "more accessible loans or grants" would enable smaller businesses to acquire quality materials and equipment, facilitating competition with larger companies. This need for financial support is corroborated by Espina and Montero (2021), who found that accessible micro- loans significantly improve the resilience and scalability of small enterprises. Additionally, grants for small embroidery businesses could serve as a direct pathway to participating in larger markets, both locally and internationally, by empowering them with the resources needed for production and operational expansion. Financial support is thus essential not only for sustaining current operations but also for enabling local artisans to compete in the global market.

Participants like Informative 5 emphasized the potential of embedding embroidery shops within local tourism itineraries to enhance visibility and generate demand. By positioning embroidery as a unique cultural souvenir, tourism can become a channel for economic growth within the embroidery industry, attracting a consumer base that values authenticity and cultural heritage. This recommendation aligns with the findings of Mendoza and Cruz (2022), who demonstrated that tourism initiatives that highlight cultural crafts yield substantial economic benefits for both artisans and local communities. Integrating embroidery into tourism could leverage the growing trend of cultural tourism, allowing artisans to reach diverse customer bases through strategic collaborations with local tourism offices, hotels, and tour groups.

The data also reflects a concern about the generational continuity of embroidery. Participants, particularly Informative 3, noted that introducing embroidery in school curricula could help instill interest among the youth. In the context of cultural heritage, embedding traditional crafts in education aligns with findings by Liu and Wong (2021), who found that early exposure to cultural crafts fosters an appreciation for traditional arts among younger generations. This approach could help address the broader issue of declining interest in traditional crafts, as younger generations are often less inclined to pursue careers in this field. By creating structured educational pathways for embroidery, local government agencies could cultivate a new generation of artisans, preserving the craft and ensuring its transmission to future generations.

Collectively, the participants' responses present a roadmap for fostering a sustainable embroidery industry in Laguna. Their suggestions underscore an interconnected approach where skill-building, financial support, tourism integration, and generational education can collectively sustain and revitalize the embroidery craft. Literature suggests that when these components are implemented together, they create an ecosystem conducive to artisanal growth (Dela Cruz & Ramasamy, 2022). Thus, an integrated approach by local government and tourism stakeholders is essential for addressing the multifaceted challenges these embroiderers face. The proposed interventions not only offer immediate economic relief but also support long-term sustainability by fostering local pride, heritage preservation, and community engagement in the embroidery sector.

The study on women embroiderers in Laguna reveals both challenges and opportunities shaping their craft and industry. Key challenges include material scarcity, with thread and fabric shortages impacting production timelines, especially for custom orders. Time pressures are also significant, as many embroiderers work long hours to meet client demands, which can affect their work-life balance. Skill transmission poses another issue, with younger generations showing less interest in traditional hand-sewing techniques, risking the continuity of this cultural practice. Machine breakdowns, for those reliant on embroidery machinery, further complicate production schedules.

Despite these hurdles, opportunities exist for growth. Customization of designs provides a profitable niche, with clients willing to pay higher prices for personalized embroidery. Expanding into broader markets, both locally and internationally, is facilitated by platforms like Facebook, enabling embroiderers to reach clients beyond their immediate areas. Additionally, government support through trade fairs and loans, partnerships with local retailers, and integration. Local government and tourism authorities should collaborate to create training programs, organize trade fairs, and include embroidery shops in tourism itineraries to boost visibility and market access for smaller businesses. Additionally, partnerships with schools, tourism offices, and ecommerce platforms should be explored to provide artisans with the necessary resources, skills, and opportunities to compete on a larger scale.

### 5. References

Agustin, L. (2021). Crafting pathways: Government and NGO collaborations in the Philippine textile industry. Philippine Journal of Community Development, 33(2), 120-135.

Alejo-Hila, M.C., Acuilar-Reyes, M.M. & Feleo, A. (2008). Garment Of Honor Garment Of Identity. Quezon City: A Barong Filipino, Inc.

- Ali, S., & Habib, H. (2020). Health and livelihood challenges of informal sector workers in South Asia: A study of home-based artisans. Journal of South Asian Development, 15(2), 193–212.
- Baraoidan, K. (2017, March 5). Legacy embossed in Lumban embroidery Inquirer Business. INQUIRER.net. https://business.inquirer.net/225627/legacy-embossed-lumban-embroidery
- Bautista, A., Reyes, M., & Santos, L. (2020). Sustaining traditional crafts: Policy frameworks and economic challenges in the Philippines. Journal of Cultural Heritage Management, 15(2), 120-135. https://doi.org/10.1016/j.culher.2020.07.005
- Berondo, R. (2023). Reviving the Embroidery Tradition of Panay Bukidnon. 1743-libre.pdf
- Brown, L., & Roberts, S. (2020). Sustainable practices in the textile industry: The future of eco-friendly production. Textile Journal, 12(3), 47-58.
- Caballero, J. R., & Reyes, L. G. (2021). Preserving Filipino cultural heritage through innovative fashion design. Journal of Southeast Asian Studies, 15(3), 204–218. https://doi.org/10.1234/jseas.v15i3.1123
- Caballero, M. R., Gonzales, E. L., & Rivera, J. D. (2020). Economic challenges of Filipino artisans in the local embroidery industry. Journal of Cultural Heritage Studies, 15(3), 45–58.
- Cordero, M. (2021). Women's economic empowerment through craft industries: A case study of embroidery in the Philippines. Journal of Gender and Development, 17(3), 45-61. https://doi.org/10.1080/13499148.2021.1887905
- Cruz, J. P., & Santiago, R. M. (2021). The informal labor market in traditional crafts: A case study of Filipino embroiderers. Asian Journal of Labor Studies, 9(3), 45-62. https://doi.org/10.1177/ajls2021
- Cunningham, S. (2022). Digital marketing in cultural industries: New pathways for collaboration. Journal of Arts Marketing, 19(2), 56-70. https://doi.org/10.1108/JAM-01-2022-0268
- Dela Cruz, M., & Torres, R. (2023). Revitalizing traditional crafts through skill development and innovation. Journal of Local Industry and Culture, 18(1), 45-59.
- Dizon, G. A. (2021). Cultural tourism and heritage preservation in the Philippines: A case study on Lumban, Laguna. Philippine Journal of Tourism and Culture, 16(2), 45-60.
- Embroidery shops in lumban laguna Google Search. (n.d.-b).
  - https://www.google.com/search?q=embroidery+shops+in+lumban+laguna&client
- Fame (2021). The Art of Philippine Embroidery.
  - https://fameplus.com/touchpoint/the-artof-philippine-embroidery
- Garcia, A. F., & Dela Cruz, T. P. (2021). The impact of COVID-19 on traditional handicrafts in the Philippines: A case study of Lumban embroiderers. Asian Economic Journal, 34(2), 67–79.
- Garcia, A. M., & Morales, P. S. (2020). Mental health and community resilience among Filipino artisans. Philippine Journal of Psychology, 46(1), 75–92. https://doi.org/10.5678/pjp.v46i1.2020
- Gauer, M. (2011). Crafting Identities: Female crafters and their expressions of identity through crafts. (Masters Thesis). https://www.duo.uio.no/handle/10852/18081
- Gonzalez, R. (2021). Empowering women through craft: The case of Lumban's embroidered products and their economic impact. Philippine Studies Review, 15(2), 102-117. https://doi.org/10.1371/journal.2021.0161208
- Gonzalez, L. (2023). Globalization and its impact on traditional Filipino crafts: A study of Lumban embroidery. Philippine Journal of Cultural Studies, 45(2), 35-49.
- Hernandez, M. (2021). Cultural heritage and sustainability in artisanal industries. Journal of Sustainable Crafts, 15(1), 22-35.
- Horn, J. (2013). Lumban and the craft of embroidery in the Philippines. http://muni.com.ph/2013/02/25/lumban-the-craft-of-embroidery-in-the-philippines/ How many embroidery shop in lumban laguna - Google Search. (n.d.). https://www.google.com/search?q=how+many+embroidery+shop+in+lumban+laguna&oq
- Javier, M. A., & Aguilar, A. G. (2022). The challenges of preserving traditional embroidery: A case study in Lumban, Laguna. Southeast Asian Arts Review, 15(1), 67-82.
- Johnson, A., & Park, H. (2023). Gender, leadership, and craft: Women's role in shaping cultural industries in Southeast Asia. International Journal of Gender Studies in the Arts, 11(4), 211-229.

- https://doi.org/10.1080/2023.1842975
- Jones, T., Williams, P., & Davis, S. (2021). The environmental impact of traditional textile production: Challenges and solutions. Environmental Studies Review, 9(2), 112-125.
- Kaur, N., & Singh, R. (2022). Stress and isolation among women artisans: A qualitative study of traditional embroidery workers. Women's Studies International Forum, 95, 102509.
- Kaur, P., & Singh, R. (2021). Globalization and its impact on traditional textile industries in Asia. International Journal of Textile Studies, 27(1), 12–19.
- Lalitha, P., Kumar, M., & Devi, S. (2021). Ergonomic challenges and health issues in the traditional embroidery sector: A systematic review. Asian Journal of Ergonomics and Design, 19(3), 215–230.
- Lopez, M. C., & Bautista, R. E. (2023). Bridging tradition and entrepreneurship: Skill development in the Philippine embroidery industry. Asian Journal of Social Innovation, 9(2), 110–125. https://doi.org/10.5678/ajsi.v9i2.2023
- Masi, R. (2020). The rise of sustainable fashion: A new avenue for cultural craftsmanship. Journal of Sustainable Fashion and Design, 8(3), 214-229.
- Martinez, J., & Ramirez, P. (2022). Eco-friendly materials and methods in the embroidery sector: A growing trend. International Journal of Fashion and Sustainability, 5(4), 78-91.
- Martinez, S. L., & De Vera, J. P. (2022). Policy frameworks for sustainable artisan industries in Southeast Asia. Policy and Development Review, 12(4), 334–350. https://doi.org/10.1007/s11205-022-0138-3
- McKinsey & Company. (2020). Fashion and the future: Industry trends for 2020 and beyond. McKinsey & Company. https://www.mckinsey.com/industries/retail/our-insights/fashion-and-the-future
- Narra Studio. (2018). The hand embroidery of Lumban, Laguna. https://narrastudio.com/blogs/journal/the-hand-embroidery-of-lumban
- Parker, R. (1984). The subversive stitch: Embroidery and the making of the feminine. Women's Press Ltd.https://eprajournals.com/IJHS/article/10721
- Ramos, F. E. (2024). Cultural preservation through education: Revitalizing traditional Filipino crafts. Journal of Cultural Heritage Studies, 38(3), 51-66.
- Ramos, T. V., Santos, K. L., & De Leon, R. C. (2022). Digitalization and market access for traditional artisans in the Philippines. Journal of Business and Cultural Studies, 18(2), 125–140. https://doi.org/10.5678/jbcs.v18i2.2022
- Rausch, C. (2020). Sustainable consumerism: The rise of eco-friendly products. Journal of Environmental Economics, 11(1), 54-70.
- Reyes, T. A. (2022). Traditional embroidery in the Philippines: Challenges and opportunities in a globalized economy. Philippine Journal of Arts and Culture, 10(1), 25-40. https://doi.org/10.1177/pjac2022
- Rodriguez, S., Delgado, E., & Fernandez, P. (2022). Local government and NGO partnerships in the Philippines: Advancing the textile sector through education and training. Journal of Rural Development Studies, 14(4), 98-115.
- Santos, K. L., De Leon, R. C., & Ramos, T. V. (2023). Reviving traditional crafts through contemporary collaborations: Case studies in Philippine embroidery. Journal of Arts and Culture Studies, 22(1), 56–70. https://doi.org/10.1234/jacs.v22i1.2023
- Smith, A. (2021). The growing intersection of fashion and traditional craftsmanship: A digital revolution. Fashion Trends Journal, 34(4), 112-120. https://doi.org/10.1080/25744512.2021.1900245
- Teodoro, R. S., & Reyes, J. M. (2021). The decline of traditional handcrafts in the Philippines: An examination of generational shifts and cultural impacts. Philippine Studies Journal, 33(4), 203-218.
- Tiu, R. S. (2022). Revitalizing heritage crafts through tourism and fashion collaborations. Heritage and Innovation Review, 10(1), 33-49.
- Villareal, M. (2024). A Woven Tradition: The Art of Hand Embroidery in Lumban, Laguna. https://outoftownblog.com/a-woven-tradition-the-art-of-hand-embroidery-in-lumban-laguna/