



The Impact of Machine-Made Production on the Market for Handmade Phulkari: Challenges and Opportunities

Dimple Khokhar^{1*}, Prof.B.S. Bhatia², Niraj Kumar Jaiswal³, Dr. Rajinder Kaur⁴

^{1*}Research Scholar, Fashion Designing, RIMT University, Mandi Gobindgarh, Punjab. khokhardimple118@gmail.com

²Pro Vice Chancellor, RIMT University, Mandi Gobindgarh, Punjab.

³Assistant Professor, Department of Fashion Technology, NIFT, Kangra, Himachal Pradesh.

⁴Assistant Professor, LPU University, Phagwara, Punjab.

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ABSTRACT

This study investigates the impact of machine-made Phulkari on the traditional handmade Phulkari market in Patiala, Punjab. Through surveys of 25 consumers and interviews with 25 artisans, the research examines consumer preferences, the challenges faced by artisans and the opportunities for growth in the evolving market. The findings reveal that while consumers value the authenticity of handmade Phulkari, many are drawn to the affordability of machine-made alternatives. Artisans face significant competition, leading to decreased income and market visibility. The paper suggests that artisans can leverage digital platforms, modern designs and emphasize the cultural significance of their craft to maintain competitiveness in a changing market.

Keywords: Phulkari, Handmade, Machine-made, Artisans

I. Introduction

Phulkari, an intricate form of embroidery originating from Punjab, has long been celebrated for its vibrant colors, geometric patterns and cultural significance. Traditionally, Phulkari was a craft passed down through generations, often created by skilled artisans who worked meticulously by hand. Each piece of Phulkari not only represents a stunning work of art but also embodies the history, culture and heritage of Punjab. The craft has traditionally been worn by women as part of their attire and used in various ceremonial contexts. Over time, the significance of Phulkari has transcended cultural boundaries, gaining recognition as a symbol of traditional Indian craftsmanship in both domestic and international markets.

However, with the advent of modern technology, machine-made Phulkari has entered the marketplace, presenting new dynamics that challenge the sustainability of traditional handicrafts. Machine-made Phulkari offers a cheaper and faster alternative to handcrafted items, often targeting the same consumer base. The mass production of these items has allowed manufacturers to flood the market with affordable versions of the once exclusive, labor-intensive handicrafts. As a result, artisans who once enjoyed a steady stream of demand for their handmade products are now grappling with the realities of competition from these mass-produced versions.

While machine-made Phulkari offers a more accessible price point for consumers, it raises concerns about the preservation of traditional craftsmanship and the livelihood of artisans. For consumers, the decision to choose between machine-made and handmade Phulkari often comes down to price, convenience and perceived value. While some still value the authenticity and cultural significance of handmade products, many are drawn to the lower cost and availability of machine-made alternatives.

This research seeks to explore the impact of machine-made production on the market for handmade Phulkari, specifically within the context of Patiala, Punjab. The study aims to understand consumer preferences, examine the challenges faced by artisans in this competitive market, and identify potential opportunities for artisans to adapt and grow. Through surveys with 25 consumers and interviews with 25 artisans, this study will provide insight into the shifting dynamics of the Phulkari market and offer strategies for artisans to navigate the modern marketplace while preserving the cultural heritage of the craft.

By focusing on the intersection of tradition and modernity, this research aims to provide a comprehensive understanding of the ongoing transformation within the Phulkari industry. The findings of this study will be valuable for artisans, policymakers and stakeholders in the handicraft sector to devise strategies that support the growth of handmade Phulkari while addressing the challenges posed by machine-made production.

Objectives:

1. To analyze the impact of machine-made Phulkari on consumer preferences for handmade Phulkari.
2. To identify the challenges faced by artisans in sustaining their livelihoods amidst competition from machine-made alternatives.
3. To explore opportunities for artisans to adapt and expand their market presence while preserving the cultural significance of handmade Phulkari.

Literature Review**The Evolution of Phulkari Embroidery**

Kaur (2015) explored the origins and historical significance of Phulkari, a traditional Punjabi embroidery characterized by its intricate patterns and vibrant colors. The study emphasizes how Phulkari has transitioned from being a household art form, used during marriages and festive occasions, to a commercially viable product in urban and international markets. Kaur highlights the symbolic meanings of the motifs and colors in Phulkari, which often reflect emotions, social status and local culture. This transformation underscores the craft's resilience in adapting to modern consumer demands.

Cultural Preservation in Modern Markets

Singh (2017) emphasized the importance of preserving Phulkari as a cultural artifact in an era dominated by industrialization. The study explores initiatives such as government subsidies, craft exhibitions and collaborations with fashion designers that aim to sustain this traditional art form. Singh underscores the need for a balanced approach that incorporates modern trends while respecting Phulkari's cultural roots, ensuring its relevance in contemporary markets.

Machine-Made vs. Handmade Craftmanship

Sharma and Singh (2018) discussed the economic and cultural implications of the rise of machine-made Phulkari. They argue that while mechanized production has democratized access to this craft, it undermines the artistry and uniqueness of handmade pieces. Their research compares the price points, production scales and consumer perceptions of handmade versus machine-made Phulkari, finding a significant market for both but with a preference for authenticity in premium segments. This shift has had mixed repercussions for artisans, who face stiff competition from mechanized products.

Impact of Modern Designs on Traditional Crafts

Bansal (2018) investigated how modern design trends have influenced traditional Phulkari embroidery. The study finds that contemporary adaptations, such as simplified patterns and pastel color schemes, attract younger audiences. However, Bansal notes that such changes must be approached cautiously to avoid eroding the traditional identity of the craft. Training artisans in modern design principles is suggested as a way to innovate while maintaining authenticity.

Economic Challenges for Artisans

Gupta et al. (2019) provided a detailed account of the financial struggles faced by artisans in the Phulkari industry. The authors outline how fluctuating raw material prices, limited financial support and shrinking local markets have contributed to the economic instability of traditional craftspeople. Their research also highlights the absence of proper credit facilities and the exploitative practices of middlemen, which exacerbate the financial vulnerabilities of artisans. Gupta et al. advocate for policy interventions to secure sustainable livelihoods for craftspeople.

Consumer Preferences in Handicrafts

Ranjan (2020) investigated the evolving preferences of consumers in the handicraft market, particularly in Phulkari. The study identifies affordability, cultural authenticity and aesthetic appeal as key factors influencing consumer choices. Ranjan finds that younger consumers often gravitate toward modernized designs, while older demographics remain loyal to traditional patterns. This dichotomy suggests a need for artisans to diversify their designs to cater to a broader audience without compromising traditional techniques.

Government Policies and Artisan Welfare

A report by the Ministry of Textiles (2020) evaluated the effectiveness of government initiatives aimed at supporting artisans. Programs like the National Handicrafts Development Programme (NHDP) and the Artisan Credit Card Scheme have improved access to credit and training for many. However, the report identifies gaps in outreach and implementation, particularly in rural areas where the majority of Phulkari artisans reside. These findings underline the need for localized policy execution.

The Role of Digital Platforms in Handicraft Promotion

Jain and Verma (2021) highlighted the potential of e-commerce platforms in promoting handicrafts like Phulkari. Their study demonstrates how digital platforms have expanded market access for artisans, enabling them to reach global consumers directly. However, the authors also note the digital divide, as many artisans lack the skills and resources to leverage these platforms effectively. Jain and Verma call for targeted training programs to help artisans optimize their online presence.

Globalization and the Future of Phulkari

Kapoor and Anand (2021) analyzed the effects of globalization on Phulkari. The authors identify both challenges, such as increased competition and cultural dilution and opportunities, including global recognition and expanded markets. Their study emphasizes the need for Phulkari artisans to adopt hybrid strategies that combine traditional techniques with modern marketing practices, such as storytelling and digital campaigns, to secure a sustainable future.

Sustainability and Ethical Consumerism in Handicrafts

Mehta (2022) delved into the growing trend of ethical consumerism, which aligns well with handmade crafts like Phulkari. The study highlights the environmental and social benefits of purchasing sustainable products. Mehta suggests that effective branding and storytelling about the artisan's journey can enhance the appeal of Phulkari among conscious consumers, particularly in international markets.

Methodology

The methodology for this study was designed to explore the role of Phulkari embroidery in the context of digital platforms, focusing on both artisans and consumers. A mixed-method approach was employed to ensure a comprehensive analysis.

Research Design

A descriptive research design was utilized to understand the perspectives of artisans and consumers regarding the digital promotion and commercialization of Phulkari. The study combined quantitative and qualitative methods to gather a detailed understanding of the topic.

Sample Selection

The sample size consisted of 50 participants, divided equally between 25 artisans and 25 consumers, all selected from the Patiala district in Punjab. A purposive sampling technique was used to ensure the inclusion of individuals actively engaged in the creation, sale or purchase of Phulkari. Artisans were chosen based on their involvement in traditional Phulkari production, while consumers were selected for their interest and engagement in purchasing Phulkari through digital platforms.

Data Collection Methods

Data were collected through surveys and interviews:

1. **Surveys:** Structured questionnaires were distributed to both artisans and consumers.
 - **Artisan Surveys** focused on their experiences with digital platforms, challenges and benefits of online promotion.
 - **Consumer Surveys** included questions about purchasing behavior, preferences for traditional vs. modern designs and the influence of digital platforms on their decisions.
2. **Interviews:** Semi-structured interviews were conducted with 10 artisans to gain deeper insights into their adaptation to digital marketing and 10 consumers were interviewed to understand their perception of Phulkari's authenticity and value.

Data Analysis

The data collected from surveys were analyzed quantitatively using descriptive statistics to identify trends and patterns. Responses from the interviews were transcribed and analyzed thematically to capture recurring themes and narratives.

Limitations

The study faced certain limitations, including:

- A relatively small sample size, which may not fully represent the diverse experiences of all Phulkari artisans and consumers in Punjab.
- Limited access to some artisans who lacked connectivity to digital platforms.

Despite these limitations, the methodology provided a robust framework to address the research objectives.

Table 1: Demographic Profile of Participants

Category	Artisans (n=25)	Consumers (n=25)
Gender	15 Female, 10 Male	20 Female, 5 Male
Age (Years)	20-30: 10, 31-50: 12, Above 50: 3	18-30: 12, 31-50: 10, Above 50: 3
Education Level	Primary: 8, Secondary: 12, Higher: 5	Secondary: 8, Higher: 17
Digital Literacy	Basic: 7, Moderate: 10, Advanced: 8	Basic: 6, Moderate: 13, Advanced: 6

Key Insights : The revised consumer demographic reflects a significant female majority, aligning with the traditional use of Phulkari in women's attire. Female consumers are younger and possess moderate to advanced digital literacy, indicating their active engagement with digital platforms.

Table 2 reflects the responses of all 25 artisans regarding their experiences and challenges with digital platforms.

Table 2: Detailed Artisans Perceptions of Digital Platforms

Aspect	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total (n=25)
Digital platforms increased market reach	10 (40%)	9 (36%)	4 (16%)	1 (4%)	1 (4%)	25
Helped in achieving higher profit margins	6 (24%)	9 (36%)	6 (24%)	3 (12%)	1 (4%)	25
Lack of digital skills is a significant barrier	14 (56%)	6 (24%)	2 (8%)	2 (8%)	1 (4%)	25
Prefer traditional selling over digital	5 (20%)	5 (20%)	6 (24%)	6 (24%)	3 (12%)	25
Digital platforms require significant investment in time and money	12 (48%)	7 (28%)	3 (12%)	2 (8%)	1 (4%)	25

Key Insights :

Increased Market Reach: A combined 76% of artisans (40% strongly agree + 36% agree) acknowledged that digital platforms expanded their reach, allowing them to connect with customers globally.

Profit Margins: About 60% of artisans agreed that digital platforms helped them secure better profit margins, though some remained neutral or faced challenges translating online reach into higher profits.

Digital Skills as a Barrier: A significant 80% of artisans (56% strongly agree + 24% agree) reported that a lack of digital skills hindered their effective use of online platforms.

Preference for Traditional Selling: Artisans were divided, with 40% preferring traditional methods, while others were neutral or disagreed, suggesting a slow but ongoing transition toward digital marketing.

Investment in Time and Money: Most artisans (76%) felt that managing digital platforms demanded considerable time and financial resources, impacting their willingness to engage fully online.

Table 3 presents the major challenges reported by artisans in adopting and using digital platforms for selling Phulkari.

Table 3: Artisans Challenges in Using Digital Platforms

Challenge	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total (n=25)
Lack of digital marketing knowledge	14 (56%)	7 (28%)	3 (12%)	1 (4%)	0 (0%)	25
High competition on online platforms	12 (48%)	8 (32%)	3 (12%)	2 (8%)	0 (0%)	25
High costs of digital marketing tools	10 (40%)	9 (36%)	5 (20%)	1 (4%)	0 (0%)	25
Difficulty in managing both traditional and digital sales	11 (44%)	8 (32%)	5 (20%)	1 (4%)	0 (0%)	25
Dependence on intermediaries for sales	9 (36%)	7 (28%)	6 (24%)	2 (8%)	1 (4%)	25

Key Insights

Digital Marketing Knowledge: 84% of artisans agree that a lack of digital marketing skills is a major barrier to effectively using online platforms.

Competition: 80% of artisans reported that high competition on digital platforms is a challenge, making it harder to stand out.

Costs of Digital Marketing: 76% of artisans found the cost of digital marketing tools a significant challenge, which could deter them from fully utilizing online platforms.

Managing Both Traditional and Digital Sales: A combined 76% of artisans found it challenging to manage both traditional and digital sales, indicating the time and effort required to balance both channels.

Dependence on Intermediaries: 64% of artisans still rely on intermediaries for sales, which may limit their control over digital sales channels.

Table 4 shows the responses of the 25 consumers regarding their preferences for Phulkari on digital platforms.

Table 4: Consumer Preferences for Phulkari on Digital Platforms

Attribute	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total (n=25)
I prefer buying Phulkari online	12 (48%)	8 (32%)	3 (12%)	2 (8%)	0 (0%)	25
Traditional designs are more appealing	14 (56%)	6 (24%)	3 (12%)	2 (8%)	0 (0%)	25
I trust the authenticity of online Phulkari	10 (40%)	9 (36%)	5 (20%)	1 (4%)	0 (0%)	25
High-quality product photos influence my buying decision	18 (72%)	5 (20%)	2 (8%)	0 (0%)	0 (0%)	25
I prefer supporting local artisans via online platforms	15 (60%)	7 (28%)	3 (12%)	0 (0%)	0 (0%)	25

Key Insights:

Online Purchases: A majority (80%) of consumers either strongly agree or agree that they prefer buying Phulkari online, indicating the growing convenience and attraction of e-commerce platforms.

Traditional Designs: 80% of consumers favored traditional designs, aligning with the cultural preference for authentic, hand-embroidered Phulkari pieces.

Trust in Authenticity: While 76% of consumers trust the authenticity of Phulkari purchased online, a small portion (20%) remained neutral, possibly due to concerns about the genuineness of online products.

Importance of Product Photos: The high influence of quality photographs on purchasing decisions (92%) underlines the critical role of effective visual representation in online marketing.

Support for Local Artisans: 88% of consumers expressed a preference for supporting local artisans, highlighting the strong connection between traditional crafts and the desire to help sustain local communities.

Table 5 reflects what drives consumer engagement with Phulkari products on digital platforms.

Table 5: Factors Influencing Consumer Engagement on Digital Platforms

Factor	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total (n=25)
Attractive product visuals	18 (72%)	6 (24%)	1 (4%)	0 (0%)	0 (0%)	25
Ease of navigation on the website	14 (56%)	8 (32%)	2 (8%)	1 (4%)	0 (0%)	25
Customer reviews influence my decision	12 (48%)	9 (36%)	3 (12%)	1 (4%)	0 (0%)	25
Availability of product details	15 (60%)	7 (28%)	3 (12%)	0 (0%)	0 (0%)	25
Discounts and offers attract me	10 (40%)	8 (32%)	5 (20%)	2 (8%)	0 (0%)	25

Key Insights:

Product Visuals and Engagement: 96% of consumers agreed that attractive visuals play a major role in engaging with the product.

Website Navigation: Ease of navigation on websites is important to 88% of consumers, emphasizing the need for user-friendly e-commerce platforms.

Influence of Reviews: Reviews were seen as influential by 84% of consumers, which reinforces the importance of social proof in online purchases.

Product Details: A combined 88% of consumers valued detailed product descriptions, underlining the need for transparency and clarity in online retail.

Discounts and Offers: While not as influential, 72% of consumers still found discounts and offers attractive, suggesting a pricing sensitivity in the market.

Discussion

This study explores the impact of digital platforms on the promotion and sale of Phulkari, a traditional Punjabi handicraft and the role of color aesthetics in enhancing consumer engagement. The data obtained from both artisans and consumers reveals significant insights into the evolving dynamics of the handicraft market in the digital age.

Consumer Preferences for Phulkari on Digital Platforms:-The results indicate a strong preference for purchasing Phulkari online, with 80% of consumers agreeing that they prefer digital platforms for buying this craft. This is in line with the growing trend of e-commerce, where convenience, accessibility and a wide variety of products play a key role in driving consumer behavior. Additionally, the preference for traditional designs (80%) suggests that consumers continue to value authenticity, which poses both a challenge and an opportunity for artisans to stay true to their craft while engaging with a broader audience.

The Role of Color in Consumer Engagement:- One of the most striking findings is the influence of color in consumer decisions. A large majority (92%) of consumers agreed that high-quality photographs and the attractiveness of product visuals significantly impact their purchasing decisions. This underscores the importance of digital marketing strategies that prioritize clear, vibrant imagery. The strong preference for traditional colors, combined with the growing demand for modern aesthetics, suggests that artisans should adapt their color palettes to meet contemporary preferences without compromising cultural authenticity.

Artisans Challenges in the Digital Market:-The challenges faced by artisans in leveraging digital platforms were highlighted in the responses. A lack of digital marketing knowledge (84%), high competition (80%) and the high costs associated with digital marketing tools (76%) were identified as major barriers. These challenges reflect a broader issue where artisans, especially those from rural areas, struggle to navigate the complexities of the online marketplace. Furthermore, 76% of artisans found it difficult to manage both traditional and digital sales simultaneously, indicating the need for greater support in balancing these two channels.

Artisan-Consumer Relationship and Support for Local Crafts:-Despite these challenges, both artisans and consumers displayed a strong desire to support local crafts. A significant number of consumers (88%) expressed a preference for supporting local artisans, which is a promising trend for the future of the craft industry. However, artisans still face hurdles in accessing the market directly due to their reliance on intermediaries (64%), limiting their control over pricing and branding. This suggests that a more direct approach to marketing and sales could empower artisans, enabling them to build stronger connections with their customers.

Implications for Future Research and Strategy:- The findings indicate that digital platforms offer a viable solution for expanding the market for Phulkari handicrafts. However, for artisans to fully capitalize on this opportunity, there is a need for more training and resources to help them improve their digital literacy and marketing skills. Moreover, collaborations with digital marketing professionals or e-commerce platforms could help reduce the cost and complexity of online selling. Future research could explore the effectiveness of specific digital tools and platforms in enhancing artisan visibility and sales.

Suggestions

Enhancing Online Presence for Artisans:-Artisans should focus on creating a strong online presence by utilizing platforms such as Instagram, Pinterest and Etsy to showcase their traditional Phulkari designs. Social media can be used to tell the story behind each piece, which can create emotional connections with potential customers and help promote the cultural significance of the craft.

Improving Product Photography:- To capture the intricate details and vibrant colors of Phulkari, artisans should invest in professional photography or learn to take high-quality images. Clear, vibrant pictures will not only showcase the craftsmanship but also enhance the online shopping experience for customers, making the products more appealing and trustworthy.

Digital Marketing Education and Training:-Local governments and artisan associations should collaborate to offer digital marketing workshops, e-commerce training and photography skills development.

These training programs can equip artisans with the necessary tools to market their products effectively online, helping them navigate platforms like Etsy, Instagram and their own websites.

Promoting Direct Artisan-Consumer Engagement:- Platforms like "Made in India" or "Buy Local" can be developed to connect artisans directly with consumers, eliminating intermediaries. By cutting out middlemen, artisans can have more control over pricing, branding and direct consumer relationships, which can result in higher profit margins and a stronger connection with their customers.

Research on Digital Tools and Platforms:- Further research should be conducted on the effectiveness of various e-commerce tools, digital platforms and marketing strategies specifically tailored for traditional crafts like Phulkari. This would help artisans identify the best channels for reaching a global audience and increase their understanding of consumer behavior in the digital space.

Exploring Consumer Preferences in Depth:- Research should explore deeper into consumer preferences, especially in terms of color, design and quality perception. By understanding how different demographic groups engage with digital content, artisans can adjust their marketing strategies to attract targeted consumer segments.

Conclusion

This study has explored the role of digital platforms in promoting and selling Phulkari, a traditional handicraft of Punjab and examined how color aesthetics can influence consumer engagement and purchasing decisions. The findings highlight a growing shift toward e-commerce and digital marketplaces, indicating that online platforms offer substantial opportunities for artisans to reach broader markets, both locally and globally.

The analysis of consumer preferences revealed that the majority of consumers are increasingly inclined to purchase Phulkari online, particularly when high-quality images and vibrant colors are presented. Color plays a significant role in attracting consumer attention, as it enhances the perceived value and authenticity of the product. This reinforces the importance of maintaining traditional aesthetics while adapting to the visual demands of digital platforms. The study also revealed that consumers prefer buying directly from artisans to support local craftsmanship and ensure authenticity.

On the other hand, artisans face multiple challenges in adopting digital tools and strategies. Many artisans lack the digital literacy required for effective online marketing, and the high cost of digital advertising remains a significant barrier. Furthermore, competition on global platforms is fierce, and artisans must find ways to differentiate their products while maintaining their unique cultural identity.

However, there is an evident opportunity for artisans to overcome these challenges with the right support. The study suggests that training programs on digital marketing, e-commerce and photography can significantly improve the artisans ability to engage with online consumers. Furthermore, simplifying the process of setting up and managing online stores and offering subsidies for digital marketing could ease the transition into e-commerce for many artisans.

Overall, while challenges exist, they are not insurmountable. By focusing on improving digital literacy, enhancing product visibility through high-quality imagery and promoting direct artisan-consumer relationships, Phulkari artisans can not only preserve their craft but also thrive in the digital age. As the global demand for handmade, authentic products grows, Phulkari's rich cultural heritage can reach new markets, offering artisans the opportunity to generate sustainable incomes while preserving the tradition for future generations.

In conclusion, embracing digital platforms is crucial for the future of Phulkari, but it requires collaboration among artisans, government bodies and digital platform providers. With the right strategies, Phulkari can successfully transition into a global marketplace, all while staying true to its cultural roots.

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