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## The COVID-19 Crisis and Handicrafts of Uttar Pradesh: Challenges and Resilience in Zari-Zardozi Craft Industry of Bareilly

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### ABSTRACT

Uttar Pradesh is the largest state in terms of population is also a major centre for handicraft production and exports in India. It is very famous for some of its most unique handicrafts like Banarasi saree, chikankari embroidery, wooden and terracotta toys etc. Zari-Zardozi is also ancient embroidery that is practiced in many cities in Uttar Pradesh and Bareilly is renowned for its intricate Zardozi embroidery. The world economy was severely disrupted by the COVID-19 pandemic, and the handicraft industry suffered greatly as a result of supply chain interruptions, a decline in consumer demand, and economic downturns. This study explores the impact of the pandemic on the handicraft industry of Uttar Pradesh, with a particular focus on the Zari-Zardozi craft of Bareilly. It evaluates the socioeconomic impacts of the pandemic on artisans using primary and secondary data analysis, Examining factors like government assistance, employment losses, income reduction, and raw material access. The study employs techniques like descriptive analysis, correlation and regression to attain the objectives. According to the research, just 30–40% of artists received financial assistance, 75% experienced supply chain interruptions, and 85% saw a sharp drop in income. Although 70% of artists said internet channels may help with rehabilitation, digital usage was still limited. According to regression analysis, training in digital skills and financial recovery were important indicators of future optimism. In order to protect artists' livelihoods and guarantee the long-term viability of the handicraft industry, the study emphasizes the critical need for regulatory interventions, digital literacy initiatives, and sustainable business models.

### Introduction-

India's handicraft sector is an irreplaceable pillar of cultural heritage and economic sustenance, employing over seven million artisans, predominantly women from marginalized communities (Handicrafts Industry, n.d.). One of the most populated states in India, Uttar Pradesh (UP), is well known for its varied handicrafts and rich cultural legacy. The state is home to a number of internationally famous crafts, including as the Zari-Zardozi of Bareilly, the brassware of Moradabad, the carpet weaving of Bhadohi, and the Chikankari embroidery of Lucknow. (Gupta & Verma, 2024) Artisans, often from marginalized communities, depend on the craft industry for income, with many working in informal settings without formal protections or social security. The unprecedented global crisis of Covid-19 has profoundly impacted the global economies sparing no sector and no country it is estimated by UN that global economies have lost almost \$8.5 trillion in the two years of pandemic. The traditional craft sector due to its heavy reliance on manual labour became more vulnerable to the economic slowdown and restrictions. Estimates suggest that the global handicraft market could suffer losses ranging from \$800 billion to \$1 trillion due to reduced consumer spending and canceled orders during the pandemic. (Yadav et al., 2022) The handicrafts of Uttar Pradesh faced serious supply chain disruptions, income loss, and evaporating demand as a result of the COVID-19 epidemic. Nationwide job losses and increased vulnerability for craftsmen were caused by the economic slump and travel

restrictions. Zari-Zardozi, a form of embroidery that uses metallic threads, has historically been an esteemed craft associated with India's culture. Bareilly, which is a city situated in the north of Uttar Pradesh is famous for its majestic Zardozi work and often called as "Zari Nagri". The zari-zardozi craft is a centuries old art which is passed on from generations' since the Mughal period. The pandemic further amplified the existing vulnerabilities within this sector, especially for Bareilly's artisans who faced reduced demand, disruptions in production, and challenges in accessing government support. This study aims to understand the impact of Covid-19 pandemic and lockdowns on the handicraft sector of Uttar Pradesh and with a specific focus on the Zari-Zardozi craft of Bareilly.

**KEY WORDS-** Bareilly, Covid-19, Handicrafts, Uttar Pradesh, Zardozi

## LITERATURE REVIEW

COVID-19 had a major impact on the informal sector, which includes MSMEs that are frequently unregistered enterprises. Due to a lack of support and inadequate safety nets, many of the estimated 1.6 billion or 76% of total informal workers faced impending destitution as a result of the pandemic's devastating economic effects. (ILO, 2020) Low wages and the lack of social security systems make the informal sector even more vulnerable. (Mukhtarova, 2020) The rehabilitation process for informal enterprises around the world is particularly difficult because, during the peak of the epidemic, the losses in informal employment were two to three times higher than those in official industries. (Ohnsorge, F, 2022) Aditya and Amri (2023) discovered that prolonged lockdowns had worse effect on the informal sector and the effects varied in different groups. COVID-19 caused tremendous upheaval in the handicraft industry and creative industry, according to World economic forum (2021) though this sector is a large employment generator in the world yet the informal nature of this sector makes it vulnerable to calamities like covid-19. Handicraft sector is the one of largest employment generator in India employing nearly 212,000 artisans. (IBEF, 2024) The outbreak of Covid-19 adversely affected the handicraft sector of India, according to studies decline in income, lack of demand, cancellation of orders and depletion of their savings were the main challenges that the sector faced due to lockdowns. (Singh & British Council and Fashion Revolution India, 2021) The state of Uttar Pradesh which is the largest centre for handicraft manufacturing in India also suffered the blow the COVID-19 pandemic further exacerbated these challenges, significantly impacting the handicraft sector in Uttar Pradesh, disrupting supply chains, market access, and artisan livelihoods. (U. S. Yadav et al., 2022) the pandemic-induced lockdowns and economic slowdowns resulted in the closure of workshops, a decline in exports, and the loss of thousands of artisan jobs. Around the world, governments and communities implemented a range of tactics to address the ongoing COVID-19 pandemic's health care burden and the issue of livelihood. The World Bank announced on July 2, 2020, a US \$750 million budget support for 15 crore MSMEs to improve access to liquidity for COVID-19-affected small companies. (Antonescu, 2020). The pandemic has accelerated digital transformation across industries, including handicrafts. Many artisans are now learning to leverage e-commerce, social media marketing, and digital entrepreneurship to sustain their operations. (Telagawathi et al., 2022) When it comes to operational issues, the challenges include working from home and using an internet platform, as well as functioning for a shorter amount of time and having trouble accessing offices, factories, warehouses, or workspaces. (Nugyven N.H et al., 2021)The relocation of employees to work from home, mental health issues brought on by the crisis and fear of losing their jobs were issues with staffing and leadership. A study conducted on the exit strategies of MSMEs revealed that most of the businesses had to chose bankruptcy, refinancing and selling the business to family or friends as a measure for their exit strategy. (Yadav et al., 2022)

## RESEARCH METHODOLOGY

The study is a descriptive analysis to understand the impact of Covid-19 on handicraft sector of Uttar Pradesh with special reference to zari-zardozi craft of Bareilly district. For this purpose both primary and secondary data were utilized. The secondary data has been extracted from many sources such as news papers, journal papers, websites, reports and other sources. These sources were utilized to find

the impact of Covid-19 on handicraft sector of Uttar Pradesh. For the collection of primary data a structured questionnaire was administered to 100 Zari-Zardozi artisans of Bareilly. The sample was selected using random sampling to ensure representation across different age groups, experience levels, and genders. Besides this interviews were conducted with the businessmen and officials related to the craft to understand the perspective of all stakeholders. The data was collected by in-person interactions by going to the respective units. The questionnaire was built using 5 point likert scale after collection the data was coded in numerical form to simplify the analysis. The data was analysed using JASP software employing techniques like descriptive analysis like Mean, Median, Standard deviation, Correlation etc and multiplier linear regression to understand the relation between different constructs also the reliability of the questionnaire was checked using Crohn bach's Aplha. At last the results were studied, interpreted and presented using tables, charts and graphs etc.

### RESEARCH OBJECTIVES

- Understand how Covid 19 affected the handicraft sector of Uttar Pradesh
- Evaluate the challenges faced by Zari-Zardozi artisans of Bareilly
- Study their adaptation and recovery also suggest actionable solutions to improve the condition of handicrafts in Uttar Pradesh

### COVID-19 AND HANDICRAFTS OF UTTAR PRADESH

The handicraft sector of Uttar Pradesh is an integral part of the culture and economy of the state, According to the sixth economic census 16.5% of total handicraft/handloom units in India are in Uttar Pradesh. (Dalua, 2021) The cultural identity of this region is symbolized by its arts and crafts such as the famous Chikankari needlework in Lucknow and the brassware from Moradabad. Because of their special qualities and importance, many of these crafts have also been given geographic indicator tags.

Table 1

Handicrafts of Uttar Pradesh

Handicraft Name	Famous Region	Key Products
Zardozi Embroidery	Lucknow, Bareilly	Bridal wear, sarees, sherwanis, cushion covers
Chikankari Embroidery	Lucknow	Kurtas, sarees, dupattas, tablecloths
Banarasi Silk Weaving	Varanasi	Banarasi silk sarees, lehengas, dupattas
Wooden Toys	Varanasi, Chitrakoot	Hand-painted wooden dolls, animal figurines, toy carts
Brassware	Moradabad	Utensils, lamps, idols, decorative pieces
Terracotta Toys	Gorakhpur	Figurines, pottery, wall hangings, decorative vases
Carpet Weaving	Bhadohi, Mirzapur	Hand-knotted wool and silk carpets, Persian-style rugs

Glassware	Firozabad	Glass bangles, chandeliers, vases, decorative glass items
Leather Goods	Agra, Kanpur	Shoes, bags, belts, wallets
Stone Carvings	Agra	Marble inlay work, Taj Mahal replicas, decorative panels
Metalware	Aligarh	Locks, door handles, metal sculptures
Patchwork	Rampur	Bedspreads, cushion covers, wall hangings, jackets

The state contributes 26% of the total handicraft exports of India. An average export of 42.5 million dollars per year is done by the handicraft sector of Uttar Pradesh which increases the foreign reserves of the state. (Mishra, 2024) Yet the unorganized nature of this sector makes it vulnerable to the challenges like Covid19 and lockdowns. The sector, which is a crucial source of livelihood for numerous artisans, faced unprecedented challenges affecting production, marketing, and the overall economic stability of the artisans. (U. S. Yadav et al., 2022)

- According to a report by EPCH India the handicraft industry of India saw the cancellations of 30% existing export orders. (IIFT, nd) The handicraft sector in Uttar Pradesh, which includes various crafts such as weaving, pottery, and woodwork, faced a setback of Rs. 8000 crore due to canceled orders and restricted exports caused by the outbreak of Covid 19.(Jha, 2020)
- Lockdowns disrupted the supply chain, hindering the procurement of raw materials needed for handicraft production. Movement and transportation restrictions further complicated artisans' access to workplaces, offices, or workshops. (Yadav et al., 2022) Many artisans had to operate from home, which was not always feasible. Digital technology also affected this sector because most of the work is done in traditional patterns and workers and artisans are less aware of digital knowledge.
- Artisans experienced severe financial difficulties as a result of decreased sales and production interruptions. Many had trouble covering their rent, utilities, and other recurring costs. The biggest financial issue facing owners of handicraft businesses was found to be the size of their invoices to pay. (Yadav et al., 2022) One of the main factors contributing to business failure during the pandemic was the incapacity of entrepreneurs to cover continuing costs.
- Their economic fragility was increased by their limited access to official institutions' financial aid. An estimated Rs 3,000 crores was lost by Eastern Uttar Pradesh's handicraft, handloom, and power loom industries both during and after the lockdown. (Maniyar, 2022)
- The handicraft sector, being labor-intensive, witnessed widespread job losses, leaving many artisans vulnerable. It is estimated that approximately two million individuals in the handicrafts sector lost their jobs during the pandemic. (Munshi, 2022) This loss of employment not only affected the artisans' immediate income but also threatened their long-term economic stability.
- The handicraft sector relies heavily on direct marketing and physical sales channels such as fairs, exhibitions, and tourist footfall. (Dalua, 2021)The pandemic-induced restrictions led to the cancellation of these events, severely limiting the marketing opportunities for artisans. According to the Federation of Associations in Indian Tourism & Hospitality the tourism and hospitality sector faced massive loss of 133.33 bn US dollar due to the pandemic.(PTI, 2020) The closure of retail outlets and reduced tourist activity further diminished sales, causing

significant financial losses for artisans. Many artisans lacked the necessary resources or knowledge to transition to online platforms, exacerbating their marketing challenges.

- A study by EPCH concluded that there will be a shift in consumer behavior about handicraft good where due to increased health safety concerns the products like khadi mask, organic clothing, cotton textile wears etc. would become more popular and Gifts and other costly handicrafts would be negatively impacted. The producers must focus on increased marketing on e-commerce because digitalization will accelerate online buying. (IIFT, nd)
- In Uttar Pradesh, the handicraft industry employs a large number of women, especially in crafts like weaving and embroidery. Due to their increased difficulty in accessing resources and support networks, these female artisans were disproportionately impacted by the epidemic. (Yadav et.al, 2022) The economic downturn exacerbated gender inequality by making women more susceptible to job loss and unstable finances. With schools closed and domestic responsibilities increasing, many women artisans were forced to reduce their working hours, further decreasing their earnings (Narain, 2024)
- Handicrafts are a major part of exports in Uttar Pradesh the exports of Uttar Pradesh fell from Rs 80,058.44 crore in 2019 to Rs 72,508.14 in April to November 2020. (Tnn, 2021) This represents a 9.43% decline, which was less severe than the national average drop in exports of 12.47%.
- Many artisans were left jobless when orders were canceled and production was stopped. During the height of the pandemic, about 90% of artisans are estimated to have lost their jobs. (Yadav et al., 2022) It had a significant impact on artisans' monthly income, which normally ranges from ₹10,000 to ₹20,000. The livelihoods of not just the artisans but also auxiliary workers that rely on the handicraft sector, like dyers, weavers, and transporters, were negatively impacted.
- Beyond economic challenges, artisans also encountered social and health-related issues. The fear of the virus, coupled with the lack of access to healthcare, added to the artisans' woes. These artists often don't have any social security and health insurances. Many artisans had to divert their limited resources to meet healthcare needs, further straining their financial situation.
- Due to the COVID-19 pandemic, the handicraft sector experienced changes in operational aspects. With the difficulties in accessing workplaces, offices, factories, or warehouses, many businesses started operating from home and using online platforms. Some enterprises practiced contactless transactions to reduce the rapid increase in cases.
- The pandemic also had a profound social and psychological impact on artisans. The uncertainty and fear surrounding the virus, coupled with the loss of livelihood, led to increased stress and anxiety among artisans. (AIACA, nd) Many artisans, who were already living in poverty, found it challenging to meet their basic needs, such as food and healthcare.
- One of the most significant impacts of the pandemic on the handicrafts sector was the loss of market access. With the closure of physical stores, exhibitions, and fairs, artisans lost their primary avenues for selling their products. The shift to online platforms was not easy for many artisans, especially those in rural areas with limited access to technology and the internet. This digital divide further widened the gap between urban and rural artisans, leaving many without any means to sell their products.
- The handicraft industry in UP faced pre-existing challenges such as its unorganized nature, inconvenient working conditions, limited access to research and training, and a lack of awareness regarding government initiatives. (Brickworks Analytics, 2021) These challenges were further aggravated by the pandemic, underscoring the need for targeted interventions to support artisans and promote the sector's resilience.
- In response to these challenges, the government of Uttar Pradesh has undertaken several initiatives aimed at reviving the handicraft industry. These include efforts to enhance skill development, facilitate access to credit, promote e-commerce, and provide financial assistance to artisans. (Munshi, 2022) The "One District One Product" (ODOP) scheme, for instance, seeks to promote unique products from each district, thereby boosting the local economy and empowering artisans. (Yadav et al., 2022)



### Zari-zardozi Craft of Bareilly

Zari Zardozi is a traditional form of embroidery with deep historical roots, which has been an integral part of Bareilly's cultural and economic landscape for centuries. The city is also known as "Zari Nagri" due to the popularity of this craft. (Bareilly.nic, nd) This beautiful embroidery uses metallic threads, usually silver or gold, to make elaborate designs on fabric that are commonly adorned with stones, beads, and sequins. (Shop, n.d.) As a reflection of its Persian roots and introduction to India during the Mughal era, the word "zardozi" itself is derived from two Persian words: "zar," which means gold, and "dozi," which means embroidery. (Meher Couture, 2023.) During the 16th century, the Mughal Emperor Akbar fostered the flourishing of Zardozi art, which was used to decorate court furnishings, ceremonial objects, and the clothing of royalty and aristocracy. (Community, 2020) Regions like Lucknow, Bareilly and Varanasi have developed into important hubs for this craft where this art has been passed down through generations especially among muslim community. A very intricate process is followed in while creating something with Zardozi embroidery. The first step for artisans is to stretch cloth, usually satin, silk, or velvet, on a wooden frame known as an "adda." Next, a stencil is used to transfer the design onto the fabric. Expert artisans, referred to as "zardoz," create intricate designs frequently include geometric shapes, floral themes, and occasionally animal figures by weaving metallic threads into the fabric with a hooked needle called "ari." (Couture, 2023) Modern zari zardozi often uses cheaper materials like metallic threads and sequins to make the craft more accessible. Estimates suggest that the craft of Zardozi employs from 2 lakh to 4 lakh artisans in Bareilly, many of whom work in small workshops or from their homes. (ODOP UP, 2020)The craft contributes to both domestic markets and exports, showcasing its enduring appeal and adaptability to contemporary fashion trends. Despite its historical and cultural significance, the craft faces numerous challenges that threaten its sustainability and the livelihoods of the artisans involve. (Priya, 2021) Many artisans struggle to earn a living wage, with some earning as little as Rs 200-250 for 12 hours of work. Factors such as rising material costs, competition from cheaper alternatives, and market fluctuations contribute to their financial instability. (Fatima, 2024) The rise of computer-aided design and machine-made embroidery poses a significant threat to traditional zari-zardozi. These alternatives offer cheaper and faster production, undercutting the demand for handmade products. (Gupta, 2023) The artisans also face many health issues due to working for long hours in an uncomfortable posture in low light, the facilities that these artisans work in lack basic amenities such as clean water, toilets and proper lights and ventilation. (Mittal & Singh, 2021) The outbreak of Covid 19 exacerbated these hardships by causing shut down of businesses, loss of jobs, supply chain disruptions, reduction of income and depletion of savings.

### Primary data analysis

- The Crohnbach's alpha  $\alpha = 0.834$  for the questionnaire which shows good internal consistency and reliability of the questionnaire as it is  $< 0.7$ .

### Descriptive Statistics -

Table 2

Key Survey Statement	Mean (Average)	Standard deviation (variability)
Income decrease due to COVID-19	1.72	0.90
Difficulties in accessing raw materials	1.72	0.88
The demand for Zari-Zardozi products dropped	1.77	0.96
Received Government financial aid	2.76	1.38
Online selling adoption	3.55	1.28
Industry recovery in the future	1.86	1.03
Training in Digital skills will help in future	2.04	1.26

#### Result Interpretation:

- Most artisans strongly agreed (Mean = 1.72) that their income dropped significantly due to the pandemic. They also faced major difficulties in accessing raw materials (1.72), suggesting supply chain disruptions.
- The demand for Zari-Zardozi products dropped sharply (1.77), showing that customers were not purchasing luxury craft items during the crisis.
- Government relief programs received an average rating of 2.76, indicating moderate effectiveness also high standard deviation (1.38) suggests some artisans benefited significantly, while others did not receive adequate support
- The statement "I adapted to selling online during the pandemic" had a mean of 3.55 (closer to Neutral), indicating that many artisans did not actively sell online.
- Yet the results from descriptive analysis shows that artisans are having positive outlook towards future of Zardozi in Bareilly also they are willing to learn new skills for this.

#### Correlation Analysis-

A Pearson correlation analysis was conducted to assess the relationships between the key variables:

Table 3  
Correlation Summary Table

Correlation Pair	Correlation Coefficient	Interpretation
Income Decrease ↔ Out of work	0.40	Those who experienced income loss were more likely to have searched for alternative employment, indicating financial instability.
Recovery of income and Production ↔ Industry Recovery	0.69	Artisans who have financially recovered are much more likely to believe the industry will fully recover, creating a confidence gap.
Receiving financial Aid ↔ Believing in the effectiveness of government measures	0.83	Government relief efforts were well-targeted, as those who received aid strongly felt it helped them recover.
Future Optimism ↔ Faith in digital Skills	0.70	Optimistic artisans also recognize the importance of digital skills, showing that digital training could help sustain the industry.
Out of Work ↔ Income Diversification	0.62	Workers who lost jobs were more likely to explore alternative income sources, indicating a shift towards hybrid work models.
Government Support measures ↔ Economic Impact	0.095	This suggests that <b>financial aid programs (GSM) may not have significantly alleviated economic struggles</b> for artisans.

#### Regression Analysis-

First model- This model investigates how lack of raw materials and demand drop impact decline in income. Let's break it down:

$$\text{Income Decrease} = \beta_0 + \beta_1(\text{Lack of Raw Materials}) + \beta_2(\text{Demand Drop}) + \epsilon$$

**Table 4:**

Predictor	Unstandardized Coeff. (B)	Standardized Coeff. (β)	t-value	p-value	Significance
Intercept	0.197	-	1.539	0.127	Not Significant
Lack of Raw material	<b>0.568</b>	<b>0.554</b>	<b>7.160</b>	<b>&lt; 0.001</b>	Significant
Demand Drop	<b>0.308</b>	0.330	4.263	<b>&lt; 0.001</b>	Significant

#### Model fit and Interpretation:

**Table 5:**

Statistic	Value	Interpretation
R <sup>2</sup>	0.641	64.1% of the variation in decline in income is explained by raw material shortage and demand decrease.
Adjusted R <sup>2</sup>	0.633	the model is well-fitted, even after adjusting for the number of predictors
F- Statistic	F(2, 97) = 86.452, p < 0.001	The overall model is highly significant.

- Condition indices (4.709 and 5.848) suggest no strong multicollinearity.
- Variance proportions indicate variables are independently contributing to the model.
- Lack of raw materials has the strongest effect on decline in income.
- Demand drop also has a significant effect, but less than raw materials.

#### Second Model-

This regression model examines how economic recovery and digital skills training predict optimism about the future.



Regression equation:

$$\text{Future Optimism} = \beta_0 + \beta_1(\text{Economic Recovery}) + \beta_2(\text{Digital Skill training}) + \epsilon$$

**Table 6:**

Predictor	Unstandardized Coeff. (B)	Standardized Coeff. (β)	t-value	p-value	Significance
Intercept	0.469	-	3.059	0.003	Not Significant
<b>Economic recovery</b>	<b>0.394</b>	<b>0.483</b>	<b>4.995</b>	<b>&lt;0.001</b>	Highly Significant
<b>Digital skills training</b>	0.224	0.287	2.971	0.004	Significant

Model Fit and Interpretation:

**Table 7:**

Statistic	Value	Interpretation
R <sup>2</sup>	0.501	50.1% of the variation in future optimism is explained by the predictor Economic recovery and Digital skill training.
Adjusted R <sup>2</sup>	0.490	the model is well-fitted, even after adjusting for the number of predictors
F-Statistic	F(2, 97) = 48.639, p < 0.001	The overall model is highly significant.

- Returning to pre-pandemic income levels remains the biggest driver of optimism.
- Digital skills & marketing training also significantly improves optimism.
- Condition Index (Max = 5.905) → No multicollinearity issues and both predictors are independent.

Third Model

This regression model examines how income diversification, future outlook, and government support predict returning to pre-pandemic production/income levels

Regression equation:

$$\text{Recovery} = \beta_0 + \beta_1(\text{income diversification}) + \beta_2(\text{government support}) + \beta_3(\text{future outlook}) + \epsilon$$

Table 8:

Predictor	Unstandardized Coeff. (B)	Standardized Coeff. (β)	t-value	p-value	Significance
Intercept	-0.001	-	-0.005	0.996	Not Significant
Income Diversification	0.188	<b>0.172</b>	<b>2.318</b>	<b>0.023</b>	Significant
<b>Government Support</b>	<b>0.231</b>	0.263	3.768	<0.001	Highly Significant
<b>Future Outlook</b>	0.665	0.565	7.422	<0.001	Highly Significant

Model Fit and Interpretation:

Table 9:

Statistic	Value	Interpretation
R <sup>2</sup>	0.557	55.7% of the variation in Recovery is explained by the predictors and Adjusted R <sup>2</sup> = 0.543 that indicates the model is still strong after adjustment.
Adjusted R <sup>2</sup>	0.543	the model is well-fitted, even after adjusting for the number of predictors
F-Statistic	F(3, 96) = 40.214, p < 0.001	The overall model is statistically significant.

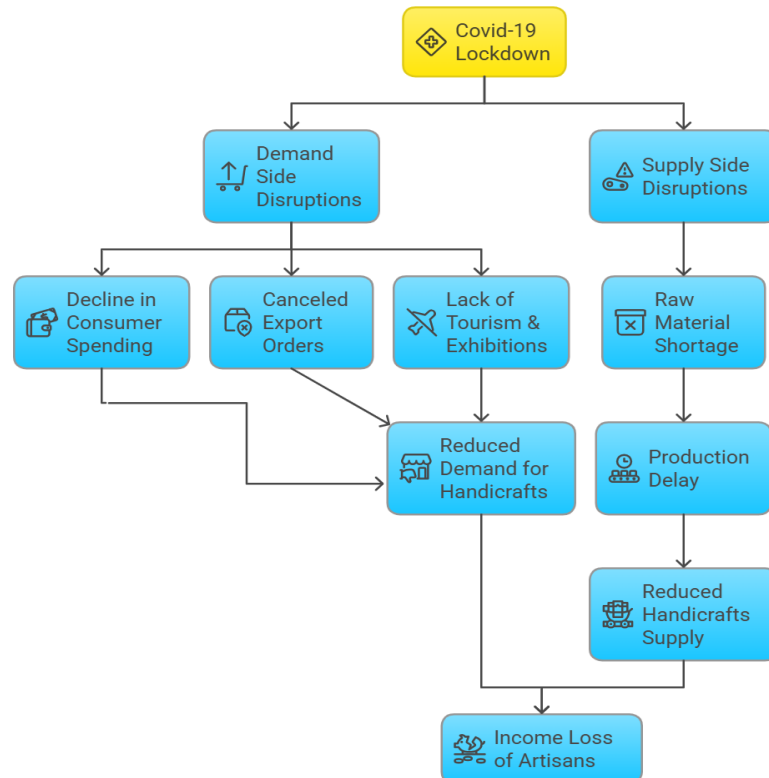
- Both predictors are independent and there is no multicollinearity issue.
- Belief in industry recovery is the strongest driver of returning to pre-pandemic income.
- Government support is also highly significant, meaning artisans who received aid were more likely to recover.
- Income diversification is a significant but weaker predictor, meaning artisans with alternative income sources were more likely to return to pre-pandemic production.

#### Key Findings and Suggestions:

- The COVID-19 epidemic severely damaged Uttar Pradesh's handcraft industry, which also affected zari zardozi craft of Bareilly. The total loss to the Uttar Pradesh handicraft sector was estimated at ₹8,000 crore.
- In our survey 85%+ artisans reported a significant decline in income, with 40% losing their jobs due to canceled orders and reduced consumer spending. Also the Zardozi business owners revealed in the interview that due to Covid 19 the international trade became restricted and the large export houses refused to take their orders and these businesses were left with a lot of dead inventory.
- Due to shutdown limitations the supply chain became completely disrupted, 75% of artisans experienced shortages of raw materials, which resulted in higher expenses and manufacturing delays. The regression analysis revealed lack of raw material as the strongest predictor for decline in income of Zardozi artisans.

Figure 1

Covid-19 Lockdown Economic Disruptions



- The industry was especially susceptible to COVID-related restrictions because of its reliance on physical marketplaces and exhibitions. The officials of District Industries centre Bareilly informed that many workshops and exhibitions were cancelled due to the fear of infections and lockdowns.
- There are loopholes in the way policies are being implemented, since only 30–40% of craftsmen received financial aid from government relief programs. Government assistance had little effect on easing economic hardship, according to the correlation study, indicating the need for more potent actions.
- 55% of artisans who lost their main source of income from handicrafts were forced to look for other employment. Many artists lacked a financial safety net due to the informal nature of the handicraft sector, which made job losses even more distressing. Many businessmen in the interview reported doing job cuts due to lack of orders and increasing cost burden.
- Despite the fact that during the epidemic, only 40% of artists sold their goods online, 70% of them think that training in digital skills could contribute to future economic stability. All industries saw an acceleration of digital change, but the handicraft industry fell behind because of a lack of resources, training, and awareness (Telagawathi et al., 2022). Economic recovery and training in digital skills are important indicators of craftsmen's future optimism, according to regression analysis.
- The owner one of the largest Zardozi export houses of Bareilly in personal interview told us that he started marketing through social media platforms during the lockdown period and it has really helped him in expanding his business and now he has dedicated a team for promoting the products through Instagram and other social media sites. He also told us that most of his products are sold outside Bareilly and they are also very popular in other countries. He explained that social media marketing though very important in today's time can be challenging for an ordinary artisan.

- The Officials from DIC Bareilly explained in that digital transition of this craft is difficult because most artisans lack proper education which makes them resistant towards digitalization. This lack of education has proven to be a great hurdle in benefitting these craftsmen.
- The government should expand financial assistance programs in order to assist more craftspeople and guarantee that aid is distributed fairly. Reduce bureaucratic obstacles and streamline the application process to increase transparency in government programs like ODOP. To avoid excessive debt accumulation, create customized loan packages for artists with longer repayment terms and reduced interest rates.
- To assist craftsmen in adjusting to online marketplaces, specialized training in digital literacy should be offered to them. A coordinated handicrafts e-commerce platform should be established via government-backed initiatives to improve visibility and direct-to-consumer sales. Provide monetary rewards to craftspeople that use digital tools in their operations, such as grants for social media promotion and online store setup.
- Artisan cooperatives can be established to help cut the cost of bulk raw material purchases and lessen supply chain vulnerabilities. To increase their market reach, encourage craftspeople to integrate traditional workmanship with contemporary fashion trends in their product ranges. Boost involvement in online trade shows and events to link craftspeople with global distributors and consumers.
- Formal social security systems, such as health insurance, pension plans, and emergency financial aid, should be introduced by the government for craftsmen. Programs for skill diversification should be made available so that craftspeople can look into alternate revenue streams during difficult times. By encouraging access to workspaces that are well-ventilated and sufficiently illuminated, you can improve working conditions and lower health risks for craftsmen.
- Promote the use of natural dyes and eco-friendly materials in handicraft production to appeal to environmentally conscious consumers and promote sustainability. Work together with fashion designers and brands to preserve their cultural heritage while modernizing traditional crafts. To introduce cutting-edge production procedures that improve efficiency without sacrificing handicraft quality, invest in research and development projects.

## CONCLUSION

The COVID-19 outbreak revealed the weaknesses in Uttar Pradesh's handicraft industry, especially in Bareilly's Zari-Zardozi craft sector. The study emphasizes the severe financial hardship that craftsmen experience, citing lack of government assistance, supply chain interruptions, and revenue loss as the main obstacles. Artists showed tenacity in the face of these challenges, and many expressed hope for the industry's rebirth. Future sustainability depends on digital adoption, but many craftspeople lacked the skills needed to switch to e-commerce. Regression research demonstrates that digital training and economic recovery are important factors influencing artisans' optimism about the sector's resurgence.

Long-term sustainability requires skill development initiatives, better access to financial help, and focused governmental actions. Prioritizing digital transformation and fixing supply chain errors is necessary to help craftsmen reach larger audiences and lessen their dependency on conventional sales channels.

## Declarations

**Prior Informed Consent:** Informed consent was obtained from all participants and traditional knowledge holders involved in this study, in accordance with ethical norms and cultural respect.

**Availability of Data:** The data supporting the findings of this study are available from the corresponding author upon reasonable request.

**Conflict of Interest:** The authors declare that there is no conflict of interest.

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