

An Assessment of Challenges Faced by Zari-Zardozi Artisans in Lucknow Region: A Mathematical Analysis.

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Abstract

This research study centers on the challenges faced by zari-zardozi artisans in Lucknow, region known for its exotic handmade craftsmanship industry. The focus of this study is to ascertain the difficulties experienced by these artisans working in this traditional handicraft industry in chosen research area and put forward necessary suggestions and recommendations for policy responses for revival of hard hit and waning of this significant local industry based on exclusive age's long indigenous art and culture and help to restore its due recognition at global level. To facilitate this, a Bayesian likelihood regression model is approached to investigate the information gathered from a sample respondents of zari- zardozi artisans in research area. The model shows different factors like the age of the craftsman, their level of schooling, long periods of work involvement, and the market closeness for their handicraft items. The statistical findings of this study show that the artisans engaged in this profession face various difficulties, including restricted market access, competition from machine-made items, fluctuating low quality of raw materials, hiking manufacturing costs, and absence of knowledge about new market patterns. These difficulties render the jobs of the artisans and the sustenance of their family more vulnerable during post covid hit global economic condition. To establish statistical association among variables under study, Python and Stata 15 statistical tools have been used.

Notwithstanding, the research also discusses about possible opportunities for appreciable expansion of zari- zardozi industry and socio-economic condition of their artisans. Some of are to incorporate and explore new business horizons through digital platforms, creating cost effective and market oriented product to cater the customers' expectations, and inking deals and chalking out plans in collaboration with oversea entrepreneurs for strategic expansion of this industry. Moreover, health issues posed by hazardous working conditions especially female artisans are also taken up consideration in this research study. Overall, this research exhibits valuable insights into the challenges faced by zari-zardozi artisans in Lucknow and highlights potential opportunities for their growth and development. It serves as a basis for further research and policy interventions to support the handcrafted textile industry in Lucknow and empower the artisan community.

Keywords: Handicrafts, Zari-Zardozi, Artisans, Bayesian Regression Model, ODOP, MSME.

Introduction

Indian handicrafts have a rich and well established history that goes back millennia. The custom of creating objects by hand has been a fundamental piece of Indian culture and legacy, mirroring the country's miscellaneous social, genre, and artistic diversity. Indian handiworks have been thriving since old times, with numerous evidential accounts of skilled craftsmanship tracked down in archeological findings of the Indus Valley civilization. The Mauryan and Gupta periods (third century BCE to sixth century CE) were viewed as a brilliant age for Indian hand crafted works, as they saw headways in metalwork, stoneware, woodwork, and material creation .During the middle age time setting, Indian handicrafts rose to a golden peak under the support of different lineage like the Mughals. These rulers advanced and supported the improvement of intriguing weaving, marble cutting, poetry and metal art works, and gems making, bringing about a thriving workmanship and promotion of specialized industry.

During the British East India company rule, Indian handicrafts saw further downfall caused by company biased characters to encourage factory manufactured products at expense of traditional skilled crafted handworks. local artisans were under severe competitive edge and odds as against to factory made and imported bulk products, causing further dip in domestic handicrafts industries., the period additionally saw the rise of contemporary transformations and developments in Indian handicrafts sector to fulfill the changing needs of the market.

In later period, there has been a renewed interest in Indian handiworks both locally and at global space .handmade works assume a vital part in the Indian economy, giving employment to larger unorganized sector workers, artisans and contributing formidably to the nation's Gross domestic product. In Uttar Pradesh, the handicrafts space is especially vast, representing around 2.7% of the state's Gross domestic product. zari- zardozi crafted works of Lucknow are age long traditional fine art that includes the utilization of their exquisite designs and are considered a symbol of luxury and elegance. These handicrafts are essentially known for their unique style and are viewed as an epitome of cultural confluence and integrity. Items fabricated under zari- zardozi crafted works include variety of apparels like sarees, lehengas, and dupattas. These pieces of clothing are embellished with intricate zari work that incorporates themes, and decorative patterns designated for applying gold or silver strings. The low cost zari work is frequently supplemented with different embellishments like blobs, sequins, and mirrors. Aside from formal dresses, zari- zardozi craft works additionally stretch out to home stylistic theme things like pad covers, decorative linens, and tapestries etc.

zari- zardozi made works of Lucknow are a customary fine art that includes the application of amazing tailoring and weaving by use of zari strings. These thorough work are basically known for their luxurious preference and are viewed as an image of expressiveness and party showbiz.

1. Zari embroidered sarees: Uttar Pradesh is renowned for its zari embroidered sarees, which have a wide popularity at home soil and worldwide business domains. These sarees are weaved with fine mastery and decorated with zari string work, adding a dash of style and brilliance.
2. Zari embroidered lehengas: Zari embroidered lehengas are famous among ladies and are regularly exported to nations like the US, Canada, Dubai and Middle east. These lehengas are embellished with intricate zari work, making them most preferred options for weddings and other social gatherings events.
3. Zari embroidered home decor items: zari- zardozi crafted works also incorporate an extensive variety of home stylistic decor, and many more like, pad covers, decorative linens, tapestries, and quilts. These things are frequently exported out to countries because of their special and fine zari embedded designs.
4. Zari embroidered accessories: zari- zardozi crafted works additionally reach out to personal accessories items like purse,, bags, and wallets. These things are famous among style conscious ladies and are traded to trend setter nations.
5. Zari embroidered footwear zari- zardozi meticulous work additionally incorporate discursively crafted footwear like mojris (customary Indian shoes), juttis, and shoes

The theme Vocal for local has gained quick momentum in wake of post covid pandemic in India, particularly in the domain of hand crafted art works. The core objective of this full fledged mission is to facilitate the market exposure of locally handmade artistic products by regional artisans , furthering the encouragement of entrepreneurs engaged in handicrafts industries by applying local resources, knowledge and traditional skills . This approach has renewed the spirit and enterprise in Indian traditional skilled based industrial and business enterprises by leveraging the true craftsmanship and entrepreneurship among new generations. The emphasis on vocal for local theme has dual significance especially in MSME sector that is battering with pandemic spurred industrial slowdown, one way to stress out the economic vulnerability of artisans and marginalized workers rely on handicrafts economy and other way to rejuvenate decaying traditional skilled based indigenous art and culture.

Schemes

1. The central government has initiated different plans and projects to help the government assistance of zari- zardozi artisans in Uttar Pradesh. These include:

- The Ministry of Textiles has launched Comprehensive Handloom Cluster Development Plan (CHCDS) to extend infrastructure support, skilled based knowledge, and promoting aid to handloom weavers, including zari-zardozi artisans.
- The Ministry of Skill Development and Entrepreneurship has started off the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) to give expertise training to youth, including zari- zardozi artisans, to expand their employability and self-reliant job avenues.
- The Government of India has too constructed the National Handloom Development Corporation (NHDC) to advance government assistance to handloom weavers, including zari- zardozi artisans, by giving funds related assistance and technological infusion.

2. The state government of Uttar Pradesh has also executed different strategies and plans to help the government assistance for zari- zardozi artisans. These include:

- The Uttar Pradesh Handloom and Textile Policy, 2013, targets to accelerate the growth of the handloom sector in the state through foundation of advanced, infrastructure backed, and skills and training schemes.
- The Uttar Pradesh Khadi and Village Industries Board gives monetary help and skill training for the progress of khadi and village ventures and industries, which incorporates zari- zardozi artisans.
- The Uttar Pradesh Small Industries Development Corporation (UPSIDC) grants different schemes and amenities, like project setting up land allocation and finance related assistance, to help the foundation and development of SME industries, including zari- zardozi artisans as given below:-

3. The central government has also launched the Pradhan Mantri Mudra Yojana (PMMY) to give advances to MSME ventures, including zari- zardozi artisans, for their business and innovative execution. Under this mudra plan, credits assistance from Rs. 50,000 to Rs. 10 lakhs are advanced to eligible entrepreneurs.

4. The Artisan Card is a government assistance drive by the government of Uttar Pradesh to give diversified advantages and assistance to artisans registered under this scheme including zari- zardozi artisans. This card is used as unique identity of artisans and empowers artisans to avail advantages of bunch of schemes being implemented, as, financial help, training and skill upgrading programs, government schemes, and market linkage help.

5. The One District One Product (ODOP) scheme is one more enterprising step by the public authority of Uttar Pradesh to identify and ensure the worldwide recognition of unique product of each district in the state. Under this plan, zari-zardozi artisans and other traditional skilled workers are extended help and impetus to bring about qualitative improvement in product.

Literature Review

- Majeed (2019). The research study aimed to find out causative factors for low status of handicrafts and traditional art based sector in India ,) analyzed the effect of globalization on the Indian craftsmanship industry. The paper talked about ten main causative elements, leading to the degeneration and decline of workmanship and craftsmanship in India. These incorporate budgetary limitations, low schooling levels among artisans, absence of robust infrastructural facilities, low wages, random nature of the handicraft segment, insufficient policy measures, absence of cutting edge innovation, various market rigidities existing in this sector alarming rate of machine intervention , and absence of competitive qualitative products. These challenges impede the development and advancement of the handiwork sector and its craftsmanship.

- Singh, R. (2020). The exploratory nature paper analyzes the financial difficulties braced up by zari- zardozi artisans in Varanasi, India. The major findings of this research deal with about the real world problems of zari-zardozi sector at Varanasi, along with the financial difficulties emergence for managing the operational unit in question, in perspective of potential challenges triggered up by globalization on this sector, and the difficulties confronted by craftsman like low remuneration, absence of acknowledgment, un congenial working environment, and insufficient government support. in concluding section of research paper , it is strongly advocated the by taking all correlated factors attributable for menial and overlooked condition of art of great importance , a quick and adequate policy measures are essential for revival and conserve this handicraft.
- As per Ernst and Young (2012), India and China face grave issues in their handicraft businesses. In India, most items are manually crafted, while in China they are machine-made. India additionally needs trend setting innovation contrasted with China. Also, the workforce in China is thoroughly industrious and relatively more proficient about market responses, while in India, workers are low skilled and uninformed about market responses. India additionally faces difficulties because of un organized strategies and restricted access to credit facilities to avail for business, resulting in more restricted adaptability to global change.

Research Methodology

The research was conducted in the Lucknow region, where most of zari- zardozi artisans are based spread across different old town localities. The respondents picked for the interviews were expected to be engaged with the zari-zardozi handicrafts in the survey area as their primary type of occupational engagements. The sample size decided 1% of total estimated operational artisans in research zone for the conducting survey that was 100, with complete and scientific sampling method. To gather the important data related to both essential and secondary information mix-up techniques were adopted. The secondary sources included websites, articles, blogs, and different reports concerning to the evaluation of target artisans. The essential information was gathered through meetings, reviews, and perceptions, which were then assessed and validated with statistical precision.

The gathered information from artisans was analyzed by utilizing computer aided statistical software, STATA and Python, for calculating frequency, percentages of variables taken under study, Bayesian regression on train and test data sets were also applied to measure probability of data points. As per Ministry of Textiles, Micro and Small enterprises involved in manufacturing zari- zardozi handicrafts products account for about 10,000 in research area, Lucknow and it is reckoned that this art is usually male dominated .

Major Hubs zari- zardozi handicrafts points of sale and concentration of artisans

1. Aminabad Market
2. Chowk Market
3. Janpath Market
4. Hazratganj Market
5. Nakhas Market
6. Yahiyaganj Market
7. Ganeshganj Market
8. Nakhas Kote Market
9. Aliganj Market
10. Gomti Nagar Market

Bayesian probability regression is a statistical method that combines Bayes' theorem with regression analysis. It allows for the estimation and prediction of unknown variables based on observed data. In context of this research study at hand, challenges of artisans as dependent variable and other socio-economic explained variables. In contrast of regression analysis, Bayesian probability approach, gives couple of probable data points under credential band as singly data point in ordinary liner regression model. The mathematical equation is:

$$P(Y|X) = (P(X|Y) * P(Y)) / P(X)$$

where P(Y|X) is the conditional probability of Y given X, P(X|Y) is the conditional probability of X given Y, P(Y) is the prior probability of Y, and P(X) is the prior probability of X.

$$P = \partial^v Y$$

$$= \langle x_1 \dots x_d \rangle$$

$$P(Y(T) = i | x_1 \dots x_d) = P(Y(T) = i) \cdot \frac{P(x_1 \dots x_d | Y(T) = i)}{P(x_1 \dots x_d)}$$

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Challenges measuring approach: in this research study, with help of three points likeart (Agree, Neutral, Disagree) scale challenges on dimensions of socio-economic issues of selected sample artisans have been recorded through convenient sampling method , after computing total score of said challenges, above median and below median values have been segmented between high and low challenges braced up by respondents.

Challenges
Uncertainty in regular employment flow.
Finding difficulty to maintain strong customer base in highly competitive market
Unstable income stream
Threat to lose traditional skills from increasing use of innovative tools
Health issues
Social deprivation caused by economic vulnerability
Insufficient policy response and schemes from govt .for welfare of artisans.

Median score = 16

Objective of the Study

1. To study the Challenges of artisans associated with zari- zardozi handcrafts in Lucknow region.
2. To make necessary suggestions and recommendations in light of challenges being confronted by artisans in selected research area.

Analysis and Findings:

Table: 1

Socio-economic features of Sample Artisans:

Variables	Description	Frequency	Percentage (%)
Artisans operating on Contract basis	28	100	28
	Artisans engaged as hired workers		72
Gender	Male	72	72
	Female	21	21
	Transgender	7	7
Age (in years)	Below 25 year	23	23
	(26 – 50) year	49	49
	Above 50 year	28	28
Educational Status	Illiterate	12	12
	Primary Education	19	19
	Secondary Education	41	41
	Secondary or Above	28	28
Daily earning (in Rupee)	100 -150	26	26
	200-300	42	42
	Above 300	32	32

Source Primary Survey

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Religion	-.2647179	.1521648	.022072	-.2704261	-.5761311	.0425036
Gender	.1733409	.1784245	.018369	.1714068	-.5321477	.1594052
Age	.0102874	.0061911	.000715	.0100242	-.0019963	.0229717
Education	-.0965004	.0719203	.0035	-.0952751	-.2304019	.0435691
Income_Sor	-.034305	.1733863	.019509	-.0419003	-.3707996	.3189262
training	-.1386134	.173226	.013643	-.1354654	-.4791934	.2006473
Artisan_card	.1052757	.1823482	.011527	.100463	-.2289062	.4761211
_cons	1.988767	.3425183	.048216	1.98915	1.275928	2.624981
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sigma2	.6895091	.1045165	.003086	.6810942	.5171671	.9249567

The Bayesian regression results show the estimated coefficients for each variable in the model. Each coefficient represents the change in the dependent variable (challenges) for a one-unit increase in the corresponding independent variable, holding all other variables constant.

Religion: A one-unit increase in the variable Religion is associated with a decrease of approximately 0.26 in the dependent variable. The 95% credible interval for this coefficient ranges from -0.57 to 0.04.

Age: A one-unit increase in the variable Age is associated with an increase of approximately 0.01 in the dependent variable. The 95% credible interval for this coefficient ranges from -0.00 to 0.02.

Gender: A one-unit increase in the variable Gender is associated with an increase of approximately 0.17 in the dependent variable. The 95% credible interval for this coefficient ranges from -0.53 to 0.16.

Educational Status: A one-unit increase in the variable Education is associated with a decrease of approximately 0.10 in the dependent variable. The 95% credible interval for this coefficient ranges from -0.23 to 0.04.

Source of Income: A one-unit increase in the variable other income source is associated with a decrease of approximately 0.03 in the dependent variable. The 95% credible interval for this coefficient ranges from -0.37 to 0.32.

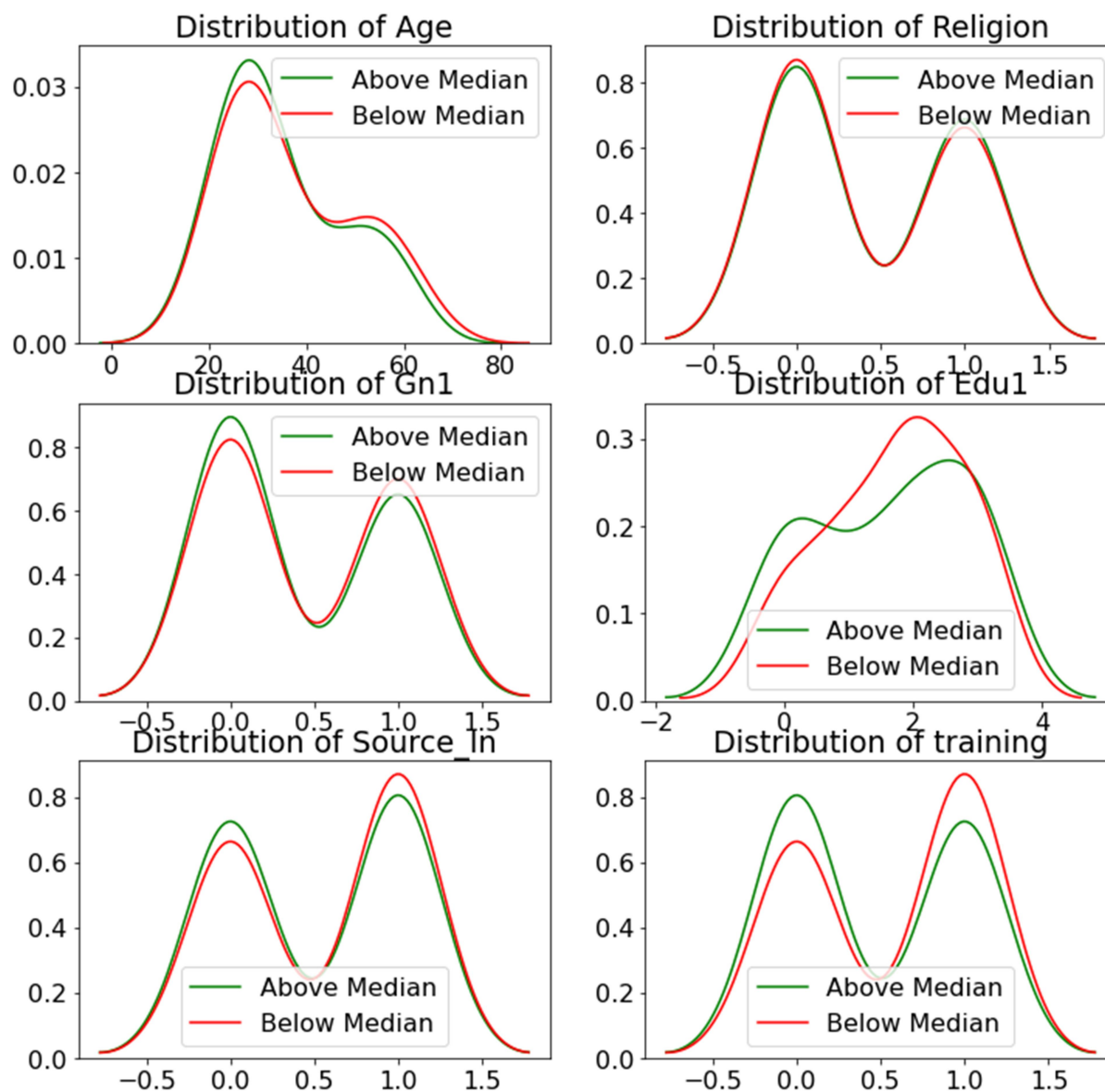
Training: A one-unit increase in the variable training is associated with a decrease of approximately 0.14 in the dependent variable. The 95% credible interval for this coefficient ranges from -0.48 to 0.20.

Artisan card: A one-unit increase in the variable Artisan_card is associated with an increase of approximately 0.11 in the dependent variable. The 95% credible interval for this coefficient ranges from -0.23 to 0.48.

Intercept: The intercept term represents the estimated value of the dependent variable when all other independent variables are held at zero. In this case, the intercept is approximately 1.99. The 95% credible interval for this coefficient ranges from 1.28 to 2.62.

The sigma2 term represents the estimated variance of the errors in the model. In this case, the estimated variance is approximately 0.69. The 95% credible interval for this variance ranges from 0.52 to 0.92.

Figure:1



Source:- Train and Test data split out of 100 samples by use of Python algorithms.

From above correlated distribution of challenges and other independent variables precisely shed light that religion , gender, other source of income are clustering around median value.

Conclusion

In upshot, the research study conducted on problem at hand shows information on different factors connected with contract-based artisans and regular wage earning artisan in zari- zardozi handicrafts occupation. Out of the all out 28 craftsmen, 72% are employed usually, with 72% being male, 21% female, and 7% transgender. Regarding age, 23% are

under 25, 49% are between 26-50, and 28% are over 50. Regarding instruction, 12% are ignorant, 19% have essential training, 41% have optional schooling, and 28% have other educational status or higher. In conclusion, 26% acquire between 100-150 Rupees each day, 42% earn between 200-300 Rupees each day, and 32% receive over 300 Rupees each day.

Overall, the Bayesian regression examination point outs analytical assessments to the coefficients of each autonomous variable in the model. These coefficients demonstrate the effect of a one-unit change in each variable on the explained variable, taking into account different factors held consistent. The outcomes show that change in the factors like Religion, Age, Orientation, educational Status, Type of source of income, and training are related with diminishes in the reliant variable, while an expansion in the variable artisan card is related with an expansion in the reliant variable. The constant term addresses the assessed worth of the reliant variable when all autonomous factors are zero.

References

- [1] Ali, S. M., & Baradaran, S. (2016). Challenges Faced By Artisans In Zari Zardozi Industry In India. *The International Journal Of Business & Management*, 4(2), 75-83
- [2] Dasgupta, S., & Mukherjee, D. (2019). Challenges and Opportunities for Zardozi Embroidery Artisans in India. *International Journal of Recent Technology and Engineering*, 8(2), 5316-5321.
- [3] Dasgupta, S., & Mukherjee, D. (2019). Challenges and Opportunities for Zardozi Embroidery Artisans in India. *International Journal of Recent Technology and Engineering*, 8(2), 5316-5321.
- [4] Ernst & Young. (2012), Competitive study on Handicrafts Sector in China. Retrieved from website of Exports Council of India.
- [5] Goyal, G., & Sharma, S. (2020). A Study Of Problems Faced By Handicraft Artisans: Special Reference to Zardozi and Zari Work. *International Journal of Business Management and Applied Sciences Research*,
- [6] Gupta, A., & Nagar, S. (2021). Nurturing Tradition: Challenges in Preservation and Transmission of Zari Embroidery. *IOP Conference Series: Materials Science and Engineering*, 1154(1), 012037. doi: 10.1088/1757-899X/1154/1/012037
- [7] Khan, S., & Ansari, I. A. (2019). Exploring the challenges and opportunities for Zari Dardozi artisans in contemporary India: A critical review of literature. *Journal of Cultural Studies*, 6(2), 67-82. (<https://doi.org/10.11648/j.jcs.20190602.15>)
- [8] Singh, R. (2020). Socio-economic challenges faced by Zari Dardozi artisans: A case study of Varanasi, India. *Asian Journal of Home Science*, 14(2), 593-599.
- [9] Yadav, S., & Pathak, A. (2020). Understanding the challenges faced by Zari Dardozi artisans: A systematic literature review. *International Journal of Arts and Humanities*, 9(3), 89-104. (<https://doi.org/10.15640/ijah.v9n3a8>)

Websites accessed

www.business-standard.com/article/economy-policy/handicrafts-exporters-demand-gst-rate-cut-exemption-compliance-relief-123112500663_1.html

[www. Aari and Zardoziwork: Legacy of Nawabi Lucknow | Sahapedia](http://www.AariandZardoziwork.com)