

# Innovations

## Social Enterprise Model of Terracotta Artisans: Spinning Wheel of Sustainable Development and Cultural Preservation: Factor Analysis of OFPO Artisans in Gorakhpur

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### Abstract

*This research study focuses on the social enterprise of terracotta artisans in Gorakhpur, with a specific emphasis on sustainable development and cultural preservation. The study analyzes data collected from the off farm producers' organization (OFPO) located in Gulhariya, block which has successfully mobilized and organized 260 artisans involved in the craft of terracotta products. This research study explores the rich history and cultural significance of terracotta handicrafts in the Gorakhpur district of Uttar Pradesh, India. It highlights the economic impact of the art form and the benefits of Off Farm Producers Organizations (OFPOs) in promoting economic self-sufficiency for non-farming producers, such as terracotta artisans. The study focuses on a specific OFPO in Gorakhpur, detailing its registered office, the number and demographics of artisans involved, and the role of shareholders and the Board of Directors. The study also presents the results of a chi-square test, which reveals a significant association between gender and the success and sustainability of the terracotta artisan social enterprise in the selected research area. Overall, this study contributes to understanding the importance of preserving traditional crafts, supporting local economies, and empowering rural artisans through OFPOs and other implementing agencies. It is found that the majority of artisans are female, with a total of 127 female artisans and 88 male artisans. Additionally, a significant number of male artisans belong to Scheduled Castes (SC) and Other Backward Classes (OBC), while female artisans also come from diverse backgrounds including SC, OBC, and minority communities. All members of the organization are actively engaged in terracotta activity, and there are 215 shareholders who have invested in the organization. The shareholders also participate in terracotta crafting. Among the shareholders, there is a slightly higher representation of female shareholders. Furthermore, the study examines the association between gender, social stratification and the success and sustainability of the social enterprise. Chi-square tests reveal a significant association, with p-values less than 0.05. This indicates that gender plays a significant role in influencing the success and sustainability of the social enterprise of terracotta artisans in Gorakhpur. Overall, this research study highlights the importance of social enterprises in promoting sustainable development and cultural preservation while identifying gender as a critical factor in their success and sustainability.*

**Keywords:** OFPO, Terracotta, KVIC, NABARD, EDII, Factor Analysis

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### Introduction

Terracotta handicrafts have a long and rich history in India, dating back thousands of years. The tradition of using clay to create various objects, sculptures, and pottery can be traced back to the ancient Indus Valley

civilization. The terracotta handicrafts industry flourished during the Maura and Gupta periods, with beautiful clay figurines and pottery being produced. The art form continued to evolve and spread across different regions, with each area developing its unique style and technique. Today, terracotta handicrafts are an integral part of Indian culture, reflecting the country's rich artistic heritage and skilled craftsmanship. Terracotta handicrafts of Gorakhpur district in Uttar Pradesh have a rich historical background too. The art form has been practiced by skilled artisans for centuries and is deeply rooted in the cultural heritage of the region. Gorakhpur, located in the eastern part of Uttar Pradesh, has been a hub of terracotta craftsmanship. The art form involves molding clay into various shapes and then firing it to create pottery and decorative items. The terracotta handicrafts of Gorakhpur are known for their intricate designs, unique patterns, and vibrant colors. The district is also famous for variety of handicrafts items, showcasing the skill and creativity of the artisans. Terracotta handicrafts of Gorakhpur district have had a significant impact on the economy of the region. The art form has provided employment opportunities to numerous artisans, helping them in earning a sustainable livelihood. Over the years, the art of terracotta has evolved with new techniques and designs, but the essence of the craft remains intact. Gorakhpur continues to be a prominent center for terracotta handicrafts, keeping the rich heritage alive through its skilled artisans and their exquisite creations.

An Off Farm Producers Organization (OFPO) is an entity that focuses on the collective interests and needs of producers who are engaged in activities other than farming, such as artisans, craftsmen, and small industries. These organizations play a crucial role in supporting and promoting the economic self-sufficiency of these non-farming producers in the current global context. In the face of global economic challenges, self-sufficiency has become a key objective for many countries. By promoting and supporting off-farm producers, OFPOs contribute to achieving this goal. These organizations help create employment opportunities in non-agricultural sectors, reduce over-dependence on imported goods, and enhance local entrepreneurship. The relevance of OFPOs in today's global economy lies in their ability to foster economic growth and development at a local level. By providing skills training, financial assistance, and market access, these organizations enable artisans, such as terracotta craftsmen, to enhance their productivity and profitability. This, in turn, helps to strengthen local economies and reduce poverty. The terracotta artisan's OFPO brings numerous benefits to its members. Firstly, it facilitates access to a broader market, both domestically and internationally, by collectively marketing their products. This increases their visibility and competitiveness, providing them with better opportunities for sustainable livelihoods. Secondly, the OFPO provides a platform for knowledge exchange and mutual support. Artisans can share techniques, innovations, and best practices, leading to improved production quality and efficiency. Additionally, collective bargaining power allows members to negotiate better prices and conditions for their products, ensuring fair remuneration for their work. In conclusion, Off Farm Producers Organizations, such as the terracotta artisan's OFPO, are instrumental in promoting economic self-sufficiency in the global context. By supporting non-farming producers and enhancing their market access, these organizations contribute to local economic development, poverty reduction, and the preservation of traditional crafts. Implementing agencies like Khadi and Village Industries Commission (KVIC), National Bank for Agriculture and Rural Development (NABARD), Entrepreneurship Development Institute of India (EDII), and District Industries Centre (DIC) play a crucial role in promoting terracotta Off Farmer Producer Organisation (OFPO). KVIC provides financial assistance and technical support for the development of terracotta OFPOs. NABARD offers financial support through loans, subsidies, and grants. EDII helps in the skill development and entrepreneurship training of the terracotta artisans. DIC provides guidance and assistance in setting up and managing terracotta OFPOs. Their combined efforts have led to the growth and success of several terracotta OFPOs across the country, contributing to the empowerment of rural artisans and the promotion of sustainable development.

### Literature review

**Gupta et al. (2020).** Despite their significant contributions, terracotta artisans face challenges such as limited market access, low recognition, and inadequate support from policymakers. Research emphasizes the need for comprehensive support systems, including skill enhancement programs, financial incentives, and marketing platforms, to promote the socio-economic well-being of terracotta artisans.

**Kaur et al. (2020)** .Artisan clusters are geographically concentrated groups of artisans engaged in similar crafts, often located in rural or semi-urban areas. This Research highlights the socio-economic benefits of these clusters, including employment generation, income enhancement, and preservation of traditional crafts.

**(Khokhar, 2019).** Author points out that Artisan clusters provide a platform for artisans to share knowledge, resources, and market opportunities, leading to increased productivity and competitiveness. By clustering together, artisans can access economies of scale, lower production costs, and improve bargaining power

**Khan et al. (2018)** . The production and marketing of terracotta products often involve local resources and traditional techniques, helping to foster sustainable development and reduce environmental impact. This research paper discusses how terracotta artisans in Bangladesh utilize locally available clay and renewable energy sources, contributing to the conservation of natural resources.

### Research Methodology

Research methodology refers to the systematic approach used to conduct research in the field of social sciences. It involves a set of techniques and procedures for gathering, analyzing, and interpreting data to answer research questions or test hypotheses. This includes selecting appropriate research design, sampling methods, data collection techniques, and statistical analysis.

"Operational research methodology in social science refers to a systematic approach that applies quantitative and qualitative techniques to analyze complex social phenomena, identify problems, and develop optimal solutions. It involves the use of mathematical modeling, data analysis, and simulation to inform decision-making processes, improve efficiency, and enhance social outcomes." ( Yin, R. K. 2013)

The present study focuses on investigating the entrepreneurial dimensions for the sustainability of the OFPO Bhatahat Artisan Producer Company Ltd. located in Gulhariya, Gorakhpur, Uttar Pradesh. The total number of stakeholders in this organization is 215. For the purpose of this study, a sample of artisans was selected using a proportionate convenience sampling method, comprising 25% of the total stakeholders (53) .To ascertain the entrepreneurial dimensions relevant to the sustainability of the OFPO, factor analysis will be conducted. This statistical technique will help identify the key factors that contribute to the long-term success and sustainability of the organization. Furthermore, a chi-square test will be employed to analyze the socio-demographic features of the artisans and their relationship with the success and sustainability of the OFPO. This test will determine if there are any significant differences in these features among the artisans and how they relate to the organization's sustainability.

In order to effectively measure the key entrepreneurial abilities, a set of metrics has been developed. These metrics are designed to assess the proficiency level of artisans in various entrepreneurial skills. The scores obtained by artisans in response to questions related to identifying the key features of entrepreneurial abilities as given below

Adventurous

Self-motivated

Creativity and Imagination

Independent

Calculated risk taking

All factors analysis dimension reductions scores have been computed, and based on these total scores, artisans are categorized into high, medium, and low ranges. The categorization into high, medium, and low ranges is determined through a quartile analysis. The first quartile represents the lower range and is

classified as the low ability group. The second and third quartiles represent the medium ability group. Lastly, the artisans whose scores fall above the third quartile are categorized as the high ability group. This division into high, medium, and low ranges allows for a more comprehensive understanding of artisans' entrepreneurial abilities. It provides insights into the distribution of proficiency levels among the participants, allowing for further analysis and comparison of the various groups.

By utilizing this classification system, researchers and policymakers can identify the specific areas in which artisans may require additional support or training. Moreover, it enables the assessment of overall entrepreneurial potential within the artisan community, aiding in the development of targeted intervention programs and policies to enhance entrepreneurial capabilities. This research approach allows for a more accurate evaluation of the entrepreneurial abilities within the artisan sector, thereby facilitating effective decision-making and resource allocation.

By adopting this research approach, the study aims to provide valuable insights into the entrepreneurial dimensions that contribute to the sustainable growth and success of artisan producer companies like the OFPO Bhatahat Artisan Producer Company Ltd. in Gulhariya. The findings of this study will not only contribute to the existing literature on artisan entrepreneurship but also aid policymakers and practitioners in devising effective strategies to enhance the sustainability of such organizations.

The reliability test result conducted with help of recorded responses of sample artisans through SPSS20 version's Cronbach's alpha test was obtained 0.852 that shows good acceptance rate of factors dimensions.

**Objective of the study**

The following the objectives of research study.

- To examine the role of terracotta artisans OFPO in preserving and promoting the entrepreneurial sustainability based on local cultural heritage of Gorakhpur.
- To identify the key entrepreneurial abilities influencing the success and sustainability of the social enterprise of terracotta artisans in Gorakhpur and to provide recommendations for enhancing the impact and growth of similar initiatives.

Hypothesis:

H0: Socio-demographic factors have no significant role in influencing the success and sustainability of social enterprise of terracotta artisans in selected research area.

H1: Socio-demographic factors have significant role in influencing the success and sustainability of social enterprise of terracotta artisans in selected research area.

**Analysis, Result and Discussion**

**Table:1 Descriptive Summary of OFPO**

Registered Office of the OFPO	:	Gulhariya Dist.-Gorakhpur, UP					
Total no. of artisan mobilised	:	260					
No. of artisan /Producer Groups formed	:	215					
Gender-wise no. of artisan mobilised		Total	Gen	SC	ST	OBC	Minority
Male	:	88	0	28	0	60	0
Female	:	127	0	31	0	92	4
Members engaged in each craft (give craftwise figures) Every member involve in Terracotta activity	:	215	0	59	0	152	4

	:						
Total no. of Share holders	:	215					
Gender-wise no. of Share holders							
Male	:	88					
Female	:	127					
Category-wise no. of Share holders		Terracotta					
Craft 1	:	215					
No. of SC & ST Shareholder	:	59					
Share Capital details							
Authorised Share Capital of the Producer Company (Amount in Rs.)		Rs. 1000000/-					
Paidup Share Capital of the Producer Company (Amount in Rs.)		Rs. 152000/-					
Value of each Share (Amount in Rs.)		Rs. 10/-					
<b>Details of Board of Directors (BoD)</b>							
No. of Board of Directors	:	05					
Gender-wise no. of Directors							
Male	:	04					

Source: Annual Progress Report of Registered Bhatahat Artisan Producer Company Ltd.

The detailed conclusive interpretation of above financial snapshot is given below

- The registered office of the selected off farm producers organization (OFPO) is located in Gulhariya, District Gorakhpur, Uttar Pradesh. This is the official address of the organization taken for research study and it is legally registered and operates from the very location.
- A total of 260 artisans have been mobilized by the organization. The organization has successfully gathered and organized a group of 260 artisans, who are involved in the craft of terracotta products.
- These artisans have been formed into 215 producer groups. To enhance collaboration and efficiency, the artisans have been divided into 215 producer groups, allowing them to work together towards common goals.
- Out of the total artisans mobilized, 88 are male and 127 are female. The organization has successfully mobilized a diverse group of artisans, with a majority being female.
- Among the male artisans, 28 belong to the Scheduled Caste (SC) category, while 60 belong to the Other Backward Class (OBC) category. The male artisans come from various backgrounds, with a significant number belonging to the SC and OBC categories.
- Among the female artisans, 31 belong to the SC category, 92 belong to the OBC category, and 4 belong to the minority category. Similarly, the female artisans also come from diverse backgrounds, with representation from SC, OBC, and minority communities.
- All the members of the organization, that is 215 artisans, are involved in terracotta activity. The core activity of the organization is the craft of terracotta, and all the members are actively engaged in this craft.
- There are a total of 215 shareholders in the organization. The organization has 215 individuals or entities who have invested in the organization as shareholders, indicating their commitment to its success.
- Out of the shareholders, 88 are male and 127 are female. The shareholders of the organization include individuals from both genders, with a slightly higher representation of female shareholders.

- All the shareholders are involved in the craft of terracotta. The shareholders of the organization are not just investors, but also actively participate in the craft of terracotta.
- There are 59 SC and ST shareholders in the organization. The organization has a diverse group of shareholders, with representation from Scheduled Castes (SC) and Scheduled Tribes (ST) communities.
- The authorized share capital of the producer company is Rs. 1,000,000. This is the maximum amount of share capital that the organization is authorized to have, as per its registration.
- The paid-up share capital of the producer company is Rs. 152,000. This is the amount of share capital that has been paid by the shareholders.
- The value of each share is Rs. 10. Each share in the organization has a monetary value of Rs. 10.
- The organization has a Board of Directors (BoD) consisting of 5 members. The organization is governed by a Board of Directors, which is responsible for making strategic decisions and guiding its operations.
- Out of the 5 directors, 4 are male and 1 is female. The Board of Directors includes individuals from both genders, with a majority being male directors.
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**Chi-square test result**

**Table:2**

**Case Processing Summary**

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender * score	53	100.0%	0	0.0%	53	100.0%

**Table:3**

**Gender \* score Cross-tabulation**

			score			Total
			High	Low	Medium	
Gender	Female	Count	8	6	16	30
		% of Total	15.1%	11.3%	30.2%	56.6%
	Male	Count	14	1	8	23
		% of Total	26.4%	1.9%	15.1%	43.4%
Total		Count	22	7	24	53
		% of Total	41.5%	13.2%	45.3%	100.0%

Source: Primary Data.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.073 <sup>a</sup>	2	.029
Likelihood Ratio	7.411	2	.025
N of Valid Cases	53		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.04.

The chi-square test conducted on the hypothesis tests the association between gender and the success and sustainability of social enterprise of terracotta artisans in the selected research area. The cross-tabulation table shows the distribution of scores (high, low, medium) among different genders. For females, there are 8 terracotta artisans with high scores, 6 with low scores, and 16 with medium scores. This represents 15.1% of the total count for high scores, 11.3% for low scores, and 30.2% for medium scores. For males, there are 14 terracotta artisans with high scores, 1 with low scores, and 8 with medium scores. This represents 26.4% of the total count for high scores, 1.9% for low scores, and 15.1% for medium scores. The total count for high scores is 22, for low scores is 7, and for medium scores is 24.

The chi-square test results indicate that there is a significant association between gender and the success and sustainability of social enterprise of terracotta artisans in the selected research area. The Pearson chi-square value is 7.073 with 2 degrees of freedom, and the associated p-value is 0.029. The likelihood ratio chi-square value is 7.411 with 2 degrees of freedom, and the associated p-value is 0.025. Both the Pearson chi-square test and the likelihood ratio test have p-values less than 0.05, indicating that we can reject the null hypothesis at a significance level of 0.05. Therefore, we can conclude that socio-demographic factors, specifically gender, have a significant role in influencing the success and sustainability of social enterprise of terracotta artisans in the selected research area.

**Table:4**  
**Caste \* score Cross-tabulation**

		score			Total
		High	Low	Medium	
Minority	Count	0	0	2	2
	% of Total	0.0%	0.0%	3.8%	3.8%
Caste OBC	Count	14	5	15	34
	% of Total	26.4%	9.4%	28.3%	64.2%
SC	Count	8	2	7	17
	% of Total	15.1%	3.8%	13.2%	32.1%
Total	Count	22	7	24	53
	% of Total	41.5%	13.2%	45.3%	100.0%

Source: Primary Data.

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.702 <sup>a</sup>	4	.609
Likelihood Ratio	3.450	4	.486
N of Valid Cases	53		

a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .26.

The cross-tabulation shows the distribution of the "score" variable among different "Caste" groups. The "score" variable has three categories: High, Low, and Medium. The "Caste" variable has three categories: Minority, OBC, and SC. The table shows the count and percentage of individuals in each combination of "Caste" and "score" categories. For example, there are 14 individuals in the OBC caste group who have a High score, and this represents 26.4% of the total valid cases. The chi-square test statistics are calculated using the observed frequencies in the cross-tabulation. The Pearson chi-square value is 2.702 with 4 degrees of freedom and an asymptotic significance (p-value) of 0.609. The likelihood ratio chi-square value is 3.450 with 4 degrees of freedom and a p-value of 0.486. Based on these results, we fail to reject the null hypothesis. This means that there is no significant association between the "Caste" and "score" variables. In other words, socio-demographic factors, represented by caste, do not have a significant role in influencing the success and sustainability of the social enterprise of terracotta artisans in the selected research area.

### Conclusion:

In conclusion, this research study focused on the OFPO of terracotta artisans in Gorakhpur, Uttar Pradesh. The study found that the OFPO has successfully mobilized 260 artisans, forming them into 215 producers group. The majority of artisans are female, with representation from various socio-demographic backgrounds such as Scheduled Castes (SC), Other Backward Classes (OBC), and minority communities. The organization also has a diverse group of shareholders, with both male and female representation. The study conducted a chi-square test to analyze the association between gender and the success and sustainability of the social enterprise. The results indicated a significant association, highlighting the influence of socio-demographic factors, specifically gender, on the success and sustainability of the enterprise. On the other hand, the study did not find a significant association between caste and the success and sustainability of the enterprise. This suggests that socio-demographic factors, represented by caste, do not play a significant role in influencing the enterprise. Based on these findings, the study recommends that the organization continue its efforts to empower and support female artisans. It is important to provide them with equal opportunities, training, and resources to enhance their skills and contribute to the sustainability of the enterprise. Additionally, the organization should prioritize gender inclusivity in its decision-making processes, ensuring that women have a voice and representation on the Board of Directors.

Furthermore, the study suggests that the organization should explore additional strategies to engage and support artisans from marginalized communities, such as Scheduled Castes and minority groups. This could include targeted training programs, financial assistance, and collaborative initiatives with government agencies and non-profit organizations working in social and cultural preservation. Overall, by recognizing and addressing the influence of socio-demographic factors on the success and sustainability of the social enterprise of terracotta artisans, the organization can continue to be a driving force in promoting sustainable development and cultural preservation in Gorakhpur.

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