

Analysis of Poverty among Chikan Industry Workers in Uttar Pradesh: A Multi-dimensional Approach.

Sana Aisha¹

Prof Rachna Mujoo²

¹ Sana Aisha, Research Scholar, Department of Applied Economics, Faculty of Commerce, University of Lucknow, India.

¹ Prof. Rachna Mujoo, Head, Department of Applied Economics, Faculty of Commerce, University of Lucknow, India.

Abstract

Chikankari work, which has a delicate texture, is commonly done on muslin using white cotton threads. It was first introduced in the 18th century, beginning in the state of Bengal, which is now Bangladesh, and ending in Lucknow, Uttar Pradesh, which is now the primary hub of manufacturing. Around 5000 families who are involved in this embroidery work, belongs from different villages of Lucknow. 90% of women are involved in this embroidery work and they all are professional artists. The chikan industry is chosen to study the poverty among the chikankari artisans to check the poverty level therefore the concept of multidimensional poverty index is taken for analyzing the levels of poverty and to know how much they are poor in different parameters.

Keywords: Chikan industry, MPI, quality of poor individuals.

Introduction

The 17 Sustainable Development Goals (SDGs) were established by a resolution passed by the United Nations General Assembly on September 25, 2015. (Sustainable development goal). SDGs are comprehensive and were created to eradicate poverty worldwide. Since 2010, the UNDP has used the MPI, or multidimensional poverty index, as a flagship human development program, a report that is widely used as a non-monetary poverty index around the world. The MPI's motivation is the overlap of indicators in health, education, and standard of life, according to the UNDP report 2020. It covers the income poverty measurement parameters and compares the derivate directly. The Multidimensional Poverty Index (MPI) is an international measure of acute multidimensional poverty that encompasses 100 developing nations. It measures traditional poverty measures, such as health, education, and standard of living, all of which a person faces at the same time. MPI

measures poverty on a person-by-person basis. The person is deficient in at least three of the weighted variables; the multi-dimensional index labels them "poor". This study provides an overview of the MPI about the national context of poverty, which includes numerous dimensions, as well as the conceptual framework that supports the multidimensional measurements. The initial goal of this study will be to learn about how the micro-based MPI is calculated and how it has expanded the understanding of poverty and its consequences in Uttar Pradesh. Second, the review was carried out to investigate the conceptual dispute around multi-dimensional poverty, as well as some fresh concepts and thinking pathways for MPI challenges. Third, this study discusses the characteristics of MPI, its indications, the cut-off, the management of missing data, and the processes involved in implementing MPI.

Literature review

- **Preeti Singh and Dr. Promila Sharma (2018):** The study shows the status of the workers who all are involved in the Chikankari work in small-scale industry. The study shows the health problems of the artisans who all are involved in the chikan industry; it also shows the certain difficulties which are faced by the workers and this study also shows musculoskeletal pain among the workers of the chikan industry.
- **Yusaira Ahmad and Dr. Mohammad Anees (2016):** They both studied the topic issues of the Lucknow chikan Handicraft industry. The research paper shows the issues faced by the chikan industry artisans and what problems faced by the entrepreneur. The data and information were collected through primary data which includes interviews, observations et,c.
- **Alkire and Foster (2011):** The study was conducted to identify the Multi-dimensional indicators including health, education, and housing facilities to evaluate the

comprehensive measures, and also to investigate rural poverty, which has become a prominent topic for local and international study.

- **Wang and Alkire (2009):** Both announced China's rural poverty and its development framework, which was termed "New Outline 2011." The 14 contiguous destitute districts have been designated as the major battlegrounds for eradicating absolute poverty by 2020. The Chinese government has amended the anti-poverty aim for poor households, ensuring that the poor do not have to worry about their future because the Chinese government is providing guarantees for food, education, and shelter.

Objective

- To study the Multi-dimensional poverty index.
- To analyze the poverty level among the workers of the chikan industry.

Research Methodology

The quantitative analysis is being conducted to determine the level of poverty among Chikankari artisans. This was the major strategy, and a questionnaire was created to collect information and data from the chikan industry in Lucknow. To determine the extent of poverty among the workforce, 200 sample sizes were taken. The purpose of the research was to determine the MPI and the causes of absolute poverty. Uttar Pradesh was chosen for this study because it includes a large number of small-scale industries, including the chikan industry.

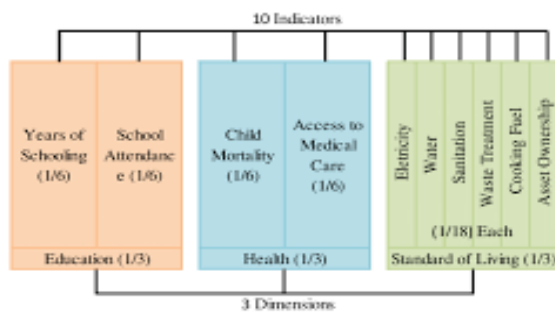
The salient feature of MPI

The national multidimensional poverty is a headline statistical tool that was used in OPHI (Oxford Poverty & Human Development Initiative), 2019 and its following features are as follows:-

1. To select the subnational regions across the nations to compare the poverty.
2. To track the overtime poverty.
3. Using actual data from the MPI indicators to emphasize impoverished people's conditions as "how much" they are below the poverty line. The MPI is reported with several statistical tools which show the different levels and components of poverty by different indicators.
4. The indicator 'H' indicates the proportion of the population who are poor on multiple levels.
5. The indicator "A" shows the percentage of weighted average multidimensional poor persons who are suffering from poverty.

6. The process of MPI is to directly construct from each individual's profile which is across the region and also build from the single household survey which captures the information on all the indicators. It also analyzes the weighted contribution of each index which act as the indicator of the MPI.

Dimensions of the MPI



Health

Child mortality and malnutrition are indicators of health. If a child in the family dies, the household and, as a consequence, all of its members suffer a loss of life. Similarly, if there is at least one undernourished individual in the household, all members of the household are nutritionally deficient.

Education

Years of schooling and the number of children enrolled in school are both indicators of education. The number of years spent in school is used as a measure of literacy and understanding among household members. If a person has completed at least five years of education, he or she is deemed literate. According to Basu and Foster (1998), the MPI assumes that one literate household member benefits all household members (of any age). As a result, if at least one family member has completed five years of schooling, the household is termed non-deprived. If any of the children of primary school age are not registered in school, the household loses points in the enrolment indicator.

Standard of living

Access to electricity, clean drinking water, improved sanitation, flooring (no dirt, sand, or dung), clean cooking fuel, and an asset index are all part of the living standard. The terms "electricity" and "floor" pertain to housing quality, whereas "drinking water," "better sanitation," and "clean cooking fuel" all have health implications and are part of the Millennium Development Goals

(MDG 7). Finally, a household is asset-poor if it owns no more than one minor asset (radio, television, telephone, bicycle, motorcycle, or refrigerator) and no automobile or truck.

The Alkire-Foster technique assigns weights to each deprivation after finding the indicator cut-offs. Within each dimension, indications are weighted equally, and the MPI applies equal weights across dimensions (each dimension receives a weight of 1/3).

After that, the weighted deprivations are added together and the cross-dimensional cut-off is used. The MPI employs a one-third cross-dimensional cut-off. As a result, if a household's weighted deprivations total one-third or more, it is considered multidimensionally poor.

The computing of the Multi-dimensional Index

Step 1: Identification or to Identify the poor:

This is based on the AF methodology which is dependent on the set of the indicator within and across the indicator which is a dual cutoff analysis. And within the cutoff (the first order of the cutoff) and across the indicator (the order of the second cutoff) which determines the multi-dimensional poor.

Step 2: Headcount ratio:

The headcount ratio determines the proportionate multi-dimensional poor in the total population of the universe. This is calculated based on the censored headcount ratio and uncensored

Headcount ratio

Headcount ratio = q/n

q = total number of multi-dimensional poor which defines individual and

n = total population

Therefore it is calculated as a percentage ($H*100$)

Censored headcount ratio:

$h_j(k) = 1/n \sum_i g^0 \text{ if } (k)$

n = total population

g^0 if k = censored score of the individual i

j = second order of the cutoff (k) which is 33.33%

Therefore the percentage calculated as $h_i(k) \cdot 100$

Uncensored headcount ratio:

$$H_{j=1/n} = \frac{1}{n} \sum_{i=1}^n g_i^0 \text{ if } i=1$$

$\sum_{i=1}^n g_i^0$ = starts with the sum of I individual indicating j and n total population. This is calculated as the percentage ($h_i \cdot 100$).

Step 3: Intensity of the poverty

$$A = \frac{1}{q} \sum_{i=1}^q c_i(k)$$

$C_i(k)$ is the derivate score of the multi-dimensional poor individual (i) and q is the number of the multi-dimensional poor individuals.

Step 4: Calculation of the MPI

The multidimensional poverty index covers both (incidence and the intensity) of the multi-dimensional. The poverty index is devoted by M_0 and it is the combination of the headcount (H) and the intensity (A) of multi-dimensional poverty.

$$M_0 = H \cdot A$$

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The table below shows the total number and percentage of artisans deprived in different indicators. It also shows the various poverty dimensions, including health, education, and standard of living. The health poverty dimension shows the overall percentage of Chikan industry artisans as 5.5% and the total number of artisans in child mortality is 11.

The poverty dimension on education concerning the year of schooling shows that 80% of the Chikan artisans have not even completed six years of schooling which is 160 out of 200. This shows a lack of education which reflects the poverty dimension in education level. To improve the level of education the government should focus on primary education and should also take measures to improve the child mortality rate.

The standard of living dimension indicates the poverty level in cooking fuel, sanitation, safe drinking water, electricity, housing facilities, and lastly assets. The highest deprivation in the living standard dimension of poverty is sanitation which is 32% followed by deprivation in cooking fuel and housing facilities which are 18% and 11.5 % respectively. As a result, the world is not achieving MDG i.e. (United Nations Millennium Development Goal), and also somewhere lacking adequate and equitable hygiene and sanitation. These artisans are less deprived in electricity and assets indicators of poverty with a deprivation score of 7% and 4.5%

respectively. From the table below we also observe that although they are poor they can consume clean drinking water and save from suffering health diseases like water-borne diseases.

Table 1: Number and Percentage of Artisans Deprived in Different Indicators.

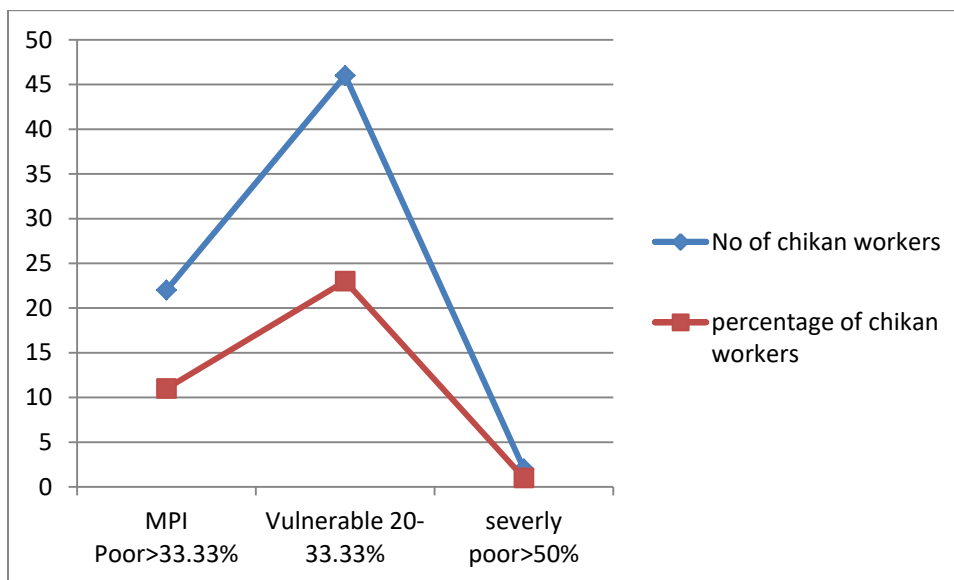
Poverty Dimensions	Indicator	Total Number of Chicken Artisans Deprived	Total Percentage of the Chikan Artisans Deprived
Health	Child Mortality	11	5.5
Education	Year of Schooling	160	80
	School Attendance	0	0
Living Standard	Cooking Fuel	36	18
	Sanitation	64	32
	Drinking Water	0	0
	Electricity	14	7
	Housing	23	11.5
	Assets	9	4.5

Table2: The Table Below Shows the Number and Percentage of Artisans who are MPI Poor, Vulnerable, and Severely Poor.

Category of Poor	No of Chikan Artisans	Percentage of Chikan Artisans
MPI Poor (>33.33%)	22	11
Vulnerable (20-33.33%)	46	23
Severely poor (>50%)	2	1

The percentage of Chikan artisans who are MPI Poor is 11 percent, as seen in the table above. While the number of vulnerable Chikan artisans is 46, or 23 percent, and the number of the severely poor artisan is only two, the overall percentage is 1. The biggest percentage of Chikan artisans is found in a vulnerable situation, which ranges from 20 to 33 percent, with the highest percentage being 23 percent.

Fig 2: The Graph Shows the Calculation of the MPI of the Chikan Industry poor Artisans.



From the above graph, it can be seen that the highest percentage shows vulnerability which ranges from 20-33.33% which shows the index of 24% overall with 46 chikan industry artisans out of 200 respondents.

The computation of MPI of Chikan Artisans

Industry	Headcount Ratio (H)	Intensity (A)	Number of Poor People	Vulnerable to Poverty	In Severe Poverty	MPI (H*A)
Chikan Industry	11(.11)	42.17 (.4217)	22	46	2	.0463

It can be observed that the value of MPI in the Chikan industry is .0463

It is calculated by multiplying the headcount ratio (H) with the intensity of poverty (A).
 $MPI=H*A$ whereas,

Headcount ratio(H)= Number of persons who are multi-dimensionally poor/total population *
 100

Or
 $H= q/n$

The intensity of poverty (A) or Weight age average of deprivation score=Weight age average
 *number of poor + Weightage average *the number of poor people.

Conclusion

It is concluded that health, education, and standard of living are three dimensions of measuring poverty under MPI. The survey was conducted to analyze the multi-dimensional poverty among the Chikankari artisans to find out the poorest level with the help of the multi-poverty index. The education dimension is the biggest contributor to overall poverty. For 200 Chikan artisans analyzed, the education dimension contributes even more than 50% to overall poverty. The study concludes that to reduce the rate of poverty, the state government must know the number of poor, improve conditions for Chikan artisans, focus on primary education to reduce child mortality, and provide better housing with proper hygiene and sanitation as well as some assets so that the poor can gauge their standard of living. By breaking down poverty levels by region, specific groups, and indicators, MPI assists the government in understanding the levels of poverty. This enables the government to immediately identify which groups suffer the most and in what ways they are deprived. The bulk of the people, which were impoverished and illiterate, should be the government's priority when considering its wants and concerns. We also rejected the traditional assumption that those who lack literacy cannot contribute significantly to sample surveys. It should be the government's responsibility and a task to create a survey that incorporates the opinions of the illiterate artisans who are overrepresented in older and rural segments of society – precisely the individuals whose quality of life is low by most objective standards. . We reasoned that a profile of quality-of-life indicators would clearly show regions where citizens' aspirations of the good life were not being met and necessitated immediate policymaker corrective action. To promote gender equality, the paper's conclusion looks at how more funding for basic services and health care, especially in small-scale industries, may be implemented.

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12. Suman Seth: Oxford Poverty & Human Development Initiative (OPHI), Queen Elizabeth House (QEH), Department of International Development, University of Oxford, UK, +44 1865 618643, suman.seth@qeh.ox.ac.uk.
13. Maria Emma Santos: Instituto de Investigaciones Económicas y Sociales del Sur (IIES), Departamento de Economía, Universidad Nacional del Sur (UNS) - Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), 12 de Octubre 1198, 7 Piso, 8000 Bahía Blanca, Argentina. Oxford Poverty and Human Development Initiative, University of Oxford. msantos@uns.edu.ar; maria.santos@qeh.ox.ac.uk.
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