

## The Impact of Microfinance on the Poverty Reduction: An Empirical Evidence from Gorakhpur Mandal Perspective

Prof. Shrivardhan Pathak, Dept. of Commerce, DDU Gorakhpur University

Santosh Kumar Verma, Research Scholar, Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, Uttar Pradesh

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### Abstract

The aim and objective of this study was to find the impact of microfinance on the poverty reduction in the Gorakhpur mandal which covers the four districts as Gorakhpur, Deoria, Kushinagar and Mahrajganj. The exploratory as well as descriptive research design was used. The preliminary pilot study was conducted on the 34 respondents which was 10 % of the total sample size. The sample size of this study was 344 which was received form the respondents of Gorakhpur mandal. The correlation and regression analysis were employed to test the null and alternative hypothesis. The significance level was set at 5% in advance. The SPSS 23.0 version software was used for the simple and complex calculations. The findings concluded that there was a significant effect of the microfinance on the poverty reduction in the Gorakhpur mandal. The study helped to the microfinance intuitions and self-help groups in the poverty reduction.

**Keywords: Microfinance; Poverty Reduction; Gorakhpur Mandal; Correlation & Regression, Enter Method**

### 1.0 Introduction

The impact of microfinance on poverty reduction has been a subject of extensive debate and research over the past few decades, particularly as developing economies strive to address the persistent challenges of poverty and socio-economic inequality. In this context, microfinance emerges as a powerful tool, offering financial services to the economically marginalized who lack access to conventional banking systems. This study focuses on Gorakhpur Mandal (as Gorakhpur, Deoria, Kushinagar and Mahrajganj district), a region characterized by a significant proportion of its population living below the poverty line, where traditional financial services have historically been inaccessible to the rural poor. Microfinance institutions (MFIs) have proliferated in this region, aiming to empower individuals, especially women, by providing small loans, savings, and insurance products. These services are intended to enable poor households to invest in income-generating activities, smooth consumption, and manage risks, thereby fostering economic stability and growth. Despite the widespread adoption of microfinance in Gorakhpur Mandal (as Gorakhpur, Deoria, Kushinagar and Mahrajganj district), the actual impact on poverty reduction remains a contentious issue, with varying outcomes reported across different studies. This research seeks to provide empirical evidence on the efficacy of microfinance in alleviating poverty in this specific region. By employing a mixed-methods approach, which includes quantitative analysis of income, consumption patterns, and asset accumulation, as well as qualitative insights into the social and psychological effects of microfinance participation, this study aims to offer a comprehensive evaluation of how microfinance has influenced the lives of the poor in Gorakhpur Mandal (as Gorakhpur, Deoria, Kushinagar and Mahrajganj district). Furthermore, this research will explore the factors that may enhance or hinder the success of microfinance initiatives, such as the role of financial literacy, the design of microfinance products, and the broader socio-economic context. By doing so, it seeks to contribute to the broader discourse on the effectiveness of microfinance as a tool for poverty alleviation and to provide policy recommendations that could optimize the impact of microfinance in similar socio-economic settings. Based on the background of this study, the objective of this study is as follows:

### 1.1 Objective

- To find the correlation between microfinance and the poverty reduction in Gorakhpur mandal
- To find the impact of microfinance on the poverty reduction in Gorakhpur mandal.

## 1.2 Hypothesis

- H01: There is no significant correlation between microfinance and the poverty reduction in Gorakhpur mandal
- H11: There is a significant correlation between microfinance and the poverty reduction in Gorakhpur mandal
- H02: There is no significant impact of microfinance on the poverty reduction in Gorakhpur mandal.
- H12: There is a significant impact of microfinance on the poverty reduction in Gorakhpur mandal.

## 2.0 Literature Review

The literature review was carried out with the help of Mendeley software which helped in the formation and citation of the references in the APA (American Psychological Association) 7<sup>th</sup> edition. The findings of the previous authors on the microfinance and its connection with the poverty reduction are arranged in the recent to past as follows: Financial inclusion plays a vital role in ensuring economic stability and reducing poverty in less developed countries, especially in Asian and Middle Eastern nations. A significant number of persons, particularly those residing in rural regions, do not have access to fundamental financial services. In order to enhance the quality of life, it is necessary to use financial technology and mobile money services. The sharing economy, law, and information technology are all driving significant advancements in financial inclusion. (Asif et al., 2023) The existing structure of the PMJDY scheme is inadequate in tackling financial exclusion, emphasizing the need of promoting micro-enterprises and integrating the operations of the National Rural Livelihood Mission and National Urban Livelihood Mission with PMJDY. (Mahajan, 2023) Financial inclusion facilitates equitable wealth distribution, mitigating poverty and fostering economic growth. Enhancing financial inclusion is essential for maintaining both macroeconomic and microeconomic financial stability. Future study should aim to determine the potential hazards, prevailing political circumstances, desired goals, effective policies, strategic approaches, and optimal levels for achieving financial inclusion. (Manzoor, 2023) India, as a developing country, has achieved financial inclusion by nationalizing private banks and establishing public sector banks. Nevertheless, the achievement of these plans, namely in reducing poverty and offering cost-effective financial services to the poor, necessitates more cooperation among the government, RBI, and public sector banks. (Bhatti & Khan, 2023) Technological advancements, such as the integration of devices that allow for both cash withdrawal and deposit, biometric identification systems, and the ability to provide narration in several languages, have the potential to increase the reach and accessibility of banking services. Enhancing financial literacy and promoting awareness of financial inclusion schemes may be achieved via the use of local media, mobile banking services, and staff orientation programs. (Tiwari & Deshmukh, 2023) Financial inclusion is essential, although restricted access to formal financial institutions persists owing to exorbitant expenses and inadequate advantages. In order to enhance financial inclusion, it is essential to increase knowledge about these services and ensure their accessibility for those with limited reading proficiency. (Sayyad & Jadhav, 2022) Financial inclusion is crucial for fostering inclusive economic growth in a nation, facilitating socio-economic progress. Nationalized banks have a vital role in offering financial goods and services, promoting the accumulation of excess capital, and addressing the needs of financially marginalized communities. (Ray, 2021) Digital services are increasingly becoming the favored method for doing financial transactions. Nevertheless, digital financial inclusion does not provide equal benefits to all persons. In order to alleviate the disparity, it is essential to implement comprehensive digital financial literacy initiatives that cater to the specific requirements of underprivileged communities. Providing online services and training to ordinary persons may enhance their digital literacy abilities, therefore promoting human

development and reducing poverty. (Mondal, 2020) Financial inclusion is an ongoing activity that presents immediate possibilities, but it is not a goal that can be achieved quickly. Policymakers should take advantage of these possibilities and address any weaknesses in order to expedite inclusion, with a particular emphasis on implementing sustainable banking service delivery methods and developing products that cater to the specific needs of both rural and urban customers. (Varghese & Viswanathan, 2018) The financial intermediary in India plays a crucial role in promoting economic development by gathering funds and distributing loans to entrepreneurs for their profitable business ventures. (Iqbal & Sami, 2011)

### 3.0 Methodologies

The exploratory as well as descriptive research design was used. The exploratory research design was used to explore new facts, new knowledge, new information towards microfinance and poverty reduction in the Gorakhpur mandal. The descriptive research design was used to test the null and alternative hypothesis. The preliminary pilot study was conducted on the 34 respondents which was 10 % of the total sample size. The sample size of this study was 344 which was received from the respondents of Gorakhpur mandal. The correlation and regression analysis were employed to test the null and alternative hypothesis. The significance level was set at 5% in advance. The decision rule was defined as if the p value is less than 0.05, then reject the null hypothesis and if the p value is more than 0.05 then accept the null hypothesis. The two major latent variables as microfinance and poverty reduction was measured in 5 points Likert scale as stating as 1 is strongly disagree whereas 5 is strongly agree. The 3 is considered as neither agree nor disagree. The SPSS 23.0 version software was used for the simple and complex calculations.

### 5.0 Results

The SPSS 23.0 version output are as follows:

#### 5.1 Corelation Results

**Table 1: Correlations**

		Poverty Reduction	Microfinance
Pearson Correlation	Poverty Reduction	1.000	.407
	Microfinance	.407	1.000
Sig. (1-tailed)	Poverty Reduction	.	.000
	Microfinance	.000	.
N	Poverty Reduction	344	344
	Microfinance	344	344

Source: SPSS23.0

According to the correlation table 1, the person correlation coefficient is 0.407 and p value is 0.000. hence it is safe to reject the first null hypothesis (H01: There is no significant correlation between microfinance and the poverty reduction in Gorakhpur mandal), therefore it can be concluded that there was a positive moderate significant correlation between microfinance and the poverty reduction in Gorakhpur mandal. If there is one unit increase in the microfinance then there is a positive moderate 0.407 unit increase in the reduction of poverty in the Gorakhpur mandal.

#### 5.2 Regression Results

Regression model  $Y = a + bX$

Poverty Reduction =  $a + b$  (Microfinance)

Where that microfinance is used as an independent variable whereas poverty reduction is used as dependent variable. a and b are the constants.



**Table 2: Variables Entered/Removed**

Model	Variables Entered	Variables Removed	Method
1	Microfinance	.	Enter
Dependent Variable: Poverty Reduction			
All requested variables entered.			

Source: SPSS23.0

According to the Variables Entered/Removed table 2, it is clear that microfinance is used as a independent variable whereas poverty reduction is used as dependent variable. The enter regression method was used to find the cause-and-effect relationship between microfinance and poverty reduction

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.407	.165	.163	.95865	.165	67.742	1	342	.000
Predictors: (Constant), Microfinance									

Source: SPSS23.0

According to the Model Summary table 3, it is clear that  $R^2$  is 0.16 that means microfinance independent variable explained 16.3% variance in the poverty reduction dependent variable that is confirmed as the moderate model to further interpretation of the ANOVA and Coefficients table 4 and 5.

**Table 4: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.256	1	62.256	67.742	.000
	Residual	314.302	342	.919		
	Total	376.558	343			
Dependent Variable: Poverty Reduction						
Predictors: (Constant), Microfinance						

Source: SPSS23.0

According to the ANOVA table 4, it s clear that model is highly significant ( $F= 67.742$ ,  $Sig = 0.000$ ) and suitable for the interpretation of the coefficient table 5.

**Table 5: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.699	.248		6.847	.000	1.211	2.188
	Microfinance	.518	.063	.407	8.231	.000	.394	.642
Dependent Variable: Poverty Reduction								

Source: SPSS23.0

According to the coefficient table 5, it is clear that sig value is 0.000, hence it is safe to reject the second null hypothesis ( $H_{02}$ : There is no significant impact of microfinance on the poverty reduction in Gorakhpur mandal), therefore can be concluded that there was significant impact

of microfinance on the poverty reduction in Gorakhpur mandal. The regression equation can be written as  $\text{Poverty Reduction} = a + b (\text{Microfinance})$   $\text{Poverty Reduction} = 1.699 + 0.407 (\text{Microfinance})$  that explained as if one unit is increased in the microfinance services then there is an increase of 0.407 unit in the efforts of poverty reduction in the Gorakhpur mandal.

## 6.0 Discussion

Based on the correlation table 1, the Pearson correlation coefficient is 0.407 and the p-value is 0.000. Therefore, it is justifiable to reject the initial null hypothesis (H01: There is no significant correlation between microfinance and poverty reduction in Gorakhpur mandal). Consequently, it can be inferred that there exists a statistically significant moderate positive correlation between microfinance and poverty reduction in Gorakhpur mandal. A one-unit increase in microfinance results in a modest positive rise of 0.407 units in poverty reduction in the Gorakhpur mandal. The Variables Entered/Removed table 2 indicates that microfinance is used as an independent variable, while poverty reduction is utilized as the dependent variable. The regression approach was used to investigate the causal association between microfinance and poverty alleviation. The Model Summary table 3 shows that the R<sup>2</sup> value is 0.16, indicating that the microfinance independent variable accounts for 16.3% of the variation in the poverty reduction dependent variable. This confirms that the model is somewhat suitable for interpreting the ANOVA and Coefficients tables 4 and 5. The ANOVA table 4 indicates that the model is very significant ( $F = 67.742$ ,  $\text{Sig} = 0.000$ ) and appropriate for interpreting the coefficient table 5. Based on the coefficient table 5, the significance value is 0.000, indicating that it is appropriate to reject the second null hypothesis (H02: There is no significant impact of microfinance on poverty reduction in Gorakhpur mandal). Therefore, it can be concluded that there was a significant impact of microfinance on poverty reduction in Gorakhpur mandal. The regression equation for poverty reduction can be expressed as  $\text{Poverty Reduction} = a + b (\text{Microfinance})$ , where  $a = 1.699$  and  $b = 0.407$ . This equation indicates that for every unit increase in microfinance services, there is a corresponding increase of 0.407 units in poverty reduction efforts in the Gorakhpur mandal.

## 7.0 Conclusion

The research done in the Gorakhpur mandal demonstrated a substantial and favorable association between microfinance and the reduction of poverty. An increase of one unit in microfinance resulted in a moderate positive gain of 0.407 units in poverty reduction in the Gorakhpur mandal. The regression methodology was used to examine the causal relationship between microfinance and the mitigation of poverty. The model summary table indicates that the microfinance independent variable explains 16.3% of the variability in the poverty reduction dependent variable. The ANOVA table 4 shows that the model is very significant ( $F = 67.742$ ,  $\text{Sig} = 0.000$ ), making it suitable for evaluating the coefficient table 5. The regression equation for poverty reduction is represented as  $\text{Poverty Reduction} = a + b (\text{Microfinance})$ , with a value of  $a = 1.699$  and  $b = 0.407$ . The equation demonstrates a positive relationship between the rise in microfinance services and poverty reduction efforts in the Gorakhpur mandal. Specifically, for each unit increase in microfinance services, there is a corresponding increase of 0.407 units in poverty reduction efforts.

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## Consent for publication

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