

What Is Incidence of Poverty and Factors Responsible for Poverty Reduction: A Study From Mandi Bahauddin

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Abstract

This study aims to find out the possible factors that are responsible for poverty reduction in Mandi Bahauddin. For it, study estimates the poverty for two different time-periods, one is 2011 and other is 2016. The data used for current study is based on the survey conducted for the year 2016. A sample of 100 respondents was selected from 27 union councils of Mandi Bahauddin. A Foster poverty index (FGT) was used for analysis. The result of study reveals that incidence, depth and severity of poverty in 2011 were 25, 17.99 and 16.74 percent while in 2016 was 18, 13.83 and 13.16 percent respectively. Increase in Foreign remittances, heavy investment and employment opportunities in informal sector and use of informal skills provide their valuable contribution in poverty reduction in the studied region. This study recommends that in order to bring poverty at its minimum level various developmental projects should be implemented by involving and taking financial help of informal sector in Mandi Bahauddin.

Keywords: Poverty Reduction, Foreign Remittances, Heavy Investment, Informal Sector, Logistic Regression

Introduction

Poverty has no geographical boundaries and remains a big challenging issue since the emergence of civilization. It has been a massive issue for all developing countries including Pakistan. Poverty is failure to maintain minimum standard of living up to a certain level. It leaves negative impacts on lives of human beings. Basic needs of individuals that includes food items, shelter and wearing outfit cannot be satisfied because of lack of resources and ability to overcome this situation is absent which indicate that people are poor (Tariq *et al.*, 2014). Poverty exists in lives of millions of people all over the world. The causes of poverty differ from country to country and from individual to individual. It has been reported that today around one billion people are living in extreme poverty in different continents. Out of which 551 million people lived in different Asian countries, 436 million people lived in African countries, 15 million people lived in South American countries, 5.9 million people lived in North American countries, 0.3 million people lived in different European countries and 50 thousand lived in Oceania (Roser, 2016).

It has been claimed extreme poverty decrease all over the world. The latest estimate of poverty for 2012 suggests that almost 900 million people were living on less than \$1.90 a day but in 2015 it reduced and now around 700 million people living on less than \$1.90 a day (Global Monitoring Report, 2015). In South Asia, population living on \$1.90 per day was 18.8 percent in 2012 (World Bank, 2016: Global Monitoring Report, 2015). While in Pakistan, 50 million fewer people lived in absolute poverty in 2011 as compared to 1991 and proportion of people living on a lesser amount of \$1.25 per day fall from 66.5 percent in 1987 to 12.7 percent in 2011 (Patel, 2015).

A large number of studies used Household Integrated Economic Survey (HIES) data to estimate incidence of poverty and factors responsible for poverty reduction in Pakistan and small number of studies use primary data to estimate incidence of poverty are available. There is abundant of literature regarding estimation of poverty but these estimates do not provide different results. A number of studies including (Sabir *et al.*, 2006; Chaudhry *et al.*, 2009; Awan and Iqbal, 2010 and Zahra *et al.*, 2014) used primary data to measured incidence of poverty and finds out factors responsible for its reduction. Some studies conclude that high education played their role in poverty reduction while some said that investment in livestock and land ownership is responsible for poverty reduction in their studied region. The prime aim of the current study is to estimate the incidence of poverty and evaluate the poverty reducing factors in Mandi Bahauddin in the sense as to whether they contribute to poverty reduction in sustainable manner. In Pakistan, few studies have attempted to calculate incidence of poverty by using primary data. The major objective of this study was to determine poverty at two different time-periods in Mandi Bahauddin by using primary data and identify factors responsible for poverty reduction.

The research paper is organized into four main sections. Section 2 provides a brief discussion on poverty measures, the data and the poverty line used in the paper. Section four presents the findings of the result and final section concludes overall.

2. Methodology

2.1. Data Source and Poverty Line

The present study was conducted in Mandi Bahauddin, one of city of Punjab Province, Pakistan. According to census of 2015, total population of Mandi Bahauddin is 478946 and total area is 7623 square kilometer. A sample of 100 respondents was taken from 27 Union Councils for the year 2011 and 2016. A well-structured questionnaire was designed for data collection. The questionnaire was developed in the lights of the research problem, research questions and objectives of the study. This study used an official poverty line announced by Panning commission (GoP, 2002) by keeping in view the 2350 caloric requirement per adult per day. By keeping in account the estimated poverty line was 1745 and 2369.86 for year 2011 and 2016 respectively.

2.2. Poverty Indices

The most widely and reliable poverty measures is FGT (Foster *et al.*, 1984) class of poverty measures. The formula for FGT index is:

$$P\alpha = \frac{1}{n} \sum_{i=1}^q [(Z_i - Y_i) / Z_i]^\alpha$$

n = total population

q = number of poor

Z = poverty line

Y_i = income or consumption below poverty line

α = poverty aversion parameters

2.2.1 Headcount ratio

The FGT index is equivalent to the headcount ratio when “α” assumes the value “0” and measures the incidence of poverty in given population of size n. Headcount ratio measures the fraction of total population lies below poverty line and its value lies between 0 and 1. The headcount ratio can be defined as follow:

$$HCR = \frac{q}{n}$$

n = total number of population

q = total number of poor

2.2.2 Poverty gap ratio

The FGT index is equivalent to poverty gap ratio when “α” assumes the value “1” and measures the depth of poverty. It measures the gap that existed between poverty line and average income of poor people. It is the mean shortfall of total population from poverty line. It measures the total amount of income required to raise individuals who lies below poverty line up to that line. It is denoted by P₁ and calculated with the help of following formula

$$P_1 = \frac{1}{n} \sum_{i=1}^q [(Z_i - Y_i) / Z_i]$$

n = total population

q = number of poor

Z_i = poverty line

Y_i = Income or consumption below poverty line

2.2.3 Squared poverty gap ratio

The FGT index is equivalent to squared poverty gap ratio when “α” assumes the value “2” and it measures severity of poverty. It measures the inequalities among poor. It is denoted by P₂ and calculated with the help of following formula

$$P_2 = \frac{1}{n} \sum_{i=1}^q [(Z_i - Y_i) / Z_i]^2$$

n = total population

q = number of poor

Z_i = poverty line

Y_i = Income or consumption below poverty line

These poverty measures draw from Foster, Greer and Thorbecks (Foster *et al.*, 1984) class of poverty measure. These measures reflect not only the intensity but also grasp the severity of poverty.

3. Results and Discussion

The data indicates that respondents are enjoying all facilities available in big cities. A city Mandi Bahauddin is not far away from big cities of Pakistan. Being very close to big cities in the surroundings the living standard has resemblance with the people of big cities. The estimates of poverty for year 2011 and 2016 are reported in Table-1 and Table-2.

Table 1: Poverty estimates in Mandi Bahauddin in year 2011

Variables	Poverty Estimates (Percent)
Headcount Ratio	25
Poverty Gap Ratio	17.99
Squared Poverty Gap Ratio	16.74

Source: Author's own calculation

Table 2: Poverty estimates in Mandi Bahauddin in year 2016

Variables	Poverty Estimates (Percent)
Headcount Ratio	18
Poverty Gap Ratio	13.83
Squared Poverty Gap Ratio	13.16

Source: Author's own calculation

Present study estimates the incidence, depth and severity of poverty in Mandi Bahauddin for two different periods. One is 2011 and other is 2016. The results are reported in table 1 & 2. Table #1 revealed the poverty estimates for year 2011. According to results, incidence of poverty was 25% which means 25% people were poor in 2011. The depth of poverty was 17.99 % and severity of poverty was 16.74 percent respectively in base period. Table #2 revealed poverty estimates for year 2016. The result showed that incidence of poverty is about 18 percent that shows that 18 percent people are poor in Mandi Bahauddin in current period. The depth of poverty is about 13.83% and the severity of poverty is 13.16 % implies that is 13.16 % inequality among the poor in current period. When these poverty estimates are compared, we come to know that all three types of poverty (incidence, depth and severity) is decrease in Mandi Bahauddin between period 2011 to 2016.

The study aims to finds out factors that are responsible for decrease in poverty during these years. Now we look at the profile of poverty by characteristics of role of informal sector in poverty reduction in city. This study tries to explore is there any contribution of informal sector in poverty reduction in studied region and it is the prime focus of the study under consideration. The results are reported in Table-3 to Table-4.

Table 3: Poverty Estimates in Mandi Bahauddin in year 2011 by considering Informal Sector

Variables	Poverty Estimates Informal Sector (Percent)
	2011
Headcount Ratio	29.03
Poverty Gap Ratio	20.85
Squared Poverty Gap Ratio	19.65

Source: Author's own calculation

Table 4: Poverty Estimates in Mandi Bahauddin in year 2016 by considering Informal Sector

Variables	Poverty Estimates Informal Sector (Percent)
Headcount Ratio	22.58
Poverty Gap Ratio	17.03
Squared Poverty Gap Ratio	16.27

Source: Author's own calculation

Table-3 and Table-4 revealed the results of valuable contribution of informal sector in poverty reduction in Mandi Bahauddin. Table #3 showed the estimates of poverty due to informal sector in year 2011. The incidence of poverty was 29%. The depth of poverty was about 20.85% while severity of poverty was 19.65% while table #4 revealed the poverty estimate due to informal sector in year 2016. The incidence of poverty in informal sector is about 22%. The depth of poverty was 17.03% while severity of poverty was 16.27% currently.

When these poverty estimates are compared, it comes to know that all three types of poverty (incidence, depth and severity) is decrease due to increase investment in informal sector in Mandi Bahauddin. More people are connected with informal sector and invest highly because they have skills that able them to earn money and change their existing stat of poverty. These results are matched with results of (Onwe, 2013). According to him, informal sector is emerging in developing countries and play their valuable contribution in poverty reduction and it is proved as profitable enterprise provide employment opportunities to large unemployed citizens on basis of skills not on formal education.

Summary and Conclusion

Result of study showed that poverty at its extreme form is kicked out in studied area and people facing less poverty now as compared to past. A decrease in poverty is a result of something happens during these years that never occur in the past. This study tried to find out factors that were responsible for poverty reduction in this area. Empirical evidence suggested that decrease in poverty is a result of increase investment in informal sector in Mandi Bahauddin. From where money came for investing in informal sector, this study interviewed the respondents and asked about their foreign source of income and found that majority of respondents have a family member that go to abroad for earning. These immigrants sent money back to their home countries and it increases the consumption level of their family stayed in Pakistan. These people demanded luxuries goods available in big cities. To meet the demand various firms start investing in Mandi Bahauddin. In this way, the consumption of these foreign earners becomes the source of income for domestic residents and poverty decreases in Mandi Bahauddin. Therefore, it is concluded that informal sector starts emerging in the city and poverty decrease. This study recommends that in order to reduce poverty various developmental projects should be implemented in city by involving informal sector.

References

- Allahdadi, F., & Aref, A. (2011). Human Resource Development for Poverty Alleviation in Iran. *Life Science Journal*, 8(3), 63-66.
- Awan, M. S., & Iqbal, N. (2010). Determinants of Urban Poverty: The Case of Medium Sized City in Pakistan. *Working Papers & Research Reports*, 2010.
- Chaudhry, I. S., Malik, S., & ul Hassan, A. (2009). The impact of socioeconomic and demographic variables on poverty: a village study. *The Lahore Journal of Economics*, 14(1), 39.
- Foster, J., Greer, J., & Thorbecke, E. (1984). A class of decomposable poverty measures. *Econometrica: journal of the econometric society*, 761-766.
- Government of Pakistan. (2002). Pakistan Economic Survey. *Ministry of Finance, Islamabad*.
- Onwe, O. J. (2013). Role of the informal sector in development of the Nigerian economy: Output and employment approach. *Journal of Economics and Development Studies*, 1(1), 60-74.
- Patel, D. (2015). Poverty in Pakistan: Numerous efforts, many numbers, not enough results. *AidData*. <http://aiddata.org/blog/poverty-in-pakistan-numerous-efforts-many-numbers-not-enough-results>.
- Roser, M. (2016). World Poverty. *Published online at our WorldInData.org*. Retrieved from: <https://ourworldindata.org/world-poverty/>[Online Resource]
- Sabir, H. M., Hussain, Z. A. K. I. R., & Saboor, A. B. D. U. L. (2006). Determinants of small farmers poverty in the Central Punjab (Pakistan). *Journal of agriculture and social sciences*, 2(1), 10-12.
- Tariq, M. A. H. A. M., Idress, A., Abid, M. U. Z. A. M. M. I. L., & Samin, T. A. N. Z. I. L. A. (2014). Rationale effects of poverty in Pakistan. *IMPACT IJRB*, 2(6).
- World Bank Group. (2015). Development goals in an era of demographic change. *Global Monitoring Reports*.
- World Bank. 2016. Annual Report 2016. *World Bank*.
- Zahra, N., Shah, H., Khan, M. A., & Anwar, M. Z. (2014). Livelihood assets and poverty nexus: a case study from rainfed Pothwar area of Pakistan. *Pakistan Journal of Agricultural Research*, 27(3).