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The Role of Microfinance in Poverty Reduction: Evidence from South Asia

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Abstract

This study analyzed the impact of micro finance and macroeconomic variables on poverty at three levels. The paper covers the time period of 08 years from 2005 to 2012. A panel of 06 selected SAARC countries was taken including India, Nepal, Pakistan, Sri Lanka, Bangladesh and Bhutan. Panel data regression model was used in the study. A key finding is that microfinance reduces extreme poverty and literacy also plays a major in poverty reduction. Other findings and recommendations are discussed in the paper.

Keywords: Microfinance, Poverty, Regression model, Hausamn Test, South Asia.

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Introduction

Despite all the changes made in the development paradigm, the goal to bring welfare to all human beings remained unattained. More than 1.2 billion people in the world are

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striving to survive below $1.25. A human situation which shows human life as hunger, lack of shelter, lack of education, poor heath, weakness and social exclusion is known as poverty. It is a multidimensional idea including deficiency of social, economic and political essentials required for human survival. To cope up with this poverty, concept of microfinance emerged at various times in modern history, however, Graeme Bank, is commonly considered to be the first modern microcredit institution which was founded in 1983.The supreme objective of microfinance initiatives is to reduce the poverty of those individuals who have less education and a very little income. Microfinance has proven itself to be a lethal tool in poverty alleviation (State Bank of Pakistan, 2005). Robinson (2001) stated that in 1980s when the large scale operations of Grameen and Bank Rakhayt started became a turning point in the history of microfinance. Microfinance has turned into an industry which is helping the poorest of the poor to bring them out of the vicious poverty trap. Microfinance has been globally established as a leading development tool to combat poverty (Reed, 2011).

Like all other economies South Asia is also facing problem such as high poverty, illiteracy and high inflation. The largest number of poor who are exposed to the price and food fluctuations lives in South Asia (Economic Survey of Pakistan, 2010-11). The ratio of individuals living below poverty line ($1.25) has increased from 549 million to 595 million in 2005. South Asia portrays an interesting contradiction; it is the 2nd rapidly growing region in the world with high concentration of poverty and is hub of conflicts and gender disparities. South Asia is a land of two highly diverse regions, one is known as the Asia Shinning' and other is 'the Asia Suffering'. The differences between shinning and suffering Asia are so sharp that they seem to be the part of two different centuries. The Shinning Asia has experienced incredible growth because of its economic geography, growth-promoting institutions and globalization while the Asia Suffering has very limited potential of growth due to its state's weak capacity to provide social services.

In South Asia the modern concept of microfinance emerged in 1970s in Bangladesh as a response to prevailing poverty conditions in the society. Poverty is not only associated with microfinance, there are certain other economic factors as well which can also affect poverty in any economy. Many studies suggested that Literacy, economic growth and inflation also play an effective role in poverty reduction. Improved education can directly lead to less poverty. Education is known as a basic tool against the poverty. Higher level of education reduces the chances of a person to be poor and a nation cannot make progress without education (Awan et al., 2011). It enhances economic growth, alleviate poverty and increase productivity (Afzal et al., 2012; Raja, 2000).

Economic growth is the single most important factor that influences poverty (World Development Report, 2000); Reduction of poverty in developing countries is based on economic growth according to (Richard and Adams, 2004). Easterly (2000) claimed in his study that "inflation is the cruelest tax of all" is often interpreted as meaning that inflation hurts the poor relatively more than the rich. After conducting survey of poor in 38 countries he concluded that inflation affects poor more than it affects the rich people of the society. There is no clear role of economic growth to reduce poverty (Ravallion, 1995). Economic growth impact the poverty through creation of employment and improved wages (Ravallion and Datt, 1996; Bhagwati, 2000).

This paper explored and investigated the relationship between poverty, microfinance and some economic indicators like inflation, economic growth and literacy rates in South Asian selected SAARC countries (India, Bangladesh, Pakistan, Bhutan, Nepal and Sri Lanka) for the period 2005 -2012. Panel data regression model is used for analysis of the data set.

Literature review

Extremely high level of inequality prevails within and between countries around the globe. Rich countries are getting richer and richer and most of developing countries are lagging behind in this race. The rich regions are trying hard to get rid of the vicious circle of poverty. Poverty is a multi-dimensional phenomenon, which is not only prevailing internationally but specific economic, cultural and political features are also contributing in the increase of poverty.

According to Rural Poverty Report 2001, it is anticipated that more than 1.2 billion people in the world living are under the poverty line ($1 per day). More than 90% poor lives in South Asia. From many years poverty alleviation had been a primary objective of the developing economies of the world. Ample researches had been carried out to study the long run economic and social effects of poverty reduction around the globe. Poverty alleviation is the part of major agendas of all international organizations such as United Nations.

To get rid of this poverty microfinance is considered to be an effective tool (Khandker, 2005 and Bakhitari, 2005). Most of the people manage to optimize resources to develop their enterprise (Shastri, 2009). Microfinance involves small scale transactions to meet the needs of SMEs. Experiences showed that microfinance helps the poor in increasing their income, reducing vulnerability to external shocks and building viable businesses to earn a standard of living. Microfinance is the provision of financial services to low income households. The wide range of financial services includes insurance, loans money transfers and leasing (Bakhiari, 2006). Microfinance is not a new concept. It had been prevailing in the world since long time with different names like credit and savings groups had been operating for centuries including the "chit funds" of India, "susus" of Ghana, "arisan" in Indonesia,, "tandas" in Mexico, "cheetu" in Sri Lanka, and "pasanaku" in Bolivia and "tontines" in West Africa, in addition to these plenty of savings clubs and societies are found worldwide.

Microfinance is considered as a developmental tool rather than a banking system. Microfinance usually involves:

- Provision of small loans for entrepreneurial activities.
- appraisal of borrowers and investments
- Collateral substitutes, such as group guarantees
- Access to larger amount loans, based on repayment performance

- Secured savings products.

The term microfinance refers to "providing financial services to low-income clients, such as low-income entrepreneurs and self-employed individuals in both urban and rural areas" (Wood, 1999). The study of (Akanji, 1998) revealed two third of the Nigerian population lived below poverty line in 1996, level of poverty was extremely high and microfinance played a major role in alleviating its poverty.

Like all other economies Asia has also achieved success in Poverty alleviation. Asia is the most developed continent in the world in terms of volume of MFI (Microfinance institution) activities "conclusion drawn by (Lapeneu and Zeller, 2001), based on the analysis of 1500 institutions from 85 developing countries. They compared Asian microfinance institutions with those in African and Latin American and concluded that in the 1990s Asian MFIs retained the highest volume of savings and credit.

The proponents of microfinance say that, it plays a vital role in the development of any country. In the development of any country three roles can be played by microfinance. It promotes gender equality, helps extremely poor individuals to fulfill their basic needs and also safeguard them against vulnerability, as it deals with economic welfare of households and it also helps to empower women. According to International Monetary Fund, "poverty is a multidimensional problem that goes beyond economics to include social, political, cultural issues as well and solutions to it cannot be based exclusively on economic policies."

There are sufficient evidences to show that microfinance has positive impact on poverty alleviation it is related to 6 out of 7 millennium development goals. Particularly, there are overwhelming evidences to authenticate a beneficial effect of microfinance on income smoothing. To solve the problems of unemployment, attacking poverty and generating self-employment microfinance is used as tools. The Micro-finance schemes provide increased creditworthiness and create opportunities for self-employment to reduce the level of poverty in any country. Datt and Ravallion (1999) concluded that literacy plays a notably positive role in poverty reduction. Akhtar et al. (2012) in their study on Pakistan concluded that in order to split the vicious circle of poverty, decision makers should focus on the activities which are increasing the literacy rate, creating awareness among the masses of the benefits of education. Poverty has strong linkages with education and economic growth. Inflation affects poor more than it affects rich people. Blank and Blinder (1980) investigated the relationship between inflation, official incomes and unemployment, poverty rates for individuals and families. Their findings indicated that poverty is positively related to the unemployment and inflation rates. The individuals living below poverty line are not affected by inflation tax because of their negligible average cash holdings; inflation tax can reduce the savings of middle class and resulting in increasing number of poor (Cardosa, 1992).

Empirical results of (Chani et al., 2011) shown that there is negative impact of investment and economic growth on poverty while inflation positively affected the poverty. Choi et al. (1996) found that economic growth of any country is related with inflation and macro-economic adjustments. The process of macroeconomic adjustments decreases the macroeconomic volatility, increases the economic growth, whereas

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individuals with low income groups are badly affected with inflation than high income group individuals.

Several studies investigated the elements that can be helpful in poverty reduction. All the studies had consensus upon the importance of economic growth in alleviating poverty. Though there are numerous studies which emphasize inclusive economic growth for poverty reduction. Montalvo (2010) found that China's rapid economic growth has been the flanking cause of the huge reduction in the incidence of poverty since 1980. The impact of globalization on rural poverty was studied by (Anwar, 2013) and found it insignificant whereas positive relationship was observed among literacy rate, agricultural products and globalization. There existed a highly significant correlation between literacy rate and agricultural products.

In South Asia education sector can play a vital role in reducing poverty level. Pakistan portrays a miserable image of high poverty with great illiteracy rate. In India literacy rate is 74.04% in 2011. The literacy rate of Sri Lanka is impressive as it stood at top from all South Asian countries due to free education policy. Bangladesh, Nepal, Bhutan also shows a positive rate of education but still further quality education needs to be provided to improve literacy rate.

Data and methodology

In this study, the empirical work is based on secondary data for period between 2005 and 2013. The sample of 6 selected SAARC countries is to be analyzed by using Panel data regression model. Hausman Test is used to check whether to use fixed effect model or Random effect model. The major reason behind selecting these countries was that they share similar characteristics like colonial expansion, economic growth and culture. Moreover these selected countries are the member of same organization SAARC. Secondary data has been collected from the websites of central banks of India, Pakistan, Sri Lanka and Bangladesh, World Development Indicator (WDI), Economic Surveys, United Nation Development Program (UNDP) and MIX market (Microfinance Information exchange). Microfinance, literacy rate, inflation, GDP growth, are the independent variables while Extreme poverty, moderate Poverty and poverty at national level are the dependent variables used in the study to examine the impact of above mentioned variables on Poverty. Panel data regression model is used to analyze the model.

Model

The main purpose of this study is to discover the impact of microfinance, literacy, inflation and economic growth on poverty. For this purpose panel data regression method has been used.

Poverty = f (Microfinance lending (MIF), Economic growth (GDP), inflation (INF), literacy rate (LIT)

- Povit = B0 + β1Mfit + β2Ecogrwit + β3infit + β4lit + εit

Where,

POV = poverty (Head count Ratio)

LIT= Literacy rate (% of people ages 15 and above)

GDP = economic growth (GDP growth)

INF= Inflation (Consumer Price Index)

MIF= (Microfinance lending)

Mode 1: Poverty at national Level

- Povit = α + β0 Mfit + β1 Ecogrwit + β2 infit + β3 lit + εit

Model 2: Extreme Poverty

- Povit = α + β0 Mfit + β1 Ecogrwit + β2 infit + β3 lit + εit

Model 3: Moderate Poverty

- Povit = α + β0 Mfit + β1 Ecogrwit + β2 infit + β3 lit + εit

Results

Measures of central tendency (mean value) and measures of dispersion (standard deviation) for all the variables used in the study are presented in table 1.

Table 1: Descriptive Statistics

Variables	Mean	Minimum	Maximum	Standard deviation
National poverty	23.8	8	40	8.3
Extreme poverty	22.4	2	50	14.4
Moderate poverty	52.3	13	80	21.5
Inflation	11.3	4	23	3.7
GDP Growth	5.2	2	18	2.8
Literacy	63.6	53	93	13.5
Microfinance	8.4	7	10	0.65

Hausman Test is used to choose between fixed and random effect. It is normally preferred that random effect model is applied. So the null hypothesis here based that individual subject specific attributes are not correlated with the independent variables while the alternative hypothesis is individual subject specific attributes are correlated with the explanatory variable. The alternative hypothesis is based on fixed effect model

The insignificant probabilities show that null hypothesis is rejected and alternative is accepted.

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Since the test probabilities for all levels of poverty are less than the critical value of 0.05, hence the null hypothesis is rejected in favor of alternate hypothesis as shown in table 2.

Table 2: Hausaman's Test

	Chi- Square	D.f	Sig.
National level poverty	7.94	4	0.047
Extreme poverty	5.39	4	0.001
Moderate Poverty	6.86	4	0.023

The results in table 3 show that Inflation has negative but insignificant relationship with Poverty although this result is contradictory to existing literature as literature supports that Inflation has significant positive relationship with poverty (Fisher, 2001; Chani et al., 2011). GDP Growth has insignificant relationship with extreme poverty and poverty at national level while it has significant negative relationship with moderate poverty. The results are consistent with the results of (Chani et al., 2011). Microfinance has highly significant negative relationship with poverty at all three levels. Literacy also has negative significant relationship with poverty as supported by literature. As literacy increases poverty decreases since they have negative relation shown in results. Sri Lanka has lowest poverty as it has highest rate of literacy. Literacy is highly significant as shown in results.

Table 3: Regression analysis of Standardized Variables of South Asia

	Inflation	GDP	Microfinance	Literacy	R2	Adj R^2	F- stats
National poverty	-0.133	-0.093	-0.512*	-.485*	50.7	46.7	11.04*
Extreme Poverty	-0.101	-0.070	-0.820*	-0.367*	78.8	76.8	39.9*
Moderate Poverty	-0.45	-0.24***	-0.715*	-3.76*	69.4	66.5	24.3*

* Represents significance at 1%
** Represents significance at 5%
*** Represents significance at 10%

Conclusion

On the basis of results it is concluded that in South Asia microfinance and Literacy plays a major role in poverty alleviation. Literacy has strongest influence on national level poverty while microfinance has strong influence in Extreme poverty (below $1.25). Microfinance is more effective in reduction of extreme poverty rather than moderate and national level poverty. Access to microfinance contributes to poverty alleviation. It not only helps poverty reduction at local economy but also poor participants of country (Kandhker, 2005). Results suggests that emphasis on micro financial activities can lead to reduced poverty in South Asia and can make it a prosperous economy. Education plays a positive role in poverty alleviation Micro finance can help poor to increase income, reduce openness to external shocks. It is also a powerful instrument for entrepreneurial activities, especially women (Noreen et al., 2011).

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