Empirical Analysis for Financial Contribution of Micro Enterprises for Poverty Reduction in Pakistan

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ABSTRACT

The purpose of the study is to highlight the importance of microenterprises for local and national economy. This paper provides evidence on relationship between microenterprises and poverty in Pakistan. The cross sectional data for the period from 2010 to 2011is analyzed using Ordinary Least Square (OLS). The study would find out the relationship of microenterprise income and poverty, which is helpful for the decision making purpose for investors and policy makers. The analysis of the data suggests that microenterprises play a significant role in the enhancement of house hold income in Pakistan. The microenterprises based in the urban areas combat poverty more effectively than those situated in the rural areas. The analysis of the data suggests that the entrepreneurs having higher education have higher income and higher Progress out of Poverty Index (PPI). Although with the increase of the age of the entrepreneurs its income and PPI increases but age factor is less significant. The performance of microenterprises in non-agriculture sector is much better than those of in the agriculture sector. The study concludes that microenterprises play an effective role in combating poverty in Pakistan. So it is recommended that the role of private sector in the economic development of the country need to be increased through establishment of more microenterprises.

Keywords: Microenterprises, PPI, economic development, OLS

INTRODUCTION

Rampant poverty is one of the most taxing problems among the plethora of difficulties faced by Pakistan. Since the inception of Pakistan there have been recurrent policies and strategies adopted by the governments to ameliorate the condition of the masses and uplift them from poverty. But the persistent existence of poverty as evident by World Bank statistics which indicates 17.2% (2009) poverty in Pakistan bespeaks of the futility and ineffectiveness of the poverty reduction programs launched which include Benazir Income Support Program (BISP), Waseela-e-Haq Pakistan Bait-ul-Mal etc. These programs target extremely downtrodden segments of the society by providing them monetary support alone and do not provide them skills to initiate their own business so that they could get ahead in life and bring about a real transformation in society. The masses remain dependent on governments and in case of withdrawal of such support they topple down in the mire of poverty again (Harvie, 2003). Establishment of microenterprises is one of the effective ways aimed at poverty reduction by equipping people with ability to carve their own future as evident by the examples set forth by the developing and developed countries alike e.g. China, Bangladesh, and Japan etc. But unfortunately little attention has been paid to this promising sector by the governmental and nongovernmental organizations in Pakistan. Microenterprises are broadly defined by Small and Medium Enterprise Development Authority (SMEDA) as 'microenterprises involve those small enterprises that have fixed capital not more than Rs. 2.5 million and the number of employees does not exceed 10. According to UN poverty is defined as depriving people to choose alternatives related to different alternatives, disrespect

of human beings, and not letting them play role in the betterment and development of the society. So in order to eradicate poverty its identification and exact measurement is of vital importance. Out of different scales developed for this purpose Progress out of Poverty Index (PPI) is valid tested scale. The PPI is a performance measurement tool developed by Schreiner (2009) for the purpose of poverty identification and measurement. This tool was developed by using consumption Portion of Pakistan. The present study also uses PPI as a dependent variable in order to find out the role of microenterprises in poverty elimination.

In the context of Pakistan most of the studies found and reviewed focus on the role and importance of conventional and Islamic micro finance institutions for the establishment and growth of microenterprises. Most of such studies have used primary data and their population is restricted to a specific city, region or sector. The present study is very significant since it consist of comprehensive analysis of secondary data which was collected throughout Pakistan by Federal Bureau of Statistics Islamabad (FBS). The present study is an endeavor to fill up this dearth. This study is significant for both the government institutions and policy makers and entrepreneurs since it explores the potential of microenterprises to combat poverty.

Research Objectives

The main objectives of the study are as fallow:

1. To investigate the role of microenterprises in combating poverty in Pakistan.

2. To determine out the relationship between income of microenterprise and its corresponding position on the Progress out of Poverty Index (PPI).

3. To find out the relationship of age, gender, education, sector, region and province of entrepreneur in the success of microenterprise in combating poverty.

LITRATURE REVIEW

The problem of poverty seems to be a global issue and the governments try to address this issue on priority bases in order to ameliorate the condition of masses. The provision of microfinance and establishment of microenterprises is one of the effective strategies to address this problem.

Chen and Dunn (1996) found out that the households associated with microenterprise activities have higher income, fixed assets, education and nutrition level. However, the role played by microenterprises in uplifting the household need to be measured in order to assess their contribution. In this regard Shastri (2009) mentioned that the role of microenterprises can be measured in many dimensions such as income, household expenditure and vulnerability to social and economical crises.

Changjun and Yamping (2007) conducted a study to investigate the impact of education on the income of small business entrepreneurs. According to them Entrepreneurs having lower education and less experience are found to have lower income. The study also determined the significant factors determining the income of any microenterprise which include growing nature of business, industrial and ownership disparity, urban and rural areas, labor market segregation, social class relation with business and geographical trade.

Kumar and Lin (2006) linked education and skills of entrepreneurs with the growth of the microenterprise, but according to Martin and Osberg (2007) the owner of microenterprise must have a dynamic personality and successful micro entrepreneurs are creative, motivated, risk taker and have competitive attitude. However Nabavi (2009) does not agree with it and asserts that education is not an essential ingredient for the success of microenterprises. Even uneducated and semiskilled persons can work under the supervision of one skillful and

experienced person. In line with this a similar study conducted by Thapa (2007) also proved gender and education as non-significant factors in the successful running of microenterprises.

The above mentioned studies demonstrate that the success of microenterprises depends not only on the education, skills, and experience of the entrepreneurs but also on the consistent and stable policies of the governments. But these studies could not identify some other factors which are equally significant. They left out the role of some other factors such as nature of business (e.g. manufacturing, trade or services), availability of raw material and selection of appropriate location (e.g. urban, rural) for the establishment of microenterprises.

Throughout the world generally rural areas are hard hit by poverty. Seiber and Miller (2004) suggested the establishment of microenterprises as a solution to poverty reduction in the rural areas. In another study Flora and Johanson (1991) found out that the role of microenterprises is very significant increasing job opportunities both in rural and urban areas.

In Pakistan more people live in villages and are engaged in agriculture. As a study conducted by Khaleeq ueuzaman and Nasim (2008) highlights the high ratio of poverty in rural areas in Pakistan. Here poverty can be tackled through the establishment of microenterprises as Khandker (1998) conducted a study which shows that the government of Bangladesh overcame rural poverty by the establishment of microenterprises financed by Grameen Bank. During that period the rate of reduction of poverty was 8.5% annually, which is quite remarkable. Another similar study by Kumar (2011) finds out the correlation between poverty reduction, employment and financing schemes in the rural areas of India. This study also pointed out the importance of different microfinance schemes to get people self-employed. So a suggested solution to eliminate poverty in the rural areas could be through the establishment of microenterprises. In the same line a study by Vanderschueren et al. (1996) demonstrates that how poverty graph came down by the establishment of microenterprises in the rural areas of South American countries.

According to Phillipson (2007) females entrepreneurs in Asian countries cannot earn like their male counterparts because due to culture values and norms they are "shy", which decreases their confidence and they avoid taking risk.

Different studies (Berge, Kjetil and Bertil, 2011; Aspess, 2004; Katz and Monk, 1993; Bruce, 1998) on female entrepreneurs and performance outcomes have been conducted in different parts of the world. Some of these studies focus just on female entrepreneurs while others studies were comparative in nature focusing on the outcomes for both male and female entrepreneurs. A study conducted by Smith and Stelener (1990) analyzed the comparative performance of male and female headed enterprises and their role in poverty reduction in retail sector in Peru and found that the revenue of microenterprises was influenced by distribution of factors as well as disadvantages based on gender.

However, according to Aspess (2004) there has been observed a great growth rate in women headed microenterprises in rural areas during the last decade. The study further revealed that the successful business women were having high education, work experience and skills. In addition to these attributes the successful women were also found having excellent working habits, organizational skills, self-motivation, religious nature and love for children. However Katz and Monk (1993) and Bruce (1998) claim that sometimes when the women's productive and reproductive role links up then this has an impact on their household income as well. Entrepreneur women often face a difficulty in the simultaneous management of business and home affairs. However such problems could be sorted out in the form of help from family members, choice of appropriate business and effective work strategies.

However Mead and Liedholm (1998) do not agree with this assertion. They conducted a study and found out a negative correlation between microenterprises and growth in employment opportunities. Their study showed that the microenterprises are monopolized by only one family. The owners want to expand their profitability which is possible by reducing the number of employees. Thus decades after decades these microenterprises do not grow in terms of number of employees. A similar study was conducted by Kevane and Wydick (2001) in different African countries. They observed that most microenterprises do not grow in term of number of employees over the year thus their study undermines the role of microenterprises in provision of employment opportunities in the society.

The literature review conducted so for establishes the fact that mass scale poverty can effectively be reduced by providing employment opportunities to the people in the society. And many research studies discussed earlier have recommended microenterprises as a tool to provide a stable source of income to help the house hold move above the poverty line. The present study has comprehensively reviewed some of the existing literature on the income generation through microenterprises and relationship of age, education, gender, region (urban and rural), sector (agriculture, non-agriculture and paid employees) with the success of microenterprises and their capability in reducing poverty in different parts of the world. The process of literature review has enabled us to identify some gaps in the existing literature. The literature reviewed reveals that there is scanty work on the role of microenterprises in combating poverty in Pakistan. In the context of Pakistan most of the studies focus on the role and importance of conventional and Islamic micro finance institutions for the establishment and growth of microenterprises. Most of such studies have used primary data and their population is restricted to a specific city, region or sector. The present study is comprehensive analysis of secondary data which was collected throughout Pakistan by Federal Bureau of Statistics Islamabad (FBS).

DATA AND METHODOLOGY

Data Collection Procedure

The data consist of cross sectional survey of House Hold Income and Expenditure Pakistan (HISE) (2010-11) having 12047 observation. The data was collected from Federal Bureau of Statistics Islamabad.

Model Specification

Ordinary Least Square (OLS) regression model is used to provide the analysis.

The following model is used for the present study.

$$Y_i = \alpha + \mu \sum_{i=1}^{7} \text{Dvj} + \varepsilon_i - - - - - - - - (1)$$

where Y_i is dependent variable, α is intercept term, μ is coefficient for all seven dummy variables and ε_i is error term.

The proposed model for present study is represented in the functional form in the following equation.

PPI = F (income, education, gender, age of entrepreneur, sector, region, province of microenterprise) ---------------------------- (2)

Following equation represents the above equation in the intercept and slops form.

PPI= α+ β Income +γ_0 Primary Education+ γ_1 Matriculation+ γ_2 Intermediate+ γ_3 Graduate & above +δ Gender + θ_0 Middle Age+ θ_1 Older Age +η Region +λ_0Agri Sector+ λ_1 Paid Employees +φ_0Sindh+ φ_1 KPK+ φ_2 Baluchistan -------------- (3)

where

PPI= Dependent Variable and represents Progress out of Poverty Index (PPI)

Income= Dummy Variable

$$\beta = \begin{cases} 1 & \text{if income} \geq 7000 \\ 0 & \text{if income} < 7000 \end{cases}$$

Education= Dummy Variable

$$\gamma_0 = \begin{cases} 1 & \text{if Primary} \\ 0 & \text{other wise} \end{cases}$$

$$\gamma_1 = \begin{cases} 1 & \text{if Matriculation} \\ 0 & \text{other wise} \end{cases}$$

$$\gamma_2 = \begin{cases} 1 & \text{if Intermediate} \\ 0 & \text{other wise} \end{cases}$$

$$\gamma_3 = \begin{cases} 1 & \text{if Graduate and above} \\ 0 & \text{other wise} \end{cases}$$

Gender = Dummy Variable

$$\delta = \begin{cases} 1 & \text{if Male} \\ 0 & \text{if Female} \end{cases}$$

Age = Dummy Variable

$$\theta_0 = \begin{cases} 1 & \text{if Middle Aged} \\ 0 & \text{other wise} \end{cases}$$

$$\theta_1 = \begin{cases} 1 & \text{if Older Aged} \\ 0 & \text{other wise} \end{cases}$$

Region = Dummy Variable

$$\eta = \begin{cases} 1 & \text{if Urban} \\ 0 & \text{if Rural} \end{cases}$$

Sector = Dummy Variable

$$\lambda_0 = \begin{cases} 1 & \text{if Agriculture Sector} \\ 0 & \text{other wise} \end{cases}$$

$$\lambda_1 = \begin{cases} 1 & \text{if Paid Employees} \\ 0 & \text{other wise} \end{cases}$$

Province = Dummy Variable

$$\varphi_0 = \begin{cases} 1 & \text{if Sindh} \\ 0 & \text{other wise} \end{cases}$$

$$\varphi_1 = \begin{cases} 1 & \text{if KPK} \\ 0 & \text{other wise} \end{cases}$$

$$\varphi_2 = \begin{cases} 1 & \text{if Balochistan} \\ 0 & \text{other wise} \end{cases}$$

RESULTS AND INTERPERTATION

The process of data analysis shows the estimation results for PPI (Progress out of Poverty Index) where Income, Education, Gender, Age, Region, Sector and Province are taken as explanatory variables

Table 1. Regression results for PPI

Variables	Coefficients	Standard Error	t-value	P-value
Intercept	47.71323	1.09305	43.65129	0.00000*
Income	9.80012	0.56649	17.29983	0.00000*
Primary	6.96192	0.70516	9.87288	0.00000*
Matriculation	8.00075	0.57259	13.97288	0.00000*
Intermediate	8.31494	0.85846	9.68583	0.00000*
Graduate & Above	7.57578	0.76641	9.88473	0.00000*
Gender (male)	4.65782	0.93830	4.96411	0.00000*
Middle Aged	-3.66652	0.60864	-6.02409	0.00000*
Older Aged	2.17807	0.78756	2.76559	0.00571*
Region (urban)	6.69270	0.46112	14.51412	0.00000*
Agri Sector	-12.61466	0.84215	-14.97905	0.00000*
Paid Employees	-7.69888	0.49700	-15.49056	0.00000*
Sindh	-11.96703	0.55985	-21.37540	0.00000*
KPK	-14.49877	0.57458	-25.23353	0.00000*
Balochistan	-25.33145	0.65534	-38.65381	0.00000*
R Square	0.53300957		F-Value	305.31*
Standard Error	12.89043543		Observations	3760

*Significance at α=1%

The dummy variable income coefficient which is 9.80 represents that all those microenterprises which have their income above seven thousand rupees have 9.80 units above on the PPI as compared to those microenterprises which have income below seven thousand rupees by keeping other factors constant. The entrepreneurs having income above seven thousand would have on average 57.51 (47.71+9.80 = 57.51) PPI, whereas entrepreneurs having income below seven thousand would have 47.71 PPI.

The primary education coefficient 6.96 suggests that the entrepreneurs having up to primary level of education on average would have 54.67 (47.71+6.96=54.67) PPI (Progress out of poverty Index). The coefficient 8.00 suggests that the entrepreneurs having up to matric level

of education on average would have 55.71 (47.71+8.00=55.71) PPI (Progress out of poverty Index). The coefficient 8.31 suggests that the entrepreneurs having up to intermediate level of education on average would have 56.02 (47.71+8.31=56.02) PPI. The coefficient 7.57 suggests that the entrepreneurs having up to graduation or higher level of education on average would have 55.28 (47.71+7.57=55.28) PPI. While on average the PPI for uneducated entrepreneurs is 47.71.

The gender coefficient 4.66 represents that male entrepreneurs have 4.66 units higher PPI as compared to their female counterparts. The middle age coefficient -3.67 suggests that the entrepreneurs who are between age group 30 years to 50 years have 44.04 (47.71-3.67=44.04) PPI (Progress out of poverty Index). The older aged coefficient 2.17 suggests entrepreneurs having ages above 55 years have 49.88 (47.71+2.17=49.88) PPI. The intercept coefficient 47.71 indicates the PPI of entrepreneurs belong to age group below 30 years.

Region coefficient 6.69 is significant, which represents microenterprises in urban areas have 6.69 units higher PPI as compared to rural areas.

The agri sector coefficient -12.61 suggests that the entrepreneurs who are running microenterprises in agriculture sector of have 35.10 (47.71-12.61=35.10) PPI (Progress out of poverty Index). The paid employees coefficient -7.70 suggests that the paid employees have 40.01 (47.71-7.70=40.01) PPI. The intercept coefficient 47.71 indicates the PPI of entrepreneurs in non-agriculture sector.

The Sindh coefficient -11.96 suggests that the entrepreneurs of Sindh province would have 35.75 (47.71-11.96=35.75) PPI (Progress out of poverty Index). The coefficient KPK -14.50 suggests that the entrepreneurs of KPK province would have 38.19 (47.71-14.50=33.32) PPI. The coefficient -23.33 suggests that the entrepreneurs of Balochistan province would have 22.38 (47.71-25.33=22.38) PPI. The intercept coefficient 47.71 indicates the PPI of entrepreneurs living in Punjab.

R square value is 0.5330 which means that the independent variables in our analysis explain 53.30 percent variation in the dependent variable. In other words 53.30 percent of the variation in PPI is due to income, education, gender, age, region, sector and province of entrepreneur.

CONCLUSION

The present study has explored the relationship between microenterprise's income and its role in combating poverty. The data analyzed suggests that microenterprises play a significant role in the enhancement of household income in Pakistan. At the provincial level microenterprises located in the Punjab province showed the best results in combating poverty. Performance of microenterprises established in two other provinces "Sindh and KPK" is also remarkable. But, in Baluchistan their performance is not as good as those of the other three provinces. The performance of microenterprises in urban areas of Pakistan is much better than those of the rural areas of Pakistan. Microenterprises headed by male entrepreneurs are better than those headed by female entrepreneurs.

The analysis of the impact of education level influencing the PPI reveals that graduates and higher educated entrepreneurs although have better standing in PPI as compared to their illiterate counterparts, but entrepreneurs having primary, matriculation, and intermediate level of education have better standing on PPI than graduate entrepreneurs. Middle age entrepreneurs influence PPI more than those of the older and younger age entrepreneurs.

The performance of microenterprises in the non-agriculture sector is much better than that of microenterprises in the agriculture sector. Results of the analysis suggest that overall the

agriculture sector microenterprises do not play a significant role in bringing the household up on the poverty score-card. The average income of paid employees is little less than that of micro entrepreneurs in the non-agriculture sector. But, it is much higher than that of the entrepreneurs in the agriculture sector.

The study implies that poverty elimination aspect of the microenterprises needs to be recognized and acknowledged. Even if the return from microenterprises are well below the minimum wages in some areas (agriculture sector, rural areas and women headed). Still these activities can cause a tremendous welfare of the masses. Although the microenterprises do not make people rich but they can assist them resist becoming further poor and this can be a major contribution of microenterprises in combating poverty.

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