

Examining The Social Impact of Microfinance on Poverty Reduction

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Abstract

As Poverty has become a global challenge for all the nations around the world, from the past many years, different strategies have been used to reduce it. However, since 1980s Microfinance has become a powerful tool to alleviate poverty and it's not adopted even in the developing countries but also developed nations have been practicing it. Many of the past studies used the economic indicators to measure the impact of microfinance on poverty reduction, and few have concentrated on the social indicators. The purpose of this research is to examine the effect of microfinance as a poverty reduction in terms of social indicators in the rural areas of northern Khyber Pakhtunkhwa, Pakistan. The objective of this research is to check whether the established NGOs in the concern areas have been successful in bringing social change in the life of the beneficiaries. For the purpose of analysis, the structural equation model is applied to a sample of 440 collected through a structured questionnaire. Results show that microfinance had a negative impact on the health and education of the beneficiaries. This research indicates that more funds and priority should be given to the education and health sector because they have equal importance as compared to the other economic indicators.

Key Words: Microfinance, Social Indicators, poverty, Khyber Pakhtunkhwa

1. Introduction

The roots of poverty are spread across the globe and have become a global challenge for world leaders to improve the wellbeing of the poor masses and achieve sustainable development in developing countries. In this regard, various poverty alleviation programs/ approaches have been adopted with time by different governments, policymakers and practitioners such as reducing population growth, enhancing education and health conditions, creating employment opportunities, reducing inequality and empowering women (Farag, 2011). In the new area microfinance is considered to be the powerful tool

for reducing poverty and many governments have adopted the policy of Grameen bank, which is the milestone of all the microfinance that are being initiated in the whole world today. In the past three decades, the popularity of microfinance has been increased as a good strategy for alleviating poverty (De Goey, 2012). The emergence of microfinance has attracted not only national attention, but also global attention and has dramatically changed the living standard of the poor (Sawada et al., 2018). The global attention can also be realized from the fact that the number of borrowers reached 211 million in 2013 as compared to 13 million customers (Morduch, 2017).

As the major challenge in the developing countries to low-income people is the lack of financial resource, which acts as a hindrance to the improvement in their living standard (Kono & Takahashi, 2010). Microfinance has become a tool for alleviating poverty from the poor who are unable to get capital from the banks due to collateral. In simple terms, microfinance is a provision of financial services to the poor people who are unable to get finance from the commercial banks for setting up a small scales business (Sainz-Fernandez et al., 2015). According to Wright (2000), more research is needed regarding the impact of microfinance on social indicators as little research that has been conducted on such interventions. According to Premchander (2003) due to absent of microfinance on the social indicators such as health education, and human resource, the entire effort in the field of Microfinance may turn out to be null. Similarly, most studies have focused the economic aspects of wellbeing regarding microfinance (Pitt & Khandker, 1998; Morduch & Hashemi, 2003; Goldberg (2005); Nawaz 2010; Amin et al., 2010; Imai & Azam, 2012; Angelucci et al., 2013). Limited studies have been conducted on health and education (Wydick, 1999; Holvoet, 2004; De Mel et al., 2009; Brau et al., 2009; Dupas et al., 2013). Particularly in the context of Pakistan, only a few studies have been conducted (Noreen et al., 2011; Ghalib et al. 2011; Shirazi, 2012). So this study will add to the existing body of knowledge in Pakistan related to the impact of microfinance.

2. Literature Review

The past literature is more focused on the economic indicators (Pitt & Khandker, 1998; Morduch and Hashemi 2003; Goldberg, 2005; Nawaz, 2010; Amin et al., 2010; Armendariz & Morduch, 2010; Amin et al., 2010; Durrani et al., 2011; Li et al., 2011; Imai & Azam, 2012; Nghiem et al., 2012; Angelucci et al., 2013; Augsburg et al., 2015; Fofana et al., 2015; Khandker & Koolwal, 2016) in many of the studies saving, income and assets are used as proxy indicators to measure the impact of poverty on microfinance (Mina and Alam, 1995; Morduch and Dunford 1998; Khandker, 1998; Panjaitan et al., 1999; Remenyi & Quinones., 2000; Rahman et al., 2001; McKerman, 2002; Azam & Imai, 2009; Abou-Ali et al., 2009; Siwar et al., 2011; Ahmed et al., 2011; Saad, 2011; Al-Mamun et al., 2011; Al Mamun et al., 2012). Similarly, very few studies have been conducted on the socio indicators (Wydick, 1999; Holvoet, 2004; Dunford, 2006; Nghiem et al., 2007; Brau et al., 2009; Verpoorten, 2009; De Mel et al., 2009; Das, 2012; Augsburg et al., 2012; Dupas et al. 2013; Tarozzi et al., 2015). Likewise, Wydick (1999) examined the impact of microfinance on children education in Guatemala and found that most of the beneficiaries children were enrolled in schools and they were being stopped of doing laboring for their families. A similar study was carried by Stark et al. (2015) by considering four indicators health, childcare, education, and consumption by employing Quasi-experimental design and found a non-significant effect on all indicators as

compared to beneficiaries. The researcher advocated spending more on the social programmes than the economic indicators, so that change can be brought in the social status of the beneficiaries. Bose, (2017) carried out a study in Kerala, India, and found that microfinance has improved their social status in terms of improvement in health and education. Similar results were reported by Brau et al., 2009; Holvoet, (2004); Singh & Singh, 2014. Also, Roy & Biswas (2016) examined the impact of microfinance organization Bangladesh and revealed a positive effect on the social indicators. Ali et al., (2016) conducted a study in several countries in Asia, Africa, Latin America, and Europe on the role of microfinance in poverty alleviation and reveal an improvement in nutrition, better health, and education and employment opportunities.

Similarly, Pitt & Khandker (1998) studied Grameen microfinance loan in Bangladesh and found a positive impact on the family education, household expenditure and nutrition. Likewise, Karim (2017) study also confirm that microfinance had improved the socioeconomic status of the borrowers. The borrowers were able to finance their children schooling, the children enrollment in the school increased, and they were also able to get self-employed. In short, microfinance was able to promote education, health, and to empower women. Similarly, Tu et al., 2015 evaluated the impact of a microfinance program on socio-economic development in Vietnam. The results show a positive effect on the socioeconomic indicators. Similarly, Butcher (2010), also confirms a positive impact of microfinance on the clients and enhanced their economic status.

Similarly, in the context of Pakistan, few studies have been conducted on social indicators. As the majority of the studies like Khandker and Faruque (2001; Saboor et al. 2009) have focused on the economic aspects of the impact of microfinance on poverty. On the contrary, very few studies in Pakistan have studied the social side of the microfinance like Noreen et al. (2011) found a positive impact on the social indicator like education of the beneficiaries. Likewise, Ghalib et al. (2011) researched the impact of microfinance and revealed a positive impact on health care expenditures, similar views were found in the study conducted by Shirazi, 2012.

2.1 Hypotheses Development

2.1.1. Education

Education is viewed as a base for improvement of economic growth and a useful tool for poverty mitigation (Hytopoulos, 2011). Hashemi (1996) is of the view that the provision of non-financial service, such as education will make the microfinance more effective in utilizing the loan more productively. Microfinance is a better mechanism that facilitates the poor in accessing capital and developing income-generating activities that consequently increase their income. The increased income will be used on the expenditure of their family health care, children education, and nutrition (Chowdhury & Mukhopadhyaya, 2012). The past studies that have used education as proxy for impact including Johnson and Rogaly, 1997; Morduch, 1998; Coleman, 1999; Holvoet, 2004; Montgomery, 2005; Zaidi et al. 2007; Chemin, 2008; Kondo et al., 2008; Thibbotuwawa et al. 2012; Crepon et al., 2015; Tarozzi et al., 2015; Attanasio et al., 2015; Banerjee et al., 2015; Angelucci et al., 2015) have found positive impact of education of the microfinance recipients and their families.

Moreover, microfinance interventions in most studies have been showing a significant impact on education. Roy & Biswas, (2016) researched the impact of microfinance on the socio-economic changes in the rural community of Bangladesh and found that microfinance play key role in promoting education and reducing dropouts rates from educational institutions. Similarly, Holland and Wang(2011); Maldonado and González-Vega (2008); Banerjee et al. (2013) explored the impact of microfinance on educational outcomes and revealed significant impact on education and poverty reduction likewise Littlefield et al.(2003), also witnessed a positive impact of microfinance on the children education of the beneficiaries. Thus, creating access to education is one area of intervention under the poverty reduction strategy. Therefore, we hypothesise that:

H1: Access to microfinance has a significant positive impact on the education of the households

2.1.2. Health

Health is one of the critical areas of non-financial impact of microfinance on poverty Wright (2000). Karlan and Morduch (2010) are of the view that microfinance's financial interventions only are not effective in reducing poverty; rather, it should be coupled with other social interventions such as health and training. Number of past studies used health as an indicator for measuring the effect of microfinance on poverty (Wright 2000; Morduch & Haley 2002; Duflo, 2003; Dupas & Robinson, 2008; Adjei et al., 2009; Stewart et al., 2010; Odell, 2010; Zinman, 2010; Brannen, 2010). The impact of microfinance on poverty regarding the health indicator is considered necessary. A study conducted by Leatherman and Dunford (2010) revealed a positive relationship between health and microfinance by reducing poverty in the form of providing services such as social protection and financial security. Subsequently, a research study in Morocco by Crepon et al. (2011) also showed a likely increase in health spending with the emerging of microfinance projects in the area. Similar results were achieved by McNelly and Dunford, (1999); Banerjee et al. (2009), Dupas and Robinson (2013); Stewart et al., (2010) regarding microfinance as an effective tool in supporting health related expenditures. Littlefield et al. (2003) also acknowledged the importance of microfinance intervention in the health facilities and conformed the notion that micro finance beneficiaries have better health practices and nutritional level as compared to non-beneficiaries. In order to know the significant impact of microfinance on beneficiaries, the following hypothesis is developed.

H2: Microfinance loan granted to households has no effect on their health expenditure

2.1.3 Empowerment

Empowerment is also one of the social indicators to measure the impact of microfinance on poverty. Empowering a poor means to gain control over the resources and making family decisions independently and participating in community decisions. In recent times poverty is not only attributed to the absence of income and other resources but it also due to lack of autonomy and dignity which can be achieved through human empowerment (Cagatay, 1998; Hussain and Mahmood, 2012). According to Gutierrez (1990, p. 149), "Empowerment is a process of increasing personal, interpersonal, or political power so that individuals can take action to improve their life situation."

The main objective of microfinance is to empower the marginalized people and help them in sustaining their flow of income and making them economically independent (Guerin & Palier, 2005). The study which was conducted in 16 different microfinance organizations from all over the world by Robinson (2001) concluded that the beneficiaries' standard of living was improved and they gained more self-confidence and dignity in their respective societies. Similarly, Lont and Hospes (2004) found in their research study that most of the microfinance organizations in Asian countries have a positive impact on the empowerment. Similar views were also observed by Goetz and Gupta, 1994; Johnson & Rogaly, 1997; Mayoux, 1999; Ledgerwood, 1999; Carlton et al., 2001; Narayan, 2002; Lakwo, 2006; Dobra, 2011. In short, microfinance has played an important role in the empowerment of the poor in the form of enhancing their self-esteem and making a decision independently (Al-Shami, et al 2013). In this regard, the following hypothesis was tested through structural equation modeling.

H3: Microfinance has a Significant Impact on Empowerment

2.1.4 Employment

According to Weber (2006 p.50), the link of microfinance to poverty alleviation is "*the provision of small loans to individuals, usually within groups, as capital investment to enable income generation through self-employment.*" In the developing economies, the primary cause of poverty is unemployment and underemployment (Sodipe & Ogunrinola, 2011) and the basic reason for lack of employment opportunities is the non-availability of funds (Bhuiya, 2016). In this regard, microfinance is one of the key elements that provide finance to the poor and support them in developing the small business so that they become self-employed and contribute to the national development (CGAP, 2010). Due to lack of resources, most of the developing countries rely on the microfinance institutions for creations of the employment opportunities as it believed that microfinance institutions could create job opportunities (Jackson & Islam, 2005). According to Lont and Hospes, 2004,) microfinance has the ability of transformation from the vicious circle of poverty into a virtuous cycle of economic development. Likewise, Zeller and Sharma (1998) also argue that microfinance has the ability to help needy families in establishing family enterprises and providing an economically secure life.

A study carried out in Pakistan by Iqbal et al. (2015a) on the impact of microfinance on poverty conforms that microfinance has a positive impact on the creation of employment in the intervention areas of the project and their standard of living has improved after receiving the loan. Similarly, Meyer (2010) observed that microfinance could reduce poverty by supplying loans and creating job opportunities. Likewise, Crepon et al. (2015) reported that in rural Morocco microfinance organizations generated a significant impact on the employment activities, and most of the beneficiaries were self-employed in different sectors. In regards to employment, the following hypothesis was developed in order to know the impact of microfinance on employment.

H4: Microfinance has a significant impact on employment.

3. Sampling and data collection

The study was carried out in the Northern Areas of Pakistan to measure the social impact of microfinance borrowers. A total of 468 respondents were interviewed from three NGOs in the study, namely the Integrated Chitral Development Programme, Karimabad Area Development Organization, and Garamchashma Area Development Organization.

Quazi experimental design was used to evaluate the impact. Random sampling was used to select the participant from each NGO. Structural equation model was used to examine the impact of microfinance on the social indicators, and Smart PLS is used as a tool to analyse the data.

4. Findings

4.1 Assessment of the measurement model

To test the reliability of items, discriminant validity and convergent validity of the measurement scales, confirmatory factor analysis was used. Table 1 has all the items have loadings above the minimum critical point of 0.50 (Bagozzi et al., 1991), which conforms criteria of internal consistency. The convergent validity is confirmed through the composite reliability, which is also above the threshold of 0.7 suggested by Chin (2010). The internal consistency of the items was checked through Average variance extracted (AVE), which are above the criteria of 0.50 (Hair et al., 2013). Heterotrait-Monotrait (HTMT) is used to compute discriminant validity. For discriminant validity (refers to Table 2), following the HTMT criterion, the value is below HTMT.90 (Henseler et al., 2015). Hence, the measurement model was satisfactory and provided sufficient evidence in terms of reliability, discriminant validity and convergent validity.

Table 1: Results of Measurement Model

Constructs	items	Loadings	CR	AVE
Education	Edu2	0.773	0.852	0.594
	Edu3	0.799		
	Edu4	0.598		
	Edu5	0.886		
	Employment	Employ1		
Employ2	0.936			
Employ3	0.95			
Employ4	0.523			
Employ5	0.608			
Empowerment	Empov2	0.84	0.912	0.634
	Empov4	0.783		
	Empov5	0.843		
	Empov6	0.769		
	Empov7	0.686		
	Empovs3	0.846		
Health	Health2	0.897	0.943	0.772
	Health3	0.973		
	Health4	0.964		
	Health5	0.91		
	Health7	0.596		
	Interest	Interest1		
Interest2	0.822			
Interest3	0.833			
Interest7	0.907			
Interest8	0.803			
Supervision	Supv1	0.685	0.884	0.609

	Supv2	0.933		
	Supv3	0.902		
	Supv4	0.674		
	Supv5	0.664		
Loan Size	loan sz1	0.929	0.965	0.82
	loan sz2	0.831		
	loan sz3	0.936		
	loan sz4	0.853		
	loan sz8	0.915		
	loan sz9	0.963		

Table 2: Discriminant Validity of Constructs

Construct	Edu	Health	Employment	Empowerment	interest	loan size	supervision
Edu							
Health	0.825						
employment	0.885	0.812					
Empowerment	0.746	0.687	0.693				
interest	0.33	0.341	0.265	0.154			
loan size	0.312	0.24	0.229	0.136	0.897		
supervision	0.453	0.338	0.263	0.195	0.818	0.864	

Table 3 depicts the assessment of the Structural Model. The results show that out of 4, two hypotheses are significant. Microfinance has an impact on the employment and empowerment of the beneficiaries while there is a non-significant impact on the beneficiaries education and health.

Table 3: Path Coefficients and Hypothesis testing

Hypothesis	Relationships	Standard Beta	Standard Error	t- Value	Support
H1	Microfinance -> Health	0.282	0.168	1.68	N0
H2	Microfinance -> Education	0.312	0.246	1.27	No
H3	Microfinance -> Empowerment	0.450	0.119	3.797	Yes
H4	Microfinance -> Employment	0.275	0.134	2.057	Yes

5. Summary and conclusion

The study was carried out in the northern areas of Pakistan. The main purpose was to analyze the social impact of microfinance on poverty using social indicators, including employment, empowerment, health, and education. The data was collected from three NGOs, namely Integrated Chitral Development Programme, Karimabad Area Development Organization, and Garamchashma area Development Organization. The non- parametric approach was used to evaluate the impact. The study suggests that more

importance should be given to the social sectors as only focusing on the economic indicators is not enough. The impact of microfinance on the socio indicators is partial, as only empowerment and employment are significant while the remaining indicators are seeming to be non-significant. The non-significant of the health indicators are inclined with the past studies (Angelucci et al., 2012; De Mel et al. 2009; Crepon et al., 2015; Banerjee et al., 2015) similarly the non-significant results of education are consistent with past literature (Adjei et al., 2009; Shimamura & Lastarria-Cornhiel, 2010; Islam & Choe, 2013). which means that microfinance impact on education and health was small and the possible explanation is that the people in the area gave less importance on education and they couldn't afford education expenses. The case is similar for health as most of the people were poor and thus reluctant to spend on health unless they experienced severe health conditions. Employment and empowerment had a positive impact on microfinance. The positive impact of empowerment was consistent with the previous literature (Hashemi et al., 1996; Borchgrevilk et al., 2005; Swain, 2006; Ayuub, 2013; Weber and Ahmad 2014; Rathirane & Semasinghe, 2015; Buvinic & Furst-Nichols, 2016) while the significance of self-employment opportunities were also in line with the past studies conducted by Adugna and Heidhues, 2000; Gomez and Santor, 2001; Wydick, 2002; Banerjee et al., 2010; Bisirat, 2011; Crepon et al., 2011 Crepon et al., 2015; Khan and Rahman, 2016.

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