

ROLE OF SOCIOECONOMIC FACTORS IN POVERTY ALLEVIATION: AN ASSESSMENT OF URBAN INFORMAL SECTOR

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Abstract

Increasing poverty has featured prominently in the policymaking landscape of Pakistan for several decades now. We address this issue and shed light on one of the links that contribute towards generating income and alleviating poverty in urban Pakistan. In doing so, we utilize primary data from the most urbanized district of Punjab (i.e., Lahore). In 2015, we conducted a household survey from 184 informal sector workers to examine how possibly the informal sector can contribute towards employment creation and poverty mitigation. By analyzing the data through the Probit model, results show that education and presence of assets are still top remedies to alleviate the poverty of informal sector workers.

Keywords: Human development; Informal sector; Pakistan; Poverty alleviation; Probit technique.

JEL Classification: J46, O17

1. Introduction

For several decades, poverty reduction has been one of the crucial tasks of policymakers in almost all developing countries, including Pakistan. It has been one of the immediate objectives of the millennium development targets of international organizations (e.g., the UNDP). Developing countries have also faced the issue of increasing poverty because of increased urbanization. Poor employment opportunities and inadequate infrastructure (i.e., clean water availability, drainage and waste disposal) along with inadequate access to education, health facilities, and

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housing are among the biggest challenges to these countries (Ward, 1998; World Bank, 2000).

The role of urbanization is noteworthy in the development process of any country. A general increase in population due to internal migration unifications of adjacent areas in the metropolitans and high birth rates lead to expanding cities. Rural people migrate to cities due to better urban opportunities and relatively better standard of living. In South Asia, the fastest urbanizing country is Pakistan. The rural and urban population was observed to be 60.8% and 39.2% respectively in 2015.

The economy of Pakistan owns the 10th largest labor force in the world. The Labor Force Survey (2013-14) indicates that there are 60.09 million (i.e., 3.58mn are unemployed and 56.52mn are employed) persons in the workforce of Pakistan. The government has focused much on youth employment. Young people in Pakistan face low employment due to lack of search expertise, a disparity between education, ambitions and employers' requirements and less mobility, among other factors. Management focuses on formal and informal learning as an investment in the human capital and strengthens the relationship between education and the labor market. The entrepreneurial activities can be increased by providing business education, incentives, and motivation, also, by stressing the importance of business opportunities (Pakistan Economic Survey, 2014-15).

The economy of Pakistan suffers a lot due to high population growth, low literacy and low employment in the labor market. The increasing labor force engages themselves in the formal and informal sectors. However, the formal job opportunities are not enough for the population of the country. The urban informal sector is rather large and growing rapidly as a result of increasing urbanization, migration and low formal employment. The informal sector provides employment to the poor and also plays an entrepreneurial role to promote economic efficiency in the economy. The informal sector covers many activities in the labor market of Pakistan, proving a crucial and sometimes controversial role. However, almost all informal jobs are low-paid.

Despite the rapid growth of GDP, employment opportunities have been insufficient to accommodate the labor force which is growing rapidly in Pakistan. Hence, a large proportion of the labor force is persuaded towards the informal sector for employment (Kemal & Mehmood, 1993). The informal sector helpfully creates many jobs for workers and thus reduces the unemployment in developing economies like Pakistan. Considering its importance in job creation, we make an effort to highlight

its role in creating jobs and examine its influence on the poverty status of workers.

As the informal sector is the hallmark of heterogeneous activities, it is more feasible to study it partially. Although a comprehensive survey is necessary, this will be difficult due to some financial and time constraints. Our study moves beyond previous studies by identifying precisely the impact of socio-economic variables on the poverty status of the workforce involved in informal economic activities. The major goal of study is to highlight the factors that contribute towards generating income, alleviating poverty, and to recognize the household factors that lead to workers' poverty status in Lahore, Pakistan.

We have conducted a household survey to examine this phenomenon through information obtained from participants in the informal sector. This information is concerned with household-specific factors that have a great impact on the poverty status of workers engaged in the urban informal sector of district Lahore (Pakistan). This paper also focuses on the importance of education in poverty reduction in the informal sector. More importantly, we identify the most significant socio-economic and human capital variables which affect poverty status.

The rest of the article is organized as follows: Next section provides a literature review of the earlier studies on poverty and the informal sector, followed by the section which describes the data and empirical methodology to analyze it. Section to the last section discusses the results, and final section concludes this note and gives some policy implications.

2. Literature Review

Diversified researches have been conducted in the areas of the urban informal sector and employment, and development and poverty. The urban informal sector has been described and analyzed in various ways. Weeks (1975) considers the private sector as enterprises that are officially documented, supported and controlled by the state in the formal sector. Kozel and Alderman (1990) define the informal sector as labor force activities in household enterprises. The urban informal sector in firm size is considered as an informal sector (Burki & Abbas, 1991). Unregistered firms with 10 or less than 10 workers are taken into account as an informal sector (Burki & Ubaidullah, 1992).

Swaminathan (1991) pointed out that unregistered and unlicensed establishments belong to the informal sector. Todaro (1969) included small-scale production and service activities (i.e., individual or family owned) that use labor-intensive and straightforward technology in the informal sector. As pointed out by Maloney (1999), establishment having less than six employees belong to the informal sector. Rosser et al. (2000) adduced that low tax and social safety nets were reasons to take part in the informalsector.

Keeping in view the target of employment generation opportunities and incomes to the families involved, the informal sector encompasses small units accountable for production or services. These actions are perceived outside the entries and scope of the official statistical listing. Furthermore, they are also considered away from the formal system of social protection and are labor intensive (Pakistan Labor Force Survey, 2014-15).

Suharto (2002) examined human development and the urban informal sector among the street traders by using surveys at the micro level in Bandung. His results highlighted some qualitative indicators (e.g., economic, human capital and social capital). The author used percentage distribution. The results demonstrated that by and large, the street traders were not the poorest as their incomes are frequently higher than the official poverty line. His results also indicated that the income of some street traders are relatively greater than low-skilled workers in the formal and unskilled construction sector. The findings also revealed that many street traders live in unsafe conditions and are often unable to meet the costs of necessities.

Özcanet al. (2003) examed the issue of wage differences by gender, wage and self-employment by using data from the 1994 Income Survey in Turkey. The study found a relatively higher discrimination in wage employment than in self-employment. In the context of returns to education, the study results showed that self-employment provides the highest for men in self-employment.

The work of Odhiambo and Manda (2003) on urban poverty and labor force participation in Kenya utilized data from various Welfare Monitoring Survey by the Central Bureau of Statistics (CBS). The Logit results indicated the existence of a strong relationship between poverty and labor force participation. The results also showed that informal sector workers are poor compared to formal sector employees, and are employed

in low productivity industries. The study results suggest that the productivity and income of employees must be improved.

Reddy et al. (2003) based their study on data collected from three urban areas, in 2001, in Fiji. By using percentage distribution and factor analysis technique, they found that the workers, on average, were primary passed. Informal employment was found to be high in the urban areas compared to some big cities in underdeveloped countries. The study results also showed that informal enterprises incorporated immediate family members, and their activities required relatively long working days and weeks. The workers have no access to credit facilities. A critical national level survey of the informal sector should be undertaken so as to formulate better policies.

Kim (2005) used a household survey to analyze how poverty influences the partaking in the informal economy of Romania. The author utilized a straightforward theoretical model, and the results indicated that low income and a cavity between the desired and certain income level force the participants towards the informal sector.

Reddy (2007) on the other hand utilized primary data to study the role of the urban informal sector in creating employment opportunities and poverty alleviation in Fiji. By using Probit model, results showed that the workers in the informal sector are primary passed, and most of the family members are engaged in such enterprises. His findings suggest that the informal sector contributes significantly towards reducing poverty and employment generation.

Attia and Moawad (2009) examined the role of the informal economy in poverty alleviation. Their results showed that the informal sector provides important jobs and commodities for the society. Their main conclusion however is that a lot of poor persons are forced to work in the informal sector.

Similar to Attia and Moawad (2009), Schiitte (2009) highlights that poverty and insecurity were complexly intertwined with informality conditions in Afghan cities. His data was collected from 40 poor households in the capital city, Kabul. His results revealed that the urban poor survived and faced severe risks all the way. The informal settlements are not supplied with essential amenities. Furthermore, the lack of access to essential services also increases the people's experience of health risks.

Asiedu and Stengos (2014) assessed the size of the underground economy in Ghana. They utilized a well-applied currency demand approach and their results indicated that, during the studied period, the

size of the underground economy of Ghana had been around 40% of the long-run average size of the GDP of Ghana.

Rothenberg et al. (2016) worked on contending theories about the causes of informality in developing countries. The survey results of different firm sizes showed that informal firms were very small and hired less than five employees. These micro type of firms were found to pay stumpy wages and were less productive compared to larger firms. These firms were managed by individuals who had a low-level education. They mainly supplied products to local markets and did not try to expand their operations.

On the basis of the literature surveyed, we may conclude that the informal sector – and poverty in it – mainly exists due to the poor level of education, large size of the household and low-level availability of assets. Furthermore, gender and the average age of the workers also determine the poverty levels in the sector in question.

3. Material and Method

Data Sources

We have collected primary data on informal workers' participation from 184 informal workers of urban areas of district Lahore. Lahore, the capital of Punjab province and second biggest city of Pakistan, holds a significant informal market. For data collection, we have used the random and stratified random sampling techniques.

Methodology

Model Specification

As mentioned above, Kim (2005) established a theoretical model that helps to analyze the effects of poverty on participation rate of workers in the informal sector of Romania. Borrowing from Kim (2005), we have also specified the relationship between poverty status and informal workers' socio-economic aspects as follows:

$$Z_i = \alpha + \beta Y_i + \varepsilon_i \dots \dots \dots (1)$$

Where $Z_i = 1$ if the choice is chosen, 0 if the choice is not chosen and Y_i vector of explanatory variable and ε_i is error term. Krstic and Sanfey (2006) investigated the level of poverty and well-being among the participants of the informal sector by using the Probit model. Reddy (2007) also used the Probit model to study the informal sector's role in the

creation of employment opportunities and poverty alleviation in Fiji. The Probit model is as follows:

$$p_i = F(Z_i) = F(\alpha + \beta Y_i) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\alpha + \beta Y_i} e^{-y^2/2} dy \quad (2)$$

Where p_i demonstrates the probability that the event occurs; e is the base of natural logarithm, and z is the random variable with mean zero and unit variance. Based on (1) and (2), we specify two alternative models as follows:

$$PovSt_i = \beta_0 + \beta_1 Pr_Edu_i + \beta_2 Md_Edu_i + \beta_3 Mt_Edu_i + \beta_4 Itm_Edu_i + \beta_5 Gr_Edu_i + \beta_6 Ms_Edu_i + \beta_7 Age_i + \beta_8 Gdr_i + \beta_9 Med_Hs_i + \beta_{10} Lg_Hs_i + \beta_{11} Asst_i + \mu_i \quad (3)$$

$$PovSt_i = \beta_0 + \beta_1 CY_Edu_i + \beta_2 Age_i + \beta_3 Gdr_i + \beta_4 Med_Hs_i + \beta_5 Lg_Hs_i + \beta_6 Asst_i + \mu_i \quad (4)$$

Where:

$PovSt_i$ = Poverty status, where 1 = under poverty and above = 0; measured on the basis if income of the individual is above or below the poverty line

CY_Edu = Completed years of education

Pr_Edu = Primary-level education

Md_Edu = Middle-level education

Mt_Edu = Matric-level education

Itm_Edu = Intermediate-level education

Gr_Edu = Graduation-level education

Ms_Edu = Master's level education

Age = Age of informal sector workers in complete years

Gdr = Gender of the worker

Med_Hs = Medium household size of the worker

Lg_Hs = Large household size of the worker

$Asst$ = Presence of Assets

u_i = Random error term

Results and Discussion

By using the Probit model, we empirically analyzed all those factors that force the people to work in urban informal sector employment, and consequently affect their poverty status. Our findings are reported as follows.

Descriptive Statistics

First, we begin with descriptively analyzing the statistics of all explanatory socio-economic factors of collected primary data. As mentioned earlier, these factors influence the poverty status of the

informal urban workers in the district Lahore. Table 1 indicates that average age of the workers is 35.74 years, and its variability is around the mean is 10.72. This implies that most of the urban informal sector workers are in the middle of their age, and when it is normally difficult to find a job or work in the formal sector. On the average, 12%, 15%, 34%, 10%, 8% and 2% workers have a primary, middle, matric, intermediate, graduation and master levels of education. Rest of the respondents are uneducated.

At face value, the analysis reveals that, on average, there are 85% male workers in the informal sector. On the average, 63% and 26% respondents possess medium and large household sizes. This shows that only 11% workers have a small household size. By considering a tradeoff between formal and informal sectors, we can infer that there is a possibility that the households of the formal sector are usually small sized. As only 42% of the workers own assets, the majority of the workers are those who do not possess household assets. Now we proceed with the econometric analysis of the reported features.

Table 1 Summary Statistics

| Explanatory Variables | Mean | St. Dev. | Min. | Max. |
|---------------------------------|--------|----------|------|------|
| Primary-level education | 0.125 | 0.3316 | 0 | 1 |
| Middle-level education | 0.1467 | 0.3548 | 0 | 1 |
| Matric-level education | 0.3424 | 0.4758 | 0 | 1 |
| Intermediate-level of education | 0.1033 | 0.3051 | 0 | 1 |
| Graduation-level education | 0.0815 | 0.2744 | 0 | 1 |
| Master's-level education | 0.0272 | 0.1630 | 0 | 1 |
| Complete Years of education | 8.0380 | 4.4787 | 0 | 16 |
| Age | 35.744 | 10.7197 | 18 | 64 |
| Gender | 0.8533 | 0.3699 | 0 | 1 |
| Medium household size | 0.625 | 0.4854 | 0 | 1 |
| Large household size | 0.2554 | 0.4373 | 0 | 1 |
| Presence of assets | 0.4239 | 0.4955 | 0 | 1 |

Notes: Table 1 presents descriptive statistics of our dataset. Mean is an average of values for each variable. Std. Dev. is the standard deviation. Min. and Max. are the interval representing the minimum and maximum values of each explanatory variable.

Empirical Analysis

By using the Probit model, the effect of socio-economic, household and individual factors is observed on the poverty status of informal sector workers of the district Lahore. All estimates are reported in Table 2. Let us begin with the specified Equation (3), reported in the column labeled as (1). The coefficients of matric, intermediate and graduation levels of education are negative and statistically significant. It is a widely accepted argument that the attainment of education has a fundamental effect on the decision concerning the sector of employment. Comparing this finding with the alternative specification [Equation (4)], reported in column (2), variable of complete years of education comes up with a positive and significant coefficient, implying positive on poverty status of individuals. We can argue that the persons having higher education enter into the formal sector while the urban informal sector absorbs those who have a low-level education. These findings are in accordance with those of Njong (2010) and Bilenkisi et al. (2015).

Other significant factors are medium and large household size variables, indicating positive association with poverty status. This is an important finding as it reveals that, in our sample, medium and large household size cause to increase the poverty level in district Lahore. This finding is in line with that of Orbeta (2005), who reported that, in the Philippines, larger family sizes caused to increase poverty and also its vulnerability.

However, in both specifications, the presence of household assets variable is found to have negative and statistically significant coefficients. An increase in households' assets guarantees the higher chances of workers, in the urban informal sector of district Lahore, moving out of poverty. For 150 households of AkwaIbom State of Nigeria, Etim and Glory (2014) also reported similar results. They found a higher percentage of poverty among the households without assets, as compared to the households who had assets.

On the basis of reported findings, we may conclude that major drivers of the poverty status of urban informal sector households of Lahore are a reasonable (matric to graduation) level of education, size of the household and the presence of the assets. However, poverty status of households of the urban informal sector is not significantly determined by the lower levels of education, gender, and age of the respondents.

Table 2 Average Marginal Effects of Informal Operators and Poverty Alleviation

| Dependent variable is Poverty Status | (1) | (2) |
|--|----------------------|----------------------|
| Primary-level education (yes =1, no= 0) | -0.0958 (-0.73) | --- |
| Middle-level education (yes=0, no=0) | -0.1739 (-1.46) | --- |
| Matric-level education (yes =1, no=0) | -0.2483** (-2.33) | --- |
| Intermediate-level education (yes=1, no=0) | -0.2685** (-2.06) | --- |
| Graduation-level education (yes=, no=0) | -0.3457** (-2.53) | --- |
| Master's-level education (yes=1, no=0) | -0.1681 (-0.84) | --- |
| Complete years of education | --- | 0.0222*** (-2.85) |
| Age | -0.0001 (-0.04) | 0.0000 (0.01) |
| Gender (Male=1, no=0) | -0.1190 (-1.23) | 0.1130 (-1.21) |
| Medium household size (yes=1, no=0) | 0.4334*** (4.25) | 0.4393*** (4.33) |
| Large household size (yes=1, no=0) | 0.6181*** (5.23) | 0.6207*** (5.27) |
| Presence of assets (yes=1, no=0) | -0.1328** (-2.02) | -0.1260** (-1.93) |
| Pseudo R ² | 0.22 | 0.21 |
| Observation | 184 | 184 |
| Observations | 184 | 184 |

Note: Table 2 reports the average marginal effects by utilizing the Probit regression technique. Z-values are in parenthesis. *, ** and *** represent significance at 1%, 5% and 10% level.

4. Summary and Recommendations

The informal sector can play an overbearing role in poverty alleviation of the economy. This area absorbs more labor and creates employment for the workers. In the face of increasing population and limited resources, more and more job opportunities in both the formal and

urban informal sectors are required to reduce unemployment and generate more income. The growth potential of both the formal and urban informal sector holds great prospects for the labor force in Pakistan.

The present study is a contribution towards highlighting some socio-economic variables to reduce poverty of the workers. Our results indicate that the achievement of higher education plays a vital role in poverty alleviation. Higher-level education and the presence of assets are noteworthy poverty reduction catalysts in district Lahore. The results suggest that there is a need for the long-term poverty eradication policy. This is possible by providing formal education to the operators. There is also need to give technical education to the workers. There is a need for education to be delivered inclusively, efficiently and equitably across the country to make sure that it is a driver of social cohesion and progress. Provincial governments also required to take all essential steps regarding educational reforms and educational services provisions. The government should take the initiative and should improve opportunities and facilities to the youths.

We tried to address the importance of the urban informal sector in poverty reduction. In an ideal world, education and socio-economic factors are essential towards poverty alleviation in the urban informal sector. However, given the small sample size, time and funding constraints, our study is unlikely to represent the whole of the urban economy. Therefore, there is room for further research on this topic.

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