

Marginality and Multidimensional Poverty: A Case Study of Christian Community of Lahore, Pakistan

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Abstract

Marginality and social exclusion are the pertinent concepts that researchers have tried to link directly or indirectly with the universal issues of poverty and resource constraints. This research tries to find out the extent of multidimensional poverty and its determinants among Christian community living in the slums of the Lahore city of Pakistan, after considering them at the margin of socio-economic systems due to some causal complexes that exclude them from the growth prospects. The urban context is the particular focus of this paper. On the basis of the analytical framework developed, study examines the relationship between marginality and poverty in a systematic manner and investigates the multidimensional poverty among the identified marginal group through a self-administered survey of 1380 individuals belonging to this minority group. We find these people as multidimensional poor, when we apply Alkire and Foster (2011) methodology. The study calculates intensity, depth and severity (M_0 , M_1 , and M_2) measures of poverty to show more than half of population as multidimensional poor. The later analysis makes the use of Logit and Probit regression techniques to exhibit a strong impact of socio-economic and demographic determinants on the poverty profiles of Christian community.

Key words: marginality, multidimensional poverty (PDP), social exclusion

1. Introduction

The universal issue of poverty faced by all parts of the world with varying intensity has long remained at the heart of all discourses on development. It has always attracted the attention of researchers as well as of policy makers due to the fact that poverty has intrinsic as well as functional aspects as it affects many forms of economics and social functioning. Researchers around the world have tried to address poverty issues with numerous frameworks, concepts, theories and studies. What comes out as a big picture is that in most of the cases some common factors do emerge that seems to be a cause of persistent poverty. Given the argument that poverty is a stochastic phenomenon, either targeting poor or poverty incidence, the more appropriate methodology for good policy is to target root causes of poverty within the target group.

The measurement and understanding of poverty went through in different stages where it was first considered as lack of income and consumption but the human development perspective of United Nations and Sen (1997) capability approach brought a new understanding of poverty and it became a multidimensional phenomenon to study. The reason for this paradigm shift in literature can largely be attributed to the recognition of the fact that traditional one-dimensional indices cannot reflect the true poverty levels and some more comprehensive, cohesive and holistic approach is needed to study the multidimensional aspects of poverty. Additionally, the generic factors featured in various studies on poverty, have also highlighted the related concepts to poverty such as marginality and social exclusion. However, researchers have tried to differentiate poverty from social exclusion and marginality and some of the studies even treated marginality and social exclusion as earlier stages of poverty. Therefore, the important makeover in the literature on poverty is seen in terms of identification of nexus of marginality, social exclusion and poverty (Levitas et al., 2007, Calvo, 2008, Whelan & Maître, 2005).

Marginality can be studied as a root cause of poverty because marginality is an involuntary position and is a condition of an individual or group that is at the brink of social, economic and ecological systems. Such marginality prevents affected communities to utilize resources, assets and service and all other factors, that become the cause of poverty. (Franz et al., 2011). The role of social exclusion can't be ignored in this perspective but there is a need to define marginality and social exclusion in local perspective. It is well postulated in literature now that marginalized classes of population remains in extreme deprivation due to the exclusion from rest of the society that may drive them to poverty which is a relative, subjective, dynamic and systematic mechanism. In most of Asian countries, literature target gender, caste and religion as important classifications of marginality (Dutta et al, 2014, Das, 2013, Thorat et al., 2010, Thorat et al., 2009, Mitra, 2004) while in western perspectives, studies take migrated population, single parent families as an important perspective along with gender and religion. In case of Pakistan, a study conducted by Oxford in 2005 define marginality in terms of six classifications including gender, caste, religion, language, access to land and disability. In case of Pakistan research studies on poverty normally focus on the issues of deprivation either at societal level or just in the context of women (gender discriminations), the issues of social exclusion and marginality on the basis of religion has not been addressed in these studies. However,

The state of poverty among the marginalized or socially excluded class of population even though on the basis of religions may be different from rest of the population. Multiple factors may affect the nature of poverty of this marginalized class. Therefore, by taking the dimension of religion, current study targets Christian community to analyze marginality, social exclusion and poverty dynamics. The data has been collected through self-administered survey with a sample of 1380 individuals belonging to Christian community of Lahore City. The study of multidimensional poverty would be helpful within the geographical area of Lahore as it is an economic hub and province capital and many Christian families are residing in different parts of the city. Therefore, the challenges faced by minorities in this area would be useful for policy making. In this regard, to study carefully the deprivation in the lives of Christian individual and families, the study has identified seven dimension including living standard, environment, assets, education, health, livelihood and above all social exclusion. The empirical analysis has been done with the help of Alkire and Foster (2011) techniques of poverty mapping and Logit and

Probit techniques of econometrics modeling. The first is helpful to study intensity, depth and severity of poverty, while later focuses on the determinants of poverty among marginal class.

The organization of paper is as follows. Section 1 is introduction, while section 2 presents literature review which tries to explore the poverty dynamics of marginalized class and helps to develop our hypothesis, the Section 3 explains data issues, sample selection procedures and methodology. Empirical results have been discussed in section 4 and section 5 concludes this paper.

2. Literature Review

Marginality and social exclusion is considered as a key phenomenon of poverty in modern literature. It is evident from literature that socially excluded communities are at more risk of poverty (Popay et al., 2008). Early research also support the idea of this social exclusion, in industrialized countries, the evolution of one parent family defines a new pattern of poverty and marginalization. This marginalization exists not only in labor market of these countries but also exists in the provision of public housing (Ferguson, 1989). Later on policy making institutions extends dimensions of exclusion into caste, religion, language etc and took this issue into account for investigation purposes, in the Asian Development Bank (ADB) series of social development paper, Sen (1997) highlighted meaning of exclusion and related deprivation. Similarly World Bank has a series of country reports which cover issues of social exclusion and poverty. In 2011, the entrenched inequalities was been analyzed in case of India and a high dominance of exclusion over socio-economic pattern has been found. In same year, another report of bank found high educational inequalities among low caste and girls in Pakistan.

On the other hand, MDP is getting great importance in recent literature. Number of studies highlight this issue in different ways, Gasparini et al (2013) define poverty in welfare perspective, according to them welfare has a three dimensions i.e. income, subjective welfare and basic needs. They use factor analysis on the data for the Latin America and the Caribbean to define appropriate poverty line and conclude that one dollar amount is a reasonable cutoff point to define poor in the study area. Another study by Ripplin (2015) considers capability approach to define poverty for the case of Germany. He categorized poor into deprivation affected, poor and severely poor. With the help of different dimensions of poverty, three poverty measures has been compared which revealed that there is a difference of poverty trends and the identification of deprived when applying these measure, therefore he conclude that income based a risk of poverty (AROPR) taken by German government is not a sufficient approach to define capability. Khan, et al. (2014) analyzes the MDP in regional level in the Sindh province of Pakistan. They conclude that MDP varies significantly across the regions due to deprivation levels of socio economic aspects. MDP remains higher in rural areas as compare to urban regions. While in Latin America and Caribbean background Gasparini et al (2013) by applying factor analysis find that welfare can be divided into three dimensions, i.e. income, subjective welfare and basic needs. In German background, Merz and Rathjen (2014) by using multinomial logit estimation on diary data find significant interdependence between and income.

The multidimensional poverty has been analyzed by Yu (2013) with the help of Alkire and Foster (2011) method. Author used China Health and Nutrition Survey data and includes five dimension in analysis. His analysis revealed that the economic growth in china has a

positive impact on poverty reduction both in income and multidimensional perspectives. But results also report a rural-urban and provincial divide as poverty is 1.5 percent high in rural areas than urban areas. Another study by Khan et al (2014) also used same methodology on the national level data sets for the province of the Sindh, Pakistan. They analyze the level of deprivation among different regions based on four dimensions and found regional difference and differences in the deprivation rates between rural and urban areas.

The circumstances of poverty are strongly related with level of social exclusion and parental social class. The factors that provide the poverty prospects at childhood age due to parental social class are strongly associated with current lacking of basic infrastructure (Abe, 2010). Franz et al. (2011) has provided conceptual and analytical framework in order to explore the root cause of poverty. They were of the view that there is need to highlight poverty with respect to marginality. They found marginality to be the root cause of extreme poverty. According to them, marginality is an involuntary position and is a condition of an individual or group that is at the brink of social, economic and ecological systems. Such marginality prevents affected communities to utilize resources, assets and service and all other factors, that become the cause of poverty. They define poverty as a matter of absolute deficiencies as perceived by the poor. They look poverty as a relative, subjective, dynamic and systematic mechanism and concluded marginality as a pattern of causal complexes in a societal and spatial dimension.

Hossain (2007) tried to make connection between urban poverty, informal economy and marginality in developing world. He focused on rapid mass urbanization and growth of new urban poverty in global south. He was basically highlighting the various household strategies that were used by poor households. He explained how poor communities socially, economically and politically marginalized even though living in a city for long period of time. He linked the mass urban transformation and in-formalization with the forms of poverty and marginality. Nayar (2007) is of the view that poverty and social exclusion that are significant socio-economic variables and are generally ignored while estimating ill-health effects. Social exclusion mainly refers to the inability of a society to realize its full potential while keeping all groups and individuals within reach. The relationship between caste and health indicator shows that poverty is a complicated issue that requires to be addressed with a multi-dimensional facet.

3. Methodology

Poverty measurement has different transformations in literature. Anciently poverty is considered as uni-dimensional measure where income and expenditure are considered as key areas to identify poor. Poverty measure is a discrete concept with two step process, one is identification and the other is aggregation. The first step related with identification of poor and non-poor while second step is the method to combines data of poor persons into an overall indicator of poverty.

The approach related with financial deprivation has been criticized in literature, and argued that the understanding of poverty among household or individual wellbeing is a complex phenomenon and there is a need to incorporate multidimensional exercise to identify poor. This multidimensional approach of poverty is derived from capability approach given by Sen (1997) which extend the dimension to analyze poverty. According to Sen (1997), income and consumption are resource which only means a source of achieving human welfare however the evaluation based on capabilities helps to assess human wellbeing.

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Different methodologies have been used to evaluate multidimensional deprivation in literature. For instance, the Foster-Greer-Thorbecke (FGT, 1984) was widely used tool previously. Now as an extension of FGT measure, Alkire & Foster (2011) is considered as a great methodology which fulfills basic axioms of poverty measurement. This measure emphasize on the deprivation instead of achievements of poor.

This study is based on Alkire & Foster (2011) measure of Multidimensional poverty, which developed on the basis of above mentioned criteria of poverty measurement i.e. identification and aggregation. The identification process, for any given y , $g^0 = [g_{ij}^0]$ and $g_{ij}^0 = 1$ when $y_{ij} < z_j$, while $g^0 = 0$ otherwise. This g^0 is developed as matrix $n \times d$, which ij^{th} entry is 1 when person i is deprived in j^{th} dimension otherwise it is 0. Which extends by developing a column vector c of the deprivation counts and $c = [g^0]$ represents number of dimension in which person i suffers (Alkire & Foster, 2011).

The additional information of poverty is possible when y are cardinal. This additional information help to understand depth and severity of poverty. This additional information can be obtained with the help of associated matrix of (normalized) gap or shortfall. For any “ y ”, normalized gap can be presented by matrix g^1 , with elements $g_{ij}^1 = (Z_j - y_{ij})/Z_j$ whenever $y_{ij} < Z_j$, while $g_{ij}^1 = 0$ otherwise. And this g_{ij}^1 is a “ $n \times d$ ” matrix with nonnegative entries lies between 0 to 1. For any $\alpha > 0$, we can define g^α by raising each entry of g^1 to α .

The second step, aggregation allows us to measure MPI with the help of headcount ratio. This headcount ratio is similar to the traditional measures of poverty. But to avoid monotonicity issue, the adjusted head count ratio is used, this ratio takes into account the extent of deprivation faced by person “ i ”. This ratio is measured as an average weighted deprivation faced by those who are below the poverty line.

$$A = |c(k)| / qd$$

Where A is the average number of deprivations in which a poor individual suffer. While the intensity of poverty present an extent of deprivation faced by a poor person. In order to construct a single measure, M_0 measure gives a good base. This M_0 is sensitive to the breadth of multidimensional poverty and satisfy dimensional monotonicity, with an increase in the additional deprived dimensions, the A measure of a poor person will rise and so does M_0 and the range of M_0 is 0 to 1. This M_0 is defined as

$$M_0 = \mu(g^0(k))$$

This adjusted headcount ratio is based of contrasted data into deprived and non-deprived dimensions and cannot help us to find depth of poverty. The adjusted poverty gap is useful for this purpose. The adjusted poverty gap is basically the summation of normalized gaps of the poor by the highest possible sum of normalized gaps. It is in fact the outcome of adjusted headcount ratio (M_0) and average poverty gap (G) and is presented as:

$$M_1 = HAG \text{ or } M_0 \times G$$

M_1 satisfy axiom of monotonicity but the increase in a deprivation has the same impact even a person is very slightly deprived or acutely deprived in that dimension (Alkire & Foster, 2011). To see severity of deprivation, M_1 does not meet the challenges and analysis should extend toward matrix g^2 of squared normalized shortfall. This $g^2(k)$ is the $g_{ij}^2(k) = (g_{ij}^1(k))^2$ and thus represents as:

$$M_2 = HAS \text{ or } M_1S$$

Where S is the average severity index which can be calculated as $S = \frac{g_2(k)}{g_0(k)}$.

3.1 Empirical Model

The generalized model is:

$$Y = f(X_{1i}, X_{2i}, X_{3i}, \dots, X_{ni})$$

Where Y_i is the dependent variable and X_i is the set of different independent variables related with socio-economic and demographic variables that can affect nature of multidimensional poverty of Christian community. If y^* capture the status of multidimensional poverty either poor or non-poor then the regression equation can be written as follow:

$$y_i^* = \sum_{j=0}^k X_{ij} \beta_j + \varepsilon_i$$

3.2 Logit Regression

The logical and appropriate model which can be useful to employ is binary Logit and Probit regression model. The probability of a category of the dependent variable by using a logistic transformation of a linear combination of the independent variables:

$$P(Y) = \frac{e^{\beta_0 \sum \beta_i X_i}}{1 + e^{\beta_0 \sum \beta_i X_i}}$$

$P(Y)$ represents the probability of having one of the categories of dependent variable whereas β_i are the coefficient values of independent variables of the model and is a row vector. The Logit function is then can be written as:

$$\ln \frac{P_i}{1 - P_i} = \sum_{j=1}^k \beta_j X_{ij}$$

The Left side value is the natural log of the odds in favor of individual to be poor whereas β_j is the measure of change of the chance of the poor to be non-poor.

3.3 Probit Regression

Another model called Probit regression also used to measure the relation between the characteristics of the Christian individual with his level of poverty. By assuming that the error term is a normally distributed with mean zero and variance σ^2 , the expression then can be written as:

$$\begin{aligned} \text{prob}(y_i = 1) &= \text{prob}(\mu > -x_i \beta) = \text{prob}(\mu > -x_i \beta) (\mu < -x_i \beta) \\ &= \text{prob}\left(\frac{\mu}{\delta} < \frac{-x_i \beta}{\delta}\right) = \Phi\left(\frac{-x_i \beta}{\delta}\right) \end{aligned}$$

The likelihood is expressed as the probabilities related to the outcomes of y_i ,

$$L(y, x, \beta) = \prod_{N_1} [\Phi(x_i \beta)] \prod_{N_{0N_1}} [1 - \Phi(x_i \beta)]$$

Where L , N_1 and N_0 is the sum of observation when $y=0$ and $y=1$, and the final expression can be written as

$$L(y, x, \beta) = \prod_{i=1}^N [\Phi(x_i \beta)]^{y_i} [1 - \Phi(x_i \beta)]^{1-y_i}$$

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The role of socio demographic variables is important in defining poverty. These include age, household size, education, health and standard of living. Age is considered important in defining poverty level similarly household size also matters in this regard. Some socio-demographic variables are very important to build quality of human capital, Communities with more low-skilled workers in general are more likely to experience high rates of poverty. Similarly the educational attainment as measure of the quality of human capital is important, High educational attainment may imply a greater set of employment opportunities which cause to decrease poverty (Cameron, 2000; Chaudhry et al, 2009, Kantor (2009, Vijaya, et al., 2014). Theory shows a fundamental impact of health on households, it is considered that the accessibility to health services directly influence the productivity of individual household (McDonough et al, 2010; Zhong, 2009).

Age is one of the major determinants of poverty. Households, whose heads is in higher age group significantly lowers the possibility of remaining poor households (Malik, 1996, Sikander and Ahmed, 2008). The gender of the household head is also important in determining the attitude toward employment. It is widely believed that the age and gender of the household head significantly influences urban poverty (Mukherjee, 2003, Sikander and Ahmed, 2008, Chaudhry et al., 2009, Brata, 2010). The household size and structure is an important indicator to shows a possible correlation between the level of poverty and household composition. Household composition, in terms of the size of the household and characteristics of its members (such as age), is often quite different for poor and nonpoor households. Finally the dependency ratio also allows measuring the burden on members of the labor force within the household. One might expect that a high dependency ratio would be correlated positively with the level of urban household poverty (Malik, 1994; Chaudhry et al., 2009)

Another important variable is the employment type which we decomposed into higher, low and intermediate skilled labor. The higher skilled includes managerial positions and people associated with transportation, clerical work includes in intermediate skilled work (Bradley et al., 2001). Similarly low skilled mainly involve informal work i.e. laborer, sweeper and other related works.

3.4 Data Source and Sampling

The data which has been used for analysis is self-collected as there is no data set available which exclusively covers the marginalized minority communities of Pakistan. The target group of this study to measure poverty and to evaluate social exclusion within the marginalized class of population is the Christian community of Lahore city. The survey is done through personal interviewing techniques and for reliability of information, the condition of home and surrounding areas has been observed. A sample of 1380 individual has been collected through clustered sampling in Lahore city.

The clustered sample was used and the sample was collected from all nine towns of Lahore. The household for data collection was chosen first on the basis of random sampling once area has been selected. But due to non-response error, in some areas convenience sampling was also used. We face greater challenges in targeting Christians due to their previous experience of some survey (i.e. for income support programs etc.) and a large number of respondents belong to minority group reluctant to provide us information. Therefore we use some resource to target these groups to minimize issue of misleading information and to ensure validity of data.

3.5 Poverty Line

In human development report, the calculation of MPI and the selection of indicators, weights, dimensions and poverty line is based on global comparison and availability of data. Even at national level, methodology to calculate MPI incorporate both global and local context and then data availability. This study is only targeting marginalized community of Lahore, therefore to adopt methodology at a limited level requires a revision based on global, national and then local context. This study uses self-collected data for a number of variables to calculate MPI over seven dimensions i.e. living condition, housing environment, assets ownership, education, health, occupation and social exclusion.

The decision of poverty line in current context is a difficult task as the study already covers the communities which are excluded in many terms from rest of city. Previous literature support various poverty level based on local context. This study uses a one-third of the weighted sum of deprivation as poverty line; this means a household who is deprived more than 33% of listed indicators is considered as poor in concerned dimension (Arif and Ali, 2012).

4. Results and Discussion

4.1 Multidimensional Poverty among Christian Community

The Alkire & Foster (2011) method is helps to apply dual cutoffs and counting approach to measure multidimensional poverty. The multidimensional poverty among Christian community of Lahore is based on seven indicators. Results verified the picture that these classes are caught in the poverty cycle, and the poor socio-economic infrastructure does not allow them to be out of poverty. The beauty of multidimensional poverty is the detention of all dimensions which makes a person better off or vice versa. The headcount ratio (H) is the measure provides an understanding about multidimensional poverty. It shows a proportion of population falling below specified poverty line. It is also known as incidence of poverty (Alkire and Foster, 2011, Arif and Ali, 2012, Naveed and Islam, 2010, Salahuddin and Zaman, 2012). The results shows that only 4% people are out of poverty and remaining 96% are falling at or below the poverty line set at poor at least two or more than two dimensions.

Table 1: Multidimensional Poverty Estimates

K	H (Incidence)	M₀ (Intensity)	M₁ (Depth)	M₂ (Severity)
2	0.96	0.44	0.323168	0.26674
3	0.91	0.43	0.312039	0.25499
4	0.73	0.38	0.265212	0.21036
5	0.42	0.25	0.160918	0.11958
6	0.18	0.13	0.074873	0.05039
7	0.04	0.03	0.014943	0.0083

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There are two approaches to define this incidence of poverty, one is union approach and the other is intersection approach. According to union approach 96 percent of marginalized population is poor and intersection approach takes 4% marginalized population as poor. The cutoff point two shows deprivation of people in two or more than two dimensions and results show that 44% or marginalized population is poor in two or more than two dimensions similarly poverty level is define further up to seven dimensions, where 3% marginalized people are poor in seven dimension

The most important aspect of this study is the calculation of depth and severity (M_2 and M_3) of poverty. As discussed in methodology, the M_1 ratio is calculated by multiplying poverty gap with M_0 ratio. M_1 helps to find the ratio of poor who are deepens in poverty (Alkire and Foster, 2011). Results show that 32% population is deepens in poverty in two or more than two dimension. The severity of poverty can be seen with the help of M_2 measure. At two or more than two dimensions of poverty, the severity of multidimensional poverty is 26%.

At later stage of analysis, we also try to find the impact of different socio-economic and demographic components on poverty status of Christian community residing in Lahore city. There is strong influence of age of an individual on his probability of being poor. The results show a significant impact of age on the poverty profile of people belongs to Christian community. On the other hand age square which we use to capture nonlinear relationship is not significant. Wagle (2011) and Angemi (2011) found a significant impact of age on poverty states, on same line Bradley et al (2001) shows an insignificant impact of age and age square on poverty status of people.

Table 2: Results from Logit and Probit Regression Analysis
(Dependent variable: Multidimensional poverty)

	Logit	Probit
Age	0.0549**	0.0268**
Age2	-0.0005	-0.001
HHsize	-.921**	-0.473**
HHsize2	0.083**	0.041**
Std of living	0.283	0.181**
Female HHH	-0.311	-0.0943
HH congestion	.315	0.138
Marital Status		
Married	19.302***	7.138***
Widow/div	18.627***	6.794***
Single	19.638***	7.309***
Living comfort	0.841***	0.413***
Network help	0.358	0.229
Education		
Primary	0.428	0.212
secondary	-0.885***	-0.426***
higher	-1.211***	-0.604***
Employment type		
High skilled	-1.147**	-0.672**
Intermediate skilled	-1.223**	-0.728**
Low skilled	2.78***	1.558***
R²	0.24	0.22

The other variable related to demography is marital status; we split this variable into married, single and widowed or divorced. The results of our analysis show a positive and significant impact of marital status on chances of an individual being poor. The possible reason of having a positive relation is the belonging of surveyed people, these people belong to very poor community and apparently faced social exclusion while moving in the community, the marital status does not affect their living standards as much and they remain in poverty. Wagle (2011) also found a significant impact of marital status on poverty states.

Gender of household head is significantly affecting poverty outcomes. More specifically, the household headed by women has more chances to be in poverty; this is due to the fact that women face discrimination in labor market and has fewer chances to have better opportunities of jobs (Haughton and Khandker, 2009). Our results show insignificant impact of female HHH on poverty states. Angemi (2011) also found insignificant impact of female household head on poverty outcomes. Another important determinant of poverty is education which is proved by results from both models. To make a detail analysis, we split education into different levels and compare risk to be poor with illiterate person. The higher education lower chances of poverty, Jamal (2009) shows a positive impact of education on expenditures of household, DeWilde (2004) proves that with increase in educational attainment, the risk of poverty has been reduced, he tested this theory both on uni-dimensional and multidimensional poverty risk, results also reflect theoretical base.

The analysis of poverty specifically for marginal class needs to include some variables which can show their living style while moving in the society. We use two variables to capture the effect of their living conditions. One is the comfort while living in their area. This variable includes those factors which can create sense of discomfort for a household. It was found during survey that the majority of Christian population is living in their separate communities, and have their own setup according to their religion, traditions etc. However, results show a strong impact of living comfort on poverty outcomes and the state of discomfort leads to an individual to be poor. The second variable is the network tie, the network includes friends and family of respondent, this variable capture monetary and non-monetary help of networks, and we found it insignificant while evaluating its relation with multidimensional poverty states.

The level of poverty is different at different level of employment. Those who belong to skilled employment have more chances to be out of poverty. We divide sample into high, intermediate and low skilled employment. Bradley et al. (2001) used these states as independent variables as well as evaluate transition states over the different time periods. We decompose employment types into three states and found a strong influence of these on poverty outcomes are in line with Bradley et al. (2001). The findings show a decrease in poverty level while an increase in the employment skills of an individual.

Overall results are robust and verify theory of multidimensional poverty. Results describe the nature and issues of poor Christian community in well-defined perspective.

5. Conclusion

The aim of this study is to capture the determinants of multidimensional poverty among Christian community living in Lahore city. For this purpose we used Alkair and Foster technique along with Logit and Probit modeling. Results suggest that constraints in achieving a good standard of living can create sense of deprivation among marginal community of Lahore, this causes a deprivation of education, employment and health among these individual. The multidimensional nature of poverty moves show them poor and only 4% people are living out of poverty when we apply poverty line on the data set.

On the socio-demographic side, the analysis of this study support the theoretical consideration regarding role of education and marital status and other variables like family size and household congestion are not consistent when incorporated policy related variables. The role of living comfort in area of residence shows an important impact as this variable captured their comfort in area of residence. As well as policy related variables are concerned, the significant impact found for all variables. One of the considerable phenomenon, is the type of employment which this working class of marginalized community faces in job search process and during job.

A better understanding of dynamics of multidimensional poverty helps to redefine or develop social and economic policies aimed at poverty reduction and social inclusion of all segments of population in development process. The study suggests a focus of social development programs for marginalized classes including minorities. Moreover, as the more than 80% of the surveyed population engaged in low skilled works and either illiterate or has very nominal level of education, so a greater policy emphasis is needed to make these groups competitive in the labor market. In this regard, provision of education and initiation of skill development programs for these groups of population are the right and needed steps to make them a productive and decent member of society.

Given the resource and time constraints, research area and sample size was restrained to Lahore city however; a better understanding would be possible if research on the topic will extend to include more marginalized communities either within city or by extending boundaries of research to different areas. The survey which target specifically marginalized classes of population (as is done in other countries) at country level is very much needed to draw and include results from these marginalized groups into policy formulations and reforms.

REFERENCES

- Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. *Journal of Public Economics*, 95(7), 476-487.
- Angemi, D. (2011). Measuring household vulnerability in the context of poverty education: Evidence from Uganda. *Centro Studi Luca D'Agliano, Working paper* (317).
- Abe, A. K. (2010). Social exclusion and earlier disadvantages: An empirical study of poverty and social exclusion in Japan. *Social Science Japan Journal*, 13(1), 5-30.
- Bradley, S., Crouchley, R., & Oskrochi, R. (2003). Social exclusion and labour market transitions: a multi-state multi-spell analysis using the BHPS. *Labour Economics*, 10(6), 659-679.
- Brata, A., G. (2010). Vulnerability of urban informal sector: street vendors in Yogyakarta, Indonesia. [Online] Available: <http://mpr.ub.uni-uenchen.de/12541/> (MPRA Paper No. 12541).
- Calvo, C. (2008). Vulnerability to multidimensional poverty: Peru, 1998-2002. *World Development*, 36(6), 1011-1020.
- Cameron, L. A. (2000). Poverty and inequality in Java: examining the impact of the changing age, educational and industrial structure. *Journal of Development Economics*, 62 (1), 149-180.
- Chaudhry, I. S., Malik, S., & Hassan, A. (2009). The impact of socioeconomic and demographic variables on poverty: a village study. *The Lahore Journal of Economics*, 14(1), 39-68.
- Das, M. B. (2013). Exclusion and discrimination in the labor market. *World Development Report*. [Online] Available: <https://openknowledge.worldbank.org/handle/10986/20139> (November 15, 2014).
- DeWilde, C. (2004). The multidimensional approach to the measurement of poverty in Belgium and Britain: A categorical approach. *Social Indicators Research*, 68(3), 331-369.
- Ferguson, H. (1989). Simple listening or developing competencies: a teacher's look at the "All About" Book". *Language Arts Journal of Michigan*, 5(1), 6-12.
- Franz, T. E., Nolan, J. T., Caylor, K. K., Nordbotten, J. M., & Slater, L. D. (2011, December). Measurement and Modeling of Lateral Subsurface Transient Soil Moisture Dynamics Using Multi-Point Direct-Current Resistivity in Homogeneous Sand. In *AGU Fall Meeting Abstracts* (Vol. 1, p. 0844).

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- Gasparini, L., Sosa-Escudero, W., Marchionni, M., & Olivieri, S. (2013). Multidimensional poverty in Latin America and the Caribbean: new evidence from the Gallup world poll. *The Journal of Economic Inequality*, 11(2), 195-214.
- Haughton, J. and Khandker, S. R. (2009). Understanding the Determinants of Poverty. In *Handbook on Poverty and Inequality*, Vol. 1, World Bank, 145-160.
- Hossain, S. (2007). Poverty and vulnerability in urban Bangladesh: The case of slum communities in Dhaka city. *International Journal of Development Issues*, 6(1), 50-62.
- Jamal, H. (2009). Assessing vulnerability to poverty: evidence from Pakistan. *Social Policy and Development Center, Karachi*, [Online] Available: <http://mpira.ub.uni-muenchen.de/40228/>
- Khan, A. U., Saboor, A., Hussain, A., Sadiq, S., & Mohsin, A. Q. (2014). Investigating multidimensional poverty across the regions in the Sindh province of Pakistan. *Social Indicators Research*, 119(2), 515-532.
- Levitas, R., Christina P., Eldin, F., Gordon, D., Eva L., Demi P. (2007). The multidimensional analysis of social exclusion. *Centre for the International Study of Poverty and Bristol Institute for Public Affairs*, University of Bristol.
- Malik, S. J. (1994). Poverty in Pakistan: 1984-85, 1987-88 and 1990-91. *IFPRI, Washington, DC (Mimeographed)*.
- McDonough, P., Worts, D., & Sacker, A. (2010). Socioeconomic inequalities in health dynamics: A comparison of Britain and the United States. *Social Science & Medicine*, 70(2), 251-260.
- Merz, J., & Rathjen, T. (2014). Time and income poverty: an interdependent multidimensional poverty approach with German time use diary data. *Review of Income and Wealth*, 60(3), 450-479.
- Mitra, A. (2004). Voices of the marginalized on the internet: examples from a website for women of South Asia. *Journal of Communication*, 54(3), 492-510.
- Mukherjee, S., & Benson, T. (2003). The Determinants of Poverty in Malawi, 1998. *World Development*, 31(2), 339-358.
- Naveed, A., & Islam, T. (2010). Estimating multidimensional poverty and identifying the poor in Pakistan: An alternative approach. *Research Consortium on Educational Outcomes and Poverty (RECOP)*, Cambridge. Working Paper Series No. 28.
- Nayar, K.R. (2007). Social Exclusion, Caste and Health: A Review based on the Social Determinants Framework. *Indian Journal of Medical Research*, 126, 355- 363
- Popay J, Escorel S, Hernandez M, Johnston H, Mathieson J, Rispel L. (2008). Understanding and tackling social exclusion. Final report to the WHO commission on social determinants of health from the social exclusion knowledge network. Lancaster University: UK.
- Rippin, N. (2015). Multidimensional Poverty in Germany: A Capability Approach. In *Forum for Social Economics* (Ahead-of-print, pp. 1-26). Taylor Francis, Routledge.
- Sen, A. K. (1997). *On Economic Inequality*. New York: Clarendon Oxford Press.

- Sikander, M. U., & Ahmed, M. (2008). *Household determinants of poverty in punjab: a logistic regression analysis of MICS (2003-04) data set*. Paper Presented in 8th Global Conference on Business & Economics, Italy.
- Salahuddin, T., & Zaman, A. (2012). Multidimensional Poverty Measurement in Pakistan: Time Series Trends and Breakdown. *The Pakistan Development Review*, 51(4), 493-504.
- Thorat, S., Attewell, P., Rizvi, F. F., (2009). *Urban Labour Market Discrimination*. Indian Institute of Dalit Studies, New Delhi.
- Thorat, S., Sabharwal, N. S., & Yaqoob, G. (2010). *Caste and Social Exclusion: Issues Related to Concept, Indicators, and Measurement*. Indian Institute of Dalit Studies and UNICEF, Working paper series, 1(2).
- Thorbecke, E. (2005). Multidimensional poverty: Conceptual and measurement issues. In *international conference on "The Many Dimensions of Poverty," Brasilia*, (pp. 29-31).
- Vijaya, R. M., Lahoti, R., & Swaminathan, H. (2014). Moving from the household to the individual: Multidimensional poverty analysis. *World Development*, 59, 70-81.
- Whelan, C. T., & Maître, B. (2005). Vulnerability and multiple deprivation perspectives on economic exclusion in Europe: A latent class analysis. *European Societies*, 7(3), 423-450.
- World Bank (2011), Poverty and Social Exclusion in India. *World Bank*. [Online] Available: <https://openknowledge.worldbank.org/handle/10986/2289> (October 19, 2014).
- Yu, J. (2013). Multidimensional poverty in China: Findings based on the CHNS. *Social Indicators Research*, 112(2), 315-336.
- Zhong, H. (2009). A multivariate analysis of the distribution of individual's welfare in China: What is the role of health? *Journal of Health Economics*, 28(6), 1062-1070.