Determinants of Intergenerational Transmission of Poverty in Pakistan: A Case Study

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ARTICLE DETAILS	ABSTRACT
	The present study examines the determinants of Intergenerational Transmission of Poverty in Pakistan. For this, primary data from 301 respondents has been collected from urban and rural areas of Muzaffargarh *district using simple random sampling technique. Logistic Regression method is applied to see the relationship between the variables. The results of Logistic Regression show that there is no Intergenerational Transmission of Poverty due to urban area residence, experience, education, value of assets, married marital status and joint family system in Pakistan. There is Intergenerational transmission of Poverty due to large household size and high dependency ratio in Pakistan. On the basis of results, it may be suggested that there should be promotion of free education throughout the Pakistan especially in rural areas.*

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1. Introduction

The World is dual in nature on one side there is poor population, which are not having sufficient money for basic needs and on the other side is rich or mediocre which are well organized with abundant facilities. A large part of the poor population lives in the developing countries while rich or mediocre population lives in developed countries. The rate of improvement from poor to rich is higher in developed countries due to having advanced technological infrastructure relatively. A large proportion of labor force is dependent upon agriculture, manufacturing and services sector. The poverty lives for long duration into the less developed nations.

Mostly poverty moves from one generation to other generation to their offspring, this phenomena is termed as Intergenerational Transmission of Poverty (IGTP). The Intergenerational Transmission of poverty in developing countries is relatively greater than that of developed nations. A vast literature of Intergenerational Transmission of poverty is available at national and international level.

Shlonsky (1984) concluded that Education, Permanent Income, Social Welfare and Housing were found to be a cause of low Intergenerational Transmission of Poverty in Jerusalem. Primary data was collected from 282 adults, in which 171 were men and 111 were women. Corcoran (1995) investigated that parental economic resources are the main causes of intergenerational transmission of poverty. Family structure affected children risks of dropping out of school. Parental schooling was also positively associated with children schooling even income and family structures are controlled.

Castaneda et al. (1999) pointed out Family size, Family income, parental education, parent's number of schooling, Education, health and nutrition as the major causes of Intergenerational Transmission of Poverty in Latin America. Moore et al. (2001) indicated that HIV/AIDS, migration patterns, labor market structure and social services affected to Intergenerational Transmission of poverty. The study concluded that capital such as human, social-cultural, financial/material, socio-political, environmental/natural capital, Debt, contagious diseases, violence, fostering, laziness, lack of intelligence and stigma had direct relation with Intergenerational Transmission of poverty.

Baulch et al. (2002) concluded the variables that reduced the Intergenerational Transmission of Poverty were Education, Livestock, Assets and land in rural Pakistan. On the other side, household size, residency area and dependency ratio increased Intergenerational Transmission of Poverty. Bhargava (2003) collected primary data of 5600 households from seven districts of Rajasthan. By using logistic regression, the results highlighted that child labor may be cause of more Intergenerational Transmission of Poverty while education had negative impact on Intergenerational Transmission of Poverty.

Harper et al. (2003) identified the conditions of childhood that can show the way of poverty throughout the whole life. Social and economic factors like as stress, Indebtedness, cultural norms, unemployment and conflict are harmful in childhood that led to Intergenerational Transmission of Poverty. Land, livelihoods, livestock, equipments, cash, human capital and education may reduce Intergenerational Transmission of Poverty. Bezemer (2006) analyzed that insufficient food, insufficient clothing, poor housing, limited access to utilities, poor health and less access to healthcare may be causes of Intergenerational Transmission of Poverty.

Lawson et al. (2006) revealed Low level of education and fewer physical assets and livestock as the causes of Intergenerational Transmission of Poverty by using Panel data of 1103 respondents in Uganda. The demographic factors such as dependency ratio on household head and family size were also the factors of Intergenerational Transmission of Poverty. Ludwig et al. (2006) emphasized that marriage in well-off family and parent's work participation may reduce Intergenerational Transmission of Poverty in US. Sato et al. (2008) noticed low level of education, low level of employment status and low wage occupation as a factor of Intergenerational transmission of poverty in Japan using ordinal logistic regression.

Papanastasiou et al. (2010) conducted the critical evolution that father's occupation, number of siblings, children age, children education, citizenship, family type and degree of urbanization were the sources of Intergenerational Transmission of Poverty. Bird et al. (2010) examined the positive relationship between human capital investment like education and Intergenerational Transmission of Poverty in north Uganda. Korankye (2014) elaborated the roots of Intergenerational Transmission of Poverty in Africa (IGTP). The results concluded that Intergenerational Transmission of Poverty could be due to few employment opportunities, poor governance, poor resource usage, corruption and poor infrastructure. Education and personal development, relevant skills and knowledge could improve the status of poor people from poor to mediocre or rich.

Davia et al. (2017) traced out Education and Marriage as the determinants of intergenerational transmission of poverty in Spain. Wu et al. (2019) sorted out the problems of intergenerational transmission of poverty in rural china. The study concluded that in terms of liquidity, the lower-income generation showed the strongest upward mobility trend, while high-income generation and capital had downward mobility in Intergenerational Transmission of Poverty.

After reviewing the previous studies, it is observed that previous studies were explaining the Intergenerational Transmission of Poverty on theoretical ground for various foreign economies. Hardly any study is found which has empirically analyzed the determinants of Intergenerational Transmission of Poverty in Pakistan. This is a dynamic study in terms of generations. Poverty of two generations is considered, one is poverty of forefathers and one is poverty of heirs. This is actually the research gap of this study. Keeping in view the importance, this study is aimed at analyzing the Determinants of Intergenerational Transmission of Poverty in Pakistan. Apart from Introduction in first, section, data and methodology is given in second section, third section explains the results and concluding remarks are given in section four.

2. Data and Methodology

2.1   Data and Methods

Considering the objectives of this study, primary source of data has been chosen from *Muzaffargarh* (مُظفّرگڑھ) district. Using, Simple Random sampling technique, the data is collected purposively by personal interviews and questionnaire. Total 301 respondents were included in the sample in which 150 respondents were evident of Intergenerational Transmission of Poverty (Whose forefathers were poor and heirs are also poor). 151 respondents are not evident of Intergenerational Transmission of Poverty (Whose forefathers were poor but heirs are not poor). Poverty is measured through Per Capita Income method based on National Poverty Line of Pakistan 2020. Analysis of the study is done by Descriptive Statistics and Correlation at Intermediate level and Logistic Regression method is applied to see the relationship between the variables. The following formula is used to estimate the marginal effects in dependent variable due to change in independent variables.

$$\frac{\partial P_i}{\partial X_i} = \beta_i(1 - P_i)P_i$$

2.2 Model Specification

The objective of the study is to find the factors causing Intergenerational Transmission of Poverty in Pakistan. Keeping in view the following model is specified;

$$IGTP = f (AREA, AGE, EDU, MS, JF, HSIZ, DPRAT, AST)$$

The above functional form may be written as;

$$IGTP = a_0 + a_1 AREA + a_2 AGE + a_3 EDU + a_4 MS + a_5 JF + a_6 HSIZ + a_7 DPRAT + a_7 AST + u_i$$

The detailed description of the above mentioned variables is given in table 1.

Table 1:   List of the variables used in the Study

Variables	Description of the Variables		Expected Relationship
IGTP	Intergenerational Transmission of Poverty	1= if Poverty is transmitted from One Generation to Another Generation 0= if Poverty is not transmitted from One Generation to Another Generation	**Dependent Variables**
Explanatory variables			
AREA	Area of Living	1= Respondent belongs to urban area 0= Otherwise	Negative
AGE	Age of Respondent	A continuous variable	Negative
EDU	Education of Respondent in Completed years	A Continuous Variable	Negative
MS	Marital Status of Respondent	1= Married 0= Otherwise	Negative
JF	Family Structure of Respondent	1= Joint Family 0= Nuclear Family	Negative
HSIZE	Size of the family	A Continuous Variable	Positive
DPRAT	Dependency Ratio on Earners of the Family	A Continuous Variable	Positive
AST	Total Assets of Respondent	A Continuous Variable	Negative

3. Results and Discussions

The results of the study are measured by using Descriptive Statistics, Correlation and Logistic Regression Analysis. The results of Descriptive Statistics are given in table 2. The results show that 50 percent sample was taken from the respondents in which there exists the transmission of poverty from one generation to next generation. 30 percent sample was collected from urban area. Average age of respondents is 44 years approximately and they are hardly middle pass. 53 percent respondents were married while 40 percent were living in joint family system. Average household size was 7 members and the value of dependency ratio is 0.6. Average asset holding is 4.6 million rupees in the selected area.

Table 2: Descriptive Statistics

Variables	Mean	Maximum	Minimum
Intergenerational Transmission of Poverty	0.5	1	0
Area	0.3	1	0
Age	44.11	72	23
Education	6.27	16	1
Marital Status	0.53	1	0
Joint Family	0.4	1	0
Household Size	6.74	22	2
Dependency Ratio	0.6	1	0
Assets	4664827	72200000	0

For checking Multicollinearity, correlation matrix is formed which is given in table 3. It suggests that there is no Multicollinearity between the explanatory variables as the value of correlation coefficient is less than 0.90.

Table 3: Correlation Matrix

Variables	MS	AREA	AGE	EDU	HSIZE	JF	AST	DPRAT
MS	1.00							
AREA	-0.11	1.00						
AGE	0.03	-0.10	1.00					
EDU	0.47	0.13	-0.15	1.00				
HSIZE	-0.01	-0.04	0.39	-0.20	1.00			
JF	-0.10	-0.02	0.27	-0.05	0.49	1.00		
AST	0.24	-0.10	0.16	0.24	0.20	0.12	1.00	
DPRAT	-0.39	-0.07	-0.14	-0.32	-0.10	-0.14	-0.33	1.00

Source: Estimated using E-Views 9 statistical software.

The results of Logistic Regression Analysis are reported in table 4. In which, first column shows the names of variables, second column is Marginal Effects, third column is about coefficients, fourth, fifth and sixth are respectively Standard Errors, z-Statistics and Probability values. The results portray that the people living in urban area may be able to improve its economic status and they will not remain poor as their forefathers were poor. It is evident with the negative sign associated with Area variable with statistically significant probability value. On the average, respondents of urban area may be 1.34 percent more capable of improving its economic status through struggle & hard work and they will not allow the poverty to transmit to their heirs. The similar findings have been captured by Baulch et al. (2002), Papanastasiou et al. (2010), Castaneda et al. (1999), Harper et al. (2003).

As the people are becoming young so they may be able to get good earning opportunities, they can be more experienced, skilled so they can earn higher level of income. In this scenario, age is to reduce Intergenerational Transmission of Poverty as negative sign associated with AGE of the respondent variable. There is 5 percent likelihood that poverty will not be transmitted into next generation as the respondent is becoming one year old on the average. The same conclusion has also been found by Papanastasiou et al. (2010), Bellani et al. (2013), Sato et al. (2008).

Concerning to Education which is the most important variable of the current debate, it postulates that Education is one of the major tool of getting higher level of economic status in the society. Due to higher Education level, the respondent may become self-sufficient and educated person can stop the poverty to be transmitted into the next generation. On the average, there are 45 percent chances that poverty will not be transmitted into next generation if respondent is one year highly qualified. These findings are associated with the findings of Castaneda et al. (1999) and Lam-Duryea (1998).

A Married couple can have good economic status in the society if both are working professionally in the job market. Their earning may reduce their poverty level and there are 60 percent chances that poverty will not be transmitted into the next generation. They both can give good future to their children and heirs. These results are similar to Pakpahan et al. (2009), Davia et al. (2017), ludwig et al. (2006).

If families are living in Joint Family Setup, so they can have good economic status. People living in Joint Family Setup may be able to reduce their poverty and there are 97 percent chances that poverty will not be transmitted into the next generation. They both can give good future to their children and heirs. These findings are consistent with the Sato et al. (2008), Bellani et al. (2008), Moore et al. (2001), papanastasiou et al. (2010). On the other side, families with large family size need to struggle hard and if they can't meet the required expenditure for their economic needs will be poorly affected. People having large family size may not be able to reduce their poverty and there are 19 percent chances that poverty will be transmitted into the next generation if household size increases by one number [Wolfe et al. (1982)].

Table 4: Binary Logistic Estimation

Dependent Variable: Intergenerational Transmission of Poverty					
Method: ML - Binary Logit Econometric Analysis					
Variable	**Marginal Effects**	**Coefficient**	**Standard Error**	**z-Statistic**	**Probability**
Constant		13.05	5.54	2.36	0.02
AREA	-1.34	-5.38	1.99	-2.70	0.01
AGE	-0.05	-0.18	0.09	-1.96	0.05
EDUC	-0.45	-1.79	0.48	-3.70	0.00
MS	-0.60	-2.39	1.17	-2.04	0.04
JF	-0.97	-3.90	1.82	-2.14	0.03
HOUSIZE	0.19	0.75	0.35	2.18	0.03
DEPRATIO	2.46	9.83	3.58	2.74	0.01
ASSETS	-0.75	-2.99	1.08	-2.76	0.01
McFadden R-squared		0.93	**Mean Dependent var.**		0.50
LR Statistic		389.17	**Prob. (LR Statistic)**		0.00

Source: Estimated using E-Views 9 statistical software

Dependency ratio is having similar effect like Household size with positive coefficient value. This variable is statistically significant denoting that there are high chances of transmitting poverty from one generation to next generation due to high dependency ratio. During high dependency ratio, people can't save their resources. [Baulch et al. (2002), Lawson et al. (2006) Papanastasiou et al. (2010), Corcoran et al. (1985), Mckay et al. (2003), Khawaja (2003)]. Assets are also statistically significant with negative coefficient value showing that there are 75 percent

more chances that poverty will not be transmitted into next generation if assets increase by 1 million. Respondents who have more assets, they can give a better life to their heirs [Kabeer et al. (2009), Cooper et al. (2012), Bhargava (2003), Harper et al. (2003), Khawaja (2003), Corcoran (1995), Mckay et al. (2003)].

4. Conclusion & Policy Recommendation

The objective of this study is to examine the factors which are possible causes of Intergenerational Transmission of Poverty in Pakistan. Considering the objectives, primary data has been taken from urban and rural areas of *Muzaffargarh* (مُظفّرگڑھ) district. Simple Random sampling technique is utilized for the collection of data through interviews and questionnaire. Total 301 respondents were included in the sample in which 150 respondents were evident of Intergenerational Transmission of Poverty (Whose forefathers were poor and heirs are also poor). 151 respondents are not evident of Intergenerational Transmission of Poverty (Whose forefathers were poor but heirs are not poor). Poverty is measured through Per Capita Income method based on National Poverty Line of Pakistan 2020.

Analysis of the study is done by Descriptive Statistics and Correlation at Intermediate level and Logistic Regression method is applied to see the relationship between the variables. In this study, the dependent variable is Intergenerational Transmission of Poverty while Area, Age, Education, Household Size, Dependency Ratio, Assets, Marital Status and Joint Family are taken as explanatory variables. The results of Logistic Regression show that there will be no Intergenerational Transmission of Poverty (Poverty will not transmit from one Generation to another Generation) as people are living in Urban Area, they are becoming more experienced, they are becoming educated, they are having good Assets value, they are Married and they are living in Joint Family system. There will be Transmission of Poverty from one Generation to another Generation if household size increases and dependency ratio increases in Pakistan.

On the basis of results, it may be suggested that there should be promotion of free education throughout the Pakistan especially in rural areas. In rural areas there are few earning opportunities due to this poverty transmits from generation to generation in rural areas. It is suggested that earning opportunities should be introduced in rural areas of Pakistan.

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