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Factors Affecting the Socio-Economic Status of Households in Southern Punjab

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ABSTRACT

The Households having low socio-economic status possess less resource in term of wealth and income to resist against any kind of external shocks. Apart from health shocks (physical and mental disabilities) there are numerous other factors that force them to follow subsistence life style having low per capita income. A primary level data has been collected to examine the socio economic status of households in Southern Punjab for the year 2019. The findings show that household size, occupation, dependency ratio, mental disability and physical disability are negatively affecting economic development across the region. However, age, education of the household head, own house, spouse's participation, remittances, number of earners in the household and value of physical assets are increasing economic development in Southern Punjab. Developing strategies, adequate planning and their timely implementation is very crucial for the government to pursue the process of economic growth and development of the poor countries like Pakistan.

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1. Introduction

Economic development helps to identify the fundamental causes of underdevelopment and to generate policies that basically accelerate the per capita income of the poor nations. The most imperative and vital aim of the underdeveloped countries is rapid economic growth and development. Better macroeconomic performance, high income level, creating human capital, employment opportunities, high exports, provision of socio economic needs and poverty mitigation, improved standard of living of the people are the key factors that are generally associated with the economic growth and development. Hence the overall concept of economic development adheres to the agenda, aiming to improve the well-being of the people. The present study focuses on Southern Punjab, which

comprises of 3 divisions. It is a mainly a developing and backward region of the Punjab. It constitutes mostly on small cities, vast rural and desert areas. Considering the problem of rising poverty in Southern Punjab, have been focused to analyze the factors affecting socio- economic status of households in Southern Punjab. These divisions have received very little prosperity both at the policy and empirical level.

Keeping in view the above discussion, this papers is structured as follows. The section 2, discusses the review of literature. The section 3 presents the data and methodology. The section 4 provides the empirical findings. The section 5 offers the concluding remarks.

2. The Literature Review

Various strands of literature are found on poverty. Moreover, it is generally considered as a plague and extremely serious matter to ponder across the world.

Romer (1986), presented his findings that showed positive, long-run economic growth rates can be achieved through technological progress, learning by doing and knowledge spillover. Lucas (1988) studied the mechanics of economic development and realized the importance of physical and human capital. The study contended the importance of learning by doing, and training on the job comprises of human capital. Countries which are naturally endowed with resources achieve economic growth through comparative advantage more quickly as compare to the economies which are initially poor. Majority of east Asian countries have progressed on the basis of trade, so trade led growth are only because of an increase in exports resulting a sustained income level

Barro and Lee (1994) examined the determinants of economic growth for different countries. The author has collected secondary data of 95 different countries to study the growth rates over the two decades using regression analysis. The study has revealed that There was positive relative relation between gross investment and growth rates but this relation was not much strongly related to each other. Political instability is harmful for growth but public investment on education enrollment, schooling of children and heath can play a positive role in presenting improved growth rates. Hall and Jones (1999) and Rodrick (1999) found the positive relation between economic development and property rights.

Croppenstedt (2006) studied the factors affecting household income in rural areas of Egypt. The author has collected data from household survey data during the year 1997 To analyzes household income structure and determinants. The results have found that large households have less per capita income. Female headed households obtain a much smaller proportion of their income from wage employment as well as from household enterprise activity. It was also observed that young household heads are earning more income from wage employment having higher per-capita income as compare to older household heads. Earning of male and female labor are the same in agriculture sector but greater in case of male household head if working in formal sector. A longer-term planning on employment generation through increased access to education for men and women is required.

Smith (2007) examined the economic status of the household in the Soviet Union. The author has collected data from the three Baltic republics, Moscow and the Belarus regions to analyze the factors affecting the household income. The results showed that the percentage of people over 60 and that is mostly retired people in the sample are relatively small. This indicates that older workers and pensioners are less likely to be the primary income earners of their households. The results conclude that a high income household is usually middle-aged, well-educated, married male having good health

is the primary earner of the household. People living in a huge town or cities have a significant positive role in contributing in the regional income distribution.

Mirvis and Clay (2008) explained the importance of health as a source of economic growth in the Mississippi Delta, America. The study has concluded that health and economic issues are same and identical across the countries many other barriers related to health and non-health issue must be addressed to rectify the health conditions of the region. Employment opportunities must be generated for the people and proper utilization of resources are necessary for the community. The study further suggested that long term strategies along with the collaboration with academic institutions and researchers were required to reduce health disparities. It was further stated that there is no development without better health conditions of the economy.

Leyaro and Morrissey (2010) analyzed the determinants of household income in Tanzania. the author has collected data from the Tanzania Household Budget Survey during the years 1991/92, 2000/01 and 2007. The authors have analyzed many demographic and other variables to show association with household income. The finding has revealed that large household's size has less income. Household living in urban areas are likely to have higher income as compare to the household living in rural areas. Household living in the Coastal zone, have more income level around 15% more as compare to the poorest region. The results showed positive correlation between years of education of the household head with higher income. Average incomes of agriculture households are lower than for manufacturing households.

Aikaeli (2011) studied the income status of households in Tanzania. The author has collected data from 1610 household, 150 communities and 1239 enterprises from seven different regions. The dependent variable was per capita income in the study. The study has concluded that education is significant and showing positive relation with the per capita income. This shows that higher the education level of the household head more will be the per capita income. Educated Households having associated with farming activities are more likely to have higher per capita income as compare to less educated household. Increase in the number of workers and land as an asset, rural non-farm activities played a vital role in raising the per capita income of the household. those household headed by female have per capita income as compare to the household headed by the male.

Tuyen (2015) studied the socio economic determinants of household in Vietnam. The authors have collected secondary data focused on the household of the ethnic minorities, using different multiple regression models. The dependent variable was per capita income. The study has revealed that mostly the household is associated with the agriculture activities. However, there is a significant and positive role of education, holding of fixed assets and non-farm employment opportunities in raising the income of the household.

A panel cross country data was collected by Vedia-Jerez and Chasco (2016) to examined the long run determinants of economic growth in South America during the year 1960-1980 and from 1981-2008 using GMM estimator. The study involved two econometric model including GDP per capita and Foreign direct investment were taken as dependent variable respectively. Different institutional (quality, security of contract and property rights), Institutional constraints, macro shocks, human capital and other variable are taken as independent variables. The study concluded that for long term economic growth, human and physical capitals are necessary. Foreign direct investment (FDI) accompanied with secondary education accelerate management skills and technology. Macroeconomic disturbances reduce the pace of FDI and economic growth.

It has been found out from past studies that developing countries are suffering from various socio economic issues. The denial of employment opportunities, low infrastructure, lack of education and physical assets and limited access to market have forced poor countries to remain deprived and underdeveloped. This study presents an analysis of variables that are closely linked with the socioeconomic status of the household. The next section will present the data and methodology.

3. Data and Methodology

The primary data has been collected through a field survey from the respondents i.e. the household head, comprising of three divisions for the year 2019 in Southern Punjab. The study consists of 1068 observations, adopted simple random and stratified sampling.

3.1 Descriptive Analysis

Descriptive statistics that explains a given data set, which can be either a picture of the complete or a sample of a population.

$$\text{Mean} = \frac{\sum X}{N}$$

3.2 Correlation Matrix

A correlation matrix is used as an input into a more advanced analysis, a path to review data and helpful for investigating advanced analyses.

$$\text{Correlation} = \frac{\sum XY - \frac{(\sum X)(\sum Y)}{n}}{\sqrt{\left[\sum X^2 - \frac{(\sum X)^2}{n_x} \right] \left[\sum Y^2 - \frac{(\sum Y)^2}{n_y} \right]}}$$

3.3 Regression Model

The study used a binomial logistic regression having dependent variable of dichotomous nature. The logistic regression model can be explained through the equation:

$$Y^* = \beta_1 + \beta_2 X_{2i} + \beta_3 X_{3i} + \dots + \beta_k X_{ki} + \epsilon_i$$

Y^* is the dependent variable representing the per capita income of the household and X_s are the various socioeconomic and demographic indicators that determine the economic development at the household level in Southern Punjab.

Table 1: Variables Utilized for OLS Regression Estimates

Variables	Description of the Variables	
Dependent Variable		
LNPCI	Log of Per Capita Income	It is the proxy for Economic Development. It is the natural log of per capita income
Independent Variables		
Demographic Variables		
HAGE	Age of Household head	Complete years of respondent 's age
HSIZE	Household 's Size	The total person in a household
DR	Dependency Ratio	Total dependents divided by total household size.
Economic Variables		
OCC	Occupation of Household Head	= 1 if household head working in primary sector = 0 if household head not working in primary sector
NOEIH	Number of Earners	The household comprising of total earners
LNVLPA	Physical Assets	The natural log of value of physical assets own by the household
OH	Own House	= 1 if household has own house = 0 if household not own house
REM	Remittances	= 1 if household receive remittances = 0 if household not receive remittances
SP	Spouse's Participation	= 1 if the Spouse participate in labor force = 0 if the Spouse not participate in labor force
CRD	Access to Credit	= 1 if household have an access to credit = 0 if household have not access to credit
Social variables		
MI	Mental Disease	= 1 if a person in a family is mentally ill = 0 if a person in a family is not mentally ill
PD	Physical Disability	= 1 if any member of household is physically disable = 0 if any member of household is not physically disable
HEDU	Education of the Household Head	Total years of education

3.4 Economic Development model

Per capita income or economic development of the household is taken as a dependent variable. They are provided in in functional form as below:

$$LnPCI = f\left(\begin{matrix} HAGE, HSIZE, HEDU, DRATIO, OCC, NOEIH, PHYASSETS, OH, \\ REM, SPART, CREDIT, MENTD, PHYD \end{matrix}\right)$$

The above model in econometric form as:

$$LnPCI = f\left(\begin{matrix} \beta_0 + \beta_1 HAGE + \beta_2 HSIZE + \beta_3 HEDU + \beta_4 DRATIO + \beta_5 OCC + \beta_6 NOEIH \\ + \beta_7 PHYASSETS + \beta_8 OH + \beta_9 REM + \beta_{10} SPART + \beta_{11} CREDIT \\ + \beta_{12} MENTD + \beta_{13} PHYD + \beta_i \end{matrix}\right)$$

4. Empirical Findings

This section begins by analyzing and examining the Economic Development of the households in Southern Punjab in the Table 4. An incline in age of respondent by one year will raise the economic development or per capita income by 0.8 percent. [Pfau and Giang (2009), Munyegera and Matsumoto (2016), Nguyen and Nguyen (2019)]. A rise in household size by one member will reduce the economic development or income per capita of the household by 8.3 percent [Leyaro and Morrissey (2010) and Tran et al., (2018)]. A rise in education of respondent by one year will raise their economic development or income per capita or by 5.1 percent. [Vedia-Jerez and Chasco (2016)]. As, if occupation of the respondent in primary sector rises by one unit, it will lead to reduce the income per capita or economic development by 28.6 percent [Shi et al. (2010), Urgessa (2015) and Tuyen (2015)]. An increase in dependent by one member in the household, it will lead to decrease the economic development or per capita earnings of the household by 15.3 percent [Shi et al., (2010) and Tuyen et al., (2014)]. A rise in mental disability of the household by one unit, it will reduce the income per capita of the household by 33.9 percent [Deaton (2003)]. A rise in mental disability of household by one unit, it will reduce the income per capita of the household by 29.1 percent [Deaton (2003)]. If holding an own house by the household increase by one unit, it will raise the or economic development or income per capita of the household by 38.6 percent, respectively [Tuyen (2015)]. If the spouse's participation rises by one unit in the economic activities, it will lead to increase the per capita earnings of the household by 14.8 percent. [Torr (2011) and Goldscheider et al., (2015)]. Moreover, if remittances increase by 1 unit, it will result an increase in the per capita earnings or economic development of the household by 17.6 percent [Pede et al., (2011), Aloba et al., (2017)]. Access to credit by the household increases to 1 unit, it will lead to increase the economic development or per capita earnings of the household by 4.2 percent. [Akotey and Adjasi (2016)]. A rise in earners in household by one member will result an increase in the economic development or per capita earnings by the household by 9.3 percent [Vatta and Sidhu (2007) and Jehovaness (2010)]. If value of physical assets rises by one percent, it leads to rise the income per capita of the household by 2.1 percent [Abdelhak et al., (2012), Vedia-Jerez and Chasco (2016)].

Table 2: Descriptive Analysis of Economic Development in Southern Punjab.

Variables	Mean	Standard Deviation
Per Capita Income	9864.69	7730.97
Mental Disability	0.09	0.29
Value of Physical Assets	4834496	11281889
Number Of Earners in the Household	2.04	1.08
Occupation of the Household Head	0.57	0.50
Own House	0.90	0.30
Remittances	0.12	0.32
Spouse's Participation	0.16	0.37
Household Size	6.34	2.55
Household Head Education	8.29	5.56
Household Head Age	48.18	12.76
Dependency Ratio	0.75	0.73
Access to Credit	0.12	0.33
Physical Disability	0.11	0.31

Source: Survey data, 2019

Table 3: Correlation Analysis of Economic Development and its Correlates in Southern Punjab

Probability	HAGE	HSIZE	HEDU	OCC	DR	MI	PD	OH	SP	REM	CRD	NOEI	PHYASSET	PCI
HAGE	1.000													
HSIZE	0.322 (0.000)	1.000												
HEDU	-0.056 (0.066)	-0.146 (0.000)	1.000											
OCC	-0.020 (0.514)	0.089 (0.004)	-0.600 (0.000)	1.000										
DR	-0.135 (0.000)	0.195 (0.000)	-0.184 (0.000)	0.181 (0.000)	1.000									
MI	-0.058 (0.059)	0.066 (0.031)	-0.254 (0.000)	0.252 (0.000)	0.068 (0.026)	1.000								
PD	0.153 (0.000)	0.104 (0.001)	-0.146 (0.000)	0.150 (0.000)	0.043 (0.157)	0.048 (0.116)	1.000							
OH	0.146 (0.000)	0.020 (0.513)	0.183 (0.000)	-0.131 (0.000)	0.033 (0.284)	-0.146 (0.000)	-0.084 (0.006)	1.000						

SP	0.144 (0.00 0)	0.085 (0.00 5)	0.127 (0.00 0)	- 0.146 (0.00 0)	- 0.199 (0.00 0)	- 0.060 (0.04 9)	- 0.009 (0.76 8)	0.081 (0.00 8)	1.000					
REM	0.020 (0.512)	0.010 (0.74 0)	0.133 (0.00 0)	-0.118 (0.00 0)	0.148 (0.00 0)	0.063 (0.04 0)	0.005 (0.87 1)	0.121 (0.00 0)	0.194 (0.00 0)	1.000				
CRD	- 0.006 (0.84 0)	0.020 (0.50 8)	- 0.003 (0.92 3)	0.066 (0.03 1)	0.018 (0.56 0)	0.031 (0.30 9)	0.079 (0.01 0)	0.012 (0.70 5)	0.010 (0.75 5)	0.050 (0.100)	1.000			
NOEIH	0.356 (0.00 0)	0.469 (0.00 0)	0.089 (0.00 0)	- 0.090 (0.00 3)	- 0.391 (0.00 0)	- 0.095 (0.00 2)	0.020 (0.52 3)	0.144 (0.00 0)	0.369 (0.00 0)	0.227 (0.00 0)	0.072 (0.018)	1.000		
PHYASSET	0.035 (0.25 9)	- 0.030 (0.32 3)	0.016 (0.59 7)	- 0.076 (0.01 3)	- 0.032 (0.29 3)	- 0.039 (0.20 7)	0.005 (0.86 0)	0.041 (0.18 0)	0.06 0 (0.05 1)	0.073 (0.017)	-0.038 (0.217)	0.000 (1.000)	1.000	
PCI	0.091 (0.00 3)	- 0.225 (0.00 0)	0.476 (0.00 0)	- 0.412 (0.00 0)	- 0.268 (0.00 0)	- 0.250 (0.00 0)	- 0.164 (0.00 0)	0.212 (0.00 0)	0.172 (0.00 0)	0.180 (0.00 0)	0.027 (0.371)	0.142 (0.000)	0.085 (0.005)	1.000

Source: Survey data, 2019 ; probability in brackets

Table 4: Econometric Analysis of Factors Affecting Economic Development in Southern Punjab

Dependent Variable: Per Capita Income (LNPCI)				
Variable	Coefficients	Standard Errors	t-Statistic	Probability
C	8.090	0.133	60.899	0.000
Household Head Age	0.008	0.001	6.242	0.000
Household Size	-0.083	0.008	-10.650	0.000
Household Head Education	0.051	0.003	14.986	0.000
Occupation	-0.286	0.038	-7.529	0.000
Dependency Ratio	-0.153	0.025	-6.022	0.000
Mental Disability	-0.339	0.054	-6.252	0.000
Physical Disability	-0.291	0.049	-5.961	0.000
Own House	0.386	0.052	7.429	0.000
Spouse 's Participation	0.148	0.043	3.418	0.001
Remittances	0.176	0.048	3.648	0.000
Access to Credit	0.042	0.045	0.922	0.357
Number of Earners in Household	0.093	0.021	4.530	0.000
Value of Physical Assets	0.021	0.007	2.762	0.006
R-squared	0.642	Mean dependent var		8.916
Adjusted R-squared	0.637	S.D. dependent var		0.798
S.E. of regression	0.480	Akaike info criterion		1.385
Sum squared resid	243.252	Schwarz criterion		1.450
Log likelihood	-725.403	Hannan-Quinn criter.		1.409
F-statistic	145.162	Durbin-Watson stat		1.613
Prob(F-statistic)	(0.000)			
Diagnostic Test: Heteroskedasticity White Test				
F-statistic	1.131	Prob. F(96,971)		0.131
Obs*R-squared	233.584	Prob. Chi-Square(96)		0.183

Source: Survey data, 2019

Table 5 presents the OLS regression results of econometric analysis of factors affecting economic development in Multan division. An increase in age of respondent by one year will raise the per capita income or economic development by 0.9 percent [Nee (1996), Chang and Hanna (1994) and Brück (2001)]. Moreover, a rise in household size by one member, will reduce the per capita earnings of the household by 7.9 percent [Jansen et al., (2006), Baiyegunhi and Fraser (2010), Sekhampu, (2013), Tuyen et al., (2014), Jin and Xie (2017)]. If education of household head rises by one year, it leads to rise per capita income or economic development by 5.4 percent. [Estudillo et al., (2008), Jehovaness (2010), Pede et al., (2011) and Ackah (2013) in their studies. If occupation of respondent in primary sector rises by one unit, it will lead to reduce the economic development or income per capita or by 27.2 percent (Sumberg et al. 2004). An increase in dependent by one member in the household, it will lead to decrease the per capita income or economic development of the household by 14.8 percent [Brück, (2001), Akerele and Adewuyi (2011)]. An increase in mental disability of household by one unit, it will reduce the economic development or per capita earnings of the household by 37.1 percent. An increase in physical disability of the household by one unit, it will reduce the economic development or per capita earnings or of the household by 28.4 percent [Scott (2000), Mirvis and Clay (2008)]. If holding an own house by the household increase by one unit, it will raise the economic development or income per capita of the household by 40.7 percent, respectively [(Glewwe, 1991)]. If the spouse's participation increases by one unit in the economic activities, it will lead to rise the economic development or income per capita of the household by 5.5 percent [Plutzer (1991), Bolzendahl and Myers (2004)]. As remittances received by the household increase by 1 unit, it will result a rise in the economic

development or income per capita by 20.3 percent [Shahbaz et al., (2008), Le (2009) and Marwan et al. (2013)]. If access to credit by household increases to 1 unit, it will lead to increase the economic development or per capita earnings of the household by 0.9 percent. (Kessy and Urio, 2006; Cuong, 2008). If earners increase by one member in the household, it will lead an increase in the economic development or per capita earnings of the household by 10.6 percent. [Vatta and Sidhu (2007), Jehovaness, (2010)].

Table 5: Results of the Econometric Analysis of Factors Affecting Economic Development in Multan Division

Dependent Variable: Per Capita Income (LNPCI)					
Variable	Coefficients	Standard Errors	t-Statistic	Probability	
C	7.995	0.237	33.761	0.000	
Household Head's Age	0.009	0.002	3.742	0.000	
Household Size	-0.079	0.014	-5.619	0.000	
Household Head 'sEducation	0.054	0.006	8.745	0.000	
Occupation	-0.272	0.070	-3.890	0.000	
Dependency Ratio	-0.148	0.045	-3.278	0.001	
Mental Disability	-0.371	0.099	-3.736	0.000	
Physical Disability	-0.284	0.090	-3.148	0.002	
Own House	0.407	0.096	4.250	0.000	
Spouse 's Participation	0.055	0.075	0.740	0.460	
Remittances	0.203	0.087	2.333	0.020	
Access to Credit	0.009	0.082	0.114	0.909	
Number of Earners in Household	0.106	0.038	2.772	0.006	
Value of Physical Assets	0.023	0.012	1.825	0.069	
R-squared	0.617	Mean dependent var		8.960	
Adjusted R-squared	0.603	S.D. dependent var		0.824	
S.E. of regression	0.519	Akaike info criterion		1.563	
Sum squared resid	97.863	Schwarz criterion		1.710	
Log likelihood	-280.715	Hannan-Quinn criter.		1.621	
F-statistic	44.897	Durbin-Watson stat		1.567	
Prob(F-statistic)	(0.000)				
Diagnostic Test: Heteroskedasticity White Test					
F-statistic	1.163	Prob. F(95,281)			0.118
Obs*R-squared	140.788	Prob. Chi-Square(95)			0.122

Source: Survey data, 2019

Table 6 presents the OLS regression results of the factors affecting economic development in Bahawalpur division. With a rise in the age of respondent by one year will raise the per capita income or economic development by 0.7 percent [Smith (2007) Tuyen (2014a). An increase in household size by one member, will reduce the economic development or earnings per capita of the household by 7.5 percent [Biyase and Zwane (2018)]. A rise in education of the respondent by one year will raise their income per capita by 4.6 percent [Yúnez-Naude and Taylor (2001) and Croppenstedt (2006)]. Moreover, the occupation of respondent in primary sector rise by one unit, it will lead to reduce the income per capita of the household by 29.5 percent. Same results are concluded by Abdulai and CroleRees (2001). A rise in dependent by one member in the household, it will lead to decrease the per capita earnings of the household by 19.5 percent [Akerele and Adewuyi (2011), Lekobane and Seleka (2017)]. An increase in mental disability of the household by one unit, it will reduce the income per

capita of the household by 33.4 percent. (Joffe-Walt, 2013). An incline in physical disability of the household by one unit, it will reduce the economic development or per capita earnings or of the household by 28.9 percent. (Lakdawalla et al., 2004). If holding an own house increase by one unit, it will raise the economic development or per capita earnings of the household by 35.5 percent. If the spouse's participation increases by one unit in economic activities, it will lead to increase the economic development or per capita earnings of the household by 24 percent [Nock (2001) and Jalovaara (2012)]. If the remittances received by the household increase by 1 unit, it will result an increase in the economic development or earnings per capita of the household by 12.2 percent [Adams (2006) and Quartey (2006)]. If access to credit by household increases to 1 unit, it will lead to rise the economic development or per capita earnings of the household by 11.3 percent [Imai and Azam (2012), Khandker and Samad (2013)]. The income per capita of the household increase by 0.053 percent with an increase in one more person start earnings in the household. An increase in earners in the household by one member will result a rise in the per capita earnings of the household by 5.4 percent. [Vatta and Sidhu (2007)]. As the value of physical assets increase by one percent, it leads to raise the income per capita of the household by 3.3 percent [Webb et al., (1992) and Bebbington (1999)].

Table 6: Results of the Econometric Analysis of Factors Affecting Economic Development in Bahawalpur Division

Dependent Variable: Per Capita Income (LNPCI)				
Variable	Coefficients	Standard Errors	t-Statistic	Probability
C	8.092	0.227	35.602	0.000
Household Head Age	0.007	0.002	3.343	0.001
Household Size	-0.075	0.013	-5.704	0.000
Household Head Education	0.046	0.006	7.865	0.000
Occupation	-0.295	0.066	-4.473	0.000
Dependency Ratio	-0.195	0.044	-4.457	0.000
Mental Disability	-0.334	0.091	-3.650	0.000
Physical Disability	-0.289	0.082	-3.543	0.001
Own House	0.355	0.088	4.057	0.000
Spouse 's Participation	0.240	0.077	3.133	0.002
Remittances	0.122	0.078	1.577	0.116
Access to Credit	0.113	0.108	1.049	0.295
Number of Earners in Household	0.054	0.035	1.522	0.129
Value of Physical Assets	0.033	0.014	2.345	0.020
R-squared	0.664	Mean dependent var		8.915
Adjusted R-squared	0.651	S.D. dependent var		0.789
S.E. of regression	0.466	Akaike info criterion		1.350
Sum squared resid	73.648	Schwarz criterion		1.503
Log likelihood	-224.281	Hannan-Quinn criter.		1.411
F-statistic	51.460	Durbin-Watson stat		1.672
Prob(F-statistic)	(0.000)			
Diagnostic Test: Heteroskedasticity White Test				
F-statistic	1.325	Prob. F(95,257)		0.122
Obs*R-squared	132.454	Prob. Chi-Square(95)		0.128

Source: Survey data, 2019

The Table 7 presents the factors affecting economic development in D.G. Khan Division. A rise in age of respondent by one year will raise the per capita income or economic development by 0.8 percent. [Nguyen and Nguyen (2019)]. With an inclined in household size by one member, will reduce the per

capita earnings of the household by 10 percent [Biyase and Zwane (2018), Nguyen and Nguyen, 2019)]. A rise in education of household head by one year will raise their income per capita by 5.6 percent [Ali et al., (2012), Su and Heshmati (2013)]. If occupation of respondent in primary sector increase by one unit, it will lead to reduce the per capita income by 27.3 percent [Rigg, 2006; Tuyen, 2014b)]. An increase in dependent by one member in the household, it will lead to decrease the income per capita of the household by 11 percent [Scott (2000), Nguyen and Nguyen (2019)]. An increase in mental disability of household by one unit, it will reduce the income per capita of the household by 31.7 percent [Smith (1999)]. A rise in mental disability of household by one unit, it will reduce the income per capita of the household by 31.7 percent (Case and Deaton 2003). If holding an own house by the household increase by one unit, it will raise the income per capita of the household by 38.3 percent, respectively. [Smith (2007)]. If the spouse participates in the economic activity rises by one unit, it will lead to increase the income per capita of the household by 10.5 percent [Torr (2011)]. As, the remittances received by household increase by 1 unit, it leads to rise the income per capita of the household by 19.7 percent [Dey (2015) and Hossain (2015)]. If the access to credit by the household increases to 1 unit, it will lead to increase the per capita income or economic development of the household by 7.3 percent [(Khandker and Samad, 2013)]. A rise in earners in household by one member leads to rise in the income per capita of the household by 13.3 percent [(Vatta and Sidhu (2007)]. If the value of physical assets possessed by the household increase by one percent, it leads to rise the income per capita of the household by 1.4 percent [Scott (2000), Van de Walle and Cratty (2004)].

Table 7: Results of the Econometric Analysis of Factors Affecting Economic Development in D.G. Khan Division

Dependent Variable: Per Capita Income (LNPCI)				
Variable	Coefficients	Standard Errors	t-Statistic	Probability
C	8.050	0.241	33.390	0.000
Household Head Age	0.008	0.002	3.819	0.000
Household Size	-0.100	0.013	-7.430	0.000
Household Head Education	0.056	0.006	9.505	0.000
Occupation	-0.273	0.062	-4.400	0.000
Dependency Ratio	-0.110	0.043	-2.552	0.011
Mental Disability	-0.317	0.092	-3.460	0.001
Physical Disability	-0.330	0.084	-3.950	0.000
Own House	0.383	0.089	4.318	0.000
Spouse 's Participation	0.105	0.082	1.271	0.205
Remittances	0.197	0.089	2.209	0.028
Access to Credit	0.073	0.065	1.113	0.266
Number of earners in Household	0.133	0.034	3.861	0.000
Value of Physical Assets	0.014	0.014	0.990	0.323
R-squared	0.673	Mean dependent var		8.868
Adjusted R-squared	0.660	S.D. dependent var		0.776
S.E. of regression	0.452	Akaike info criterion		1.292
Sum squared resid	66.338	Schwarz criterion		1.451
Log likelihood	-204.420	Hannan-Quinn criter.		1.356
F-statistic	51.362	Durbin-Watson stat		1.739
Prob(F-statistic)	(0.000)			
Diagnostic Test: Heteroskedasticity White Test				
F-statistic	1.246	Prob. F(96,241)		0.192
Obs*R-squared	112.121	Prob. Chi-Square(96)		0.225

Source: Survey data, 2019

Table 8 presents the comparative analysis of the econometric results of the factors affecting poverty in Southern Punjab and its division,

Table 8: Comparative Analysis of Factors Affecting Economic Development in Southern Punjab and Its Division.

Dependent Variable: Per Capita Income (LNPCI)				
Variable	Coefficients Multan Division	Coefficients Bahawalpur Division	Coefficients D.G. Khan Division	Coefficients Southern Punjab
C	7.995 (0.237)	8.092 (0.227)	8.050 (0.241)	8.090 (0.133)
Household Head Age	0.009 (0.002)	0.007 (0.002)	0.008 (0.002)	0.008 (0.001)
Household Size	-0.079 (0.014)	-0.075 (0.013)	-0.100 (0.013)	-0.083 (0.008)
Household Head Education	0.054 (0.006)	0.046 (0.006)	0.056 (0.006)	0.051 (0.003)
Occupation	-0.272 (0.070)	-0.295 (0.066)	-0.273 (0.062)	-0.286 (0.038)
Dependency Ratio	-0.148 (0.045)	-0.195 (0.044)	-0.110 (0.043)	-0.153 (0.025)
Mental Disability	-0.371 (0.099)	-0.334 (0.091)	-0.317 (0.092)	-0.339 (0.054)
Physical Disability	-0.284 (0.090)	-0.289 (0.082)	-0.330 (0.084)	-0.291 (0.049)
Own House	0.407 (0.096)	0.355 (0.088)	0.383 (0.089)	0.386 (0.052)
Spouse 's Participation	0.055 (0.075)	0.240 (0.077)	0.105 (0.082)	0.148 (0.043)
Remittances	0.203 (0.087)	0.122 (0.078)	0.197 (0.089)	0.176 (0.048)
Access to Credit	0.009 (0.082)	0.113 (0.108)	0.073 (0.065)	0.042 (0.045)
Number of Earners in Household	0.106 (0.038)	0.054 (0.035)	0.133 (0.034)	0.093 (0.021)
Value of Physical Assets	0.023 (0.012)	0.033 (0.014)	0.014 (0.014)	0.021 (0.007)
R-squared	0.617	0.664	0.673	0.642
Adjusted R-squared	0.603	0.651	0.660	0.637
S.E. of regression	0.519	0.466	0.452	0.480
Sum squared resid	97.863	73.648	66.338	243.252
Log likelihood	-280.715	-224.281	-204.420	-725.403
F-statistic	44.897	51.460	51.362	145.162

Source: Survey data, 2019; Standard errors in brackets.

5. Concluding Remarks

This paper explains the socio-economic status and factors affecting Economic Development in Southern Punjab, consisting of three divisions which are Multan, Bahawalpur and D.G. Khan Division. The study consisting of 1068 observations, OLS regression has been employed for empirical analysis.

The study concludes that the household size, occupation in informal sector, dependency ratio, physical disability and mental disability shows a negative correlation with per capita earnings. The household head education, age, remittances, spouse's participation, number of earners in the household, access to credit, own house possession and physical assets shows a direct correlation with per capita earnings of the respondents in Southern Punjab.

The analysis discussed above assist the policy makers to clearly identify the factors for Economic Development in Southern Punjab. It is also drawn from the conclusion that large household size and dependency ratio generates low per capita income and hinders the development of the country. Government should invest on the development of the infrastructure of the rural and remote areas. Initiate new development projects for schools, colleges, universities, hospitals, roads, electricity, internet and transport facilities are necessary for the people living in rural areas.

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