

2022

The socio-economic factors of poverty: Empirical evidence from district Lasbela, Balochistan

Fida Muhammad

Applied Economics Research Centre, University of Karachi

Parvez Ahmed Shaikh

Lasbela University of Agriculture, Water and Marine Sciences, Uthal

Hazrat Yousaf

Department of Economics, Lasbela University of Agriculture, Water and Marine Sciences, Uthal

Follow this and additional works at: <https://ir.iba.edu.pk/businessreview>



Part of the **Income Distribution Commons**



This work is licensed under a **Creative Commons Attribution 4.0 International License**.

Recommended Citation

Muhammad, F., Shaikh, P. A., & Yousaf, H. (2022). The socio-economic factors of poverty: Empirical evidence from district Lasbela, Balochistan. *Business Review*, 17(2), 93-124. Retrieved from [10.54784/1990-6587.1473](https://doi.org/10.54784/1990-6587.1473)

This article is brought to you by *iRepository* for open access under the **Creative Commons Attribution 4.0 License** and is available at <https://ir.iba.edu.pk/businessreview/vol17/iss2/7>. For more information, please contact irepository@iba.edu.pk.

The Socio-Economic Factors of Poverty: Empirical Evidence from District Lasbela, Balochistan

Fida Muhammad* · Parvez Ahmed
Shaikh · Hazrat Yousaf

Abstract Abstract This study examines the socio-economic factors of income poverty in five tehsils of the district Lasbela. The study used a sample consisting of 10003 households covering 200 villages in District Lasbela. Moreover, the study employed t-test statistics and a logit regression model to test the average income gap and the relationship between financial aid, household expenditure, dependency ratio, household size, and household heads education level. Our findings indicate that on average, 70% of households are poor or near the poverty line, earning an average of 1.9 dollars per day, whereas 25% of households fall below the poverty line (extreme poor). The results also demonstrate a significant gap in average income levels across the households of Tehsil Dureji, Hub, Sonmiani, and Uthal. Furthermore, the empirical findings show that socioeconomic factors such as dependency ratio and household size have an adverse impact on poverty across tehsils, whereas household head education, expenditure, and financial aid have a positive impact on poverty reduction across all tehsils. Furthermore, it concludes that the socioeconomic factors of income poverty in the district of Lasbela are similar in nature and situation in all tehsils and that income poverty is the primary cause of poverty in the district of Lasbela. Tehsil Dureji is the most impoverished, followed by Bela, Uthal, Sonmiani, and Hub. Some lucrative measures are suggested in connection to poverty reduction, such as access to free and accessible quality education in rural areas; construction

Fida Muhammad
Applied Economics Research Centre, University of Karachi
E-mail: fidamuhammad04@gmail.com
*corresponding author

Parvez Ahmed Shaikh
Lasbela University of Agriculture, Water and Marine Sciences, Uthal
E-mail: ahmed.eco@luawms.edu.pk

Hazrat Yousaf
Lasbela University of Agriculture, Water and Marine Sciences, Uthal
E-mail: dr.yousaf@luawms.edu.pk
copyright ©2022 Muhammad, F. et al

of roads and small dams; implementation of public-private-partnership (PPP). Arrangement of technological, digital, vocational, modern education and easy access to loans and maximum coverage of financial aids.

1 Introduction

Poverty entails not only a lack of basic resources for survival, but also a denial of opportunities to live a fulfilling life (Anand and Sen (2011)). Traditional poverty measures are based on an income viewpoint. If a person's income falls below the poverty line, he or she is deemed poor. Many countries use income poverty lines to track progress toward lowering the number of people living in poverty. The cut-off poverty line is generally defined in terms of having enough income for a specified amount of food. On the other hand, it is primarily associated with malnutrition, a lack of buying power, a low level of education, a greater family dependency size, and an elderly household head (Havinga et al 1989; Ahmad et al 1989; Mahmood et al 1991).

Poverty is a social disease and has more serious economic consequences. The global concern of poverty as it impacts both wealthy and developing countries, in terms of homelessness, hunger, and low productivity (Shirazi and Khan 2009). Given that economists and policy makers differentiate factors that contribute to extreme poverty in developed and developing countries. Meanwhile, considering poverty in developing countries, it is argued that "is it fair to blame the poor for their problems? And is it true that governments are to blame for their predicament? Despite the efforts made by many international organizations, such as the UNDP (United Nations Development Program), IMF (International Monetary Fund), the World Bank (World Bank), and Asian Development Bank (ADB), poverty is still growing in many poor countries (Alena 2018). According to the most recent worldwide poverty statistics, 736 million people live in severe poverty on \$1.90 per day (Bank 2018).

In Pakistan, poverty is estimated to have increased to 5.3 percent in 2019-20, plunging more than 2 million people below the poverty line (Bank 2018). The history of poverty rate in Pakistan during 1970s was fell through the 1980s, but it rose again in the 1990s (Arif et al 2000). The country having the fifth large population in the world and is situated in South Asia, has a lower middle-income status and a poverty rate of 29.5% (Tang 2019). Since its foundation, Pakistan's economy has been affected by the shifting patterns of poverty over time and spot. The lack of gender-specific empowerment planning, political instability, unemployment, the balance of payments deficit, rising import burden, the least innovative agriculture system, reliance on foreign loans, flaws in the education and health systems, and numerous other micro- and macroeconomic problems prevent the nation from escaping the cycle of poverty.

Poverty has returned to Pakistan as a result of slower GDP growth, a deterioration in macroeconomic fiscal and trade imbalances, a decrease in remittances, the absence of social safety nets, the shedding of surplus labor by state-owned firms, and a deterioration in governance quality. With the support of a competent educational system, improvements in maternal health issues, non-

gender equality, and women's empowerment, Pakistan can eliminate extreme poverty (Nations 2007). International and national organizations such as the Benazir Income Support Program (BISP), the National Rural Support Program (NRSP), Pakistan Baitul Mall (PBM), and the Pakistan Poverty Alleviation Fund (PPAF) are now trying to pull people out of poverty in Pakistan. Regardless of these institutions, 46.0 million people are poor (Bank 2021). From Pakistan's standpoint, poverty is a serious problem, with one out of every three people living in poverty (Policy 2004).

According to the World Bank, Pakistan's poverty rate has risen from 4.4 percent to 5.4 percent by 2020, with more than two million people living in poverty. Using the lower-middle income poverty rate, the World Bank anticipated that Pakistan's poverty rate was 39.3% in 2020-21, would continue at 39.2% in 2022, and could drop to 37.9% by 2023. Meanwhile, poverty has been a persistent major hurdle for administrations in Balochistan throughout history. Poverty in Balochistan is a result of the interaction of five key factors: social, political, economic, environmental, and geographic isolation. Bad governance, on the other hand, stymies growth and exacerbates difficulties in the province by worsening poverty and multiple deprivations. The majority of Balochistan's districts are free of multidimensional poverty, according to the SPDC. Choosing district Lasbela for the poverty issue opens several options, as stated in the district Lasbela profile.

1.1 Profile of Lasbela district

On June 30, 1954, Lasbela was separated from the Kalat state. It was a part of the Karachi Division in December 1960. However, it was re-located in the Balochistan Province's Kalat Division. District Lasbela is a peaceful place of cordial people and it is 7th largest district in Balochistan in terms of land (Planning and development department 2011). It is 15,153 square kilometers in size (Population Census Organization 1999). Interestingly it connects the Balochistan to Sindh province. Meanwhile, the demographic location of Lasbela is divided into three parts based on topography: north-eastern mountains and hilly areas, southern western hilly areas, and central plains parts (see Figure 1).

District Lasbela consists of nine tehsils Hub, Lairi, Bela, Uthal, Dureaji, Lakhra, Somiani, Gaddani and Kanraj however headquarter of district is located in tehsil Uthal, (GoB). The majority of the indigenous people live in rural and tribal areas and the main source of employment and trade based on strong association with agriculture activities including livestock, poultry farming, and fishing are the primary sources of income for the population. However the other non-agriculture activities such as industrial, mining, commercial activities are the secondary sources of income. In terms of geography, archaeology, culture, environment, livestock, agriculture, coastal areas, forests, minerals, mines, hilly areas, plains, mountains, trough areas, industries, tourism, and defense strategic areas, this district of Balochistan is very rich and diverse. Additionally, the main tourism sites such as Hingol National Park, Nani Mandir and Gadani beach is

F. Muhammad, P.A.Shaikh and H.Yousaf

part of the district's natural heritage, which has a global significance.

This district has two seats in the province legislature and one member in



Fig. 1: : District Development Profile, 2011, & P&D Department Balochistan and UNICEF

the national legislature. Lasbela is to Balochistan what Karachi is to Pakistan in terms of economic hub. As the district generates 90% of Balochistan's industrial production and 70% of the country's overall earnings (Shaikh et al 2020). According to Population Census Organization (1999), Per Capita Income (per month) in district Lasbela is Rs.929. However, the people of this region are beset by poor socioeconomic indicators in the areas of health, education, basic infrastructure (roads, dams), drinking water, unskilled labor, and unemployment. These major causes of poverty are exacerbating the situation in the district. It is the 10th most deprived district in Balochistan, and it ranks 77th nationally, with a deprivation scale rating of 59.5. (Policy 2004). The following two tables (1.1 and 2.2) are extremely important and useful in comprehending socioeconomic and demographic indicators of Lasbela.

Table 1.1 shows the deprivation ranking of Balochistan districts in provincial and national order. Quetta is the only district with a low level of deprivation, while Musakhel has the highest level of deprivation, ranking 26th in Balochistan. In the deprivation ranking, district Lasbela is the 10th most deprived district in the province. To study poverty in Lasbela has many doors as this district is subjected to have a high rank low level of monthly per capita income compared to all other districts of Balochistan. This rise question that a district generating 90% of industrial production and 70% of the province overall earnings has serious issues of income poverty.

Lasbela is adjacent to Karachi and famous for its historical places, coastal areas, mines, industries and military strategic base. Unfortunately, the people of Lasbela are poor and face challenges such as a dispersed community, social and cultural norms, a high dependency ratio, poor health, a lack of education, deficiency of clean drinking water, lack of skilled human resources and unemployment are the key causes of poverty in this district (Shaikh et al 2020).

The Socio-Economic Factors of Poverty:...

Table 1: Multidimensional Deprivation ranking of districts Balochistan

Districts	Provincial Rank Order	National Rank Order	Deprivation Scale
Quetta	1*	7	1
Ziarat	2*	26	32
Pishin	3***	48	44.5
Sibi	4***	58	49.2
Gawadar	5***	60	50.6
Kech	6***	70	54.5
Kalat	7***	71	56.9
Loralai	8***	74	57.5
Jaffarabad	9***	75	58.9
Lasbela	10***	77	59.5
Chagi	11***	79	62.2
Mastung	12***	80	63.8
Bolan	13***	83	67.4
Kila Abdullah	14***	85	69.9
KilaSaifullah	15***	86	70.1
Naseerabd	16***	87	71.2
Barkhan	17***	88	71.3
DeraBugti	18***	89	73.7
Khuzdar	19***	92	76.5
Panjgur	20***	93	77.1
JhalMagsi	21***	94	77.2
Zhob	22***	95	77.3
Awaran	23***	96	80
Kohlu	24***	97	82.6
Kharan	25***	98	85.7
Musakhel	26***	100	100

Note: *, ** and *** shows Low, Medium and High Deprivation. (Deprivation scale 1 to 100).
 Provincial Rank Order (1 least deprived & 26 high deprived)
 National Rank Order (1 least deprived & 100 high deprived)

Table 2: Demographic and Social indicators of Lasbela, Balochistan and Pakistan.

Demographics and Social Indicators	Balochistan		Pakistan	
	Lasbela	Balochistan	Lasbela	Pakistan
Annual Population Growth Rate (%)	3.03	2.47	1.9	154000
Total Population (thousands)	312	6566	34	66
Urban Population %	36.9	23.9	19	796,096
Rural Population %	63.1	76.1	31	8
Population Density (person per sq.km)	20.6	19	63	4
Area in Sq. Km	15,153	347,190	20	108
Crude Birth Rate	36	37	77	77
Crude Death Rate	9	12.5	122	101
Life Expectancy (years)	62.3	64	51	90
Total Fertility Rate	5	5.2	40	54
Birth care by skilled attendant (%)	13	21	39	49
Sex Ratio (males over 100 females) at birth	115	114	51/24	62/35
Infant Mortality Rate (under 1 year)	55	104	46	71
Under -5 year mortality rate	147	122	Rs.1385	Rs. 3680
Population using safe drinking water (%)	53	51		
Population using adequate sanitation facilities	43	40		
Adult Literacy Rate (%)	27.5	39		
Adult Literacy Rate (male/female)	42/13			
Gross Enrollment ratios: (Primary school level)	Rs.929			
Per Capita Income (per month)				

Source: District Census Report of Lasbela, (1999:21-24); Multiple Indicators cluster Survey (MICS) 2004

1.2 Objective of research

The objective of this study is to investigate the socio-economic factors that contribute to income poverty in the Lasbela district.

1.3 Contribution of the study

This is ground-breaking research that is the first to look at the socioeconomic factors that contribute to poverty in Lasbela at a tehsil level. The study would make a valuable contribution in literature to the poverty. Moreover, academics and policymakers would benefit from the study in designing the anti-poverty policies.

1.4 Structure of the study

The study is organised as follows: Section 1 consists of the background of the poverty level in Lasbela; Section 2 reports the literature review. Section 3 postulates the data and proposed methodology. Section 4 describes the empirical findings. The study's findings are critically examined in section 5, and our study concludes with a conclusion and policy recommendations in section 6.

2 Literature review

2.1 Conceptual literature

According to the World Development Report from (2002), programs to combat poverty have made use of a wide definition of the problem that includes several aspects of poverty. The basics of poverty policies and programs are influenced by how we perceive and assess poverty, according to [Schiller et al \(1972\)](#); [Laderchi \(1997\)](#). While several poverty measures have been used, their comparative results and consequences have received little attention [Blank \(2003\)](#). Over time, several perspectives on poverty have influenced government welfare policy aimed at reducing it. According to [Rank \(2001\)](#), recognizing the true causes of poverty is crucial for illuminating our viewpoints on these issues. According to Rank, there are three main variables that can be used to categorize the causes of poverty: individual factors, cultural and local factors, and structural factors.

In Pakistan, [Ahmed \(2015\)](#) has done exceptional work on the link between fiscal decentralization and pervasive poverty. The study was conducted in four Pakistani provinces from 1975 to 2009, using a time series and panel dataset. In this study, the Pooled OLS, Fixed Effect, Random Effect and GMM approaches were applied. According to the report, Pakistan's failure to decentralize is due to poor fiscal policy decisions. The conclusions of the study demonstrate that

the devolution of economic, administrative, and political functions to local governments is the only option to fix the situation. Agriculture, education, and health can all have a positive impact on the poor.

[Khalid et al \(2012\)](#) brilliantly emphasized the origins, effects, and measures for poverty alleviation in Pakistan and India, where poverty has been a problem for both countries since 1947. The authors also discuss how less of their resources are allocated to providing services to their citizens, as well as unresolved water disputes and other major factors such as corruption, rapid urbanization, unemployment, illiteracy, slow economic growth, high inflation, and poor governance in both countries. Economic justice, population control, effective use of natural resources, equitable allocation of finances, peace, and good governance are among the solutions suggested by the writers for poverty reduction.

[Naveed and Ul-Islam \(2010\)](#) used household survey data to explore the topic of multi-dimensional poverty in Punjab and KPK, adopting the methods proposed by [Alkire and Foster \(2007\)](#). To assess the multi-dimensional poor families, the study used 12 key indicators, including nutrition, education, consumption, health, living standards, sanitation, housing, electrification, livelihood, assets, and source of cooking, child status, landholding, and access to safe drinking water. The study also claims that the Benazir Income Support Program (BISP) in Pakistan needs to be more effective in addressing poverty.

Many academics have compared urban and rural settings to study MDP. MPI was estimated on a rural-urban basis by [Bader et al \(2016\)](#); [Khan et al \(2014\)](#); [Alkire and Foster \(2007\)](#); [Masood et al \(2012\)](#) and [Echevin \(2011\)](#) also predicted a rural-urban split for the future. Previous studies predicted that rural areas would experience poverty twice as much as metropolitan ones. They also concentrated on developing policies to safeguard the assets of those who were vulnerable and to expand welfare programs in rural areas.

Some other studies like, [Qureshi and Arif \(2001\)](#) used the cross-section dataset of the PSES (Pakistan socioeconomic survey) from 1998-1999 to characterize two components of poverty, one based on logistics regression, one of the causes of food poverty, and the other based on the basic requirements approach. Larger household sizes, according to the study's findings, are a primary source of poverty. The study's authors also indicate that providing jobs and education are critical elements in alleviating poverty at all levels. [Jafri \(1999\)](#) and the World Bank (2002) in their respective studies, state that more than half of Pakistan's households are headed by people with no formal education. Both studies suggest that poverty in Pakistan is mostly related with a lack of educational achievement.

Both studies suggest that poverty in Pakistan is mostly related with a lack of educational achievement. whenever poverty is broadly defined ([Mekonen et al \(2022\)](#); [Maluleke et al \(2022\)](#); [Rahman \(2013\)](#)) also argued that a lack of human capabilities and knowledge deprivation significantly affect children's lives and are more likely to trap poor households' ability to escape poverty. [Sen \(1976\)](#) suggested that headcount ratios and poverty gap ratios are easy to calculate but less useful approaches for measuring poverty across economic classes. He introduced the new ordinal-approach, which is a more modern way of measuring poverty and income disparity. This method can help people compare the

welfare of different societies.

At the provincial and federal levels, respectively. Sial et al (2015) and Anwar and Qureshi (2002) used Alkire and Foster (2007) methodology to measure MPI (Multidimensional Poverty Index). Both studies examined Pakistan's overall poverty and generated district- and indicator-specific poverty levels, but they did not identify indicator-specific poverty in districts.

2.2 Theoretical literature

Numerous theories of poverty try to pinpoint the underlying factors or causes of poverty. According to Shaffer 2008, these theories are related to factors such as the lack of or insufficient incentive systems to fully utilize an individual's potential, the nature of economic underdevelopment, and the creation of human capital, national structural factors, the contradictions of capitalism, national cultural factors, and geographic location. According to Blank (2003), there are several different types of theories that explain poverty, including those that are economic, sociological, psychological, anthropological, and based on political perspectives.

The economic theories of poverty, according to Jung and Smith (2007), are brought on by underdevelopment of the economy, underdevelopment of human capital, capitalism/dysfunctional market, social and political pressures, individual behavioral traits and choices, and welfare dependence or poverty traps. Social stratification theories, housing segregation and racism's persistence, support in the form of social capital, the effects of social policies, and the effects of values and conduct are some examples of sociological theories (Wolf 2007).

According to Turner and Lehning (2007), the development of linguistic skills and cumulative environmental deficiencies that result in poor academic performance, intelligence-based psychological theories, moral failings, and a naturalizing perspective are the root causes of psychological theories. The authors went on to say that other psychological views on the effects of poverty include prevalence and incidence of psychiatric diseases (such as depression, alcoholism, antisocial personality disorder, and schizophrenia), as well as even globalization.

Anthropologists contend that feminism, globalization, materialism, and culture all contribute to poverty (Frerer and Vu 2007). Political science viewpoints also emphasize some of the reasons of poverty. These root reasons include political engagement, public policy (the function of the government), culture, and class structure (Mozares and Indira 2006). According to Sameti et al (2012), there are three main categories under which theories of poverty can be categorized: individual factors, cultural and neighborhood influences, and structural factors. The economic theories of poverty, according to Davis and Sanchez-Martinez et al (2014), include those from the Classical, Neoclassical, Keynesian/Liberal, and Marxist/Radical schools of thought.

However, after reviewing the literature on theories of poverty, Bradshaw (2006) concluded that there are five conceptions of poverty, including Poverty brought on by subcultures of poverty-supporting cultural belief systems, by eco-

conomic, political, and social injustices or distortions, by geographical disparities, and by cumulative and cyclical interdependencies.

2.3 Summary of literature

However, after reviewing the available research on the topic, we concluded that there are five different conceptions of poverty: the actual state of poverty, sub-cultures of cultural belief that perpetuate poverty, economic, political, and social injustices or distortions, geographical disparities, cumulative interdependencies, and cyclical interrelations. The most recent study by [Shaikh et al \(2020\)](#) looked into the causes of poverty in the district of Lasbela at the tehsil level (Bela, Dureji, Hub, Sonmiani, and Uthal) is very much relevant to our study for further understanding the socio-economic causes of poverty in district Lasbela. This study is based on cross-tehsil methodological approach with descriptive methodologies from the NRSP Lasbela and UNICEF surveys.

According to the findings, Lasbela retains 70% of poor households and 24% of very poor households. The average monthly household income drops to 1475 rupees. The school dropout rate has decreased from 50% at the primary level to 9% at the intermediate level. The canal pond provides drinking water to 43 percent of the homes. Multidimensional poverty exists in all tehsils, according to the study's findings. Tehsil Dureji, on the other hand, is deemed to be a tehsil that is significantly less disadvantaged than the others.

2.4 Research gap

In Pakistan, no any systematic studies have been conducted by the researchers on the issue of poverty in the District Lasbela except some surveys and a study by [Shaikh et al \(2020\)](#). The available literature fails to justify discussing the causes of poverty in district Lasbela. Our study is aimed not only to highlight the causes of poverty but also fill the existing research gap in literature. Evidence from the current and previous studies prevails that, this is the first empirical study in which, the causes of poverty in District Lasbela, Balochistan are highlighted along with tools and policy recommendations.

3 Data and methodology

To investigate the socioeconomic factor of poverty at Tehsil level, the study used baseline survey data of following five Tehsils¹ of district Lasbela. The data is collected from National Rural Support Program (NRSP) Lasbela with the

¹ Five Tehsils, namely Bela, Dureji, Hub, Sonmiani, and Uthal.

collaboration of UNICEF² under the project of Promoting Child Rights in Cotton Farming Areas of Balochistan at Lasbela. Since the data is secondary, so the sample consist of 13200 households covering 200 villages of District Lasbela. After cleaning the data, we used a sample of 10003 households³.

The advantage of Tehsil level statistics allows researcher to estimate poverty more accurately since there is a huge disparities in poverty level at national and sub-national level. Whereas the other source such as national survey data such as HIES and PIHS both offers district level statistics ignoring disaggregated household statistics (i.e. Tehsils). To gauge the difference in income poverty across the following Tehsils, the t-statistics is used to evaluate the difference in average income. Whereas, the Logit Regression model was used to test the relationship between income poverty and its determinants.

3.1 Logistic regression

To investigation the impact of socioeconomic factor on income poverty across the Tehsil of district Lasbela the Logit Regression model is employed. The chosen model elucidates the relationship between an ordinal response variable and explanatory variables, which might be qualitative, quantitative, or a mix of the two. Since the dependent variable is binary in nature, having 1⁴ to represent poor and 0 zero otherwise. However, the independent variables are non-binary thus logistic regression is superficial compared to other regression models (Damodar et al 2009). The logistic regression model is presented as equation 1

$$\text{logit}(P_i) = \ln \frac{P_i}{1 - P_i} = \beta_0 + \sum_{j=1}^k \beta_j X_{i,j} + \mu_i \quad (1)$$

Where $\text{Logit}(P_i)$ is Log-odd ratio and P_i is defined as:

$$P_i = \text{Prob}(Y_i = 1) = \frac{1}{1 + e^{-(\beta_0 + \sum_{j=1}^k \beta_j X_{i,j} + \mu_i)}} \quad (2)$$

Equation 2 indicates the response probability for the poorest households. It can also be written as:

$$P_i = \text{Prob}(Y_i = 1) = \frac{e^{\beta_0 + \sum_{j=1}^k \beta_j X_{i,j} + \mu_i}}{1 + e^{(\beta_0 + \sum_{j=1}^k \beta_j X_{i,j} + \mu_i)}} \quad (3)$$

Similarly, the response probability for non-poor can be represented as:

$$1 - P_i = \text{Prob}(Y_i = 0) = \frac{1}{1 + e^{(\beta_0 + \sum_{j=1}^k \beta_j X_{i,j} + \mu_i)}} \quad (4)$$

² A none-Profit organization actively working in remote areas across Pakistan.

³ The dataset consisted of many missing observations where respondents either did not provide information or made errors due to enumerator. Thus, we dropped such households from the sample to avoid sampling bias.

⁴ Poor is defined by standard poverty baseline (US\$1.90 per person per day)

F. Muhammad, P.A.Shaikh and H.Yousaf

The Odds-ratio after representation of response probability of poor and non-poor can be written as:

$$\frac{P_i}{1 - P_i} = e^{(\beta_0 + \sum_{j=1}^k \beta_j X_{i,j} + \mu_i)} \quad (5)$$

The log odds-ratio in equation is a linear function of explanatory / the independent variables:

$$\ln \frac{P_i}{1 - P_i} = \beta_0 + \sum_{j=1}^k \beta_j X_{i,j} + \mu_i \quad (6)$$

When the log on odd ratio is applied to equation (6), it transforms it into a linear function of the explanatory variables from equation (5). Where, X_{ij} is the vector of explanatory variables; β_0 and β_i are intercept and estimated slope estimates while μ_i is the error term:

$$\mu_i \sim L_i = \left(0, \frac{\pi^2}{3}\right) \quad (7)$$

In the case of a logistic distribution, as P approaches zero, logit (P) be likely to ∞ and as P approaches to one, and logit (P) tends to ∞ . In this case the independent variables consist several socioeconomic factors, including Household income, Household Size, Household Head Education, Dependency Ratio, and Financial Aid. Thus the model 1 is represented as equation 8.

$$\ln \frac{P_i}{1 - P_i} = \beta_0 + \beta_1 \ln Exp_1 + \beta_2 H_s + \beta_3 Dr + \beta_4 Hhe + \beta_5 Fa + \mu_i \quad (8)$$

Where,

- $\ln \frac{P_i}{1 - P_i}$ = Poor having income of 202 rupees per day
- $\ln Exp$ = log of Household aggregate Expenditure
- H_s = Household size
- Dr = Dependency Ratio
- Hhe = Household Head Education
- Fa = log of Financial Aid
- μ_i = Error Term

Table 3 also provides the summary of variables with their definition and unit of measurement. Moreover, the slope coefficient of independent variables can be defined using odd ratios or marginal effect. The odd ratios are used to measure the parameter of interest for a binary dependent variable (Hosmer and Lemeshow 2002). Other things remain constant, a positive odd ratio coefficient implies that raising one unit of a covariate increases response probability, and vice versa. However for more simplicity we used Marginal effect for interpretation as it makes more sense in economic terms and easier to understand.

Table 3: Definition and measurement of variable

Variable	Description	Measurement
Dependent Variables		
P	Poor is defined by standard poverty baseline (US\$1.90 per person per day)	Binary 1 and 0
Independent Variable		
LnEXP	The household expenditure is sum of all food and not food items at current market price. The Unit of consumption is measured in Local Currency (Rupees).	Log (expenditure)
HS	Household size is defined sum of all household members residing, or that will be legally residing, in a dwelling unit in all Tehsils of District Lasbela.	Numbers of household Members
DR	Dependency ratio is defined as the total number of dependent household member which typically not in the labor force divided by member of households those typically in engaged in the labor force	Ratio
HHE	Household head education is defined as the head of household having either pre-primary, primary, secondary or higher year of schooling.	Years
FA	Financial Aid is defined as the financial aid either provided by federal/Local government institutes such as BISP program or any other financial support by foreign or local NGO. The variable is measured in local currency (Rupees) of aid received by household member (s).	Log (FA)

3.1.1 Marginal effects

The value of coefficients is more complicated by the fact that the predicted coefficients (odd-ratios) from a logistic regression technique cannot be read as residual effects on the dependent variable. In the logistic distribution, the slope coefficients represent the change in the logit that corresponds to a one-unit change in the covariate. The logistic model's slope coefficients are transformed to produce estimates of the peripheral effects, i.e., the change in anticipated likelihood is proportional to the covariate adjustment (Greene 2010). As a result, leading derivative of any distribution is the marginal effects (Kirchkamp, 2010 and Pascale, 2010). In case of dummy covariates, however, the perception situation changes (Hörisch and Kirchkamp 2010). See Marginal Probabilities for more details (Anderson and Newell 2004; Champion and De Pascale 2010). Symbolically it is presented in equation 9.

$$f(x)B_i = \frac{e^x}{(1 + e^x)^2} \quad (9)$$

3.1.2 Wald test statistic

The Wald test statistic's corresponding its p-value is used to examine the statistical significance of each variable individually. The Wald statistics P-value indicates whether the indicator is playing a major role in predicting poverty or not. In logistic model evaluation, the Wald test statistics are useful for calculating the individual statistical significance of the slope coefficients. The slope coefficients show how a unit increase in predictor changes the log odds. The Wald-test employs a chi-square probability with a degree of freedom equal to the total number of covariates in the model to evaluate the null hypothesis. If the slope coefficients of each predictor are statistically different from zero ($H_0: \beta_j = 0$), meaning that the valued predictor and the answer variable have no association (SAS, 1995 and Afifi et al., 2004). Symbolically it is presented in equation 10.

$$Wald = \left[\frac{\beta}{S.E.(\beta)} \right]^2 \quad (10)$$

According to Field (2005) $S.E(\hat{\beta})$ represents standard errors and the set of predicted parameters. It's impossible to tell if the slope is significantly different from zero if the expected slope coefficient is smaller than the projected variance, and vice versa (Afifi et al., 2004). The fact if the null hypothesis is rejected, it suggests that the predictor contributes significantly to poverty prediction.

4 Results analysis

4.1 Descriptive statistics

According to descriptive statistics reported in table 4, more than 70% of households are poor or near the poverty line, earning an average of 1.9 dollars per day. However, approximately 25% of households fall below the poverty line (are extremely poor). On the other hand, the tehsil level statistics show that Dureji and Uthal are two of the most deprived tehsils compared to others, where 100 percent of representative households are either poor or very poor, followed by Bela, Sonmiani, and Hub. Moreover, the statistics show that the ratio of non-poor is comparatively high in Hub, with 34 percent, and 11 percent in Sonmiani. As can be seen in Table 5, monthly per capita income is high in the Hub after Sonmiani. The average daily earning of each individual is about 153, 141 PKR in Hub and Sonmiani. This is because the tehsil hub is a comparatively highly industrialized tehsil followed by Sonmiani, where the probability of increasing more economic opportunities is high compared to other tehsils of district Lasbela. Whereas the average per capita income of Dureji is 106PKR, the lowest compared to all the tehsils in the same district.

Table 4: Tehsil Wise Poverty Profile

Tehsils	Poor	Extremely Poor	Non-Poor
Bela	60.20%	30.40%	9.40%
Dureji	72.80%	27.20%	0.00%
Hub	54.60%	11.10%	34.30%
Sonmiani	65.10%	23.10%	11.80%
Uthal	77.40%	22.60%	0.00%
Average	70.60%	24.50%	4.90%

Source:*Author estimates based on survey data.

**Data source: National Rural Support Program (NRSP) Lasbela and UNICEF.

Table 5: Per Capita Income

Rank	Tehsils	Per Capita Income (Yearly)	Per Capita Income (Monthly)
1	Hub	1834	153
2	Sonmiani	1687	141
3	Uthal	1500	125
4	Bela	1398	117
5	Dureji	1269	106
	Average	1475	123

*Author estimates based on survey data. Income reported in Local Currency (Rupees)

**Data source: National Rural Support Program (NRSP) Lasbela and UNICEF.

4.2 T-test statistics

In this study, the income poverty line is set at \$1.9 a day using the international guideline used by (WDI, 2020). Table 6 shows the t-test for the mean value of daily income using a poverty line cut-off of \$1.9 per day or Rs.202 per day as a guide (PPP, 2011). The results confirms a no significant difference between the test mean value and the predicted mean in Tehsil Bela. Moreover, the results indicates a substantial difference between the mean value and the expected mean values observed in the case of Tehsil Dureji, Hub, Sonmiani, and Uthal. It demonstrates that these Tehsils significantly varies in terms of daily income expected income from their mean daily income. The income poverty in these four Tehsils are deteriorating due to a large gap between the test mean value and the predicted mean.

Table 6: T-test Statistics (Actual mean income vs expected mean income)

Tehsils	t-stat	Prob.	Decision
Bela	0.522	0.602	No significant difference between test mean value and the estimated mean value
Dureji	-6.930*	0.000	Significant difference between test mean value and the estimated mean
Hub	4.942*	0.000	Significant difference between test mean value and the estimated mean
Somiani	4.051*	0.000	Significant difference between test mean value and the estimated mean
Uthal	-2.459**	0.014	Significant difference between test mean value and the estimated mean

Authors estimates Note: *, ** shows 1, and 5 percent level of significance (Test Mean value of daily Income=Rs.202 in across Tehsils)

4.3 Socioeconomic impact of income poverty status

In this section, the socioeconomic factor of income poverty across five tehsils is analyzed using a logistic regression model. The empirical finding reported in table 7 demonstrates the socio-economic features of a households poverty status. In addition, the following tehsils were investigated through separate econometric functions that included their financial behavior (non-earned income such as financial aid and expenditure made for food and non-food items). Moreover, the social and demographic status includes the households head education, dependency ratio, and household size. The empirical evidence suggests that as household expenditure increases, the probability of being poor decreases. The relationship is consistent, but the magnitude varies across all tehsils.

The coefficient of marginal effect (ME) for tehsil Bela exhibited a 17% decrease in the probability of being poor (Poverty Status) declined due to a percent increase in household expenditure. Whereas the situation is not the same for Tehsil Uthal, where a 1% decrease in the probability of being poor declined due to a 1% increase in household expenditure. The findings are in line with Mekonen et al. (2022). They argued that income or expenditure has a widely recognized negative relationship with poverty status. Although result of this study also showed that as the expenditures of household increases, the probability of being poor decreases marginally.

The marginal effect of financial aid (FA), on the other hand, suggests that a percentage increase in non-earned income reduces the likelihood of being poor across all tertiary. The impact of FA is comparatively high in Tehsil Sonmiani, Dureji, and Bela compared to Hub and Uthal. This may be possible due to higher dependency on agriculture and having a greater distance to cities compared to Uthal and Hub, where industrial and service sector activity is comparatively high. Thus, financial aid empowers households to extract themselves from their poverty status. The findings are in line with other studies such as (Mekonen et al 2022; Ogori et al 2013). They argue that immediate financial assistance may reduce consumption constraints, increasing aggregate household expenditure and thus decreasing the likelihood of poverty. Similarly, households that reside near or close to urban areas are more likely to find other income sources and less likely to fall into poverty.

Moreover, the results also show that household size (HS) is positively and significantly associated with poverty status. The empirical result suggests that for every increase in the size of households the probability of being poor increases on average by 5 to 14% across all tehsils. The higher coefficient size is reported in the case of Tehsil Bela and Dureji, where on average there is a 14% increase in the probability of being poor (Poverty Status) due to an increase in household members. Although this finding is consistent with the study conducted by Rahman (2013) and not with much evidence, such as (Kamuzora and Mkanta 2000; Mekonen et al 2022).

They found that the probability of being poor could be lower if we assume that all or a majority of households members are of working age and have a job. However, in this study, a positive relationship between poverty status and household size indicates that all tehsils have higher household size with the ma-

jority of members having no formal or informal employment, thereby increasing poverty. Like in other studies, it was established that as the number of dependents or dependency ratio in every household increases, the probability of that household's being poor also increases.

Similarly, the result of our study is consistent with those studies and indicates that for every increase in the number of dependents in a household in Tehsil Dureji, Sonmiani, and Uthal, the probability of that household's being poor increases on average by 7 to 16%. However, the coefficient of ME was found to be negative and statistically insignificant in the case of Bela and Hub. The result is consistent with studies such as (Rahman 2013; Mekonen et al 2022), which examined the effect of households characteristics on poverty. They found that poverty is high in households, with a higher burden of family dependents.

Finally, the education of the household head is negatively and significantly associated with the poverty status of households in all tehsils in the Lasbela. The slope coefficient of household head education (HHE) suggests that for every year increase in a household's head education, the probability of being poor decreases on average by 18 to 22% across all tehsils. It implies that an increase in education level may improve households' skills to get more suitable employment opportunities and, consequently, increase their per capita income level. The negative coefficient also reflects the prime role of human capital, which helps the improving socio-economic well-being of households.

Education attainment itself is an essential factor among the other dimensions of poverty. Our result is in line with other studies such as (Mekonen et al 2022; Maluleke et al 2022; Rahman 2013). Whenever poverty is broadly defined, it is argued that a lack of human capabilities and knowledge deprivation significantly affect children's lives and are more likely to trap poor households' ability to escape poverty. As a result, when they become adults, the probability of being poor may remain high due to the catalytic role of education deprivation.

Table 7: Tehsil Wise Logit Regression models

Poverty tus	Sta-	Bela			Dureji			Hub			Sonniani			Uthal			
		OR	ME		OR	ME		OR	ME		OR	ME		OR	ME		
Constant		8.09 [13.64]*	-	11.07 [21.31]*	-	12.07 [21.31]	-	11.05 [22.31]	-	11.05 [22.31]	-	11.05 [22.31]	-	11.05 [22.31]	-	11.05 [22.31]	-
LnExp		0.085 [-3.93]*	-0.18 (0.00)	0.021 [-2.35]*	-0.08 (0.00)	0.008 [-3.51]*	-0.04 (0.00)	0.01 [-3.58]*	-0.05 (0.00)	0.01 [-3.58]*	-0.05 (0.00)	0.01 [-3.58]*	-0.01 (0.00)	0.01 [-3.08]*	-0.01 (0.00)	0.001 [-3.08]*	-0.01 (0.00)
FA		2.312 [1.967]**	-0.18 (0.06)	3.456 [1.91]**	-0.22 (0.09)	1.507 [1.93]**	-0.1 (0.08)	4.096 [2.93]**	-0.21 (0.00)	1.507 [2.93]**	-0.21 (0.00)	1.507 [2.93]**	-0.1 (0.09)	1.507 [1.93]**	-0.1 (0.09)	1.507 [1.93]**	-0.1 (0.09)
HS		1.916 [1.83]**	0.146 (0.07)	1.859 [2.85]**	0.141 (0.00)	1.234 [1.85]**	0.053 (0.08)	1.234 [1.75]**	0.052 (0.07)	1.234 [1.75]**	0.052 (0.07)	1.234 [1.75]**	0.051 (0.07)	1.234 [1.75]**	0.051 (0.07)	1.234 [1.75]**	0.051 (0.07)
DR		2.212 [1.366]	-0.17 (0.15)	2.075 [1.85]*	0.16 (0.08)	0.099 [-0.587]	-1.19 (0.85)	1.363 [2.587]*	0.076 (0.00)	1.363 [2.587]*	0.076 (0.00)	1.363 [2.587]*	0.076 (0.00)	1.363 [2.97]*	0.076 (0.00)	1.363 [2.97]*	0.076 (0.00)
HHE		2.537 [2.10]*	-0.19 (0.03)	6.488 [2.17]*	-0.21 (0.00)	15.643 [2.71]*	-0.16 (0.00)	5.755 [2.41]*	-0.22 (0.00)	5.755 [2.41]*	-0.22 (0.00)	5.755 [2.41]*	-0.22 (0.00)	4.482 [2.42]*	-0.22 (0.00)	4.482 [2.42]*	-0.22 (0.00)
Pseudo R2		0.85		0.76		0.86		0.81		0.81		0.81		0.76		0.76	

Author estimates Note; OR and ME represents Odd Ratio and Marginal Effect. [] and () shows Z-statistics and P-values. Where *, **, *** shows significance level at 1, 5 and 10

4.4 Discussion and conclusion

Poverty in Balochistan has remained the major obstacle to the provincial or federal governments throughout history. The reason for poverty in Balochistan is well documented by several studies and states that it is caused by several factors such as social, political, economic, environmental, and geographic isolation. According to [Ghaus and Jamal \(2001\)](#) report, the district of Quetta is the only district with a low level of deprivation, while Lasbela is the 10th most deprived district in terms of deprivation. However, in terms of income poverty, Lasbela is subjected to having a very low level of monthly per capita income compared to all other districts of Balochistan.

Although the district is adjacent to Karachi and famous for its historical places, coastal areas, mines, industries, and military strategic base, Unfortunately, the people of Lasbela are poor and face challenges such as a dispersed community, social and cultural norms, a high dependency ratio, poor health, a lack of education, a lack of clean drinking water, a lack of skilled human resources, and unemployment as the key causes of poverty in this district ([Shaikh et al 2020](#)). Thus, this study is aimed at examining the socioeconomic factor of income poverty in district Lasbela at tehsil level. Using data from a household survey, the study shows that on average 70 percent of households are on the poverty line, and earning an average of 1.9 dollars per day.

However, approximately 25% of households fall below the poverty line (are extremely poor). Moreover the statistical evidences shows a significant difference between the actual mean value and the expected mean values of per capita income in Dureji, Hub, Sonmiani, and Uthal. It demonstrates that income poverty in these four tehsils is deteriorating due to a large gap between the test mean value and the predicted mean. Additionally the study shows that the socioeconomic factor of income poverty district Lasbela are similar in nature and situation in all tehsils and income poverty is the primary cause of poverty in district of Lasbela.

Our findings are in line with those of [Shaikh et al \(2020\)](#), who found the existence of multidimensional poverty in all tehsils of district Lasbela. Using logit regression model, the study shown that the increase in household head education, financial aid and household expenditure are positively linked to reduce income poverty. However dependency ratio, and household size adversely related with income poverty. The statistical relationship between income poverty and social factors like household head education have a negative and significant impact on income poverty across all tehsils. Our finding suggests that household head education is found to have a large impact in Tehsil Dureji, Sonmiani, and Uthal compared to Bela and Hub, respectively.

It suggests that improving human capital has a significantly high role in reducing poverty in all tehsils. Our findings are consistent with those of ([Chaudhry and Imran 2013](#); [Mekonen et al 2022](#); [Maluleke et al 2022](#); [Naveed and Ul-Islam 2010](#); [Rahman 2013](#)), who investigated how improving human capital, specifically in technical education, can result in investment opportunities for new entrepreneurs, job creation, and sustainable lives with fair wage earning. Whereas household size and dependency ratio have been found to have a negative influ-

ence on income poverty, with the exception of Bela and Hub, where they are found to be insignificantly related to income poverty.

Our findings indicate that an increase in household size has a sufficiently large impact on income poverty in Bela and Dureji compared to Hub, Sonmiani, and Uthal, whereas dependency ratio leads to a significant impact on the income poverty of Tehsil Dureji compared to Sonmiani and Uthal. Our findings are in line with the findings of (Kamuzora and Mkanta 2000; Mekonen et al 2022; Qureshi and Arif 2001). They also found that larger household sizes are a primary source of income poverty.

Meanwhile, economic factors like household expenditures and financial aid have a significant effect on poverty reduction in the district of Lasbela. The study shows that an increase in financial aid was found to be sufficiently large in Dureji, Sonmiani, and Bela compared to Hub and Uthal. Whereas household expenditure has a comparatively large impact on poor households, Bela and Dureji compare to Uthal, Hub and Sonmiani. It demonstrates that financial aid does directly contribute to a rise in household expenditure, thus overcoming the issue of income poverty in all tehsils. The findings in line with (Mekonen et al 2022; Ogori et al 2013) demonstrated that financial aid significantly contributed to reducing income poverty status of households.

This study is unique and beneficial to governing bodies and policymakers in setting their goals in an effective manner by using limited resources through a "specific location anti-poverty strategy" to eradicate poverty in the district of Lasbela.

4.5 Policy recommendation

Considering the aforementioned factors, some viable policies are proposed to resolve the persistent issues of income and multi-dimensional poverty in district Lasbela and for policymakers in general. The following are the policies that are recommended:

- Free and feasible education in remote areas
- Easy access to loan facilities
- Increase the coverage of financial aid
- Construction of roads and dams
- Introducing Public-Private-Partnership Program (PPPP).
- The government and NGOs collaboration can provide facilities for masses for modern technical, digital and vocational education

References

- Ahmad E, Ludlow S, Mahmood MA (1989) Poverty, inequality and growth in pakistan [with comments]. *The Pakistan Development Review* 28(4):831–850
- Ahmed M (2015) The political economy of decentralisation and access to pro-poor social services delivery in pakistan. *The Pakistan Development Review* pp 471–484
- Alena M (2018) Challenges in measuring poverty in developing countries (on the example of latin america)

- Alkire S, Foster J (2007) Counting and multidimensional poverty measurement, oxford poverty and human development initiative. OPHI Working Paper (7)
- Anand S, Sen A (2011) Concepts of human development and poverty: A multidimensional perspective.
- Anderson S, Newell R (2004) Prospects for carbon capture and storage technologies. *Annu Rev Environ Resour* 29:109–142
- Anwar T, Qureshi SK (2002) Trends in absolute poverty in pakistan: 1990-91 and 2001. *The Pakistan Development Review* pp 859–878
- Arif G, Nazli H, Haq R, Qureshi SK (2000) Rural non-agriculture employment and poverty in pakistan [with comments]. *The Pakistan Development Review* pp 1089–1110
- Bader C, Bieri S, Wiesmann U, Heinimann A (2016) A different perspective on poverty in lao pdr: Multidimensional poverty in lao pdr for the years 2002/2003 and 2007/2008. *Social indicators research* 126(2):483–502
- Bank W (2018) Poverty and shared prosperity 2018: Piecing together the poverty puzzle
- Bank W (2021) Poverty and equity brief, south asia, pakistan
- Blank RM (2003) Selecting among anti-poverty policies: can an economist be both critical and caring? *Review of social economy* 61(4):447–469
- Champion T, De Pascale L (2010) The monge problem for strictly convex norms in \mathbb{R}^d . *Journal of the European Mathematical Society* 12(6):1355–1369
- Chaudhry IS, Imran F (2013) Does trade liberalization reduce poverty and inequality? empirical evidence from pakistan. *Pakistan Journal of Commerce and Social Sciences (PJCSS)* 7(3):569–587
- Damodar N, et al (2009) *Basic Econometrics Fifth Edition*. McGraw-Hill
- Echevin D (2011) Vulnerability to asset-poverty in sub-saharan africa
- Field J (2005) *Social capital and lifelong learning*. Policy Press Bristol
- Frerer K, Vu CM (2007) An anthropological view of poverty. *Journal of Human Behavior in the Social Environment* 16(1-2):73–86
- Ghaus A, Jamal H (2001) Incidence of income poverty in pakistan
- Greene W (2010) Testing hypotheses about interaction terms in nonlinear models. *Economics Letters* 107(2):291–296
- Havinga IC, Haanappel F, Louter A, Van den Andel W, Malik MH (1989) Poverty in pakistan 1984-1985 [with comments]. *The Pakistan Development Review* 28(4):851–869
- Hörisch H, Kirchkamp O (2010) Less fighting than expected. *Public choice* 144(1):347–367
- Hosmer D, Lemeshow S (2002) *Applied logistic regression*, new york, chichester, wiley
- Jung SY, Smith RJ (2007) The economics of poverty: Explanatory theories to inform practice. *Journal of Human Behavior in the Social Environment* 16(1-2):21–39
- Kamuzora CL, Mkanta W (2000) Poverty and household/family size in tanzania: multiple responses to population pressure?
- Khalid A, Javied Z, Arshad M (2012) Poverty alleviation in india and pakistan. *Interdisciplinary Journal of Contemporary Research In Business* 4(8):403–16
- Khan AU, Saboor A, Hussain A, Sadiq S, Mohsin AQ (2014) Investigating multidimensional poverty across the regions in the sindh province of pakistan. *Social indicators research* 119(2):515–532
- Laderchi CR (1997) Poverty and its many dimensions: The role of income as an indicator. *Oxford Development Studies* 25(3):345–360
- Mahmood S, Sheikh KH, Mahmood T, Malik MH (1991) Food poverty and its causes in pakistan [with comments]. *The Pakistan Development Review* 30(4):821–834
- Maluleke A, Edoun EI, Poee S (2022) Education as an analysis of poverty status of households in limpopo, south africa. *International Journal of Economic Behavior (IJEB)* 12(1):83–100
- Masood A, Iqbal N, Khan NA (2012) Role of ethylene in alleviation of cadmium-induced photosynthetic capacity inhibition by sulphur in mustard. *Plant, Cell & Environment* 35(3):524–533
- Mekonen EK, Degif DT, Beyene MY (2022) The effect of households financial behaviour on urban poverty status in ethiopia: The case of gurage zone. *Cogent Social Sciences* 8(1):2058,679
- Mozares J, Indira P (2006)
- Nations U (2007) Literature review on social exclusion in the escwa region
- Naveed A, Ul-Islam T (2010) Estimating multidimensional poverty and identifying the poor in pakistan: An alternative approach

F. Muhammad, P.A.Shaikh and H.Yousaf

- Ogori F, Adebayo Y, Apeh Micheal O (2013) Effect of budgeting on family living, a case for low income earners of kontagora people. *International Open Journal of Economics* 1(5):42–53
- Planning, development department GoB (2011)
- Policy S (2004) Development centre (spdc)(2004).combating poverty: Is growth sufficient?. Annual Review Karachi: Pakistan SPDC and Oxford University Press, Pakistan
- Population Census Organization GoP Statistics Division (1999)
- Qureshi S, Arif G (2001) Profile of poverty in pakistan, 1998-99 (mimap technical paper series no. 5). Islamabad, Pakistan: Pakistan Institute of Development Economics
- Rahman MA (2013) Household characteristics and poverty: A logistic regression analysis. *The Journal of Developing Areas* pp 303–317
- Rank MR (2001) The effect of poverty on america's families: Assessing our research knowledge. *Journal of Family Issues* 22(7):882–903
- Sameti M, Esfahani RD, Haghghi HK (2012) Theories of poverty: A comparative analysis. Kuwait chapter of Arabian journal of business and management review 1(6):45–56
- Sanchez-Martinez M, Davis P, et al (2014) A review of the economic theories of poverty. National Institute of Economic and Social Research (NIESR) Discussion Papers (435)
- Schiller BR, et al (1972) Economics of poverty and discrimination
- Sen A (1976) Poverty: an ordinal approach to measurement. *Econometrica: Journal of the Econometric Society* pp 219–231
- Shaffer P (2008) New thinking on poverty: Implications for globalisation and poverty reduction strategies
- Shaikh PA, Ahmed M, Yousaf H, Ahmed J (2020) The determinants of poverty: A case study of district lasbela, balochistan, pakistan. *International Journal of Advanced Science and Technology* 29(7):9688–9700
- Shirazi NS, Khan AU (2009) Role of pakistan poverty alleviation fund's micro credit in poverty alleviation: a case of pakistan. *Pakistan Economic and Social Review* pp 215–228
- Sial MH, Noreen A, Awan RU (2015) Measuring multidimensional poverty and inequality in pakistan. *The Pakistan Development Review* pp 685–696
- Tang L (2019) Multidimensional poverty and anti-poverty policy. In: *The Evolution of China's Poverty Alleviation and Development Policy (2001-2015)*, Springer, pp 155–181
- Turner K, Lehning AJ (2007) Psychological theories of poverty. *Journal of Human Behavior in the Social Environment* 16(1-2):57–72
- Wolf JP (2007) Sociological theories of poverty in urban america. *Journal of Human Behavior in the Social Environment* 16(1-2):41–56