

Role of Education and Health on Poverty Reduction: The Case Study of Baluchistan, Pakistan

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Abstract

In Pakistan's rural regions, poverty is completely out of control. According to Pervez and Rizvi (2014), there are situations in which individuals lack access to "incomes, clothing, housing, health care, and education facilities." The 2016 United Nations Development Program Report states that poverty rates are 9.3% in urban areas and 54.6% in rural areas. Reducing poverty is seen in the literature as a critical component of economic growth; efforts have been undertaken to do this by improving health services for rural Pakistani households in south Punjab.

Keywords: Role of Education, Poverty Reduction, United Nations Development.

1. Introduction

This study commended with a background of the research that shows that poverty alleviation is the central issue for a long time among the world nation. For the development of any country, poverty alleviation is the major goal. This section also presents the problem statement that shows this issue of poverty especially in Balochistan Pakistan.

2. Background of the study

According to Van Heijden (2020) and Khatun (2015), poverty is a worldwide problem. Both wealthy and developing nations include pockets of poverty, which may be found in both rural and urban regions (Akerle et al., 2012). Reducing poverty can help accomplish development goals and objectives (Yusuf et al., 2016). Thus, poverty affects everyone on the planet, not only those who live in China, India, Nigeria, or Pakistan. "Differing things for different people at different places and different times" is how the general phenomena of poverty are understood. According to definitions, poverty is defined as "the inability to get basic requirements of life, such as clothes, food, water, and shelter, as well as the inability to obtain social, cultural, and other resources required to ensure daily living, social reproduction.

Another definition of Poverty, is "a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to services" by the United

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Nations, 2008.

Most likely, poverty is a harsh reality that ultimately leads a person to pass away discreetly. Being poor is a curse, and sadness is more than just a fear of being without. When someone is unable to meet their fundamental requirements for clothes, food, and shelter, they are said to be in poverty. Pakistan's Finance Minister Ishaq Dar claims that 54% of the population lives in poverty and that there is a rising trend of poverty in the nation (2014). According to World Bank estimates from 2011, poverty affects around 40% of 107 developing nations.

The definition of poverty used by the Pakistani government is that of any individual making less than \$1.25 per day, as defined by the World Bank. Any individual in Pakistan who makes less than Rs. 3,243 per month falls within that category. Pakistan is one of the 43 nations with the highest risk of poverty, indicating a significant tendency in poverty. In Pakistan, poverty is a serious problem that leads to many deaths from depression or starvation. A 20% increase in food costs in Pakistan will translate into an overall 8% poverty rate.

World Bank data from 2005 to 2008 shows that 83% of food prices increased worldwide. This resulted in high costs and decreased demand, which ultimately led to fewer purchases of necessities and the onset of poverty. It is a fundamental consequence of poverty; other sectors are also directly and indirectly impacted. Two conclusions may be drawn from an analysis of Pakistan's poverty data during the previous 50 years: 1) Poverty is a dynamic phenomenon; 2) A substantial portion of the population lives close to the poverty line.

In Pakistan's rural regions, poverty is completely out of control (Tasleem et al., 2020). According to Pervez and Rizvi (2014), there are situations in which individuals lack access to "incomes, clothing, housing, health care, and education facilities." The 2016 United Nations Development Program Report states that poverty rates are 9.3% in urban areas and 54.6% in rural areas. Reducing poverty is seen in the literature as a critical component of economic growth; efforts have been undertaken to do this by improving health services for rural Pakistani households in south Punjab.

The modern definition of poverty is complex and cannot be eliminated in a single stroke (Li et al., 2016; Liu et al., 2017). Similar to education, health is a component of human capital that helps lower poverty on an individual and societal level (Hameed & Karim, 2016).

Achieving optimal health conditions is the most socially significant objective for people worldwide. This is because good health is both an extremely valuable asset and a human right that is required for advancement that is constructive. An individual can take a wide range of steps to enhance their health if they are not feeling well. Among the various things a person may do is seek medical attention. But the person's capacity to pay for the medical care might have an impact on that decision. The poverty rates in Pakistan's various rural, urban, and overall areas are displayed in Figure 1. The figure demonstrates that Pakistan's rural poverty exceeds its urban poverty.

Currently, Education in the rural areas has become a significant issue and it is a part of human's life. It is the need of time that both females and males are to be educated. Both have the same right to get an education as they want because there are no limits to education. No matter age, gender, caste, etc. everyone has an equal right to education. Hence no such thing as being too late to get an education. For the better futures of people, education is only one bridge. For the development of a nation, education plays a significant role. If a nation cannot have the proper system of education, it might be left behind by other nations which strongly support the system of education. Country development can be determined by whether the people of a nation have higher education or not. Better quality of education has a direct link to the higher or faster

development of a country. Irrespective of what global issues a country facing, it always thrives to alleviate poverty. Education plays the role of a bridge between the people and their bright and shiny future. For the development of a nation, education is very important. Every country needs a proper system of education to win the race of development (John and Harlan, 2014).

Education offers the direction to socioeconomic development. Poor quality of the education system can be one of the most imperative reasons that developing countries do not grow. In Pakistan, education quality is on the decline because the presently rural region population is more in Pakistan. Teachers' educational quality is still questionable, especially at the primary level. It proves that without the transformation of teachers, we cannot transform the system of education to improve the education quality (Rasool, 2007). Education quality, education investment, educational institutions, and equal availability to education play a significant role in poverty alleviation and increased economic growth (Chaudhry & Rahman, 2009; Santos, 2009; Moaz & Neeman, 2008).

Poverty is totally out of control in the rural areas of Pakistan. According to United Nations Development Programme report rural area poverty is 54.6%. Education is one of the main determinants of poverty alleviation in Pakistan. Education increases an individual's skills and earning power. Education has been recognized as an effective and expedient change agent as suggested by Shirazi, 2016.

3. Problem Statement

For a considerable amount of time, the core of international development initiatives has been the issue of poverty (United Nations Organization, 2008). As per the 2009 World Bank Report, 18% of the developing world's population was classified as extremely poor, and 33% as poor. In Pakistan, poverty is mostly a rural issue (Iqbal et al., 2018). Pakistan is a developing nation that has the highest proportion of impoverished rural residents. In Pakistan, two-thirds of the people reside in rural regions.

The population of rural areas is higher than that of metropolitan areas (Singh et al., 2013). There is more poverty in rural regions than in urban ones (Arif & Iqbal, 2009; Iqbal & Nawaz, 2017). One of the biggest global risk factors for ill health is poverty (Sridhar, 2016). Individuals' health endowments are essential and significant parts of their human capital, which increases their productivity and level of life (Awan et al., 2011; Senturk and Ali, 2021).

3.1. Research Questions

The study aims to answer the following research questions.

RQ1. Is there a relationship between lack of education and Poverty?

RQ2. Is there a relationship between inadequate health facilities and poverty?

3.2. Research Objectives

RO1. To examine the relationship between lack of education and Poverty.

RO2. To examine the relationship between inadequate health facilities and poverty.

3.3. Research Framework

The foundation of each research plan, and the central idea of any investigation, is the research framework. The term theoretical framework refers to the connected collection of ideas that provides direction for the research. Each dependent and independent variable is displayed in the research framework. Poverty is the research study's dependent variable, while the absence of health care and education facilities is an independent variable.

3.4. Research Hypothesis

Based on the research objectives and research question, the following hypotheses are formulated:

H1: There is a significant relationship between lack of education and poverty.

HO: There is no significant relationship between lack of education and poverty.

H2: There is a significant relationship between inadequate health facilities and poverty.

HO: There is no significant relationship between inadequate health facilities and poverty.

4. Significance of study

Poverty is a very dangerous and has devastating impacts. Truly, it can trap people and create frustration and disappointment. It not only makes one vulnerable to disease and suffering but to all kinds of exploitation. Poverty impacts many sectors of society such as education and health. It is the education that is the foundation of any prosperous society. Education brings economic wealth, social prosperity, and political stability.

Poverty is one of the biggest obstacles in the educational journey. This study may identify the most effective approaches in this area and will direct Pakistan's future progress in the field of education. The country's educational sector may be developed and promoted through this study to improve performance and spur economic progress. The long-term relationship between poverty and education has been examined in this study.

The present study investigates the relationship between poverty, education spending, and educational level in Pakistan using time series data spanning from 1961 to 2011. A framework of error correction is included in the Granger Causality test as part of the empirical technique used for this aim. This is the nation's first research on these issues.

The study mainly focuses on education and health due to poverty. The study shows how poverty impacts the literacy level and health

5. LITERATURE REVIEW

5.1. Introduction

This section reviews the most appropriate literature regarding determinants of poverty. Chapter two further sheds light on key variables under study. Furthermore, finally summary of the chapter is discussed in the last section of the study.

5.2. Poverty

Pakistan gained its independence on 14 August 1947 (Hatim, Ahmad, and Keling, 2020). Pakistan is particularly hit by poverty (Shams, 2014). Poverty is known as a diligent test challenging Pakistan since its initiation. The poverty matter of Pakistan is expanding additionally in country zones where practically 70% of the populace is living (Usman, 2009). In the settings of Pakistan, poverty has consistently been higher in rural than urban regions (Ashraf, 2017). Tariq et al. (2014) that poverty is a bitter truth which force silently one to die in the end. Poverty is that cruse whose depression is higher than the fear of losing something. The condition in which people cannot fulfill the necessities like shelter, food, and clothing is known as poverty. The trend of poverty is high in Pakistan, almost 54% population of the country is poor.

5.2.1. Poverty Around the Globe- Facts Sheet

For most individuals and nations in the globe, poverty is the status quo. Whether one lives in one

of the richest or poorest countries, one may still find significant levels of inequality and the majority of people are subsistence farmers. For the majority of us who care about humanity, a few of the poverty-related statistics that are displayed on the Global Issues Organization⁶ website are enough to awaken our eyes:

- Over 3 billion people, or over half of humanity, survive on less than \$2.50 each day.

The total wealth of the seven richest persons in the world is greater than the GDP of the 41 highly indebted impoverished nations (567 million people).

- Over 80% of people on the planet reside in nations where economic disparities are growing 7. Five percent of the world's income is accounted for by the forty percent of the population that lives in poverty. Three-quarters of global income is attributed to the richest 20 percent of people.
- It is believed that between 27 and 28 percent of children in underdeveloped nations are stunted or underweight. Sub-Saharan Africa and South Asia together make up the majority of the deficit.
- Almost a billion individuals could not write their names or read a book when they first came into the 21st century. By the year 2000, it would have only taken 1% of global annual spending on weaponry to enroll every child in school, but that did not happen.¹⁰ Approximately 72 million primary school-age children in developing nations did not attend school in 2005, according to enrollment figures
- It would have taken less than 1% of global annual spending on armaments to enroll every kid in school by the year 2000, yet that did not happen.
- One in two children worldwide, or 1 billion children, live in poverty.

A staggering 640 million people lack proper housing, 400 million lack access to clean water, and 270 million lack health care.

- 10.6 million children, or almost 29,000 each day, passed away in 2003 before they turned five.

Although poverty is defined in academic circles primarily in terms of income and consumption level, in reality, it encompasses much more. Poverty is a result of several factors, including hunger, a lack of access to basic medical care, basic civic amenities in poor condition, lack of medical attention, lack of electricity, water supply, and opportunities for children to receive an education, among other things.

"Wealth is not a good source we are seeking; it is merely useful for the sake of something else," said Aristotle once. Although it has become more prevalent in developing nations, severe poverty is still a global problem despite the previous 50 years of fast economic progress. At purchasing power parity, over 1.2 billion people live on less than \$1 per day, and over 2.8 billion people, or over half of the global population, live on less than \$2 per day.

5.3. Poverty in Pakistan

The degree of disparity in the distribution of national income and the average level of national income determines the extent and size of poverty in any given nation. In this context, income refers to the bare minimum needed to buy the things that society views as necessary to maintain a fair standard of living, or the minimal amount needed to keep people from living in cruel conditions. It is commonly assumed that the likelihood of poverty increases with decreasing average income or with more unequal wealth distribution. Pakistan serves as a traditional test bed for various phenomena, including low national per capita income, severe economic inequality, a rapidly growing population with little access to technical and professional education, and an economy with high rates of inflation.

Pakistan is one of the developing countries facing the extreme level of poverty having more than one-third of its populace living below the poverty line. People who make less than the daily required consumption of around 2350 calories per person are deemed to be below the poverty line in Pakistan, for example. The continuation of significant poverty in Pakistan is mostly due to a lack of infrastructure, basic social services, training in income-generating industries, and credit availability, particularly in underserved rural and urban regions. Out of 177 poor nations worldwide, Pakistan is ranked 136th in the UNDP's 2008 Human Development Report. More than 2.4 million Afghan refugees are living in the nation.

In Pakistan, there are many different types of poverty, and over 73% of people survive on less than \$2 a day. Pakistan fared worse than all of the Central Asian states and even the South Asian states, except for Bangladesh and Nepal, when it came to income poverty.¹⁴ The Pakistani government reduced the country's poverty rate from 35 percent in 2000–01 to 24 percent in 2006 by allocating nearly 1 trillion Rupees, or around \$16.7 billion, to initiatives aimed at reducing it during the previous four years.¹⁵ When compared to large urban regions, Pakistan's already low level of socioeconomic growth is further constrained in rural areas. Since the beginning of 2009, the poverty line has once again risen to over 37% of Pakistan's population of over 16.7 billion.

In a similar vein, UNDP also makes available the Human Poverty Index (HPI1), which measures adult illiteracy rates, persons without access to a better water source, underweight children, and severe health deprivation. Comparing these values to those of other nations, Table 2 below displays the values for these variables for Pakistan, which is ranked 77th out of 108 developing nations.

In Pakistan, in my opinion, is too constant and complex, and cannot be restricted to a few factors shown in the diagram below. Many interrelated factors contribute to poverty in developing nations like Pakistan. Poor governance is the key underlying cause of poverty in Pakistan. The most commonly enumerated causes in this regard include overpopulation, high living costs, rising unemployment, inadequate education, environmental degradation, unequal distribution of resources especially agricultural land, etc. However, economic vulnerability is a key factor that leads to social powerlessness, lack of adequate health care political disenfranchisement, everyday harassment, and ill-functioning and distortionary institutions. Economic and social factors such as the slowdown in GDP growth in the last decade, and the persistence of a regressive social structure, stemming from the highly unequal distribution of land, have also contributed manifolds to the increase in poverty. However, issues of good governance and the degeneration of socio-economic institutions are the foremost reasons. General factors considered to be the cause of poverty are:

5.3.1. Poor Governance:

Pro-poor growth necessitates good governance because it creates the legal and regulatory framework that is necessary for the free and fair exchange of capital, labor, land, and other market components. On the other hand, bad governance is seen as one of the main underlying reasons for poverty in Pakistan, and good governance is thought to be nonexistent there. In addition to increasing vulnerability, poor governance is the main reason for low corporate confidence, which in turn results in lower levels of growth and investment. The detrimental impacts of structural problems are exacerbated by the consequences of bad governance. Pervasive poverty, in which a sizeable section of the populace lives in poverty for a lengthy period, is closely associated with good governance.

5.3.2. Political Instability

Establishing political stability is essential to fostering an atmosphere that is conducive to

progress and advancement. To function properly, economic agents—investors in particular—need to be encouraged to take risks, feel confident in the government's trustworthiness, and be reassured about the continuity of programs. The military has gained political sway in Pakistan due to the country's perceived security threat on its eastern border. This perception has also led to excessive public expenditure on defense at the expense of social sectors and the weakening of the rule of law. Pakistan's political landscape has frequently switched between military and democratic regimes. Each of these elements has an impact on growth, which in turn affects the nation's poverty rates.

5.3.3. Trade Deficit Dilemma & Melting down of Economy

Aside from the exceedingly affluent, economic pressures have also made living tough for all other segments of society. The primary factor contributing to the rise in poverty is the slowdown in GDP growth. The State Bank's most recent statistics indicate that this year's GDP growth is not expected to exceed 2%. Since the start of 2009, the rupee has lost more than 30 percent of its value relative to the US dollar, and since the peak in April, share prices have fallen by 40 percent. The majority of influxes, aside from worker remittances, had almost completely stopped. By October 28, 2008, Pakistan was severely damaged by political unrest and severely impacted by the world financial crisis, which was getting worse and converting into bankruptcy.

Pakistan has lost almost 21 trillion Rupees as a result of the war on terror and the Pakistan Army's increased operations on an ever-widening front. In 2005, 260 billion Rupees were lost; in 2006, 301 billion; in 2007, and 678 billion in 2008.¹⁸ In the last quarter of 2008, Pakistan was essentially experiencing its greatest socioeconomic crisis, marked by a lack of food and energy, rising fuel prices, a declining value of the rupee, and a significant exodus of foreign money sped up by an intensifying conflict. No water, food, energy, money, or government. The Benazir Income Support Program severely crippled the collapsing economy, cutting it short by around 50 billion rupees. Though Pakistan succeeded in avoiding default, however, 2009 confronts a looming economic and political crisis. The graph below suffices to depict the alarming state of Pakistan's balance of trade to support our contentions:

5.3.4. Lack of Education & Rampant Illiteracy

When compared to other nations with comparable GDP per capita, the nation's education metrics paint a bleak image. More precisely, compared to other (poor-income) nations in the area, Pakistan's public education spending as a percentage of GNP has hovered around 2%. Since the foundation of any socioeconomic sector's growth is correlated with the degree of education and skills possessed by its human capital, there is a widespread belief that Pakistan's appalling condition of education is a major contributor to the nation's poverty. A significant portion of the populace lacks reading and writing skills, and over half have no idea what current income methods entail.

The majority of individuals are unable to use technology to increase agricultural and company yield, which causes them to fall well short of productivity goals and see a drop in revenue. As a result, the society experiences financial hardship and is unable to provide sufficient funds for the education sector. It has long been said that Pakistan spends less than two percent of its GDP annually on education, compared to three to seven percent in the majority of other nations, including those in South Asia. The already small quantity of the fund is further vulnerable to abuse, in addition to malpractices and poor management. Yes, as long as the funds are used appropriately, there is potential to increase the quality of education within the allotted budget.

Moreover, it is very simplistic to attribute poverty to a lack of knowledge. While the percentage of Pakistani citizens living in extreme poverty has increased from 13 to 33 percent during the previous fifteen years, the country's illiteracy rate has decreased during the same time. Thus,

illiteracy cannot be the only factor contributing to Pakistan's rising rate of poverty. Rural areas without land: Since Pakistan is an agricultural nation, the majority of its citizens depend on farming as their main source of income. With the partition of lands among family members, this source is becoming less and less available to provide previously prosperous households with a dignified way of life.

5.3.5. Non-Transparency in Resource Allocation

The lack of transparency in public sector planning, budgeting, and allocation of resources in Pakistan has been the hallmark of our financial resource planners and policymakers. Political or the ruling leadership has never responded to the real needs of the populace and is accountable for the promises they made to the public. Resultantly, without having regard for the real stakeholders or the potential beneficiaries, the priorities for the development were determined by the bureaucracy following the supply-driven approach –having no concern for the demand/needs of the citizens. Such an attitude in managing public accounts has led to a distortion of development priorities and a tendency to safeguard the interests of specific groups at the expense of the larger public interest.

5.3.6. Health

People in good health are probably more productive. Human health encompasses both physical and mental well-being. The wages and productivity of the impoverished are negatively impacted when there are inadequate healthcare facilities for humans (Usman, 2009). In all nations and cultures, there is a growing correlation between socioeconomic level and health outcomes, illnesses, and fatalities. Individuals with a lower socioeconomic status consistently have a worse state of health than those with a higher socioeconomic position. Similarly, as a disenfranchised minority in Punjab's rural areas, women are more susceptible to poverty (Choudhry et al., 2019). The degree and consistency with which socioeconomic status influences health outcomes revealed that a person's standing in the social hierarchy is closely associated with

A person's social standing is strongly correlated with their health-related behaviors, attitudes, and practices, according to the strength and consistency of the relationship between socioeconomic status and health outcomes. The literature revealed additional socioeconomic status dimensions and levels that health professionals need to take into account, even though socioeconomic status is often defined by parameters like income, occupation, and education level (Felix, 2017).

5.3.7. Education

Usually, it is considered that education is a significant instrument for the alleviation of poverty. In the study of Aslam and Ayyub (2019), studied the poverty effect and education policies on child labor, school attendance, and growth. Researchers concluded that there is an interchange between child labor and human capital accumulation (HCA). Poor people don't have the facilities and resources to send their kids to private schools to gain higher education quality. While the government system of education widens and generates the poverty gap, this education system provides low education quality which Punjab Sindh Balochistan Khyber Pakhtunkhwa percentage % provinces Overall poverty rate Rural poverty rate Urban poverty rate depreciates the growth of economic. Researchers also claimed that the poverty gap might be broadened in the absence of education quality which becomes a source of child labor. Government policies are required to break the gap of poverty by concentrating on education quality in return, leads to the growth of economics. A high level of literacy rate was not an assurance of justice, prosperity, and peace in society.

In the rural areas of Pakistan, the education sectors of Pakistan are suffering from poor management quality, supervision, monitoring, teaching, less financial input, and low efficiency

levels for the program implementation. As a result, in the world, Pakistan has one of the lowest literacy rates and the lowest among countries with comparative socioeconomic situations and resources (De Talance, 2017). Education is the backbone of development. Education is strongly linked with poverty as parents seem to be reluctant to send their children to education due to poverty.

5.3.8. Poverty Situation

Pakistan has a serious poverty problem in addition to a lower GDP. As per the Asian Development Bank, in 2015, 24.3% of Pakistan's population was living below the national poverty line; by 2019, 2.3% of the employed population was earning less than \$1.90 per day. In Pakistan, 69 infants out of every 1,000 born in 2018 passed away before turning five. For instance, poverty is the main cause of Pakistan's high prevalence of child labor, and 60% of Pakistanis struggle to find enough to eat.

Education is the most effective means of preventing poverty. According to Montecel (2013), a person's likelihood of being impoverished decreases with their level of education. Through education, people can become aware of their potential and be given the chance to put it to use. Khan & Khan (2011) state that Quaid-e-Azam, the country's founder, placed a strong emphasis on giving Pakistanis the proper education so they may compete in the contemporary world and fulfill their role in the country's growth.

One of the most powerful tools in the battle against poverty is equal and high-quality educational access. Omoniyi (2013) asserts that education increases productivity and creativity, enhances self-awareness, and enhances life quality—all of which support entrepreneurship and technical advancements. Furthermore, it is essential for maintaining social and economic advancement, which enhances income distribution and lowers poverty. First, education might increase the output of the nation. The most significant component of a nation's exports and output is education, which also plays a key role in a system's ability to successfully adopt foreign technologies.

In addition, education plays a significant role in advancing industrial technological advancement and competence. Second, education might pave the way for more income equality. As education broadens and influences per capita income development at the same time, low-income individuals are better equipped to pursue economic possibilities. Third, parental education may help families make wise decisions. Higher educated parents, for instance, are more likely to provide their kids more opportunities to learn new skills and are less likely to let them drop out of school.

As an additional illustration, knowledge for the impoverished helps them eat better and choose healthier foods. In emerging nations, poverty and poor academic performance are prevalent, particularly in rural regions. Rural areas are home to more than 70% of the world's impoverished. To achieve sustainable development and combat poverty, a large number of individuals in rural regions must receive an education. Education benefits the educated population in both economic and non-economic ways, and it is a necessary precondition for improving rural residents' living conditions and eradicating poverty (Abdulahi, 2008). It's an investment with potential returns that might effectively lower poverty (Jaiyeoba, 2007).

6. RESEARCH METHODOLOGY

6.1. Introduction

This chapter refers to the development process of research by the researcher whereas, the method is actually the technique used by the researcher. These sections in this study explain the design of research, population, unit of analysis and sampling, and sources of collecting data.

6.2. Research Design

Methodology is defined by Halloway (1997) as “Principles and philosophy on which researchers base their procedures and strategies, and the assumptions that they hold about the nature of the research they carry out.” Research is the determination to explore or investigate the result of an issue. The research process includes multiple steps which is organized and systematic. (Sekaran & Bougie, 2016). The research methodology encompasses methods, processes, statistical tools, and collection of data and investigation. The investigation outcomes and results contribute to the knowledge body and enhance the knowledge in the research domain (Numamaker, Chen & Purdin, 1990).

6.2.1. Quantitative Research

Quantitative research is a type of scientific research that uses numerical data to analyze and understand various phenomena. It involves collecting and analyzing data through structured methods, such as surveys, experiments, and statistical analysis, to test hypotheses and uncover patterns and relationships. The goal of quantitative research is to establish cause-and-effect relationships and make generalizations about a population based on a sample.

6.2.2. Qualitative Research

Qualitative research is a type of social science research that explores and seeks to understand the meaning people attribute to their experiences and behaviors. It involves collecting data through non-numerical methods such as observation, interviews, focus groups, and document analysis. Qualitative research aims to understand human experiences and behaviors in their natural settings and to gain insight into the social and cultural phenomena being studied. It is often used to explore and gain an understanding of complex issues, attitudes, and behaviors in a more in-depth and detailed manner than quantitative research.

This study was conducted by using survey methods in Pakistan i.e., Baluchistan and the areas of that province. The questionnaire was personally administered in the 2 districts of Baluchistan and a total of four weeks was selected as a benchmark to differentiate between early and late responses. A period of four weeks was assumed to be suitable for the participants to complete the questionnaire.

This study was conducted by using a survey method in Baluchistan Pakistan. The questionnaire was personally administered in the divisions of Baluchistan. A period of two weeks was selected as a benchmark to differentiate between early and late responses. The period of 2 weeks was assumed to be suitable for the participants to complete the questionnaire. Data collection through a self-administrated questionnaire was used from the households of Baluchistan.

6.3. Population of the study

In research, the selection of a demonstrative sample from the population is a chief step. The estimated population of Baluchistan is 20,094659 as of Saturday, March 12, 2023,

Table 1: Households, Population, Household Size and Annual Growth Rate

Divisions	Population 2023	Average household size	Population 2023	Growth rate
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Kalat division	433,209	2,721,018	6.42	2,174,722
Loralai division	135,679	870,000	6.41	735,691
Mekran division	421,059	1,875,872	4.46	1,484,788
NasiraAbad division	283,860	2,044,021	7.20	1,661,077
Quetta division	565,181	4,259,163	7.54	3,764,730
Rakhshan division	154,461	1,040,001	6.73	743,942
Sibi division	171,016	1,156,748	6.76	963,941
Zhob division	154,054	927,579	6.02	806,238

Target population

Rakhshan division	154,461	1,040,001	6.73	743,942
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6.4. Sample size

Sample size indicates the number of respondents that are needed for the conduct of this study. The sample size is determined by the number of estimated total population. The larger the sample size, the higher the population might generate a high accuracy of possible outcomes. Based on the Sample size indicated by Krejcie and Morgan (1970), the ideal sample should not be less than 377 respondents.

As this study is related to the Effects of poverty in Pakistan that's why we have targeted the different areas of Pakistan and especially the province of Baluchistan because it's the most affected area of Pakistan due to multidimensional poverty. In Baluchistan, the targeted area is District Washuk. The targeted area of the study is Balochistan because it is one of the largest provinces of Pakistan and the most affected area by poverty. The total population of Balochistan is total 20094659. The researcher selected the districts Washuk. The population of Washuk is 302,623. According to Morgan (1970), if the population is more than 40,000 the suitable sample size is 381. For the current research study, the sample size was 384.

Table 3.2 Sample size table of Krejcie and Morgan (1970)

Sample Size Table of Krejcie and Morgan (1970)

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
Note: N is population Size; S is sample size									
Source: krejcie and morgan 1970									

6.5. Unit of Analysis

It is quite significant to determine the unit of analysis before initiating the process of data collection. The unit of analysis may vary based on the nature and context of a given study; it may compromise individuals, groups, and organizations (Sakaran & Bougie, 2016). In the present study households are the unit of analysis.

6.6. Data Analysis Strategy.

Data analysis of the study was done by using a statistical package of social sciences (SPSS) to describe the descriptive analysis to find the general understanding of respondents. SPSS was used for data summarizing, making presentations in tabular form, and also measuring the frequency of occurrence of the outcomes.

SPSS is a software package used for statistical analysis. It was originally developed by Norman, Nie, Dale, Bent, and Hadlai Hull in the 1960s and was acquired by IBM in 2009. SPSS provides a comprehensive suite of tools for data management and statistical analysis, including descriptive statistics, inferential statistics, and a wide range of tests and models. It is widely used by researchers in many fields, including social sciences, health sciences, market research, and education.

SPSS has a user-friendly interface, making it accessible to people with varying levels of statistical knowledge. It also offers a range of graphical options for presenting data, including histograms, scatterplots, and boxplots. Additionally, SPSS supports a variety of file formats, making it easy to import data from other sources. SPSS also includes a programming language,

known as Syntax, which allows users to automate repetitive tasks, create custom algorithms, and perform advanced analysis. With its wide range of features and ease of use, SPSS is a popular choice for data analysis in many organizations. (Hinton, McMurray, & Brownlow, 2014).

6.7. DATA ANALYSIS AND RESEARCH FINDINGS

Cronbach Alpha

Cronbach alpha was used for evaluating the validity as well as reliability of the questionnaire. Cronbach alpha provides an idea regarding the potential problems that a researcher could face during the main data collection. Cronbach alpha was needed to be calculated for reliability and validity.

During the process of finding Cronbach's alpha, the instrument was distributed among a small sample of users having the same characteristics as needed in the actual survey. The main purpose was to conclude the effectiveness of the questionnaire and to establish whether any future revision of the instrument was needed or not. The respondents were encouraged to be free and honest in their choices. After completion of the questionnaire respondents were asked about the meaning of the questions which will give the researcher an idea regarding comprehension and clarity of the questions. Several methods are available for the determination of reliability however Cronbach alpha is the most commonly used method. For this study, the method of Cronbach's alpha was applied to assess the reliability. The value of Cronbach's alpha should range from 0 to 1. Values near to 1 are considered to be more reliable. Nevertheless, the level of acceptance is an argumentative issue. In some cases, a reliability value of 0.5 to 0.6 is acceptable (Kerlinger & Lee, 2000; Tasleem et al., 2022; Tasleem et al., 2023).

Table No: 4.1 Reliability Coefficient

Sr. No.	Construct	Cronbach Alpha	No. of items	Items	Alpha if the item is deleted
1.	Poverty	0.924	5	P1	0.926
				P2	0.927
				P3	0.928
				P4	0.927
				P5	0.929
2.	Health	0.926	4	H1	0.926
				H2	0.929
				H3	0.928
				H4	0.928
3.	Education	0.925	5	E1	0.933
				E2	0.931
				E3	0.928
				E4	0.929
				E5	0.931

Table 4.1 shows all the alpha values for the constructs. It can be seen that most of the reliability coefficients are above 0.7 which shows that constructs are reliable. However, the minimum value of reliability is shown by the construct of “Health” (0.926).

6.8. Response Rate

The data was obtained from the different districts of Baluchistan, Pakistan. According to the design of the study, it was found appropriate to survey 384 households in Baluchistan. According to Hamilton (2009), the response rate is calculated by the number of respondents who responded to the questionnaire by the sample size that was determined for the study. Out of 384 distributed questionnaires all of them were received back on the spot by the researcher, attaining the goal of a 100% response rate however, 298 questionnaires were rendered usable out of 384 distributed questionnaires hence achieving a valid response rate of 78%. As there was direct contact with the respondents there was no issue of questionnaire rejection on the grounds of unreturned questionnaires. All the questionnaires were observed promptly after being filled by the respondents. Even though adequate care was taken, 88 questionnaires were found with missing responses while data keyed in and rendered unusable. Table 4.2 shows the response rate and table 4.3 shows the missing values.

No. of distributed questionnaires	384
No. of returned questionnaires	384
No. of unreturned questionnaires	0
Ratio of response rate	100%
No. of incomplete questionnaires	90
No. of final usable questionnaires	298
Ratio of valid response rate	78%

Table 4.3 Missing Value Items

Descriptive statistics

In this step of analysis, the collected data have been uploaded into SPSS software, and

Variables	No. of missing values
Poverty	32
Health	15
Education	43
Total	88

descriptive statistics tests have been used to explore the data. Descriptive statistics is aimed to summarize the data set. The descriptive test is used to summarize the data that is collected from

the sample target population of public organizations.

For a comprehensible discussion of results, it is necessary to understand the profile of the respondents. Table 4.4 shows the clear canvas of the profiles of the respondents. A total of 296 respondents were put to analysis.

Table 4.4 Respondent Profile

Demography	Indicator	Frequency	Percentage
Gender	Male	146	49.0
	Female	143	48.0
	Others	9	3.0
Age	Below 18	55	18.5
	18-25	129	43.3
	26-35	89	29.9
	46-above	25	8.4
Education	Intermediate	45	15.1
	Bachelor	90	30.2
	Masters	114	38.3
	Above	49	16.4
Income	Less than 50k	75	25.2
	50k – 70k	114	38.3
	70k -above	79	26.5

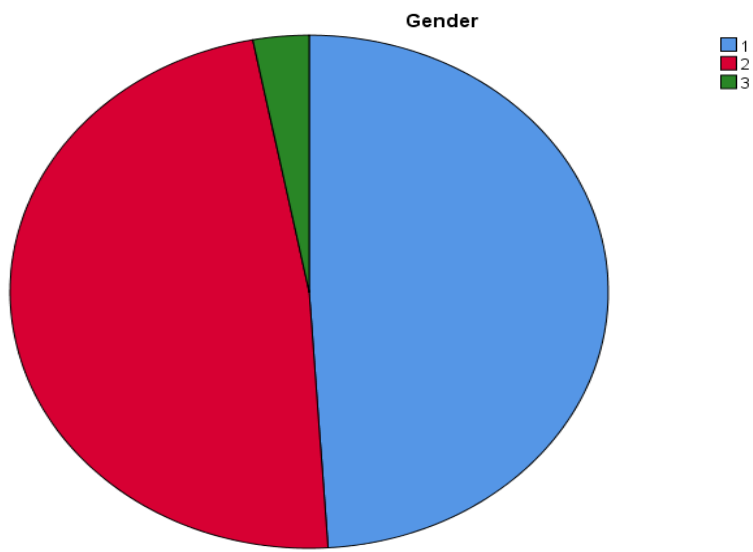
4.4.1 Gender

The results exhibit that 48% of respondents who participated in the survey were female however, 49 of the participants were males. And 3 % others the male respondents are more in number as the study is related to poverty as well the data was collected from Baluchistan, Pakistan.

Table 4.5 Gender

Gender

		Frequency	Percent
Valid	Male	146	49.0
	Female	143	48.0
	Others	9	3.0
	Total	298	100.0



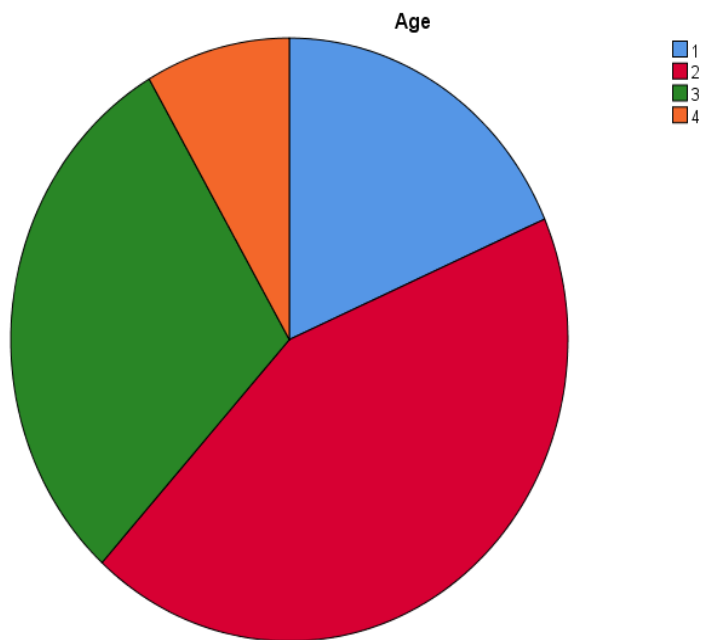
4.4.2 Age

The results display that 48% of the respondents fall into the age bracket of below 30 years. Maximum respondents 47.0% were found to be in the age limits of 30-35 years. The rest 39.4% of respondents were in the age limit of 35-40 and above 40 years.

Table 4.6 shows the age of the respondents.

Age

		Frequency	Percent
Valid	18-25	55	18.5
	26-35	129	43.3
	36-40	89	29.9
	41 and above	25	8.4
	Total	298	100.0

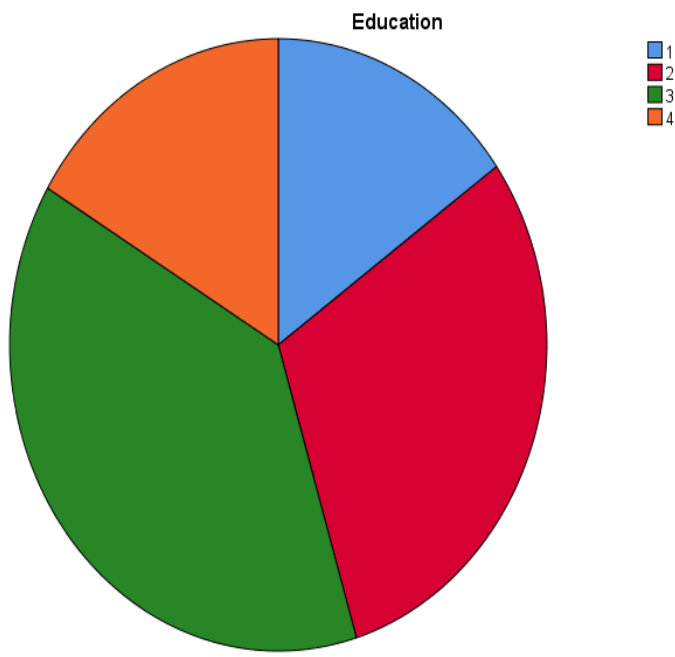


4.4.3 Education

According to the findings, 49.3% of the participants of the study possessed a master's in Education 21.9% possessed a bachelor's, and 25.8% possessed above then master. This shows clearly that most of the participants were educated enough to understand the purpose of the research. Most of the respondents were master qualified and the second the respondents held bachelor degrees. Table 4.7 shows the Education of respondents.

Table 4.7 Education

		Frequency	Percent
Valid	High School	45	15.1
	Associate’s Degree	90	30.2
	Bachelor’s	114	38.3
	Masters and above	49	16.4
	Total	298	100.0

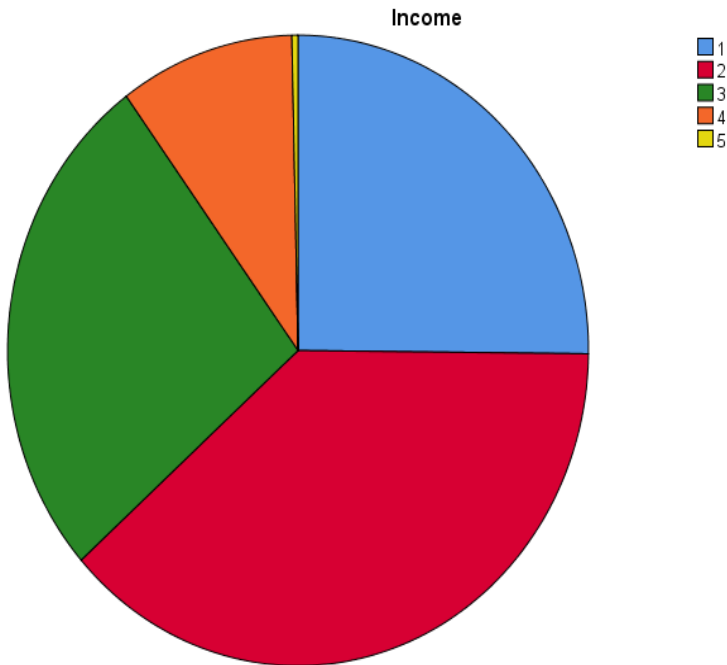


4.4.5 Income

Table 4.9 shows the salary level of the respondents. 63.2% person have a salary range between less than 50k, 26.5% of respondents have a salary level of less than 50k to 70k and the remaining 10.1% have a salary level above 70k.

Income

		Frequency	Percent
Valid	Less than 50k	189	63.4
	50k to 70k	79	26.5
	70k and above	30	10.1
Total		298	100.0



6.9. Descriptive Analysis

The descriptive analysis is performed to describe the primary features of the data set. Sekaran and Bougie (2010) state that descriptive analysis is explained via mean and standard deviation, to obtain a general view of how the respondents have responded to the questionnaire.

Table 4.11 Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Gender	298	1	3	1.54	.557
Age	298	1	4	2.28	.861
Education	298	1	4	2.56	.938
Income	298	1	5	2.22	.944
Poverty	298	1.00	5.00	3.6690	.96009
Education	298	1	5.0	3.807	.8347
Health	298	1.00	5.00	3.4572	1.09812
Valid N (listwise)	298				

Five points scale 1= strongly disagree, 5= strongly agree.

The outcomes of the descriptive analysis depict that the mean of all the variables lies between 1.54 to 3.807. These values lie in a tolerable range as well as they are all above the average value. The scores of standard deviations lie between the ranges of 0.557 to 1.09812 which are among the acceptable range. It can be explicitly established that all the variables possess an adequate and reasonable level of implementation.

6.10. Test of hypothesis

6.10.1. Regression

The primary step for conducting the measurement model assessment is the determination of R². The value of R² varies according to the discipline it is being used for (Sarstedt et al., 2014). According to Hair et al. (2010) value of 0.75 is considered to be high however in a few other research disciplines the value of 0.20 is considered to be high. A general rule of thumb has been described by Chin (2010) where the values of 0.67, 0.33, and 0.19 are considered substantial, moderate, and weak, respectively.

The criteria described by Cohen (1988) state that R² value of 0.26 or more is considered as substantial, 0.13 as moderate, and 0.02 as weak. The coefficient of determination or R² is used to evaluate the predictive accuracy of the model (Hair et al., 2013). According to the suggestion of Hair et al., (2010) R² determines the combined effect of the exogenous variables on the endogenous variable. The value of effect size ranges between 0 and 1. The two minimum acceptable criteria for assessing R² or the coefficient of determination are Hair et al. (2013) as well as Cohen (1988). Table 4 states the difference between the two.

Table 4 Criteria for Assessing Coefficient of Determination (R²)

Hair et al. (2014)		Cohen (1988)	
0.75	Substantial	0.26	Substantial
0.50	Moderate	0.13	Moderate
0.25	Weak	0.02	Weak

This particular research followed Cohen (1988), according to which the coefficient of determination is substantial. The value of R² indicates that poverty, education, and health. The results of the SPSS algorithm explain the endogenous variable, Table 4 shows the results of R² and adjusted R².

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		df1	df2	Sig. F Change
					R Square Change	F Change			
1	.691a	.478	.474	.69613	.478	134.970	2	295	.000

a. Predictors: (Constant), Health, Education

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	130.811	2	65.405	134.970	.000b
	Residual	142.955	295	.485		
	Total	273.765	297			

a. Dependent Variable: Poverty

b. Predictors: (Constant), Health, Education

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.650	.192		3.383	.001
	Education	.541	.057	.470	9.535	.000
	Health	.277	.043	.317	6.429	.000

a. Dependent Variable: Poverty

6.11. Hypothesis Results

H1: There is a significant relationship between lack of education and poverty ($t = 9.535$, $P = 0.000$)

H2: There is a significant relationship between inadequate health facilities and poverty ($t = 6.429$, $P = 0.000$)

7. CONCLUSIONS AND RECOMMENDATIONS

Summary of Hypotheses Testing

The result summary of all hypotheses is presented in Table 5.

H1: There is a significant relationship between lack of education and poverty ($T = 9.535$, $P = 0.000$)

H2: There is a significant relationship between inadequate health facilities and poverty ($T = 6.429$, $P = 0.000$)

Table 5.1 Results of Hypotheses Testing

Hypo	Statement	Sig	Decision	sig	poverty
H1	H1: There is a significant relationship between lack of education and poverty ($T = 9.535$,				

	P = 0.000)	+	Approved	significant	0.000
H2	H2: There is a significant relationship between inadequate health facilities and poverty (T = 6.429, P = 0.000)	+	Approved	significant	0.000

7.1. Conclusion

In conclusion, education and Health are essential in the life of humans. Poverty is a significant threat in the developing world. Education in every sense is one of the fundamental factors of reducing poverty and achieving sustainable economic development in the world. The researcher considers Pakistan's education and poverty situation here and introduces the role of education in alleviating poverty. In the end, we provide some policy implications for the government. For example, to provide skill training, widespread literacy and support rural low-income children's education.

As time goes by, the health system changes energetically following the needs of human beings. For excellent health facilities and systems, there is a need to change and improve many things. Consequently, for the improvement of the health system, also a need for the involvement of people, so that the health system becomes more effective and efficient day by day. The current study discussed the relationship between the presence of hospitals, trained doctors, technology, and infrastructure. The overall research findings can be concluded that the presence of hospitals, trained doctors, and, technology and infrastructure showed a significant positive impact on rural poverty. Therefore, a research study on rural poverty is proposed which may provide valued direction to the administration of the country about the improvement and alleviation of poverty. Also, this will ensure the effective execution of policies regarding the alleviation of rural poverty and also help to attain goals.

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