Nexus between Women Empowerment, Poverty Reduction, and Relevance with Trade: A Case Study of Afghanistan

Rasa, Mohammad Mirwais and Sharifi, Mujeeb

Kardan University, Kardan University

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Mohammad Mirwais Rasa & Mujeeb Sharifi

Abstract

This study aims to analyze the relationship between women's empowerment and poverty, topics that are part of the UN Sustainable Development Goals. An analysis of Afghanistan is evaluated through Ordinary Least Square over a time period from 2005-2019, which presents that education and health are important factors in determining the level of development. Findings suggest that implementing certain types of programs empowers women and gradually alleviates poverty. This study does allow for a greater appreciation of women's standing in terms of education, health, development, gender, and poverty, to achieve sustainable development in Afghanistan which is the core slogan of National Development Strategy 2020-2025.

INTRODUCTION

In developing countries, the term "women empowerment" is commonly used. However, because of its very changeable meaning, which varies depending on social contexts, individual circumstances, and political circumstances, the concept of empowerment is difficult to define (Quagliariello, 2009). Empowerment, effective governance, pro-poor development, project success, and enhanced service delivery are all important for human dignity and quality of life. Empowerment has been associated with a wide range of meanings (Bold et al., 2013).

Women make up around half of the world's population, which could be the world's final fate if this half of the population is subjected to social, family, and economic oppression, as well as an increased threat of violence, attacks, and other types of hardship simply because they are female. (Hasin, 2018) defines women's empowerment as "an growth in the total divine potential of women's domestic and social lives through political, social, educational, or economic power." In the simplest terms, she defined empowerment as "building society by establishing such a social structure that women can freely make choices for their individual growth and the advancement of society as a whole." Empowerment is the process through which women obtain more autonomy and participation in decision-making, allowing them to reach parity with men in various social, cultural, economic, political, and civil realms. Women's economic empowerment is a necessity for long-term progress, pro-poor growth, and the achievement of all development goals.

Empowering women was a movement in the 1990s that aimed to equip women with positive self-esteem so that they could be economically self-sufficient, tackle any challenge, and actively participate in decision-making. As a result, empowering women is a new century motto that has become a critical component of a country's development. "As women go forward, the family advances forward, the community moves forward," Nehru observed of women's empowerment.

Women's empowerment is commonly regarded to be vital in developing nations for long-term economic development and poverty reduction (Klasen and Lamanna, 2009). According to Awan and Iqbal (2015), empowering women entails making them self-sufficient, independent, and having access to economic possibilities. Women's empowerment enhances their position in the power structure of society. Women's empowerment is a stage of change in which women reclaim or obtain the ability to make decisions and support themselves and their families financially and morally (UNDP, 2014). Economically empowered women in Pakistan increase their home income, their family members are healthier, and their children are better educated in decent schools (Tariq, 2013).

Women's empowerment and poverty reduction go hand in hand because women are the weaker part of society, especially in emerging nations, and strengthening them goes a long way toward eradicating poverty (Hasan, 2012). The topic of women's empowerment in poverty alleviation is one of the most important studies, especially since it was established as one of the key points of the Sustainable Development Goals (SDGs) after the establishment of women's empowerment and poverty reduction as one of the key points of the SDGs.

The purpose of women's economic empowerment is to improve women's socioeconomic condition by cultivating an economic culture that emphasizes technical know-how in pursuing women's multi-faceted tasks, reorganizing them with various economic initiatives, and boosting women's emancipation from poverty.

This is because women are "usually poor" and make up the majority of the population, therefore focusing on them would be a must for any poverty-reduction strategy to succeed. The United Nations Women's Conferences in Beijing in 1975, 1985, and 1995, as well as the International Women's Decade, have seen laws enacted to elevate the status of women throughout the last four decades. The UN Security Council will honor the 20th anniversary of Resolution 1325, which established a new framework for women's leadership and engagement in all facets of peace, on October 29, 2020. Zarqa Yaftali, an Afghan activist, told UN Women in this meeting that "women can now engage in political, cultural, and social decision-making processes in Afghanistan."

In order to eradicate poverty in Afghanistan and achieve the Sustainable Development Goals, women must participate completely and equally in the formulation of development policies. Poverty eradication, it has been maintained, will not be realized solely through anti-poverty measures, but rather through political participation and reforms in economic institutions that will enable indigenous women to access opportunities and public services (Garuba, 2004).

In this context, the current research looks into the relationship between women's empowerment and poverty reduction in Afghanistan. The remainder of the paper is organized as follows: section 2 has a literature review, section 3 discusses research

methodology, section 4 contains the results and discussion, and section 5 closes the study with policy recommendations.

Poverty is derived from the old French term poverté. There are numerous definitions of poverty, depending on the context of the circumstance and the viewpoints of the person delivering the description. Income Poverty occurs when a family's income falls below a government-set level that differs by country. It also refers to a lack of income, material resources, and assets to meet one's own personal requirements. Poverty can result from a household's low productivity, which forces them to encounter challenges and difficulties. It is, in essence, the inability to have choices and possibilities, a violation of human dignity, which means that there is a lack of basic capability for meaningful involvement in society, according to the United Nations. This indicates that people do not have enough money to feed and clothe their families. They also do not have access to a school or a hospital. Individuals, homes, and communities are insecure, powerless, and excluded, making them more vulnerable to violence and living in an unstable environment with limited access to essential services. Poverty in well-being, according to the World Bank, is a severe deprivation with numerous aspects. It comprises a lack of income and the inability to obtain the essential commodities and services necessary for a dignified existence. Low levels of health and education, insufficient access to clean water and sanitation, a lack of physical protection, the loss of one's voice, and insufficient capacity and ability to improve one's life are all examples. Furthermore, according to the World Bank Group, poverty is classified as both absolute and relative. Absolute poverty is defined as a complete lack of resources or means to meet one's own fundamental needs for food, clothing, and shelter. Extreme or abject poverty is another name for it. It is determined not only by income but also by access to services. "A condition so constrained by starvation, illiteracy, diseases, unclean surroundings, high infant mortality, and poor life expectancy as to be beneath any conceivable measure of human decency," said Robert McNamara, former president of the World Bank. Nonetheless, because the quantity of money required to survive varies by location and time, especially in highly developed countries where few individuals fall below the World Bank Group's poverty lines, countries create their own national poverty limits. From 43 percent in 1981 to 14 percent in 2011, the percentage of the world's population living in absolute poverty has decreased. It's because East and South Asia's economies are improving. The total number of people living in poverty, according to economist Max Roser, is the same as it was 200 years ago. However, the percentage of people living in poverty in Sub-Saharan African countries has risen from 41% in 1981 to 46% in 2001. Between 1990 and 1998 (when it was at its lowest point), the Soviet Union's disintegration resulted in a 30 to 35 percent drop in GDP per capita. As a result, the poverty rate climbed threefold, leading to an increase in mortality and a fall in life expectancy. As per capita income rebounded in subsequent years, the poverty rate declined from 31.4 percent to 19.6 percent. Through 2005, post-communist countries' per capita GDP levels were the same as in 1989, while several are still lagging in 2015. The above-mentioned patterns of absolute poverty are complemented with indices of human

development that have also improved. In developing countries, life expectancy has improved considerably after World War II, and child mortality has decreased as well.

Relative poverty is a measure of income disparity that takes into account poverty from a social and economic standpoint. It is a condition in which a person is unable to achieve the bare minimum of living standards in comparison to their peers in the same location. Relative poverty is usually expressed as a percentage of the population with lower incomes as opposed to a fixed percentage of the average income. It is the most effective tool for calculating poverty rates in developed countries. In his book The Wealth of Nations, published in 1776, Adam Smith stated that poverty is defined as the inability to afford necessities of life. Similarly, J.K. Galbraith concluded in 1958 that "people are affected by poverty when their income falls significantly below that of their families, even though it is sufficient for survival." As a result, the relative poverty threshold fluctuates depending on where you live. Political instability, a lack of infrastructure improvement, currency depreciation, inadequacy of national policy and structural adjustment, and a lack of investment, according to the World Bank Group, are some of the key causes of poverty. Poverty is commonly defined as the state of being unable to meet basic needs due to a lack of income. Individual countries, on the whole, have their own poverty lines. Poverty, on the other hand, is a state of complete economic deprivation in which an individual is unable to obtain the fundamental human life-sustaining necessities of food, clothes, protection, and shelter on their own. Over time, Western communities have become less tolerant of poverty, whereas Asian countries tolerate great economic inequality or poverty. Another sort of poverty is secondary poverty, which refers to people who spend their money on unhealthy pleasures like alcoholic beverages.

The economic components of poverty are focused on material needs, which typically include food, clothing, housing, and safe drinking water. As a result, poverty in this sense can be defined as a condition in which an individual's or society's basic needs for a minimum quality of well-being and life are not met, owing to a lack of sufficient revenue. Poverty increases in lockstep with homelessness and a rise in crime rates. It can also be seen as a dimension of unequal social status, unfair social relationships, social exclusion, dependency, and a reduced capacity to engage in and form meaningful social connections with others. Strengthening linkages with the mainstream, such as providing emotional support to persons who are poor, can help to alleviate social isolation. Some poverty studies, according to David Moore's book The World Bank, displays derogatory, even racist, notions of the poor as helpless victims and passive recipients of charity programs. Michael Lipton coined the phrase "ultra-poverty," which refers to the lowest of the poor in low-income countries. “Receiving less than 80% of the minimum calorie intake while spending more than 80% of the income on food,” Lipton defined ultra-poverty. Compared to income poverty, resource poverty is a more frequent and long-lasting economic and social issue. Poverty is the most pressing issue that people around the world are dealing with today. According to the World Bank Group's most recent figures, ten percent (1 billion people) of the world's population lives on less than

USD 1.90 per day in emerging and under-developing countries across two continents, Asia and Africa. Roughly half of the world's population (nearly 4 billion people) lives on less than USD 2.50 per day. The World Bank claimed that severe poverty fell from 11% to 10% between 2013 and 2015, but that the rate of decline had fallen by nearly half compared to the 25-year average, with portions of Sub-Saharan Africa returning to levels seen in the early 2000s. Experts disagree about what constitutes a fair poverty level, with one describing it as "an improperly calculated and arbitrary cutoff." Others argue that a higher poverty line, such as $7.4 per day or even $10 to $15 per day, is necessary. They suggest that the cost of basic necessities and a typical life expectancy would be more accurate indicators of these levels. According to another estimate, the genuine poverty rate is much higher than the World Bank's estimate, with 4.3 billion people (59 percent of the world's population) living on less than $5 per day and unable to meet basic necessities. Some experts contend that the IMF and the World Bank's neoliberal policies exacerbate inequality and poverty. A data-driven empirical scientific study of the impact of dynastic politics on provincial poverty levels discovered a positive relationship between dynastic politics and poverty, implying that the expanding number of dynastic politicians in power contributes to rising poverty rates. Evidence suggests that political dynasties take use of their power in their respective fields to enrich themselves through bribery.

The government and non-governmental organizations are attempting to alleviate poverty. It can be hampered by government limits on its ability to supply services, such as bribery, tax avoidance, debt and loan conditionality, and the brain drain of health care and educational personnel, in order to fulfill basic needs for people who cannot earn enough money. To make fundamental requirements more affordable, increasing income programs typically include healthcare, economic freedom, and financial services.

Problem Statement:

Poverty is the world's most pressing problem now. According to the World Bank Group's most recent figures, 10% (1 billion people) of the world's population lives on less than USD 1.90 per day in developing and underdeveloped countries across two continents: Asia and Africa. Roughly half of the world's population (nearly 4 billion people) lives on less than USD 2.50 per day in their households. Approximately, half of the world's populations are women, which could be the world's ultimate fate and if this half of the world's population is subjected to social, family, economic oppression, with an elevated threat of aggression, assaults, and other forms of difficulty merely being female.

Research Question:

What is the impact of women economic empowerment over poverty alleviation?

Research Objective:

To analyze the impact of women economic empowerment over poverty alleviation.

Significance of Study:

This study describes the relationship between women empowerment and poverty reduction and shows that how empowering women helps a community to eradicate the poverty.

Organization of Study: This research study is divided into five different portions:

Chapter # One:

It includes the introduction part, which discusses the general information and background of the study which further includes a statement of the problem, research objective, research question, significant of the study, and organization of the study.

Chapter # Two:

It presents and talks about the research papers and journal articles published regarding the relationship between women empowerment and poverty reduction.

Chapter # Three:

It includes the methodology part of the study; this chapter will explain in depth how information is collected for conducting this study and how the data is analyzed. In addition, this chapter covers the population, sample size, nature of the study, sample techniques, method of analysis, and limitations.

Chapter # Four:

This chapter presents the findings, analysis, data interpretation and discussion about the study.

Chapter # Five:

This chapter concludes the study and gives certain recommendations.

2. REVIEW OF LITERATURE

This section discusses the relevant literature into consideration for making the solid base for research. The literature is divided into three subsections with subsection 2.1 discussing women empowerment & poverty alleviation, subsection 2.2 portrays women financial inclusion, empowerment & poverty reduction, and subsection 2.3 throws light on Sustainable Development Goals & women empowerment.

2.1. Women Empowerment & Poverty Alleviation:

(Bueno & Morefield, 2016) conducted research to examine the link between women's empowerment and poverty reduction. In this study, a sample of 36 poor and middle-income nations was chosen to be evaluated, and it was discovered that health and education are the most essential elements in development. One of Mrs. Clinton's proclamations (Mrs. Clinton, 1995) is addressed in this paper, which states that women must be empowered so that they can share living expenses and enhance their family's living conditions. That is why it is stated that empowering women, particularly in developing nations, contributes to poverty reduction. "Empowerment denotes a process of collecting, providing, awarding the resources and means or enabling access to and control over such means and resources," according to Anonuevo (1995). Women empowerment, in other words, is "the process by which women are given resources or access to them in order to gain self-confidence and social standing, which may lead to them earning higher wages, owning land or a small

business, investing in their children's education, and reducing their risk of death during childbirth or from sexually transmitted infections." The biggest issue and impediment for women in society is gender inequality.

Two equations are utilized to evaluate the premise that women empowerment leads to poverty alleviation and development. The GINI Index, female population in the country, GDP per capita, Human Development Index, Inequality-adjusted Human Development Index, gender inequality, poverty gap, and Multidimensional Poverty Index are used in the first equation to quantify women empowerment (independent variable). Poverty (the dependent variable) is also defined as the number of people who live in poverty. In addition, poverty is defined as the number of persons living on less than $2 per day (the dependent variable). The researcher uses a linear regression analysis to examine the association between women's empowerment and poverty alleviation in emerging countries. The researcher calculates the association between women's empowerment and development in the second equation. In this case, development is the dependent variable, which is measured by GDP per capita, and women's empowerment is the independent variable, which is measured by the GINI Index, female population, the Human Development Index, the Inequality-adjusted Human Development Index, gender inequality, the Multidimensional Poverty Index, poverty gap, and so on.

The researcher found that there is a substantial association between women's empowerment, poverty alleviation, and development after examining the findings and outcomes. This study will be useful to policymakers in developing programs that focus on women's health infrastructure and maternal health education. Furthermore, this research has limitations and may not apply to all developing countries.

The role of women's empowerment in poverty reduction has been studied by (Nadim et al, 2017). Women's empowerment is one of the most talked-about concerns in developing countries, and Bangladesh is one of them, with about half of its population being women. Women account for roughly 57.30 percent of Bangladesh's labor force. Despite this, women in rural areas face a variety of challenges, including familial burdens, social burdens, and religious burdens. Empowerment is defined as giving people the power and authority to make decisions in all aspects of their lives, including the home, the economy, social issues, and politics. Poverty has been prevalent in Bangladesh since independence, and it is critical for the government and non-governmental groups to launch various women empowerment projects in order to alleviate poverty. The goal of this study is to determine the true impact of women's empowerment on poverty reduction and to give recommendations for improving the situation.

Furthermore, (Chant S, 2014) investigates the connections between a revisionist view of the "feminization of poverty" in developing nations, women's work, and home-based enterprise in a study. The topic of the "feminization of poverty" in the study is based on anthropological field research undertaken in Gambia, the Philippines, and Costa Rica. As a

result of her research, the author proposes the concept of "feminization of responsibility and/or obligation." The latter approach highlights issues such as gendered disparities in labor, time, and resource inputs into household livelihoods, which are often most pronounced in male-headed households and are not captured by traditional referents of the "feminization of poverty," which are rather narrowly confined to incomes and female household headship. To date, the dominant policy reaction to classic "feminization of poverty" thinking has been to "feminize" anti-poverty measures such as Conditional Cash Transfer (CCT) and microfinance programs, according to the author. In a separate study, Nazier and Ramadan (2018) seek to answer a key question about women's economic empowerment in patriarchal societies such as Egypt. Individual, household, wealth, and geography factors all play a role in shaping women's empowerment, which is measured in two ways: decision-making power and mobility. For data collection, the researcher used a survey. The following are the three most important findings: First, women's economic resources, as measured by their work status, are a significant source of empowerment for them. Second, education is not playing the intended role in growing awareness and changing beliefs about gender roles in Egypt, contrary to theoretical predictions. Third, for Egyptian women's empowerment, the role of the social local context is critical. This study tries to fill up some of the gaps in the literature for the Egyptian example, where there are few rigorous studies evaluating women empowerment and exploring its causes. This is accomplished by first addressing many dimensions of women's empowerment, household decision-making, and mobility. Second, we'll use the Multiple Indicator Multiple Cause (MIMIC) model, which is a modeling approach that allows us to investigate the relationships between several causes of a given latent variable, such as "Empowerment" in our case, and a number of its possible indicators without using a directly observable measure of the latent variable.

2.2 Women Financial Inclusion, Empowerment & Poverty Reduction:

(Hussain et al, 2017) examines the impact of financial marginalization on Pakistani women's financial and human poverty. Microfinance institutions give financial assistance to low-income individuals, particularly women, in order to promote long-term socioeconomic development in developing nations. Microfinance programs run by various organizations aid in the reduction of poverty among women. Entrepreneurship is a wide Western notion that encompasses self-employment and the formation of new businesses; however, its use in developing countries such as Pakistan is debatable. The economic, cultural, and educational environments limit women's entrepreneurial roles, limiting their awareness of entrepreneurship. Microfinance Institutions (MFIs) help women in poor nations by providing credit and entrepreneurship training. Women make up about half of the population in most emerging countries. Women can be empowered by increasing their financial access. As a result, actions that help women gain access to finance can aid in poverty alleviation. Similarly, another study (Widiyanti et al, 2018) found that women are the most vulnerable category when it comes to poverty. Microfinance is one of the most effective strategies to economically empower and assist women who are poor. Women's cooperatives were formed to assist women in growing their companies. Data was collected

using a questionnaire and quantitative research methods. The sample size is made up of 251 respondents who are cooperative members. The data was analyzed using the PLS approach, and the findings show that social capital, norm, trust, and network have a favorable impact on women's empowerment but a negative impact on poverty. In a similar spirit, researchers (Shaheen, 2018) explored the multiple facets of women empowerment, including decision-making, women engagement in economic and social concerns, access and control over resources, access to health and education facilities, and so on. Women must be economically empowered in order to achieve the above-mentioned goal, and microfinance is an important tool for increasing women's financial capabilities. A disproportionate stratified random sample strategy was utilized to obtain data from 175 respondents using a quantitative research methodology. Microfinance functions as a catalyst in women's economic empowerment, according to the findings of this study.

Furthermore, according to a study by (Akhter et al, 2018), women's empowerment has become a global phenomenon and a critical concern in developing countries. This study used a questionnaire to collect data from 158 people in Dinajpur to assess the impact of microcredit on women's economic empowerment. Microfinance has a good impact on women's empowerment by increasing self-esteem, decision-making authority, and confidence, according to the findings.

Microcredit and microfinance have achieved widespread recognition as a technique for poverty reduction and economic empowerment, according to Bansal and Bansal (2012). Microfinance is a tool for overcoming poverty, especially in rural areas, where the majority of the world's poorest people reside. Poor folks can start their own small business by obtaining small sums of credit at acceptable interest rates. It demonstrates how the poor may smooth their consumption, better manage their risks, progressively grow their assets, develop their micro companies, increase their income earning ability, and enjoy a higher quality of life by having access to and using microcredit.

2.3 Sustainable Development Goals & Women Empowerment:

It highlights how having access to and using microcredit can help the poor smooth their consumption, better manage their risks, gradually expand their assets, establish their micro businesses, boost their income earning capabilities, and enjoy a higher quality of life. The Sustainable Development Goals (SDGs), which have been universally approved by governments, funders, women's groups, civil society, and other stakeholders, represent the creation of a new compact on women's human rights and gender equality. Women's organizations have long raised concerns about how equality, inclusion, and participation will be enshrined in a world marked by profound disparities and exclusions. While the paper's framework is global, it focuses on two crucial areas in India: women's economic empowerment and ending violence against women, with recommendations for how these commitments could be better fulfilled in the implementation of the SDGs, particularly SDG Goal 5. Finally, the article discusses how certain countries are building mechanisms to

promote SDG 5, as well as the absence of data and monitoring methods for gender equality. It underlines the importance of governments collaborating with women's organizations on policy creation and execution in order to achieve transformative change.

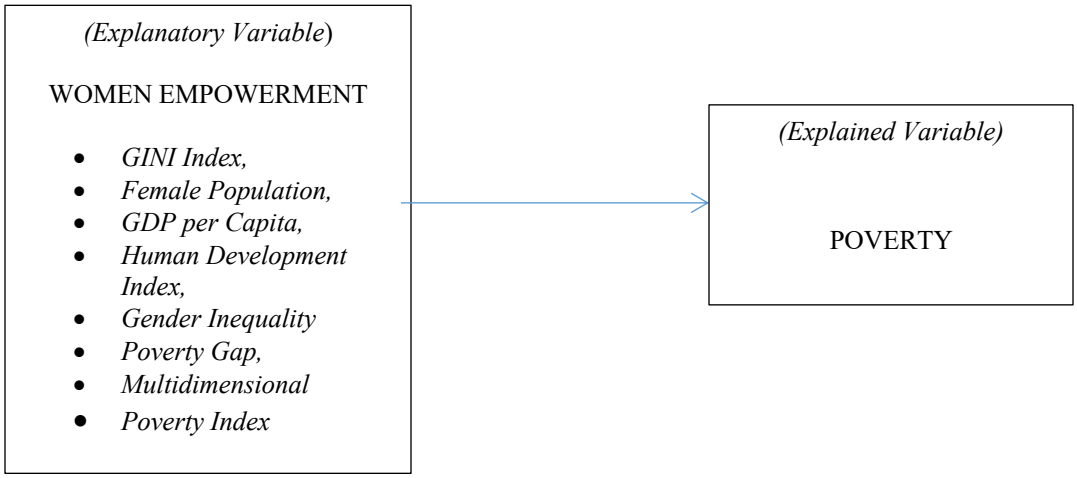
Koehler (2016) explores whether the United Nations' new agenda for sustainable development includes policies for gender equity and equality in another research piece. The SDGs are found to be unambitious and lack a structured policy approach, according to the report. It looks at the wide range of policies that are required to achieve long-term gender equality for all women, extending beyond the current economic reason. This article focuses on several "domains" that are often seen as critical to women's empowerment: labor and income, access to health care, and the environment. It continues by saying that the SDGs may be used creatively and subversively to strive towards gender and climate justice by embracing other, more progressive treaties and declarations.

(Meenakshi and Loai, 2017) investigated the role of women in environmental management and development in a similar manner. Women's participation, according to the study, will contribute to long-term progress. Gender equality, according to the study, can be achieved in two ways. First, by equating men's and women's rights, opportunities, and duties. Second, equality between men and women is an important aspect in achieving long-term, people-centered development.

Onah (2011) did another study in which she concluded that women's empowerment is a worldwide issue since it has been observed that no method for attaining sustainable development is more successful than women's empowerment. The focus of this study is on women's empowerment for long-term development in Nigeria, with a particular emphasis on the role of faith-based groups. The study's data came from secondary sources such as books, journal articles, conference papers, and web-based materials. The researcher used both descriptive and analytical methods to analyze the data. The findings revealed that, despite international organizations' efforts to raise awareness about women's rights issues through conventions and treaties, gender imbalance still exists in Nigerian culture. Furthermore, the findings provide light on the content and significance of women's empowerment for long-term national development in Nigeria, emphasizing the crucial complementary role of faith-based organizations in women's empowerment for long-term development. As a result, it was decided, among other things, that faith-based organizations should collaborate with the Nigerian government to ensure the execution of relevant international treaties aimed at promoting women's empowerment, which is critical to long-term development.

2.4 Theoretical Framework:

Women's empowerment is an independent variable in this study, while poverty reduction is a dependent variable. The GINI Index, Female Population, GDP per Capita, Human Development Index, Gender Inequality, Poverty Gap, Multidimensional Poverty Index, and other independent variables are used to assess women's empowerment.



Source: Adapted from Natalia Bueno, Dr. Roger Morefield, (2016), Empowerment of Women and Poverty Reduction in Developing Countries.

Hypothesis

Based on the study's objective, the following hypothesis can be formulated and tested:

Ho: There is no significant relationship between women empowerment and poverty reduction.

H1: There is a significant relationship between women empowerment and poverty reduction.

Ho: There is no significant relationship between women empowerment and development.

H2: There is a significant relationship between women empowerment and development.

3. RESEARCH METHODOLOGY

3.1. Preliminary Data Gathering Procedure:

The preliminary data (Poverty Rate, Poverty Gap, GINI Index, Human Development Index, Women Population, Maternal Health, Multidimensional Poverty Index, Female Population, GDP, Gender Inequality Index, Female Education) is gathered from different websites such as World Bank Group, International Monetary Fund, United Nations Development Program, Asian Development Bank etc.

3.2. Research Approach:

The research approach is deductive because the aim of the study is to test an existing theory.

3.3. Research Design:

The quantitative research design is used in this study because it deals with the numeric data.

3.4. Population and Sampling of Study:

The population considered for this study is the SAARC countries. Among the SAARC countries, Afghanistan is selected as a sample for the study.

3.5. Operationalization of Variables:

The women empowerment is measured by using a series of independent variables such as GINI Index, Female Population, GDP per Capita, Human Development Index, Human Development Index, Gender Inequality, Poverty Gap, Multidimensional Poverty Index etc. In addition, poverty (the dependent variable) is defined as the number of people living on less than $2 a day.

3.6. Data Collection Procedure:

The data (Poverty Rate, Poverty Gap, GINI Index, Human Development Index, Women Population, Maternal Health, Multidimensional Poverty Index, Female Population, GDP, Gender Inequality Index, and Female Education) has been collected from reliable websites such as World Bank Group, International Monetary Fund, United Nations Development Program, Asian Development Bank etc.

3.7. Data Analysis Procedure:

A linear regression analysis using data from Afghanistan is used to analyze the association between women's empowerment and poverty reduction in developing countries.

3.8. Methodology and Model Specification:

A linear regression analysis is used to assess the relationship between 'x' and 'y.' Two equations in particular were employed to examine the extent to which empowering women reduces poverty in developing nations. Afghanistan is chosen to investigate the impact of women's empowerment on poverty reduction in countries with varying levels of development and political and social frameworks. Equation 1 calculates the link between poverty and women's empowerment. The GINI Index, female population in the country, GDP per capita, Human Development Index, Inequality-adjusted Human Development Index, gender inequality, poverty gap, Multidimensional Poverty Index, female primary completion rate (% of relevant age group), youth female literacy rate and ratio of female to male primary/secondary/tertiary educational enrollment, female headed households, fertility rate (total births per woman), and maternal mortality rate and other independent variables are used to measure women's empowerment. In addition, poverty is defined as the number of persons living on less than $2 per day (the dependent variable).

$$Y_1 = \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_{4+} \alpha_5 X_5. \qquad (1)$$

A civilization with a considerable number of individuals living on less than $2 per day is likely to have a low gross domestic output in terms of purchasing power parity. Furthermore, developing countries with higher levels of poverty will have a higher GINI Index and a negative link with the Human Development Index and the Inequality-adjusted

Human Development Index. Similarly, it is expected that underdeveloped countries with a large poverty gap and a more unequal society in terms of gender will have a large poverty gap and a more unequal society. As poverty levels in these developing countries decline, the female primary school completion rate (percentage of relevant age group), youth female literacy rate, and female to male primary/secondary/tertiary enrolment ratio may rise. It's also logical to expect that as poverty levels drop in a community, fertility rates (total births per woman) drop and maternal death rates drop dramatically. Another valid premise is that, in these developing countries, greater female populations can lead to more impoverished communities due to a lack of women's empowerment. The association between the Multidimensional Poverty Index and poverty as defined by the number of people living on less than $2 per day would indicate that as poverty rises, people are denied of better living conditions, education, and health care. Finally, it is projected that the bigger the numbers of women who are head of family, the lower the various indicators of poverty.

The relationship between development and women's empowerment is measured by the second equation. The dependent variable in this case is development, which is assessed in purchasing power parity dollars using the Gross Domestic Product (GDP) per capita. The independent variables used to determine women's empowerment are the GINI Index, female population in the country, people living on less than $2 a day, the Human Development Index, the Inequality-adjusted Human Development Index, gender inequality, the Multidimensional Poverty Index, poverty gap, female primary school completion rate (% of relevant age group), youth female literacy rate and ratio of female to male primary/ secondary/tertiary enrolment, female headed households, fertility rate (total births per woman), and maternal mortality rate. The following is the second equation that is utilized in the second phase of the analysis:

$$\mathbf{Y_2 = \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_{4+} \alpha_5 X_5.} \qquad \mathbf{(2)}$$

As maternal mortality rates decline, it is projected that development (as measured by GDP per capita) will improve. In terms of education factors, as the female primary school completion rate, youth female literacy rate, and ratio of female to male primary / secondary / tertiary enrollment rise, the dependent variable should rise as well. Female led households as a measure of women's empowerment could be predicted to be closely related to GDP per capita, given that the goal of this study is to explain the role of women's empowerment in poverty alleviation. Based on the assumption that women lack empowerment, it is acceptable to assume that the greater the number of women in a society, the lower the GDP per capita. It is considered that lower levels of gender inequality and the GINI index (which becomes more equal as it approaches zero) are linked to greater levels of GDP per capita. Inequality-adjusted Human Development Index and Human Development Index, on the other hand, should be linked to higher levels of GDP per capita. In terms of poverty, the wider the poverty gap and the lower the GDP per capita, the more people living on less than $2 a day. The expected association between GDP per capita (dependent variable) and the

Multidimensional Poverty Index (independent variable) is that as more individuals live in multidimensional poverty (at least 33% of each of the three sectors shows severe deprivation), GDP per capita falls.

4. DATA ANALYSIS AND FINDINGS

To analyze the relationship between women's empowerment and poverty reduction in developing countries, a linear regression analysis with data for Afghanistan was conducted. The first dependent variable in this analysis is poverty which is measured by the number of people living on less than two dollars a day in each of the selected countries. It is expected that in general the worse off women are across the board, the more likely they are to be living on less than two dollars a day. Table 1 shows estimation results of the first equation. The initial hypothesis of the relationship between poverty and measures of maternal health is supported by the data. Note that the data were transformed into natural logarithms, which means that the estimated coefficients are elasticity coefficients. Initially, it was hypothesized that higher levels of poverty would be conducive to higher numbers of births per woman, and a higher maternal mortality rate. For the next variable, the expectation is that women would have more children in countries with higher levels of poverty. Table 1 column 1 shows that for a 10% increase in total fertility rates (more births per woman), is associated with an 17.86% increase in the percentage of people living on less than two dollars a day. Thus, these results support the initial assumption with a 95% level of confidence.

Table 1 Relationship between maternal Health and People Living on less than $2/day ($Y_1$)

X	1	2
Total Fertility rates (Births/Women)	1.768* (0.960)	1.708** (0.949)
Maternal Mortality Ratio (per 100,000)	1.o84* (0.321)	0.703* (0.311)
*Significant at 5% **Significant at 10%	n_1=1 n_2= 1 adjusted R^2_1=0.5423	Adjusted R^2_2=0.5432

Source: Data Output through E-Views 12.0

The final independent variable in the first linear regression analysis is the maternal mortality rate. Results suggest that a 10% increase in the maternal mortality rates (more deaths of women per 100,000 births) is associated with an 10.84% increase in the percentage of people

living on less than $2 a day, which is consistent with the initial hypothesis. Hence, societies that experience high maternal mortality rates are more likely to have a greater number of people living in poverty. A second specification of the variable for maternal health confirmed the finding explained above. In this regression, a 10% increase in total fertility rates (more births per women) is associated with a 17.08% increase in the percentage of people living on less than $2 a day. This further supports the idea that women have more children when they live in poverty. Lastly, the data once again support the idea that a 10% increase in the maternal mortality rate (more deaths of women per 100,000 births) is associated with a 7.03% increase in the percentage of people living on less than $2 a day, at a 95% level of confidence.

Table 2: Relationship between Development and People Living on Less than $2/day ($Y_1$)

X	**3**	**4**
GINI Index	0.323 (1.058)	1.542 (1.015)
Human Development Index	-2.346 (2.395)	-5.452* (0.9501)
Inequality adjusted HDI 2011	-4.213** (1.890)	-
*Significant at 5% **Significant at 10%	N_3 =1 N_4 = 1 Adjusted R^2_3=0.6984	Adjusted R^2_4 = 0.5924

Source: Data Output through E-Views 12.0

The next set of variables discussed herein is measures of development. Table 2 displays the relationships between people living on less than two dollars a day and the GINI index, the Inequality-adjusted Human Development Index, and the Human Development Index.

A third specification of this linear regression analysis was conducted to show the relationship between all the variables that measure development in this study and the number of people living on less than two dollars a day. Estimation results show that a 10% increase in the GINI index (a more unequal society) is associated with a 3.23% increase in the percentage of people living on less than two dollars a day. This supports the hypothesis that greater levels

of inequality are related to higher levels of poverty. However, the estimated coefficient is not statistically significant. The next independent variable is the Human Development Index, which is measured on a scale from zero to one with zero indicating a country with a very low level of human development and a one indicating a country with very high level. The results show that a 10% increase in the human development index is associated with a 23.46% decrease in the percentage of people living on less than two dollars a day. In other words, the higher the level of human development in a country, the lower the number of people living on less than two dollars a day. Yet, this result is not statistically significant. The final variable for this part of the regression is the inequality-adjusted HDI which uses the same technique to measure social and economic development as the HDI but is adjusted for inequality, which enables this index to quantify the losses of human development that result from inequality. The interpretation of this coefficient is as follows: a 10% increase in the inequality-adjusted human development index is associated with a 42.13% decrease in the percentage of people living on less than $2 a day. Unlike the first two coefficients, this one is statistically significant at a 90% level of confidence.

Specification 4 omits the adjusted Human Development Index and although the estimated coefficients are larger in magnitude, the results mimic the ones from the previous specification. The data support the idea that a 10% increase in the human development index is associated with a 54.52% decrease in the percentage of people living on less than two dollars a day. It is important to note that in this regression this outcome was statistically significant with a 95% level of confidence. Therefore, there is a significant relationship between the Human Development Index and the number of people living on less than two dollars a day, with the understanding that societies that have very low levels of social and economic development will have a greater number of people living in poverty.

Table 3: Relationship between Poverty and people living on less than $2/day ($Y_1$)

X	5	6	7
Poverty Gap at $1.25/day PPP %	-0.071 (0183)	-	0.349* (0.174)
Multidimensional poverty index 2013	0.358 (0.236)	0.419** (0.190)	-
Gross Domestic Product Per Capita	-1.564* (0.251)	-	-

*Significant at 5% **Significant at 10%	$N_5 = 1$ $N_6 = 1$ Adjusted $R^2_5 = 0.4490$	$N_7 = 1$ Adjusted $R^2_6 = 0.1528$	Adjusted $R^2_7 = 0.0518$

Source: Data Output through E-Views 12.0

The independent variables in Table 3 are used as measures of poverty/income and are used to compare the relationship between different measures of poverty/income and the number of people living on less than two dollars a day. In order to properly analyze the first variable in Table 3, it is important to understand the difference between the poverty gap at $1.25 a day and the number of people living on less than two dollars a day. The World Bank website explains the poverty gap as the average shortage from the poverty line at $1.25 a day in percentage terms and clarifies that this allows measurement of the occurrence and magnitude of poverty. Put simply, it is a more complete measure of the size of the poverty gap as compared to the poverty line at $1.25 a day or the average poverty gap divided by the poverty line at $1.25 a day.

The average poverty level is measured by dividing the total poverty gap and the total population. To further clarify, the total poverty gap is in essence the amount of income that is required to bring the people living below the poverty line up to the poverty line at $1.25 a day. Table 3 shows three different specifications. The first one suggests that a 10% increase in the poverty gap is associated with a 0.71% decrease in the percentage of people living on less than $2 a day. In relation to the poverty line there is a greater difference between the sum of the difference between the poverty line and actual income levels of all people living below that line - requires more money to bring everyone who is below that line up to the line. This finding does not support the hypo- thesis and has no statistical significance.

The following independent variable, the multidimensional poverty index, is a measure of acute poverty that classifies an individual as multidimensional poor if he/she suffers deprivations in 33.33% or more of three dimensions (health, standard of living and education). Therefore, the estimated coefficient shows that a 10% increase in the multidimensional poverty index is associated with a 3.58% increase in the percent- age of people living on less than two dollars a day. So, an increase in the multidimensional poverty index, or the result of the multiplication of the population that is multidimensional poor and the 'intensity of deprivation,' would indicate a greater number of people living on less than two dollars a day. Nevertheless, this relationship is not statistic- ally significant. Lastly, the data support the initial hypothesis on the relationship between the Gross Domestic Product per capita and the number of people living on less than two dollars a day with a 95% level of confidence. The estimated coefficient shows that a 10% increase in the GDP per Capita,

higher level of income, is associated with a 15.64% decrease in the percentage of people living on less than two dollars a day.

The next two specifications show estimated coefficients that are statistically significant at a 90% level. Estimated coefficients suggest, that a 10% increase in the multidimensional poverty index is associated with a 3.29% increase in the percentage of people living on less than two dollars a day. In other words, the greater the number of people that are multidimensional poor, the greater the number of people living on less than two dollars a day. On the other hand, a 10% increase in the poverty gap (requires more money to bring everyone who is below that line up to the line) leads to a 4.19% increase in the percentage of people living on less than two dollars a day. Given these estimates, it can be concluded that a country with a large poverty gap at $1.25 a day will have more people living on less than two dollars a day.

Table 4: Relationship between gender and people living on less than $2/day ($Y_1$)

X	**8**	**9**
Female population (Thousands)	0.048 (0.173)	0.407 (0.178)
Female headed Households	-0.317 (0.565)	-
Gender Inequality Index 2012	2.731* (0.998)	-
*Significant at 5% **Significant at 10%	$N_8 = 1$ $N_9 = 1$ Adjusted $R^2_8 = 0.332$	Adjusted $R^2_9 = 0.0213$

Source: Data Output through E-Views 12.0

Table 4 shows the results of the analysis that was conducted in order to test the relationship between gender and the number of people living on less than two dollars a day. The independent variables used to measure gender are female population in thousands of people, the percentage of households that are managed by women, and the gender inequality index.

The results for specification 8 support the initial hypotheses. However, only the Gender Inequality Index proved to be statistically significant. The Gender Inequality Index is measured from one to zero. Nations that are closer to one have greater gender disparities

while countries closer to zero experience almost no gender disparities. This is consistent with the results displayed in the first column of table 4 because a 10% increase in the gender inequality index is associated with a 27.31% increase in the percentage of people living on less than two dollars a day. In other words, high levels of the Gender Inequality Index are closely tied to more people living on less than two dollars a day. Conversely, as the percentage of women head of households rises, the number of people living on less than two dollars a day declines. Hence, a 10% increase in the number of female headed households is associated with a 3.17% decrease in the percentage of people living on less than two dollars a day.

The independent variable for female population measured as natural logarithms of thousands of people has a positive relationship with the number of people living on less than two dollars a day. So, a 10% increase in the female population is associated with a 0.48% increase in the percentage of people living on less than two dollars a day. In order to retest the significance of the variable for female population, a specification with female population was run as the only independent variable. It was found that by adding more degrees of freedom, the coefficient increased, but it remained statistically insignificant. Explicitly, a 10% increase in the female population is associated with a 4.07% increase in the percentage of people living on less than two dollars a day.

Table 5: Relationship between Education and People Living on Less than $2/day ($Y_1$)

X	8	9	10
Female Primary completion	-2.435 (1.691)	-2.136 (1.687)	-4.292* (1.189)
Youth female literacy rate (ages 15-24)	-2.736 (2.468)	-3.901* (2.260)	-
Ratio female/male Primary enrolment	-3.779 (4.835)	1.224 (4.504)	-
Ratio female/male secondary enrollment	4.521** (2.835)	-	-
Ratio female/male tertiary enrollment	-2.198* (0.918)	-	-

*Significant at 5% **Significant at 10%	N_8 =1 N_9 = 1 Adjusted R^2_8=0.3740	N_{10} = 1 Adjusted R^2_9 = 0.3856	Adjusted R^2_{10} = 0.4336

Source: Data Output through E-Views 12.0

Table 5 lists the results of the last regression that was conducted in order to find the relationship between a selection of education variables and poverty measured by the number of people living on less than two dollars a day. For the purpose of this linear regression, education is measured by the female primary school completion rate, youth female literacy rate, ratio of female to male primary enrollment, ratio of female to male secondary enrollment, and ratio of female to male tertiary enrollment.

The hypotheses for specifications 9 through 12 are that the higher ratios of female to male enrollment, rates of youth female literacy, and female primary completion would be related to less people living on less than two dollars a day. Specification 10 shows that the data support this hypothesis except for the ratio of female to male secondary enrollment. It is worth mentioning that the youth female literacy rate and the ratio of female to male primary enrollment are not statistically significant for specification 10. The youth female literacy rate accounts for the women and girls ages 15 to 24 that can read and write as a percentage of the total population of women and girls ages 15 to 24. Specification 11 provides a statistically significant coefficient for the youth female literacy rate. A 10% increase in the youth female literacy rate amongst women and girls 15 to 24 years of age is associated with a 39.01% decrease in the percentage of people living on less than two dollars a day. The results shown are actually higher than the not statistically significant results of specification 10, which state that a 10% increase in the youth female literacy rate amongst women and girls 15 to 24 years of age is associated with a 27.36% decrease in the percentage of people living on less than two dollars a day. The female primary school completion rate measures the number of females in the final stage of primary education as a percentage of the females that should be in the last grade according to the entrance age.

As can be seen in Table 5, this variable is inversely related to the number of people living on less than two dollars a day. Specification 10 shows that a 10% increase in the percentage of female primary completion is associated with a 19.27% decrease in the percentage of people living on less than two dollars a day. Specification 11 suggests that a 10% increase in the percentage of female primary completion is associated with a 21.36% decrease in the percentage of people living on less than two dollars a day. However, the estimated coefficients are not statistically significant. For this reason, one additional specification was run with the female primary completion rate as the only independent variable. Results indicated that a 10% increase in the percentage of female primary completion is associated

with a 42.92% decrease in the percentage of people living on less than two dollars a day at a 95% level of confidence.

The relationship between the ratio of female to male primary enrollment and the number of people living on less than two dollars a day is inconclusive. In specification 10, the data show that a 10% increase in the percentage of girls to boys enrolled at a primary level is associated with a 37.79% decrease in the percentage of people living on less than two dollars a day. Specification 11 suggests that a 10% increase in the percentage of girls to boys enrolled at a primary level is associated with a 15.24% increase in the percentage of people living on less than two dollars a day. Although the result from specification 10 confirms the hypothesis and has a higher t-statistic, these estimated coefficients are not statistically significant. Contrary to the preliminary hypothesis, the percentage of girls to boys that enroll in secondary programs is positively related to poverty (as measured in this study). So, a 10% increase in the percentage of girls to boys enrolled at a secondary level is associated with a 45.21% increase in the percentage of people living on less than two dollars a day. Keeping in mind that these results are statistically significant, it is possible that more girls enroll but fail to complete the program, or that the cost of secondary education is high and the girls cannot escape poverty until they complete the program and find a job. Finally, the results shown in specification 10 for female to male enrollment in tertiary education is statistically significant and supports the first assumption by revealing that a 10% increase in the percentage of girls to boys enrolled at a tertiary level is associated with a 21.98% decrease in the percentage of people living on less than two dollars a day.

Table 6: Relationships between maternal health and Gross Domestic Product Per Capita (Y_2)

X	1	2	3	4
Total Fertility rates (Births/Women)	-0.441 (0.562)	-0.457 (0.512)	-098* (0.481)	-
Maternal Mortality Ration (per 100,000)	-0.304* (0.188)	-0.524* (0.168)	-	-
*Significant at 5% **Significant at 10%	N_1 =1 N_9 = 4 Adjusted R^2_1=0.4321	N_2 = 1 Adjusted R^2_2 = 0.4234	N_3 = 1 Adjusted R^2_3 = 0.3753	N_4 = 1 Adjusted R^2_4 = 0.3245

Source: Data Output through E-Views 12.0

The next five tables display the results from the second regression equation. These tables depict the correlation of maternal health, social development, poverty, gender and education to economic development measured by using Gross Domestic Product per Capita.

Specification 1 in table 6 shows that the estimated coefficient of the maternal mortality rate was the only statistically significant independent variable although the coefficients support the preliminary hypotheses. The interpretation of elasticity indicates that a 10% increase in the maternal mortality rate is associated with a 3.04% decrease in the gross domestic product per capita. Furthermore, a 10% increase in total fertility rates is associated with a 4.41% decrease in the gross domestic product per capita. Put simply, fewer births per women indicates higher levels of economic development. The findings in specification 2 show that a 10% increase in the maternal mortality rate is associated with a 5.24% decrease in the gross domestic product per capita. In addition, a 10% increase in the fertility rate is associated with a 4.57% decrease in the gross domestic product per capita. A third specification showed that the estimated coefficient for totality fertility rates is statistically significant if analyzed solely alongside the variable for the use of contraceptive methods. The elasticity coefficient shows that a 10% increase in total fertility rates is associated with a 9.8% decrease in the gross domestic product per capita.

Table 7: Relationships between Social Development and Gross Domestic Product per Capita (Y_2)

X	**5**	**6**
GINI Index	-0.085 (0.456)	-0.452 (0.438)
Inequality adjusted HDI 2011	-0.149 (0.816)	-
Human Development Index	4.855* (1.034)	2.423* (0.411)
*Significant at 5% **Significant at 10%	N_5 =1 N_6 = 1 Adjusted R^2_5=0.7323	Adjusted R^2_6 = 0.5660

Source: Data Output through E-Views 12.0

Table 7 explores the relationship between social and economic development. Social development, in this case, is measured by the GINI index, the human development index, and the inequality-adjusted human development index.

For both specifications, the only coefficient that is statistically significant is the human development index. Specification 5 indicates that a 10% increase in the human development index is associated with a 48.55% increase in the gross domestic product per capita. In addition, specification 6 shows that a 10% increase in human development index2 is associated with a 24.23% increase in the gross domestic product per capita. It is evident that in both cases, countries that experience higher levels of human development also have higher levels of economic development. Specification 5 suggests that a 10% increase in GINI index is associated with a 0.85% decrease in the gross domestic product per capita. Moreover, a 10% increase in inequality-adjusted human development index is associated with a 1.49% decrease in the gross domestic product per capita. Specification 6 indicates that a 10% increase in the GINI index is associated with a 4.52% decrease in the gross domestic product per capita. Even though a second specification confirms the results and they all support the preliminary hypotheses, the estimated coefficients are not statistically significant.

The results listed in Table 8, explain the relationship between the independent variables used to measure poverty and the gross domestic product per capita. Poverty is measured by the poverty gap at $1.25 a day, the multidimensional poverty index, and the number of people living on less than two dollars a day. Initially, it was assumed that all these variables would decrease as the gross domestic product per capita increased, and vice versa. Estimation results in Table 8 support the preliminary hypothesis of a negative relationship between per capita GDP and each of the three measures of poverty. In particular, a 10% increase in the percentage of people living on less than $2 a day is associated with a 39.5% decrease in the gross domestic product per capita. Although the other coefficients in specification 7 are not statistically significant, they show that a 10% increase in the poverty gap is associated with a 0.73% decrease in the gross domestic product per capita. Furthermore, a 10% increase in the multidimensional poverty index is associated with a 0.42% decrease in the gross domestic product per capita.

Table 8: Relationships between Poverty and Gross Domestic Product per Capita (Y_2)

X	7	8	9
Poverty Gap at $1.25/day PPP %	-0.073 (0.010)	-	-0.177* (0.090)
Multidimensional poverty index 2013	-0.042 (0.133)	-0.155** (0.108)	-

People living on less than $2 a day	-0.395* (0.076)	-	-
*Significant at 5% **Significant at 10%	N_7 =1 N_8 = 1 Adjusted R^2_7=0.4904	Adjusted R^2_8 = 0.07814	N_9 =1 Adjusted R^2_9 = 0.0942

Source: Data Output through E-Views 12.0

In an attempt to test the significance of the multidimensional poverty index, the other variables that measure poverty were excluded and more observations in this specific sample were included. Specification 8 shows that a 10% increase in the multidimensional poverty index is associated with a 1.55% decrease in the gross domestic product per capita with a 90% level of confidence. Finally, specification 9 assesses the validity of the relationship between the poverty gap at $1.25 a day and the gross domestic product per capita. The analysis shows that a 10% increase in the poverty gap is associated with a 1.77% decrease in the gross domestic product per capita.

Table 9: Relationships between Gender and Gross Domestic Product per Capita (Y_2)

X	**10**	**11**
Female Population in (Thousands)	-0.036 (0.095)	-0.097 (0.095)
Female Headed households	-0.625 (0.310)	-
Gender inequality index 2012	-2.364* (0.547)	-
*Significant at 5% **Significant at 10%	N_{10} =1 N_{11} = 1 Adjusted R^2_{10}=0.0.4496	Adjusted R^2_{11} = 0.0043

Source: Data Output through E-Views 12.0

Table 9 describes the correlation between gender and development. It is divided into two specifications and explains the coefficients for the variables of female population, female headed households, and the gender inequality index.

Two specifications were conducted to test the statistical significance of the coefficients but the gender inequality index is the only variable that yielded a statistically significant coefficient. Hence, a 10% increase in the gender inequality index is associated with a 23.64% decrease in the gross domestic product per capita with a 95% level of confidence. This confirms the initial hypothesis of a negative relationship between the gender inequality index and the gross domestic product per capita. At the same time, the coefficient for female headed household discredits expectations by showing that a 10% increase in the number of female headed households is associated with a 6.25% decrease in the gross domestic product per capita. However, this coefficient is not statistically significant. It could be possible that this is not the best variable to measure women's empowerment, or that the limited sample size does not provide an accurate depiction of the real relationship. Both specifications 10 and 11 support the hypothesis by revealing that a 10% increase in the female population is associated with a 0.36% decrease in the gross domestic product per capita. In addition, a 10% increase in the female population is associated with a 0.97% decrease in the gross domestic product per capita. Nevertheless, neither of these coefficients is statistically significant.

Table 10: Relationships between Education and Gross Domestic Product per Capita (Y_2)

X	12	13	14
Female Primary completion	2.429* (0.722)	-	-
Youth female literacy rate (ages 15-24)	-0.426 (1.054)	2.556* (1.056)	3.999* (0.959)
Ratio female/male Primary enrolment	-1.673 (2.065)	-2.758 (2.297)	-1.049 (2.250)
Ratio female/male secondary enrollment	0.727 (1.211)	2.798* (1.185)	-
Ratio female/male tertiary enrollment	1.134* (0.392)	-	-

*Significant at 5% **Significant at 10%	N_{12} =1 N_{13} = 1 Adjusted R^2_{12}=0.5849	N_{14} = 4 Adjusted R^2_{13} = 0.3423	Adjusted R^2_{14} = 0.1279

Source: Data Output through E-Views 12.0

Finally, Table 10 explores the relationship between education and the gross domestic product per capita. Female education is measured by using the female primary completion rate, the youth female literacy rate, and the ratio of female to male primary/secondary/tertiary enrollment. The results displayed in table 10 support the hypotheses except for the relationship between female to male primary enrollment and gross domestic product per capita which was expected to be positive. Specification 12 indicates that 10% increase in the ratio of girls to boys enrolled at a primary level is associated with a 16.73% decrease in the gross domestic product per capita. Specification 13 indicates that a 10% increase in the percentage of girls to boys enrolled at a primary level is associated with a 27.58% decrease in the gross domestic product per capita. Specification 14 shows that a 10% increase in the percentage of girls to boys enrolled at a primary level is associated with a 10.49% decrease in the gross domestic product per capita. Although all three specifications uphold the negative relationship between the ratio of female to male primary enrollment and the gross domestic product per capita, the estimated coefficients are not statistically significant and more data may be needed to obtain a significant result. Specification 12 shows that a 10% increase in the percentage of female primary school completion is associated with a 24.29% increase in the gross domestic product per capita and that a 10% increase in the percentage of girls to boys enrolled at a tertiary level is associated with a 11.34% increase in the gross domestic product per capita. Both of these coefficients are statistically significant. Moreover, this specification indicates that a 10% increase in the youth female literacy rate amongst women and girls 15 to 24 years of age is associated with a 4.26% decrease in the gross domestic product per capita and that a 10% increase in the percentage of girls to boys enrolled at a secondary level is associated with a 7.27% decrease in the gross domestic product per capita. Nevertheless, these estimated coefficients are not statistically significant. Moreover, specification 13 suggests, that a 10% increase in the youth female literacy rate amongst women and girls 15 to 24 years of age is associated with a 25.56% increase in the gross domestic product per capita and that a 10% increase in the percentage of girls to boys enrolled at a secondary level is associated with a 27.98% increase in the gross domestic product per capita. The last specification confirms that a 10% increase in the youth female literacy rate amongst women and girls 15 to 24 years of age is associated with a 39.99% increase in the gross domestic product per capita, with a 95 % level of confidence.

5. CONCLUSION AND RECOMMENDATION

For the most part, the data support many of the preliminary hypotheses so in general it can be concluded that there is a significant relationship between empowerment of women, poverty reduction, and development. Therefore, this study may be useful to policy makers, specifically to assist them in understanding the types of programs that may be more effective. It is clear that programs focused on maternal health are more likely to reduce poverty, which would suggest greater investment in health infrastructure and the expansion of programs that educate women about pregnancy.

Recommendation:

The results suggest that programs focused on women's education are more prone to foster development. Based on this, policymakers at local and national level should create incentives for women to further their education and implement programs that bring awareness to girls and women about gender disparities, while also improving their self-confidence and technical skills. It is important to note here that the scope of this study is limited and the findings may not be applicable to all developing countries. This suggests that the current data set could be expanded to include more developing and developed countries and this may enable researchers to work with more degrees of freedom. In addition, this study does allow for a greater appreciation of women's standing in terms of education, health, development, gender, and poverty, so as to achieve the sustainable development in Afghanistan which is the core slogan in its National Development Strategy 2020-2025.

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