An Empirical Evidence on Impact of remittance on Human Development in South Asian

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Certificate

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I, **Aqib Hussain** hereby state that my MPhil thesis titled ''**An Empirical Evidence on the Impact of Remittances on Human Development in South Asia**" is my own work and has not been submitted previously by me for taking any degree from Quaid-e-Azam University Islamabad, or anywhere else in the country/abroad.

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Dedicated to

My Beloved Parents and Brothers for their endless love,

Support and Encouragement.

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Abstract

The main objective of this study is to investigate the impact of remittances on human development in the South Asian region, which have larger remittance inflows as this region has seen a significant rise in foreign inflows over the previous three decades, which helped to strengthen their economies and enhance human development. The current study is based on a panel data set of South Asian economies over the period of 1996 to 2020. The impact of remittance on human development is empirically tested by employing the standard panel estimation techniques that are fixed or random effect model. Further, the Hausman test is use to choose between the fixed and random effect model. The impact of remittance on human development is investigated by carrying out comprehensive empirical regressions. Five different versions of empirical regressions are estimated to trace the impact of remittance on human development by employing fixed effect model. The empirical findings indicate a positive and significant impact of remittance inflows on human development in the South Asian region. The effect of remittance on human development is positive in almost all versions of the empirical models which imply that the importance of remittance inflows cannot be denied for human development and for improving social and economic condition of the region. The result further shows that control of corruption also have significant and positive impact on human development, however, increase in population adversely affect human development. In general, all independent variables such as remittance inflows, GDP per capita, foreign direct investment, labor force participation rate and control of corruption shows have a favorable human development except urbanization, which is positive and insignificant.

Chapter 1

Introduction

1.1 Background and Motivation of the Study

Remittances are fundamentally personal transactions or transfers of payments from migrant workers to their relatives in their home country. The rapidly growing economy of the world from agrarian to industrialization exerts pressure on the globalization of migration, as migration boosts inflows of remittances; especially in developing countries hence it is inevitable to consider the significance of those financial inflows for economic growth and human development in countries (Noman & Uddin 2011). Remittance influx has been growing by an average rate of 16% per annum in developing countries since 2000. Global remittances stretched a record high of $611 billion in 2019, a growth of 4.6% from the earlier year but saw a decline slightly to $590 billion due to the COVID-19 pandemic in 2020 (World Bank, 2021).

Remittances are a lifeline in a crisis (UNDP 2018) and perform as a stabilizer in occurrences of high macroeconomic volatility. (Mohapatra et al. 2010) for the challenges of external economic shocks, remittances are much steadier and sustained to minimize the impact of such shocks. In the last three decades inflows of remittances to the developing world drastically increased from $29 billion in 1990 to $626 billion in 2022 even though there is a worsening global situation due to covid19 and economic insecurities (World Bank 2022). Existing literature linked remittances positively with various indicators of economic growth and human development, such as better healthcare facilities, quality education, improving standard of living, and promoting gender equality. Possibly remittances inflows can have significant development impacts in the economies as they increase consumption by increasing personal income, in addition increase investment and social insurance in lower income countries through lending, purchasing and philanthropy, which provide pitch for small enterprises as well as facilitate small farmers and improve education standard with long term repercussions for economic and human development (Kapur, 2004). Adam & Page (2003) explored that migrant's remit to their origin country significantly improve average income and reduce both the poverty gap and squared poverty gap.

Bajra (2021) investigating Western Balkan Countries by instrumental variable and controlling endogeneity reveals that the impact of remittance on economic growth is not much stronger. Adams & Page (2005) linked remittances negatively to economic and human development as the pessimist school of thought consider those inflows caused inflation in host country, decreasing export by appreciating local currencies and brain drain, which extract skilled labor force from the home country so ultimately economy decline. Siddique et al, (2012) argue that remittances received by households are essential financial inflows for economic development and human development. Higher remittances to the origin country of migrants had an adverse effect on growth and institutional performance familiar to Dutch disease as remittance increase additional financial stock and decrease prospective of accountability of institutes consequently corruption increased which deteriorate local investment (Martin& Subramanian, 2013).

1.2 Significance of the Study

South Asian region (Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka) received the maximum of remittances as share of their GDP in the global world, as in volume almost one-fifth of world remittances were destined to South Asian countries between 2015 and 2019 which are much higher than other foreign inflows such as FDI and official development assistance (ODA) (Najar and Pochet, 2021). In the developing world, relative to other external money, remittances inflows are three times larger than official development assistance (ODA) and two times of foreign direct investment (FDI) (Ngoma & Ismail, 2013. The major destination of migrant workers from South Asia is GCC countries which measured fifty-nine percent (59%) of remittance inflows, about 12% account from US and 6% from UK. over $120 billion of remittances were received in 2020 (World Bank). Such large remittances are a reliable source of income for many households in the region and important source of foreign exchange reserves for government authorities which are contributing to strengthen major economies in the region.

The importance of remittances to socio-economic development in South Asia and the high trend of inflows over the last three decades have raised the interest of researchers in this area. Fayasa & Nasiah (2008) stated that remittance inflows provide alternative way of financing to the developing countries in which financial system is week that financing helps economic growth of these countries and act as the backbone for these countries.

By conducting a cross-country study of 69 low- and middle-income countries, Zhunio et al (2012) showed remittances through their effect on private educational spending, have a higher effect on educational outcomes than public expenditure on education. Further analyzing 46 SSA countries K. Amegs (2018) reveal that enrollment at secondary and tertiary level increase with the increase in real remittance per capita. Moreover, remittances inflows reduced infant and adult mortality and increase life expectancy. Yasmin et al, (2019) further explored through panel estimation of 66 countries that there is positive impact of remittances on HDI through investment and consumption of remittances received by the home country. Huay & Bani (2018) examined the sample of 54 developing countries by using the GMM model and found that poverty is reduced by remittance as poverty reduces to 0.47 percent by increasing one percent of remittances and enhances education level as well.

1.3 Objective of the study

The impact of remittance on human development was investigated by many researchers all over in the world particularly by linking remittances with economic growth or by taking selected indicators of human development individually such as income per capita, poverty, school enrollments or quality education and health advancement.

South Asia is the region of higher remittance inflows as a percent of their GDP and is home to 1.9 billion people (World Bank 2021). Many studies were conducted by taking data from major countries of the region (India, Pakistan, Bangladesh, and Sri Lanka), to explore the impact of remittances on countries performance (Irdam & Ustubici, 2012; Umar Mohammed 2021). However the studies which specifically explored the relationship between remittance inflows and indicators of human development are rare for South Asian region, so the current study will contribute to the empirical literature by exploring the impact of remittance inflows on human development in south Asia. The study will provide insights into the potential of remittances as a tool for human development, as well as for different economic and social challenges faced by any economy.

1.4 Arrangement of the Study

In the second chapter we have discuss the literature review related to the impact of remittance inflows on human development. In the third chapter theoretical framework is discussed which explains theoretical channels through which remittance inflows may affect human development. In chapter four data and methodology is discussed, results and discussion is presented in chapter five and last chapter concludes the study.

Chapter 2

Literature review

The flow of income in the form of cash or any kind, from abroad to home country by international migrants due to migration is termed as remittances. Broad literature is available on how remittance pushes all three dimension of human development such as life expectancy, access to education and standard of living to the state's prosperity, emphasizing channels and indicators through which remittances assist economic growth but not development directly, there for the following literature help us to acknowledge the importance and empirical analysis of remittance and development. Orozco (2014) studied the implications of migrant's remittances in developing countries and their linkages to development by defining development as a situation that gives a variety of choices, healthy quality of life, free mobility with dignity to improve the standard of livings. The author claimed that regulations, market stability and access to financial service in both host and recipient country structuralize remittances and its impact on the development.

Irdam, et al. (2012) examined the nexus between remittances and migration by analyzing the effect of remittances on human development both by the qualitative and quantitative framework; by using OLS estimation and different techniques, the result indicates that the impact of remittances on human development is significantly more than that of other foreign inflows such as FDI and ODA. Aziz et al., (2015) examined the economic growth rate and migrants by using panel data from 72 nations from the time period 1980 to 2010 with the role of financial development by using GMM and fixed effect estimation. The studies reveal that financial development gives favorable circumstances to migrant’s remittances so that productive investment was carried out to gain economic growth, further the study also explores a positive increase in economic growth with trade openness and financial liberalization which is to assist migrant's remittances.

Nasim (2019) studies the effect of remittances on domestic capital formation by taking data from four SAARC countries (Bangladesh, India, Pakistan, and Sri Lanka) to investigate the impact of remittances on domestic capital formation by using 38 years of annual data from 1980 to 2016. This study has used secondary data from the World Bank websites and a fixed effect model was constructed for an estimation that shows that domestic capital formation is negatively related to remittances.

D.E Adenutsi (2010) conduct a study to examine the macroeconomic long-run impact of remittances on human development in poor countries by investigating data from 15 sub-Saharan African countries from 1987 to 2017. The results of that study show increased international remittance significantly promote human development in poor countries, but in the area, under study such as sub-Saharan countries the impact of remittances is less significant to human development than that of other factors.

Wahab et al, (2013) analyze the relationship among remittances human resource development, and migration in South Asian region both by qualitative as well as quantitative estimating of panel data, the OLS estimation shows that remittances have a negative relation with infant mortality rate also primary and secondary enrolment negatively impact remittances but tertiary school enrolment impact positively. The stock of human recourse promotes growing remittances which help in developing economy of the country.

Giuliano et al, (2009) give a deep description of their study in which they linked remittances and growth and interaction with the local financial development sector. The sample cover 100 developing countries from the period from 1975 to 2002, the data was arranged into 6 non-overlapping 5-year periods and estimated through OLS and other econometric tools such as the GMM approach. The results indicate that remittances have promoted growth in less financially developed countries by providing an alternative way of investment and the only channel to grunted growth.

Abdih, et al (2012) examine the nexus between remittances and institutional quality in receipt county by using cross-sectional data from 111 countries by simple econometric model and found that although remittance provides welfare to households as they are person-to-person transfer payment which let gap for government to utilize local recourse to own purpose through corruption as whole welfare of the community is decline further by addressing endogeneity and robustness, find that effect of remittance inflows on institutional quality negative and significant.

Abbas (2019) conduct a cooperative econometric inquiry by using ARDL approach on data set from 1980 to 2017 taken from four SAARC countries (Pakistan, India, Bangladesh, Sri Lanka) to know the effect of migrant's remittances on domestic investment. The result shows that there is significant positive relation of remittance to domestic investment in all country except of country Pakistan in long run.

Winterton et al (2019) conduct a study with the objective to analyze the impact of remittances on human development particularly in developing countries by using usual panel estimates, such as pooled OLS, fixed or random effects. The data sampling include sixty-seven developing countries, with panel estimation having time period range from 1980 to 2014. The estimation findings also support Üstubuci and Irdam (2012) and Adenutsi (2010), who found evidence that remittances are positively associated with human development. Approximately 0.016 percent increase in human development is due to a one percent increase in remittance inflows which are statistically significant with positive coefficients in developing to improve human development.

Kamalu et al, (2021) examined the impact of international inflows of remittance on human development targeting the data set of fifty-seven organizations of Islamic countries over twenty-eight years from 1990 to 2018. Dynamic Common Correlated Effects (DCCE) and Cross-Sectional Autoregressive Distributive Lags (CS-ARDL) techniques are used to investigate the impact of remittances on human development which shows positive relation of remittance to human development, financial development, and foreign direct investment also positively relate with human development significantly.

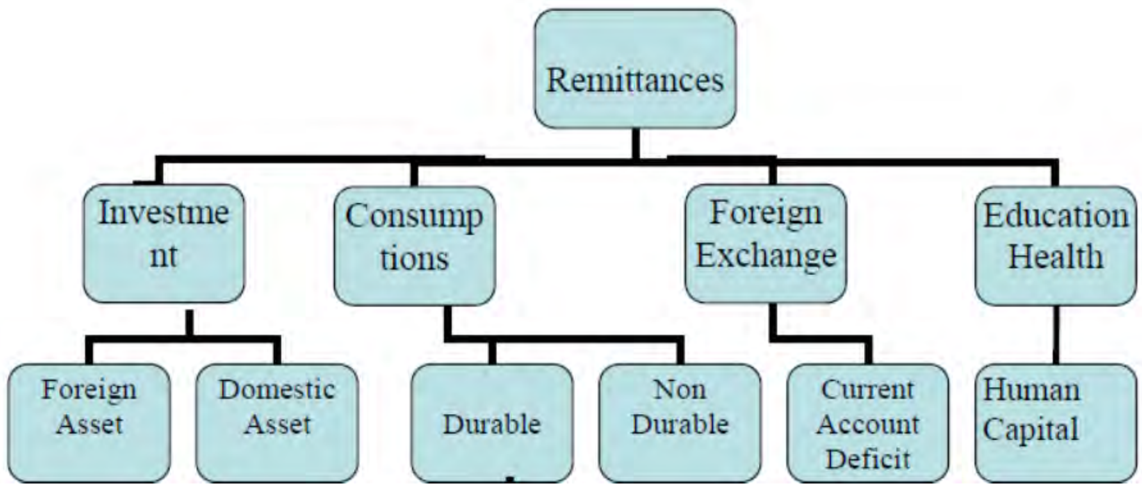
Larsson et al, (2014) using HDI as a dependent variable analyze the relationship of remittances to human development by supporting their studies with empirical evidence from 99 developing countries to answer the question of how remittances affect a broader aspect of development. The estimation tool and techniques used in the study are OLS and fixed effect model which reveals that the remittances received have a positive net effect on human development in developing countries.

Mahmood (2021) in an empirical analysis of remittance, institution, and human development for the selected area of Sub-Sahara Africa in a time period, from 2014 to 2018 by using the GMM model, estimation results that countries with the weak institutional structure significantly compensated by remittance inflows and positive impact on human capital development, results also acknowledge that the minimal impact of remittances as a source of capital for human development is weakening in countries with well-developed institutions.

Rahman (2015) examine the 13-year data from 1996 to 2013 in Bangladesh to well define the causative nexus of remittances with political stability and foreign direct investment both in the long and short run by using vector error correction model and found that remittances are positively related with political stability in the short run as well as in long run.

Hassan and Shakur (2017) studied the impact of remittances on the per capita GDP growth of Bangladesh by using econometric modeling such as OLS, Instrumental Variable-Two Stage Least Square (IV-2SLS), and IV-GMM estimators, for data period, from 1976 to 2012 and found that in the short run or initial phase inflow of remittance drop per capita GDP but in the long run or later phase remittances enhance growth rate significantly. How remittance are been utilize by recipient family to increase their living standard and helped economy can understood by give figure 1

Figure: 1 The impact of Remittances on Key Indicators



Source: Umiama et al, (2008)

Literature review related to our current study by different researchers put a better guide for us to understand the behavior of remittance toward human development. Most of the studies are highly encouraging toward positive impact of human development through rational utilization in investment, education and health however some studies conclude minor or negative impact of remittance on human development.

Chapter 3

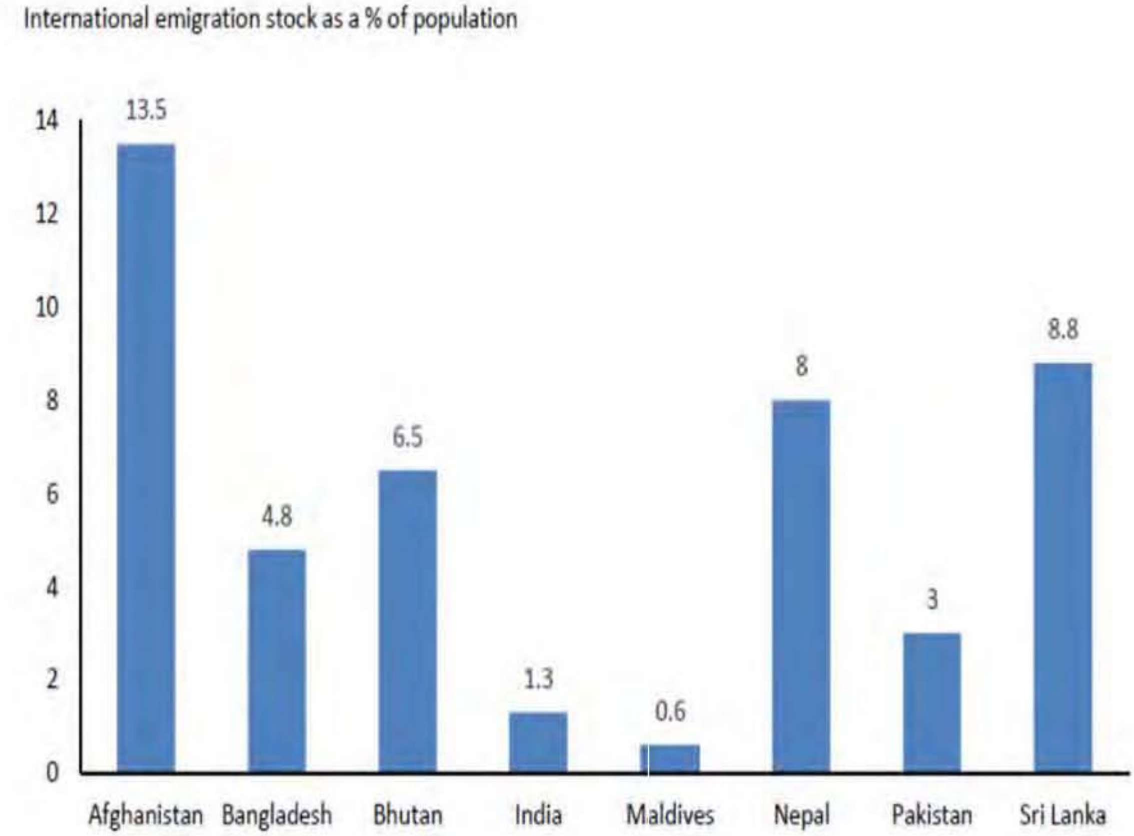
Remittance and migration trend in South Asia

3.1 Migration Trend

The pattern of international migration is a macro movement across international boundaries which were shaped due to many reasons such as for financial development, political cause, and sub-regional social development. Globalization and technological development had fast-tracked the global movement especially labor movement. Pritchett (2006) argues that the force that accelerated migration is wage differentiation in developing and developed countries. The regional territories located in southern part of Asia continent are known as SAARC countries, comprising of eight countries such as; Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. South Asia region is home to population of over 1.9 billion (World Bank, 2021), most culturally and ethnically diverse people, which made it one of densely populated region in the world. This large and growing population as well as geopolitical importance of region with full of natural resources as well as intensive human capital provides major opportunities for economic growth and development. Global migrants stock from Asia is estimated around 84 million (UNDESA 2019), by its size, South Asia had the largest number of settlers in the world in 2019 approximately 41.2 million people in the region lived outside to their country of origin. Yet, as a percentage of population, South Asia was small, with an average of just 2.2% (World Bank 2022). Migrants profile of this region is sustainable and became more volatile over time, as in 1970s, mainstream migration population were male for mega infrastructure development projects. In later 1980 economic growth in south Asian region encourage both high-skilled and low skilled labor internationally as a result America, Australia, and the oil economies in the GCC became major destinations of that skilled and low-skilled labor. Later on 1990s, the demand of domestic worker significantly increase, even the number of women worker also increases to Middle East and other Asian region (Bangladesh and Sri Lanka account for 50 percent of women labor emigrants). GCC countries have been the main destination for migrants from South Asia, Saudi Arabia capture 50 percent emigrants from Pakistan and 42 percent from Bangladesh, about 20 percent Nepali worker and 25 percent Sri Lankan worker were employed (UNDESA 2019), but a steady structural transformation is in practice in favor of high-income countries for Indian migrants.

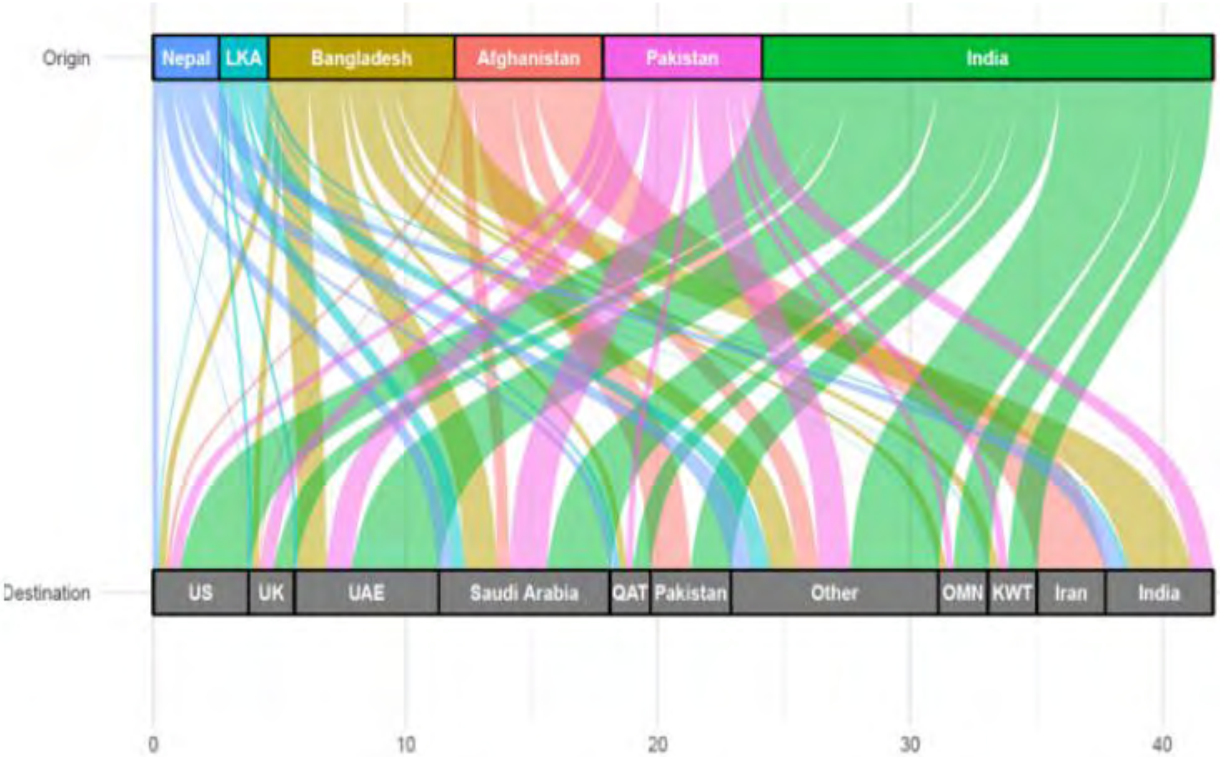
South Asian emigration is highly motivated and driven by economic and development purpose else of Afghanistan (World Bank 2022) where conflict forced emigration. In the labor stock Indian share of emigration was 1.3 percent of their population and the share was above 8 percent in Afghanistan. Least share of emigration to population was experienced by Maldives as around 0.6 percent. The challenges of covid-19 in 2020 badly affect the pattern of migration as almost 22 percent of remittance decline due to job loss; one out of six migrant loss their job (ILO), boarder were closed; about 2.5 million people stranded (World Bank 2020). Figure 2 gives a snap of international stock of migration as percentage of population in 2022.

Figure: 2 International Stock of Migration as Percentage of Population



Source: World Bank staff calculations based on UNDESA (2019) and World Bank (2022).

Figure: 3 South Asian stocks of international settlers in 2020 by origin and destination



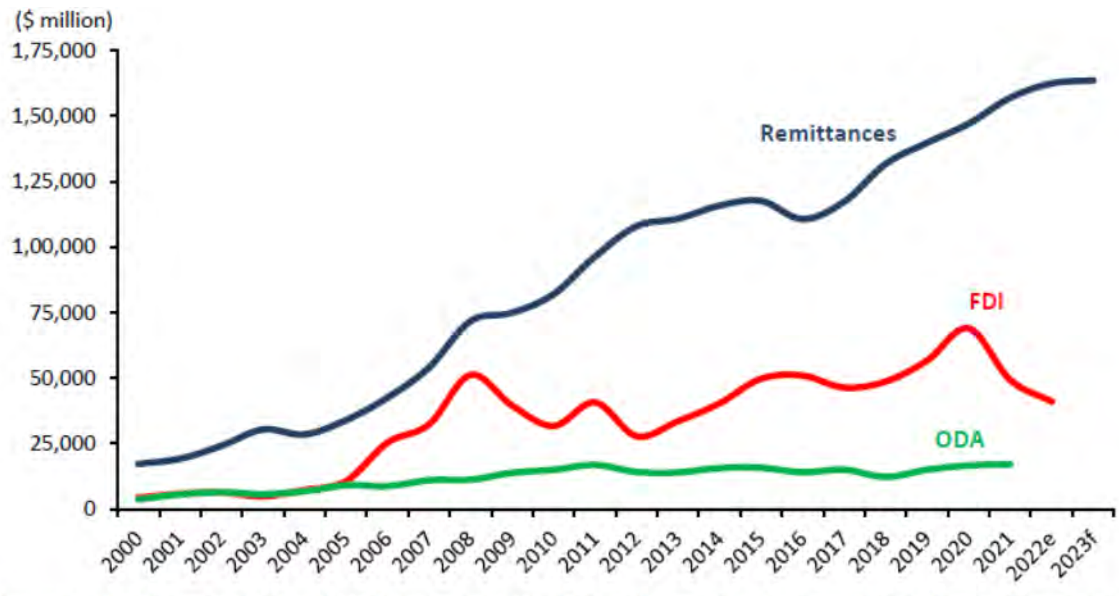
Source: (World Bank, 2021)

3.2 Remittance Trend and Human Development

The constant, mammoth, and stable flow of international transfers of migrant's to home countries have become one of the key significant sources of foreign exchange and family income for many developing and emerging economies for their development and sustainable growth, therefor those migrants inflows captured attention of economist and policy makers. Remittance being to opposite face of a coin had great significance to South Asian countries due to its constant and rapid increase as external inflows. Reducing the cost of remittance is 10th agenda of sustainable development goal which emphasize remittance cost to decrease by 3% and not more that 5% in any corridor by 2030 (UNDP). The objective 20 vision of

Global Compact for Safe and Ordinary Migration is to accelerate safe faster and cheaper remittances transfer and boost economic inclusion of migration (UN 2019). Remittances are not family income or individual funds they are external incomes for whole country to reduce poverty and increase household income, secondly remittances boost local economies through opportunity of investment as capital inflow increase, thirdly socio-economic development by improving education choices and standard health facilities. South Asia is largest recipient of remittance with steady projection and was estimated to 2,397 percent increase in last three decade from $5.57 billion in 1990 to $147.5 billion in 2020(World Bank) . The remittances inflows remain much higher in South Asian countries than other financial inflows such as foreign direct investment (FDI) and official development assistant and remain constant throughout 2022 as demonstrate in the figure 3.

Figure 4: Comparison of Remittances, FDI and ODA for South Asia



Sources: World Bank–KNOMAD staff estimates; World Development Indicators; IMF Balance of Payments Statistics.

Table 1: Remittance inflows to South Asia

Year	Remittance inflow to South Asia (in $ billion)
1990	5.57
1995	10
2000	17.19
2005	28.68
2010	82
2015	117.61
2020	147.11

Source: self-constructed data sourced World Bank data set.

The pooled GDP of South Asian countries was valued to be over $4 trillion in 2021 and regional growth is projected to average 5.8 percent this year (World Bank 2021). The economic development of South Asian countries since 1990 has been a diverse story of up and downs, with particular countries acquire extraordinary gains in terms of growth and development, while others have wriggled to keep pace. Though, the region as a whole remains one of the fastest-growing and most dynamic in the world during last decades which was upheld by migrant’s remittances.

Among SAARC countries India is the leading economy and one of the fastest-growing top economies in the world. Since 1990, India has opened its economy, incorporated globalization, and made historic investments in infrastructure and human capital. As a result, the country's economy has grown at an average rate of 6-7% per year, and poverty levels have declined significantly which upholds human development as well. In 1990, India's

Gross Domestic Product (GDP) was $472 billion, while in 2021; it was projected to be $2.9 trillion. Due to its large market, skilled labor force, and favorable investment policies India manage to attract much-needed foreign direct investment of almost $48 billion in the year 2020 that higher trend in FDI helps India in generating employment for locals. India is the most populated country in the region with a population of 1.41 billion (World Bank 2021) became one of the largest labor stock countries with a labor force of 507 million. These labor forces encourage India to become the largest recipient of remittances in South Asia as it increases international migration.

Remittances to India were estimated to be $3 billion in 1990, while in 2021, they were estimated to be $89 billion and projected to cross $100 billion by 2022 Remittances are a critical source of income for millions of households and play a significant role in supporting the country's economic growth as well as human development that was a witness in recent decades, with improvement in quality of life and life expectancy, modernization in education, especially in information technology and gender equality. In 2020, life expectancy goes up to 69 from 62 in 1990. In addition, the adult literacy rate in India has increased from 52% in 1991 to 74% in 2021 and poverty declined from 51% to 22% in those three decades. India statuses 130st out of 189 HDI countries with an HDI value of 0.645, which falls into the "average human development" category also its per capita gross national income (GNI) increase to $2,289 in 2021

Bangladesh is a new emerging Asian tiger for many analysts due to its consistent development and growth in the last decades and it’s true to say it has made remarkable gains in economic development, majorly in the areas of export-oriented manufacturing and microfinance. After long political instability in the country, the country manage to grow its economic growth at an average rate of 6% per year steadily which witness increasing foreign direct investment and stood second after India in FDI inflows due to its large market, skilled labor force, and favorable investment policies. According to world band data, FDI for the year 2020 is estimated almost to be $2.1 billion which help Bangladesh in the generation of employment and stronger foreign reserves. Bangladesh's GDP was $22 billion in 1990, while in 2021; it was projected to be $230 billion. Bangladesh is the third-largest recipient of remittances in South Asia and has seen a steady increase in remittances since 1990 due to its skilled labor and large labor force that goes abroad helping remittance to grow from $0.5 billion to $22.2 billion which is approximately 5.3% of their GDP in last three decades. Bangladesh has made substantial progress in reducing poverty up to 22% from 47% estimated in 1990, the education sector has recorded revolutionary improvement and an increase in literacy rate from 47% to 72% also income per capita increased up to $1,685 in the last three decades. In 2021, the value of the HDI in Bangladesh was 0.586, which falls within the category of "average human development" and ranked 142nd out of 189 HDI countries.

Currently, in Pakistan, remittances are projected to decline by 7.4% in 2022 as compared to year 2021. Pakistan's currency depreciated 36% against the USD from January to September 2022, and 14% against the currencies of its trading partners, as inflation was raging and a balance of payments crisis appeared forthcoming, the government asked for IMF financial support to stabilize the exchange rate. Covid19 and global economic shutdown (Russian Ukraine war), devastating flood and political instable turmoil badly affect Pakistan economy in 2022. In the last three decades Pakistan's economy has grown at an average rate of 3-4% per year since 1990 under democracy and dictator rule however growth has been rough and characterized by frequent setbacks. Despite these challenges, the country has made significant investments in development initiatives, and has a large and growing consumer market even with covid19 Pakistan's economy has seen stable and sustain. Pakistan from the very beginning of its independence remains in a state of unstable political turmoil which affect its economic growth as well as human development primary the development phases after 1990 were subjugated by terrorism despite many challenges the country manage to stabilize its economy its GDP was estimated to be $350 billion in 2021 as compared to $63 billion in 1990, Pakistan is country to home for almost 220 million people and second most populated country in South Asia of which labor force consisting of 77 million this encourages international migration. Pakistan is the second-largest recipient of remittances in South Asia and has seen a steady increase in remittances in the recent decade from $2 billion in 1990 to $ 32 billion in 2021 which is around about 9% of the country's Gross Domestic Product (GDP) that help Pakistan to sustain its foreign reserves, in covid19 Pakistan achieved highest remittance inflow when the world economy is shrinking that remittance provides an alternative way to invest, standardize standard of living, education and to avail better health facilities. Generally, a development trend was observed even though the internal affair of Pakistan is not quite favorable for human development in the last three decades. Poverty declined from 44% in the 1990s to 22% in 2020 and the literacy rate increased to 63% still Pakistan is far behind other SAARC countries in HDI ranking as it was placed 154th out of 189 countries with an HDI value of 0.563 in 2021. This shows that Pakistan still has a significant margin for improvement in terms of human development and that there are many challenges to be met in the country.

The economic worst situation of Sri Lanka in recent times has taken it down to bankruptcy due to many internal and external factors such as covid19 which decrease its tourism sector and the Ukraine-Russian war (world economic shutdown) which result in an ironic decline in its foreign reserves and it also had experienced dawdling and uneven economic growth since 1990, with frequent hindrances due to civil conflict, natural disasters, and political instability. Despite these challenges, the country has made important investments in socio-economic development projects, and tourism is the main sector of its economic wheel and has a relatively well-developed manufacturing sector which an output GDP estimated to be $87 billion in 2021. Sri Lanka is a smaller beneficiary of remittances paralleled to other South Asian countries but has perceived a firm increase in remittances since 1990. In 1990, remittances to Sri Lanka were estimated to be $0.2 billion, while in 2021, they were projected to be $5.5 billion, unfortunately, the worsening economic condition decline remittances inflow to 3.6 billion which is 35 percent less as compared to the year 2021. One million Sri Lankans live in foreign countries. Furthermore, Sri Lanka is one of the biggest beneficiaries of remittances, with an estimated $7 billion in 2020. Sri Lanka has a high literacy rate, and the government has made education a priority by making significant investments in the sector. This has led to a well-educated population, with a large number of people holding diplomas and other higher education qualifications.

Nepal is one of the underprivileged and least developed countries in South Asia, with a sluggish and unequal economy. The total population of Nepal is 29 million out of which 14 million are labor force which strengthens its economy and promotes development it's the country with the most favorable destination for international tourism. Nepal is a major source of international migrants, with around four million Nepali nationals living overseas. Most of them are employed by the Gulf Cooperation Council (GCC) which upholds recipient of remittances, accounting for approximately $17 billion in 2021. Nepal has seen a steady increase in remittances since 1990 which help to stabilize its economy and stimulate human development. Nepal's HDI amounted to 0.574 by 2020, which is measured as "average" by the United Nations Development Program (UNDP).

Bhutan is a small landlocked country in southern Asia and, like various other countries in the region with a GDP of $3 billion in 2020 .remittances play an important part in its economy, Bhutan has a relatively low population of international migrants, with approximately 20,000 Bhutanese citizens living abroad. As well, it is receiving remittances valued at $200 million in 2020. According to World Bank data, cash transfers as remittances represented about 11.6 percent of Bhutan's gross domestic product (GDP) in 2019. Bhutan has made great strides over the past decades. The country has a Human Development Index (HDI) of 0.712 in 2020, which is well-thought-out to be "high" according to the United Nations Development Program (UNDP). This HDI figure puts Bhutan in the 131st position in 189 countries and territories.

Maldives is an island country in South Asia and the world’s sixth smallest sovereign State with a population of approximately 517,000 people and a low labor force. The country depends heavily on foreign goods and services, counting labor. Foreign workers (i.e. migrant workers), generally from less developed countries, allow Maldives to overcome labor scarcities in the key sectors of manufacturing, education, health care, and tourism. In 2018, the World Bank classified Maldives as an upper-middle-income country. The Maldivian economy has grown fast since the early 1980s, driven mainly by its tourism sector. In 2016, the Maldivian GDP per capita reached approximately USD 9,875, almost eight times that of Bangladesh (USD 1,358), and the current GDP outreached to 5.41 billion (2021) This rapid economic growth has had a positive impact on living conditions within the Maldives. (GNI) per capita improved by more than 200% from 1990 to 2015, and life expectancy at birth amplified by 15.6 years to 77.04 years. Poverty declined from 23 percent in 2003 to 16 percent in 2010 (World Bank, 2018). Maldives has a high HDI of 0.783, which spaces it in the "High Human Development" category, as of 2021 (UNDP), the country received more than $2.5 million in remittance inflows annually from 1983 through 2016 of which major inflows are from migrants destination countries (Australia and India) last year remittance account for 0.1 percent of their GDP. In recent years, the Maldives government has been implementing economic reforms aimed at diversifying the economy and reducing its dependence on the tourism industry. These reforms include measures to attract foreign investment, promote entrepreneurship, and improve the business environment which will be witness to its future development and economic growth.

Afghanistan due to its long-lasting conflicts and many other socio-economic factors remain an under-develop country. Afghanistan little improve its HDI ranking as a less humanely developed country (0.511) and placed at 169 in 2020 as compared to 175th position in 2010. Gender inequality, minimal school enrolment, and poor health facilities are significant challenges in the way to its development. Due to the unavailability of data a proper pattern of remittance was not well defined as in 2019 remittance inflows are $789 million (World Bank). Remittances backing education and healthcare also found that remittance-receiving families in Afghanistan were more expected to send their kids to school and hunt for medical treatment when needed (IOM, survey) major inflows of remittance are coming from Iran and Pakistan.

3.3 Challenges

Remittance inflows are without a doubt an essential indication of economic growth and human development since they have a stabilizing effect on millions of individuals worldwide. However, people all around the world face numerous problems when it comes to migration and sending money back home. The South Asian region's ideal capacity for drawing further higher remittance inflows was negatively influenced by the following regional problems.

Political unrest and warfare in the region stifle economic progress and regional migration. Pakistan and India are the region's two largest economies; yet, they have never reconciled their ties since partition, which has weakened the SAARC organization's policies. Furthermore, internal political upheaval in South Asian countries has harmed remittance inflows. Restrictive immigration regulations, economic problems, and human smuggling and trafficking deception exacerbate the migratory process, causing remittance inflows to fall.

Although remittance prices (transaction costs such as transfer fees, exchange rate profits, and other fees) in the region are lower but still higher than the global target set in Sustainable Development Goal Agenda Number Ten, remittance prices continue to be a global challenge as families and households do not receive as much as they could. Inadequate monetary resources are another significant barrier for remittances in the South Asian region. Many immigrants and their families lack access to money transfer services, making it difficult to send and receive full-value remittances, resulting in delays or other challenges..

Informal routes for sending and receiving remittances were used roughly 50% more than formal channels (Dilip Ratha 2011). Hawala and other informal networks are examples of such conduits. In comparison to formal channels, these informal channels lacked safety and transparency, which resulted in fraud, corruption, manipulation, and abuse. Because of international relations, certain countries require specific documents or identification, which poses a danger to remittances in the South Asian region. Despite all of these hurdles, from emigration to sending money back, the South Asian region has consistently projected an increase in remittances.

Chapter 4

Conceptual Framework

With the advancement in technology and globalization, the societal transition due to migration, trade, war and conflict shaped new theories and philosophies concerning the sustainability and prosperity of the state and its territories. The debate between migration and development has since acquired the core attention of both societal and developmental theories and swung back and forth like a pendulum to acknowledge the forward way of development, from developmental optimism in the 1950s and 1960s to neo-Marxist pessimism over the 1970s and 1980s, towards more optimistic views in the 1990s and 2000s. Such contrary schools of thoughts views on migration and development reflect the deeper paradigmatic division in social theories such as functionalist versus structuralism paradigms, Neo-classical versus Neo-Marxist, Modernization versus Disintegration Brain gain versus Brain drain, more equality versus more inequality and remittances investment versus consumption.

In general three main theories are important to understand the behavior of remittances for development with the perspective of migration. The developmental optimistic school of thought has emerged from the neoclassical migration hypothesis and developmental pessimist school of thought of structuralism dependency preference. a newly emerge concept of summarizing both the optimist and pessimist school of thought, the remittance–developmental pluralist was flourished in recent decades which attribute remittances as a backbone for developing countries to strengthen their foreign reserves.

4.1 Optimistic Views: Neo-Classical and Developmental Theory

Optimistic theories perceive migration as the most advantageous allocation for both sending and receiving countries in the factor of production to gain economic growth and development. Such optimistic views were embedded in and based on previous surveys of rural-urban migration in Europe and the United States that historically experience emigration from Europe to North America. The prevailing theories of 1950 to 1960 of development state that returning migrants were regarded as important agents of change and innovation. Migrants were expected to generate not only money and foreign inflows, but also new ideas, knowledge, and entrepreneurial behaviors, in this way, immigrants were expected to play a positive role in the development and contribute to the accelerated human development and modernization of developing countries. On a macro level, remittances were perceived as a vital source of hard currency. At the macro and micro level, there was an expectation that migration would come about and Lead to the economic improvement of the emigrating country. (Keely & Tran, 1989) Remittances would strengthen income distribution and improve quality of life beyond any other alternative developmental approaches that could be undertaken. Remittances have also played a major role in driving economic growth and development by channelizing experience, skills, money, and knowledge that migrants acquire abroad to investing, and standardized way of living by improving health and education in the home country. Papademetriou, (1985) in the same period governments of developing countries having the huge resource of labor start harmonizing policies to promote the migration process amidst expectations of the ‘‘dawning of a new era’’. (De Haas, 2010) Above all the economic takeoff is believed to happen to boost the economy as migrants are expected to invest large amounts of capital, and businesses in their home countries.

4.2 Pessimistic View; Structuralism

The optimist school of thought was highly criticized and increasingly challenged by the pessimist school of thought after the onward phase of development in the 1960s under the collective influence of a prototype shift in social and development theory towards historical structuralism and dependency, those views are over and over again supported by empirical studies and policy experiences (Taylor, 1999). In fact, these new views turned the argument of neo-classical and optimist views completely upside down. This theory completely rejects the optimistic view of development as according to them migration and remittance did not promote sustainable development. The remittances sent by migrant workers had a great opportunity cost, that opportunity cost is not offset by remittance inflows and caused brain drain.

Papademetriou (1985) argued, in emigrant countries, migration would contribute to the progression into an uncontrolled reduction of their already inadequate supplies of skilled manpower – and the most healthy vibrant, and productive individuals of their populations, as a result, developing countries are drain off from their human capital the fundamental of the factor of production. The advocate of this theory also argues that gaining skill and to do so migrating is a daydream for poorer because of high mobility and migration cost which leads to widening the income gap and inequalities in the developing world. Further the theory state that the remittances that a migrant worker sent to the home country are not properly channelized to the economic development of the country through the right decision of investment and capital formation instead major portion of that foreign inflow are utilize on non-productive investment such as real estate and consumption rarely on productive investment (Adenutsi, 2010. De Hass 2007) within pessimistic theories, such ''barren'' expenses are generally considered to deteriorate local and regional economies and increase dependency. (Lartey & Mandelman, 2007) one of the primary causes of inflation in a developing country is that increasing supply of money which may be in the form of remittances caused skyrocketing inflation if not invested properly.

The inflows also build pressure on the external real exchange rate and caused a situation known as Dutch disease by strengthening local currency this would made imported goods cheaper as compared to domestic ones, the situation would further facilitate by trade openness which increases imports furthermore and create a cycle of dependency (de Haas, 2007). The economy of labor migration in which labor-abundant countries export labor to a capital-abundant country for optimal output as a result home country became scared of skilled labor which results in higher wages and hence this process tends to price equalization (the Heckscher-Ohlin model) another view is that remittance receiving country face shortage of labor as due to remittances, leisure is preferred over work.

4.3 The Pluralistic View

An advocate of pluralistic remittance–development theory takes into account that both remittance development optimism and remittance development pessimistic theories are unable to deal with the dynamic behavior of the international remittance development nexus. The Developmental pluralistic view flourishes after 1980 by undertaking both optimistic and pessimist schools of thought to enable us to better deal with the heterogeneity of migration-development interactions (Adenutsi, 2010; de Haas, 2007). In those decades the emerging shift of social theories provokes scholarly debate on migration and development. The pluralistic approach and its advocates explain the positive and negative impact of remittance on development and consider the impact as a complex issue that was to elaborate with new theories which may resolve the relationship between remittances and development

The following equation can also express the theoretical discussion about the impact of remittance on human development.

HDI = F (PREM, GDP, FDI, LFPR, UPG, PGR, CC)

Where HDI is human development index, PREM denotes personal remittances received, FDI is foreign direct investment, LFPR denotes labor force participation rate, GDP is per capita gross domestic product, UPG is urban population growth, PG is population growth and CC denotes control of corruption. Hence, the objective of the current study is to explore the impact of remittance inflows and other important factors on human development in South Asia.

(a) Human Development Index (HDI)

The Human Development Index (HDI) is a merged statistic of life expectancy, education, and income per capita indicators which is used to rank countries by their level of human development, and was presented by the United Nations Development Program (UNDP) in 1990. Value of HDI range between I and 0 on base of average improvement in these three indicators and classified countries generally as low human development countries (HDI value less than 0.550),medium human development countries (0.550-0.699),high human development countries(0.700-0.799) and very high human development countries (above 0,800).

Many studies indicate that remittance have significant and positive impact on human development and more significant for developing countries as it increase household income, improved access to basic services, boosted local economies, encourage financial inclusion, and supported social networks (Ratha and Mohapatra, 2007). Remittances are significant source of external finance for developing countries, with remittances greater than ODI, FDI, and portfolio flows in many countries. That huge inflows are such a direct payment (person to person) to home country in ground level which help individual to boost their standard of living by rational investment in education, availing better health facilities so their life expectancy increase and broaden their availability of choices which ultimately result into human development,

(b) Remittance

Foreign inflow in dollar to home country by worker abroad are knows as remittances. Remittance upholds both social and economic structural of home country which ultimately results in enhancing economic growth and human development. (Delip Ratha, 2011). Remittance provide confidence to home country in acquiring more secure and favorable debt services to boost their economy as lenders perceive lower risk of default . Further, remittances are like insurance income for family in their hard time, also it is observed that remittance inflows to families are accelerated by migrants in hard time to facilitate their family financially.

(c) Foreign direct investment (FDI)

Foreign direct investment is inflow, particularly for investment in home country by foreigner investors in different development projects, business and according to area of interest of investors. FDI are considering economic stabilizer as it lead job creations and economic growth which improve living standard and boost HDI value as well as GDP. (Amina, 2019) explored that the relationship between domestic investment and FDI is significant and positive as knowledge and technology spread in home country which assists domestic investment. Remittances more than 10 Developing countries with percent of their GDP tend to improved family income, investments and consumption in the recipients countries (Shera, 2017).

(d) Urbanization

Population lived in urban areas as define by statistical officer are called urbanization (world bank) and the migration of people from rural to urban areas. The movement of people enhanced new economic opportunities, which stimulate nation growth and development. It is actually the transformation of agro economy to mass industrial, technological and services sector economies. Urban areas facilitate more jobs, provide quality education, standard health care units along with opportunities for community mobilization, women's empowerment and other service that summarize human development in projection

(e) Control on Corruption

The exercise of public power for private gain, counting petty and grand form of corruption, it also captures elite and private interest. Controlling corruption is positively associated with human development as corruption destabilizes development by distorting markets, dropping the growth of economy, and distracting public resources from optimal allocation. It also misrepresented public trust in institutions and diminishes the quality effectiveness of strategies, policies and programs that may lead to diminishing economic growth as well as human development and increase income inequalities. Control on corruption can create an environment that encourages public as well as private investments, innovation, and trust in institutes all of which are important for human development and public welfare.

f) Labor Force Participation Rate

The labor force participation rate (LFPR) is a fundamental indicator of labor market and defined as the ratio of the labor force (employed and unemployed individuals in searching for employment) to the whole working-age population in a certain period of time for the production of goods and services. It is key economic indicator that significantly promotes human development by increasing personal income, reducing poverty and improves human capital development through skill acquisition and experience. Labor force participation drive human development by diminishing gender inequalities which empower women to grow income so that better healthcare and education become choice and move toward better lifestyle'

(g) Population Growth

Population growth is a fundamental demographic factor that can project or deteriorate human development index depending upon how it can be manage. Unorganized population growth rate badly affect the natural and economic resources of a country which ultimately deteriorate standard of living and decline human development index. Higher population growth rate exert pressure on resource, education, healthcare, housing and infrastructure also it affect gender equality and political stability ultimately conflict and corruption rooted which decline human development. Only effectively managing population growth governs higher HDI scores.

(I) GDP Per-Capita

The variable in our study is gross domestic product per-capita that is monetary value of all goods and services with in a country. it is one of major indicator to measure the strength of economy, a higher GDP specify a larger economy with higher income and abundant resources. Alone GDP does not provide a complete picture of human development but it can projected human development through higher budget allocation toward investment in education, healthcare, social safety nets and infrastructure in short a higher GDP would be a major tool to improve human development if it is allocated effectively in areas such as, education, healthcare and investments that minimize income inequalities according to sustainable development goals.

Chapter 5

Data and Methodology

Remittances are lifeline and backbone for developing countries (Naeem and Arzu, 2017) in this new era globalization, because remittance provides alternative way of financing to domestic markets and buildup strong foreign reservoirs. Modernization and globalization made fast mobility and migration of worker from labor intense region to capital intense region which govern higher wages as a result flow of remittance increase in developing countries. Previously a lot of work was done on remittances in order to understand the behavior of remittance and its impact on human development with different methodologies, econometric tools and techniques. This study is based on annual balanced panel data of six South Asian countries with the aim to elaborate impact of remittance on human development in this region.

General equation which is based on the objective of the study is given below

$$HDI = F\ (PREM, GDP, FDI, LFPR, UPG, PGR, CC)$$

The dependent variable is the human development index (HDI), the main independent variable is remittances received (PREM), and other variables include foreign direct investment (FDI), labor force participation rate (LFPR), GDP (per capita gross domestic product), UPG (urban population growth), PG (population growth), and CC (corruption control). Hence, the objective of the current study is to explore the impact of remittance inflows and other important factors on human development in South Asia.

Table: 2 Variable Descriptions

Variables	Symbol	Measurement	Source of Data
Human development index (dependent variable)	**HDI**	Index (Average achievement of long & healthy life, literacy rate and standard of living)	**UNDP**
Remittances	**PREM**	Personal remittances, received	**WDI**
Foreign direct investment	**FDI**	Foreign direct investment, net inflows (% of GDP)	**WDI**
Gross domestic product	**GDP**	GDP per-capita	**WDI**
Population growth	**PGR**	Population growth (annual %)	**WDI**
Urbanization	**UPG**	Urban population growth (annual %)	**WDI**
Labor force participation rate	**LFPR**	Labor force participation rate, total (% of total population ages 15-64) (modeled ILO estimate)	**WDI**
Control on corruption	**CC**	Index	**WGI**

5.1 Descriptive Statistics

Table: 3 Descriptive Statistics

Statistics	HDI	PREM	GDP	FDI	LFPR	UPG	PGR	CC
Mean	**.587**	**21.18**	**7.072**	**.05**	**62.799**	**3.005**	**1.69**	**-.577**
Median	**0.5775**	**22.3235**	**6.9882**	**0.06199**	**58.8300**	**2.8283**	**1.6566**	**-0.5989**
Minimum	**.423**	**14.416**	**5.321**	**-4.837**	**51.06**	**.047**	**-.268**	**-1.597**
Maximum	**.78**	**25.146**	**9.265**	**2.841**	**88.53**	**6.324**	**4.568**	**.406**
Std. Dev	**.099**	**3.131**	**.962**	**1.201**	**11.407**	**1.414**	**.942**	**.409**

Descriptive statistic of data has been shown in the table provide basic feature, characteristic and behavior of data for both dependent and independent variables in average values such as mean, median, minimum, maximum, and standard deviation. Deviation from mean is represent by standard deviation with maximum value of 11.407% and minimum .099% in our data for LFPR and HDI respectively whereas median shows middle vale arranging data from highest to lower. Maximum and minimum return of remittances for corresponding SAARC countries in given time period is 25.146% and 14.416 respectively.

5.2 Matrix of Correlations

Table: 4 Matrix of correlations

Variables	HDI	PREM	GDP	FDI	LFPR	UPG	PGR	CC
HDI	1.000							
REMS	-0.273	1.000						
GDPS	0.833	-0.430	1.000					
FDI	0.532	-0.439	0.719	1.000				
LFPR	-0.039	-0.163	-0.201	-0.381	1.000			
UPG	-0.313	-0.568	0.007	0.129	0.233	1.000		
PGR	-0.105	-0.605	0.310	0.437	-0.114	0.672	1.000	
CC	0.452	-0.001	0.264	0.298	-0.065	-0.347	-0.232	1.000

Correlation matrix show relation between variable as well as direction (positive/negative) often it examine multivariate analyses of variable and statistic .Correlation matrix value range between +1 and -1 which demonstrate the strength of correlation among the variable higher the value stronger will be the correlation, lower the value weaker will be correlation. Direction of relation is provided by coefficient sign, sliding toward maximum value of correlation holding stronger correlation till perfectly correlated at maximum value of +1 and vice versa. Zero value shows no relations between variables or among variables. HDI of SAARC countries negatively correlate with PREM, LFPR, UPG and PGR while positively correlate with other variable.in our data log of GDP per capita is strongly positive correlated with log of FDI with a value of 0.719 other value such as LFPR is strongly negative correlated with CC with a value of -0.065. Serial correlation trend to create problem of multicollinearity (having perfect or exact relationship between the regression explanatory variable)in regress a term describe by Ragnar Frisch. Estimating without adjusting multicollinearity give insignificant results with higher variance and standard error, low t stat value, and signs of coefficients trend to be changed (Asterio and Hall, 2011) .

Multicollinearity is detected through multi tools; here is one of the statistical methods Variance inflation factor (VIF) introduce by Cuthbert Daniel to check multicollinearity which measure variance or behavior influenced by repressors' due to its interaction or correlation. VIF measure value between 1 and 10 reflect that there is no significant correlation or multicollinearity. Higher than 10 or lover than one value of VIF is problematic multicollinearity in regression analyses (Asterio and Hall, 2011) Table 5 shows that mean VIF is 2.3 which implies that there is no problem of multicollinearity in the regression model.

Table: 4 Variance inflation factor

Variables	VIF	1/VIF
FDI	**3.033**	**.33**
PGR	**2.805**	**.357**
UPG	**2.738**	**.365**
GDP	**2.361**	**.424**
PREM	**2.346**	**.426**
LFPR	**1.572**	**.636**
CC	**1.435**	**.697**
Mean VIF	**2.327**	.

5.3 Econometric model

The objective of the current study is to explore the impact of remittance inflows and other important factors on human development Rate by using panel data set of six south Asian countries over the period of 1996 to 2020. Human development is measures interim of human development index which is composite index of life expectancy, education, and per capita income indicators

Theoretical as well as existing empirical literature prophesies positive impact of remittances on human development in long as well as short term in developing countries. In this regard, the current study give us deep analyses of south Asian region by using fixed effect model through selective addition of control variable in each model

The regression equation tracing the impact of remittance and other important factors on HDI is given below.

$$\boldsymbol{HDI_{it} = \alpha_o + \alpha_1 PREM_{it} + \alpha_2 GDP_{it} + \alpha_3 FDI_{it} + \alpha_4 LFPR_{it} + \alpha_5 UPD_{it} + \alpha_6 PGR_{it} + \alpha_7 CC_{it} + \varepsilon_{it}}$$

Fixed effect model reflect each unit to have its own intercept value and consider heterogeneity among the cross sectional units, In the given equation of our model Human development index (HDI) is dependent variable and α_0 is used as intercept with subscript i shows each unit have own intercept however intercept of each entity is time invariant. . *α1, α2, α3, α4, α5, α6, α7*, are slope coefficients and is the random error term. Further, HDI is human development index, PREM denotes remittances as percentage of GDP, FDI is foreign direct investment, LFPR denotes labor force participation rate, GDP is per capita gross domestic product, UPG is urban population growth, PG is population growth and CC denotes control of corruption. So, the study employed Fixed Effect (Fe) and Random Effect (Re) model by assuming slope homogeneity to trace the impact of remittance inflows on HDI. Hausman test is applied to choose between FE and RE and conclusively, the results support FE model. Hausman test is used to select whether fixed effect model or random effect model is appropriate for empirical results on the base of P value by testing the null and alternative hypothesis which is given below:

H_0; Random effect model is appropriate

H_A; fixed effect model is appropriate

The above two hypothesis are investigated on the base of P value if P value is less than 0.05 than we reject null hypothesis and accept alternative. So, Hausman test is applied to choose between FE and RE and conclusively, the result reported in table support Fe model.

Hausman (1978) specification test

	Coef.
Chi-square test value	31627.305
P-value	0000

We have estimated the following five models for investigating the impact of remittance inflows on human development

Model 1

$$HDI_{it} = \alpha_o + \alpha_1 PREM_{it} + \alpha_2 GDP_{it} + \varepsilon_{it}$$

In model 1 we regress human development index which is composite index of life expectancy, expecting years of schooling and gross national income per capita for standard of living with remittance received and control variable is log of GDP per-capita.

Model 2

$$HDI_{it} = \alpha_o + \alpha_1 PREM_{it} + \alpha_2 GDP_{it} + \alpha_3 FDI_{it} + \varepsilon_{it}$$

In model 2 we extend our regression to investigate, impact of remittances on HDI including foreign direct investment as independent variable into the model 1. Human development is improved by progressive economic growth, If the given statement is correct, then FDI must have an indirect impact on human development due to its connection with economic growth (Gökmeno glu et al., 2018). Reiter and Steensma (2010) investigate and acknowledge that FDI inflows significantly improve the human development

Model 3

$$HDI_{it} = \alpha_o + \alpha_1 PREM_{it} + \alpha_2 GDP_{it} + \alpha_3 FDI_{it} + \alpha_4 LFPR_{it} + \varepsilon_{it}$$

In model 3 our regression model is further extended to incorporate one more variable that is labor force participation rate owing to its importance for contributing in economic growth and human development. Labor being one of the main factor of production enhance the human development.

Model 4

$$HDI_{it} = \alpha_o + \alpha_1 PREM_{it} + \alpha_2 GDP_{it} + \alpha_3 FDI_{it} + \alpha_4 LFPR_{it} + \alpha_5 UPD_{it} + \alpha_6 PGR_{it} + \varepsilon_{it}$$

In model 4 we stretch over model variable to demographical transition as south Asian region is one of dense populated region in the world making it one fourth of world populated region including two out of five most populated countries such as India and Pakistan. Dependency ratio, migration pattern and migration polices influence the nature of remittance inflows and human development therefor we include urban population of total population and population growth rate into model 4. According to the United Nations, more than half of the world's population (4.2 billion people) presently lives in cities, and this figure is expected to rise to 6 billion by 2041.

Model 5

$$HDI_{it} = \alpha_o + \alpha_1 PREM_{it} + \alpha_2 GDP_{it} + \alpha_3 FDI_{it} + \alpha_4 LFPR_{it} + \alpha_5 UPD_{it} + \alpha_6 PGR_{it} + \alpha_7 CC_{it} + \varepsilon_{it}$$

In the final model institutional performance is included because stability and progress of any particular area is pre-dominantly linked with institutional performance which governs effective policy implementation. The variable of Control of corruption is sourced from World Governance Indicator is added in this model to investigate influence of remittances and control of corruption along with other independent on human development. Corruption is defined as misuse of public power which leads to inefficient allocation of resources, revenue reduction, increase child and infant mortality rate, death to meritocracy, restrict internal as well as international migration which ultimately effect remittance inflows and per capita income of individual and uncontrolled population growth with food insecurities resultantly there is deterioration of standard of living.

Chapter 6

Results and Discussion

The regression results for the impact of remittance on human development by using fixed effect mode are compiled for five models are reported in table 5 for the panel of six South Asian countries.

Table: 5 Results: Fixed Effect Model

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
PREM	.005** (.002)	.007*** (.002)	.008*** (.002)	.005 (.003)	.008** (.003)
GDP	.076*** (.004)	.072*** (.004)	.068*** (.004)	.072*** (.005)	.068*** (.0049)
FDI		.006*** (.002)	.006*** (.002)	.005*** (.002)	.005*** (.002)
LFPR			.001** (0.00)	.001*** (0.000)	.002*** (.00046)
UPG				.001 (.003)	.002 (.0027)
PGR				-.008** (.001)	-.006* (.003)
CC					.023*** (.0067)
Constant	-.062** (.026)	-06** (.026)	-.128*** (.041)	-.114* (.062)	-.161*** (.009)
R-square	0.926	0.930	0.932	0.936	0.941
Observation	150	150	150	150	150
F.test	882.215	608.299	469.620	324.308	301.232

*** p<.01, ** p<.05, * p<.1

The result shows that remittance inflows have positive association with human development; existing literature and research papers thoroughly support this positive impact of remittance on human development through economic cycle or social mobilization mainly in developing world. Remittances are the most significant among the factors which positively affecting HDI. As opposed to FDI and ODA it is hypothesized that direct transfer of remittances to families enhances human development through standard access to basic needs, education, access to social services and healthcare (Darja Irdam et al, 2012)

From regression analysis it is confirmed that when remittances received increases by 1 unit than the human development increased significantly by 0.005 index points. Increased remittances result in a higher standard of living through eliminating poverty and influencing improved education and health care (Ghai, 2005, p. 672; Gianetti et al., 2009,).

The result also confirm positive and significant relation of GDP per capita to human development as one unit increase in GDP per capita results in improved human development by 0.067 index points. GDP being a valuable and strength measuring tool of economy can increased human development as a strong GDP tend to allocate more budget toward schooling, healthcare, creating millions of jobs, infrastructure development, boost investment and increase income per-capita. Although there is positive and significant relationship between GDP and HDI its important to make out that GDP alone does not provide complete picture of country HDI but other factors such as wealth, distribution of wealth access to education, political and social stability also required to boost country HDI. Remittances sent home by migrant workers have played a significant role in encouraging economic growth and human development in these nations (Siddique et al., 2010).

The regression result after the inclusion of foreign direct invest to model 1 resulted in highly significant and positive result of main independent variable PREMS and control variable such as GDP and FDI with human development. Foreign direct investment create multiple opportunities to local works as south Asian region is labor intensive region there for FDI play a crucial rule to build standard of living by increasing personal income. Highest inflows of FDI recorded to this region as per cent of GDP in 2008 equal to 3.3% and in 2020 it was record as 2% (World Bank)

The third model investigate the impact of remittances on human development index in the presence of labor force participation the results shows positive impact of labor force participation on human development, unit increase in labor force participation rate result into 0.001 index point increase in human development. Labor market is a major economic development component since skilled and trained professions improve labor income per capita, attracting more individuals to join the labor force and entrepreneurial endeavors, ultimately raising living standards and boosting economies. South Asian labor market entrants will increase faster than home economies' ability to absorb them; forcing employees to compete in the global labor force (Wahab et al, 2013). The variable of remittance inflows along with other variable in this model show positive and significant relation with human development. The model resulted that increasing one unit of remittance result into increase human development index with index points of 0.008. The primary approach via which workers' remittances can effect domestic economic growth and development of the receiving country is by supporting domestic investment activity; others include reducing financial limitations (Abbas, 2016).

We find an insignificant but positive connection between the remittance received and human development after re-estimating the model with two more independent demographical variables to examine the impact of remittance on human development that is increasing remittance by one percent give insignificant value of human development with point's index of 0.005. Result show the significantly negative relationship of population growth and human development, as increasing population by one unit lead to decrease in human development by 0.008 index points. It articulate that the countries with high population growth rates might struggle to provide adequate healthcare, education, resource constraint and other essential services to their growing populations. Malthus the theory also argue about negative relation of population growth to per capita income which trend to deteriorate human development index (Bilal Savas, 2008). A negative association of HDI and population growth is found on observing data of HDI from UNDP and population growth from World Bank (Wako Hassan, 2012). Urbanization in our regression show positive but insignificant results with depended variable. Urbanization has both positive and negative effects on human development depending upon how it can manage and organize with innovations. The urbanization with value index of 0.001 and 0.002 in model 4 and 5 shows positive and insignificant relation with human development index.

A major factor influencing the results of human development is institutional performance. Effective institutions offer the framework for confronting socioeconomic issues, improving equality, and enhancing a society's general wellbeing. In the fifth model the estimation is carried out by including control of corruption as a measure of institutional quality. The regression result of fixed effect model shows highly significant and positive impact of personal remittance received on human development index with index value of 0.008. The investigation for countries from different HDI groups shows that remittances have a positive impact on percentage changes in HDI (Darja Irdam et al, 2012). Control of corruption also show significant and positive relation with HDI, Implying one index improvement in control on corruption result in improvement in human development index by 0.023 index points. Corruption results in inefficient economic and socio-political outcome. it negatively affect economic growth and foreign and domestic investment, enhance inflation, depreciate the currency, reduce expenditure on health and education and misallocate resources.(Selcuky Akcay,2006). Consequently HDI drop there for the more control of corruption stronger will be the HDI. The model shows a substantial negative relationship between population increase and HDI, one the other hand all independent variables such as PREM, GDP, FDI, LFPR and CC shows a positive and significant association with HDI except the variable of urbanization, which is positive and insignificant.

Conclusion and Recommendations

Although there is broad literature available, which disclose the relation between remittance and human development in developing world but the main objective of this study is to analyze empirically the impact of remittance on human development in South Asian region.

The current study is based on a panel data set of South Asian economies over the period of 1996 to 2020. The impact of remittance on human development is empirically tested by employing the standard panel estimation techniques that are fixed or random effect model. Further, the Hausman test is use to choose between the fixed and random effect model. The impact of remittance on human development is investigated by carrying out comprehensive empirical regressions. Five different versions of empirical regressions are estimated to trace the impact of remittance on human development by employing fixed effect model. The empirical findings indicate a positive and significant impact of remittance inflows on human development in the South Asian region. The effect of remittance on human development is positive in almost all versions of the empirical models which implies that the importance of remittance inflows cannot be denied for human development and for improving social and economic condition of the region. The result further shows that control of corruption also have significant and positive impact on human development, however, increase in population adversely affect human development. In general, all independent variables such as remittance inflows, GDP per capita, foreign direct investment, labor force participation rate and control of corruption shows have a favorable human development except urbanization, which is positive and insignificant.

Owning to magnitude and significance, global policy makers are paying more and more attention to migration and remittances. Putting transaction cost of migrants remittance to less than 3 per cent and eliminate corridors costing higher than 5 percent is one of important Sustainable Development Goal of United Nations to increase remittance inflows. The region experienced rapid growth in remittance inflows due to effective immigration policies, which enhance standard of living and act as major foreign exchanges further its need of hour to take concrete policy initiatives by governments, private sector and international development partners to protect migrants workers' rights and welfare so that maximum economic benefits can be availed. The government can take steps to improve migration safety, such as signing bilateral agreements with host nations to protect migrant workers and improving regulation of migration services and minimize risky working environment, malicious treatment and possible risk of fraud.

References

1. Abdih, Y., Chami, R., Dagher, J., & Montiel, P. (2012). Remittances and institutions: Are remittances a curse?. World Development, 40(4), 657-666.
2. ADB (2018), "Migration and Remittances for Development in Asia'' https://www.adb.org/publications/migration-remittances-developing-asia.https://dx.doi.org/10.22617/TCS189320
3. Adenutsi, D. E. (2010). Do international remittances promote human development in poor countries? Empirical evidence from Sub-Saharan Africa.
4. Akçay, S. (2006). Corruption and human development. *Cato J.*, *26*, 29.
5. Aziz, M. N., Sen, S., Sun, P., & Wu, L. (2015). Migrant workers' remittances and economic growth: The role of financial development.
6. Borja, K. (2020). Remittances, corruption, and human development in Latin America. Studies in Comparative International Development, 55(3), 305-327.
7. De Haas, H. (2010). Migration and development: A theoretical perspective. International migration review, 44(1), 227-264.
8. Fayissa, B., & Nsiah, C. (2010). The impact of remittances on economic growth and development in Africa. The American Economist, 55(2), 92-103.
9. Gerring, J., Thacker, S. C., & Alfaro, R. (2012). Democracy and human development. The journal of politics, 74(1), 1-17.
10. Giuliano, P., & Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. Journal of development economics, 90(1), 144-152.
11. Hassan, G. M., & Shakur, S. (2017). Nonlinear effects of remittances on per capita GDP growth in Bangladesh. Economies, 5(3), 25.
12. Hassan, G. M., & Shakur, S. (2017). Nonlinear effects of remittances on per capita GDP growth in Bangladesh. Economies, 5(3), 25.

13. Hausman, J. A. 1978. Specification tests in econometrics. Econometrica 46: 1251–1271. https://doi.org/10.2307/1913827

14. http://blogs.worldbank.org/peoplemove/

15. http://www.knomad.org/

16. https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS

17. https://www.knomad.org/publication/migration-and-development-brief-35

18. Huay, C. S., & Bani, Y. (2018). Remittances, poverty and human capital: evidence from developing countries. International Journal of Social Economics.

19. Huay, C. S., & Bani, Y. (2018). Remittances, poverty and human capital: evidence from developing countries. International Journal of Social Economics.

20. Huay, C. S., Winterton, J., Bani, Y., & Matemilola, B. T. (2019). Do remittances promote human development? Empirical evidence from developing countries. International Journal of Social Economics.

21. International Labour Organization (ILO) (2020)

22. Irdam, D. & Aysen Ustubici (2012). The impact of remittances on human development: A quantitative analysis and policy implications. Sociology, 5(1), 74-95.

23. Irdam, D. (2012). The impact of remittances on human development: A quantitative analysis and policy implications. Sociology, 5(1), 74-95.

24. Javid, M., Arif, U., & Qayyum, A. (2012). Impact of remittances on economic growth and poverty. Academic Research International, 2(1), 433.

25. Jewel, F. R. (2015). Political Stability, foreign direct investment and remittance inflow in Bangladesh: An empirical Analysis.

26. Jewel, F. R. (2015). Political Stability, foreign direct investment and remittance inflow in Bangladesh: An empirical Analysis.

27. Kamalu, K., Binti Wan Ibrahim, W. H., & Umar Ahmad, A. (2022). The Effect of Remittance on Human Development in the Organization of Islamic Cooperation Member Countries: Evidence from DCCE AND CS-ARDL. Iranian Journal of Management Studies, 15(2), 405-424.
28. Kuddus, M.A., Tynan, E. & McBryde, E. Urbanization: a problem for the rich and the poor?. Public Health Rev 41, 1 (2020). https://doi.org/10.1186/s40985-019-0116-0
29. Larsson, P., & Ångman, J. (2014). Remittances and development: Empirical evidence from 99 developing countries.
30. Lawan Ngoma, A., & Wana Ismail, N. (2013). The determinants of brain drain in developing countries. International Journal of Social Economics, 40(8), 744-754.
31. Mohammed, U. (2022). Remittances, institutions and human development in Sub-Saharan Africa. Journal of Economics and Development, 24(2), 142-157.
32. Nasim, A. (2019). The effect of remittances on domestic capital formation evidence from selected SAARC countries (Doctoral dissertation, Capital University).
33. Orozco, M. (2013). Migrant remittances and development in the global economy. Boulder: Lynne Rienner Publishers.
34. Ratha, D. (2007). Leveraging remittances for development. Policy Brief, 3(11), 1-16.
35. Ratha, D. (2013). The impact of remittances on economic growth and poverty reduction. Policy Brief, 8(1), 1-13.
36. Ratha, D., Mohapatra, S., & Silwal, A. (2010). Migration and remittances factbook 2011. World Bank Publications.

37. Siddique, A., Selvanathan, E. A., & Selvanathan, S. (2012). Remittances and economic growth: empirical evidence from Bangladesh, India and Sri Lanka. Journal of development studies, 48(8), 1045-1062.

38. Sutradhar, S. R. (2020). The impact of remittances on economic growth in Bangladesh, India, Pakistan and Sri Lanka. International Journal of Economic Policy Studies, 14(1), 275-295.

39. United Nations Development Program (2020), “Human development index data”, available at: http:// hdr.undp.org/en/data (accessed 19 December 2020

40. Wahab, M. A., Ahmed, V., & Mahmood, H. (2013). Human resource development (HRD) and foreign remittances. World Economics, 14(4), 29-56.

41. WDI, (2020). World Development Indicators. https://databank.worldbank.org/reports.aspx?source=2&country=USA

42. World Development Indicators 1960–2020 [ILOSTAT database.]

43. Z., & Woldemariam, K. (2016). The Effect of Remittances on Domestic Capital Formation in Select African Countries: A Comparative Empirical Analysis. Journal of International Development, 28(2), 243-265

44 Zhunio, M. C., Vishwasrao, S., & Chiang, E. P. (2012). The influence of remittances on education and health outcomes: a cross country study. Applied Economics, 44(35), 4605-4616

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