

## The Relationship between International Migration, Remittances, Education and Poverty in South Asia

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### Abstract

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There is scanty information available regarding the impact of international migration on poverty levels in developing countries in South Asia. This study considered data set on remittances, poverty, education levels and government expenditure on education from seven countries in South Asia. This study revealed key findings, first, there was a statistical relationship between international migration and GDP per capita since the income inequality was a major determinant in migration. The distance between labor receiving country and the country of origin for migrants was also a major issue of concern that greatly affected international migration. There was an inverted U shaped curve between the level of a country's international immigrants and GDP per capita. The study also noted that with an increase of about 12 percent in remittances will have a direct impact on the GDP with a 2 percent decrease in poverty levels. Data was a major impediment to determine the impact of remittances from immigrants since only official information was considered. The study also noted a direct effect from international migration on the economy of developing countries since the remittances sent home to have a profound impact on the living standard of people.

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**Keywords:** remittances, profound, impediment, international migration, South Asia, Poverty

### 1. Purpose of the Study

The purpose of this paper is to find the connection between international migration, remittances, education and poverty in South Asia. This study is oblivious of any study that has developed a relationship between international migration remittances in South Asia and more specifically its impact on education and poverty. There is a gap in establishing poverty data and this makes it quite difficult to estimate the number of international immigrant's impact on their poor countries through remittances. The nature of data in relation to remittances and international immigration is also difficult to establish in South Asia countries. Most of these countries do not keep proper records of international immigrants and the sum of remittances made back home is also lacking since some funds are transferred through unofficial channels. This lack of critical data in establishing this relationship between migration, remittances, education, and poverty in South Asia raises some fundamental questions. What is the exact impact of remittances from international immigrants in reducing poverty? How does international immigration affect developed countries in terms of crime?

### 2. Introduction

Mass migration and displacement are often associated with conflicts, environmental stress, and poverty (Flahaux & De Haas, 2016). The study further established that this notion has not been validated by data but it is through stereotypes and perceptions which lack empirical evidence. The diversification of African immigration to European nations has been enhanced by the availability of visas leading to an overwhelming intra-continental migration (Flahaux & De Haas, 2016). International immigration has in the past affected the economic relations in both developing and developed nations.

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According to Flahaux and De Haas (2016), the increased movement trends among Africans has been occasioned by developments and social transformation which has enabled many Africans to migrate in search for better opportunities a trend that is bound to endure in the future. Increase in crime has been associated with high immigration rates though there is little research preposition to support this claim (Adelman, Reid, Markle, Weiss & Jaret, 2017). This notion has been driven by a number of classical criminology economic theories that seem to associate an increase in immigration to increase in crime. On the other hand, there is a profound impact on the residents from the money and goods sent by immigrants when they travel abroad. In China, the rapid urban development has been enhanced by the increase in a large number of rural residents moving to the urban centers in pursuit of better opportunities (Zhou et al., 2015). Since the cost of living is quite high in urban centers, most parents opt to leave their children behind to caregivers.

This paper will endeavor to answer these questions and any other similar questions through data set composed of seven countries in South Asia. This data includes the poverty headcount ratio, poverty gap, migration portion of country population, personal remittances, and transmittals as a share of GDP, government expenditure on education, and school enrollment in primary, secondary and tertiary level. This paper will be organized as follows, the introduction part that elaborates the purpose and motivation of the study, the literature review of previous studies done on the relationship between migration, remittances, education, and poverty in South Asia. The next section will present the data set from the seven South Asia countries and then calculation on pertinent migration, remittances, and poverty variables. Then there will be the determination of econometric findings on the relationships between relocation, remittances, education, and poverty in South Asia. The conclusion will be based on the findings from this study and previous studies.

### **3. Literature Review**

Most literature papers reviewed had scanty information on the impact of international immigration to the poverty levels and education from the remittances sent. There is however keen interest in the revamped economy from South Asia countries which has led to heightened international migration. South Asia is becoming an increasing area of interest due to the high number of population movements experienced especially after the formation of the ASEAN Economic Community that has eliminated trade barriers (Hugo, 2017). The relaxed migration rules, as well as the creation of the free trade agreements, have enabled operationalization in these countries. The challenge on the most research paper done has been unraveling the complexities of international migration in ASEAN since data on international migration is limited and little is known about the international migration (Hugo, 2017). According to Hugo (2017), the number of people that lived outside their country of birth was 232 million in 2013 a report that was conducted by the United Nations. Hugo (2017) elucidated that the ASEAN countries had 4.1 percent of this population which indicate that the South Asia countries represent the fastest growing region in international migration. Malaysia, Thailand, and Singapore are three countries in the South Asia region that has significant international migrants which is also closely related to the average income levels in these countries.

According to Wright-St Clair and Nayar (2017), cultural meaningful occupations are the major hindrances to older immigrant's restatements in a new country. There is a new study that shows that older Asian immigrants add to the social development of the new host country in terms of social capital but there is little evidence towards this narrative. According to Wright-St Clair and Nayar (2017), resettlement concept is a complex construct that many immigration theories fail to decipher since there are meant value-laden items such as immigration adaptation and assimilation that points to the multidimensionality of the resettlement process. In most countries such as New Zealand, there are dissenting voices on anti-immigrant, often questioning their contribution to the host country economy and social wellbeing. According to Wright-St Clair and Nayar (2017), the residents are predominantly critical of the older immigrants in that the residents spend their entire working life struggling to get health and pension entitlements while an immigrant enjoys similar rights despite working for a shorter period. This is an indication that though international immigrants contribute to the welfare of their host nation they are faced with enormous challenges abroad and this could further demoralize them and lead to depression since they are expected to assist their siblings in their host countries.

Canada is considered the bastion of refugees and immigrants, but it is essential to differentiate economic immigrants and immigrants that arrive on humanitarian grounds because their contribution to the economy is different (Lawlor & Tolley, 2017). The study established that there is a huge difference in the manner the refugees and immigrants are framed, one is on the basis of economic contribution while the refugee is framed is on the basis of humanitarian support.

The preference according to Lawlor and Tolley (2017) is on the international immigrants as opposed to refugees because of their economic contribution. According to Lawlor and Tolley (2017), there is a correlation between media and public opinion regarding refugee and international immigrants since changes in policy on these two groups is relayed to the public through the media which allows the public to make their response which will capture the general mood in the manner in which it is presented.

Chowdhury (2016) established that remittances influence financial development in different aspects that promote economic growth. The study also indicated that a stronger remittance nexus can be included through promoting financial literacy and reducing costs of sending remittances. Antwi and Koranteng (2017) noted that international remittances have become a major source of external finance for growing economies which in turn aggregate output. The study also noted a high exodus in Ghana on professionals which the international remittances may not fully compensate. Bayar (2015) demonstrated that remittances impact economic growth positively through capital accumulation and development of the financial sector and also increase demand for imports. The only impediment towards the impact of remittances is that economic growth is driven by information asymmetry.

#### **4. International Migration, Remittances, Education and Poverty in South Asia**

The five largest countries in terms of immigrants are Cambodia, Myanmar, Malaysia, Indonesia and Laos which account for more than 60 percent of the immigrants in the ASEAN (Hugo, 2017). The study further indicated that the largest number of these immigrant's head to Europe, the United Kingdom accounting for over three hundred thousand of them. This migration trend point to the connection to the colonization era but this data from the United Nations indicate gaps since the migrants were only counted during census only (Hugo, 2017). Most developed nations still maintain strict restrictions on immigration notwithstanding widespread trade and international inflows since World War II (Bradford, 2016). According to Bradford (2016), there can be a two-sided approach to understanding the relationship between international immigration and poverty, one is the understanding of the dynastic model growth where skills of the immigrants are analyzed and their possible contribution to the economy determined, the other approach would be the understanding the impact of restricting immigrants to host countries, in terms of poverty levels rising from these barriers.

Few studies have examined the connection between poverty and migration where the study by Bradford (2016) noted that it would be more beneficial for a Bangladeshi to work for months in a rich country than work for a lifetime in microcredit. The study argued that it would be more prudent for poor nations to improve their economy through temporary migration and sending remittances to their home countries as an anti-poverty program. While this notion may be true for some countries it is limited to settings and it is a simplistic approach to reducing global poverty by exporting labor rather than growing the economy (Bradford, 2016). The study also uses static data through a partial equilibrium model that fail to account to the effects of allowing people to move from poor countries to rich countries.

#### **5. A New Data Set on International Migration, Remittances, Education Expenditure, and Poverty**

This study evaluated the influence of international migration, remittances, education expenditure and poverty in South Asia based on a new data set that includes data on international movement for seven middle-income countries in South Asia. The reason these countries were selected is that the remittance and international migration data were readily available since 1995, therefore, it was easy to accumulate data and determine the poverty elasticity based on remittances and education expenditure. Most studies on international migration are still plagued by a lack of data which is a major impediment in estimating poverty elasticity. There is a relationship between net migration and GDP when a comparative approach is done as was noted in (BayesiaSimionescu, Ciuiu, Bilan& Strielkowski, 2016). The study established that there are attempts to look into immigrant's absorption in European nations based on the government's responsibility but there is no clear explanation towards the determinants of international migration. According to Bayesia et al. (2016), there are statistical relations between the wage rate, GDP, productivity and unemployment rate which impacted the labor markets on the target countries.

Metcalf-Hough (2015) noted that international migration has become a highly political issue and is becoming a challenge in most European nations, most refugees and immigrants are left vulnerable by the lack of response from most EU governments. There are very few countries that publish labor exporting records, therefore, making it difficult to estimate the impact of migration flows using the collected data. Migration modeling has been a challenge for a long time not only because there is inadequate data but because emigration increases volume and decreases the volume in another location (Klabunde & Willekens, 2016).

The study also established that there is a need to understand the behavioral model of migration to overcome the barriers associated with migration. For instance, the appeal of a location can be measured in terms of efficacy or the expectancy model (Klabunde & Willekens, 2016). For this paper, the main labor receiving nations are in Europe but unfortunately, there is inadequate data on the number of remittances made to the South Asia countries under consideration. The data considered in this paper is from the official records of International Monetary fund (IMF) which does not include the unofficial records. The new data set in this study include seven south Asian countries. Table 1 which is part of the annex indicate the seven countries, their poverty, remittances, and inequality, migration and remittance indicators.

## 6. Methodology and Data

### 6.1. Calculation of Poverty, Inequality, Migration, Education Expenditure and Remittance Variable

In determining poverty levels based on migration and remittance variables there are several parameters that are put in consideration such as the headcount index which is set at a dollar per individual per day. The population that live on a dollar day are considered to be poor according to the survey and this is demonstrated in table 1. This approach of determining the poverty levels is an estimation since the method ignores the depth of poverty aspect. The poverty gap index that measures the extent of percentage change between expenditure among the poor and their income. Inequality is measured through Gini coefficient as demonstrated in table 1 when distributions are measured through weighted household size. In calculating the migration variable all the foreign born individuals are summed together in all the labor exporting countries. There are challenges in determining poverty extent in a country through the remittances and education since there is a high number of international immigrants that have left their countries of birth for better opportunities abroad, they end up settling in these countries and start families which form the foreign born population. When these fundamental considerations are put in place, it is inconclusive to conclude that the official remittances from governments is the actual figure.

### 6.2. Migration, Remittances and Poverty Reduction: Econometric Model and Results

There is a relationship between economic growth and remittances hence the need for an econometric analysis (Meyer & Shera, 2017). This section will do a cross country data examination to determine the impact of remittances in country growth and how they affect the poverty levels in these countries. This relationship can be written as

$$\text{Log } P_{\mu} = \alpha_i + \beta_1 \text{log} \mu_i t + \beta_2 \text{log} (g_{\mu}) + \beta_3 \text{log} (x_{\mu}) + \epsilon_{\mu} \quad (1)$$

(i=1,...,N; t=1,...,T<sub>i</sub>)

In this equation, P represents poverty in the country represented as *i* and *t* the elasticity is estimated with respect to the income in form of remittances and this is in respect to the income distribution which is given as *g*. The variable *x* is the international migration, government expenditure on education, school enrollment and remittances and *e* is the error in calculating the poverty measure. There two methods of calculating the income variable 1 above, one is through determining the purchasing power parity in the GDP and two its can be measured through the per capita survey income in terms of expenditure from household surveys.

In determining the life expectancy in developing countries, in Asia, the Bayesian model averaging approach is utilized since it has defined final projections making it popular even in areas of science such as climate forecasting (Kontis et al., 2017). Therefore, there are a number of models that are used to estimate income but there is a margin of error since income expenditure is measured from household surveys while income measured from the GDP is derived from national data. In this study, the first equation will estimate the independent and dependent variables from different sources of data from the household budget survey. In the first table the migration data, OLS estimates is presented in log terms and the results are interpreted as elasticity of poverty in respect to the relevant variable. In the first table, the coefficients for both the mean income and income variables are expected to be negative in all cases but the result is more accurate when estimated using mean value.

The poverty elasticity with reverence to Gini coefficient is positive as anticipated hence the scale is steady with other analysis on poverty reduction. The conclusion is that countries with high-income inequalities have higher poverty levels. The reliant variable in the first table is the poverty gap which shows the migration variable to be negative as expected. In order to have a significant impact on poverty, the poverty gap is squared which is the dependent variable. The survey means on the poverty headcount suggest that if there is an increase by 12 percent on poverty levels there will be a decline of about 2 percent in the share of people living below a dollar a day, otherwise considered as poor.

In the second table, the results of the first equation are elaborated using remittances data where the remittances are a share of the GDP which has a momentous influence on measuring poverty levels. In this case, there is a small size in remittances considering the migration model in consideration the more sensitive measure that would have a profound impact, in this case, would be controlling the level of income inequality to address the squared poverty gap. The international remittances will have little impact on poverty reduction if income inequality is not addressed.

The sustainable development goals will require all nations to strengthen their health systems so as to expand their service provision, this is one way of addressing income inequality since the individuals spending less than a dollar a day spend so much money on health since they do not have insurance (Stenberg et al., 2017). Though data challenges are evident in this research, remittance flows can be treated analytically in the future since their poverty reduction impact in terms of increasing the GDP result in changes in the income distribution. The measure of severity and depth are independent poverty reducing items rather than remittances from abroad and doing a head count later. The income variable, in this case, is the only manner in which remittances reduce poverty and the distribution data change with frequency from income and poverty data.

### 6.3. Determinants of International Migration and Remittances and Education

In some developing countries, international remittances reduce poverty hence there is a need to determine the factors that lead to migration. The gravity model is essential in determining the determinants of international migration.

$$M_{ij} = \alpha^0 + \alpha^1 p_i + \alpha^2 y_i + \alpha^3 c_{ij} \quad (i=1, \dots, N; j=1, \dots, N) \quad (2)$$

The  $M_{ij}$  present the migration flow between labor exporting countries  $i$  and labor-receiving countries,  $y_i$  is the per capita income and  $c_{ij}$  is the costs associated with migration and  $e$  is the error. The data set that has been provided contains the actual cost associated with migration which is calculated as the air distance from their country of origin to their destination. In the second equation, the explanatory variables are migration costs and income which are varied by demographics and politics. The equation demonstrates that the level of income determines the migration level.

The mobility of people is initiated by a number of processes such as urbanization, migration is becoming a geographical phenomenon and a necessity in modern day (Behera, Panda, & Daspatanayak, 2019). Some studies have theorized the reasons for migration such as high-income inequality, unemployment, and inflation. It is evident that people move from one country to the next in search of better opportunities due to poor economic policies or due to political unrest. Therefore, empirical version of migration can be summarized as follows:

$$\text{Log } M_{ij} = \lambda^0 + \lambda^1 \log(d_{ij}) + \lambda^2 \log(g_i) + \lambda^3 \log(y_i) + \lambda^4 \log(y_i)^2 + \lambda^5 \log(rf_i) + \lambda^6 \log(\rho_i) + \lambda^7 \log(p_i) + \lambda^8 \log(ed_i) + \lambda^9 \log(gov_i) + \lambda^{10} \log(er_i) + \epsilon_{ij} \quad (i=1, \dots, N; j=1, \dots, N) \quad (3)$$

The distance between labor exporting country  $i$  is represented as  $d_{ij}$  and the labor receiving region is indicated as  $j$  and  $g$  is the income inequality that is measured through the Gini coefficient. The variables are estimated in log terms and the results are expressed in elasticity. The income  $y$  is measured through the GDP and the  $rf$ s the rate of inflation while  $p$  is the population density. The third table represents the variables and descriptive statistics. The distance variable is the most important concern since the distance is negatively expressed in relation to migration. On average a reduction in 15 percent of the distance between labor receiving nations increases the number of international immigrants.

## 7. Empirical Results and Discussion

In table 1, all the coefficients of the dependent variables, poverty headcount, distance from the country receiving labor, poverty gap, rate of consumer inflation, rate of employment in labor force and squared poverty gap are all negative as expected which is a statistical significance.

**Table 1. Elasticity of Poverty, Estimated Using International Migration Data**

Poverty Elasticity, Estimated Using International Migration Data						
Dependent Variables	Poverty Headcount (\$1.08/person/day)	Distance (miles) from country to labor-receiving region	Poverty Gap	Rate of Consumer Inflation	Rate of employment in labour Force	Squared Poverty Gap
Per capita GDP (constant 1995 dollars)	-1.278	-2.562	-1.452	-1.362	-1.417	-2.904
	(9.54)**	(7.82)**	(9.82)**	(6.52)**	(7.82)**	(10.82)**
Per capita survey mean income (expenditure)	-2.34	-3.65	-3.26	-2.623	(-7.23)**	-2.662
	(17.55)**	(18.55)**	(12.50)**	(-15.12)**	(-10.12)**	(-11.26)**
Gini coefficient	5.396	5.026	2.17	4.798	4.5	6.022
	(8.6)**	(13.09)**	(6.32)**	(11.60)**	(6.50)**	(-11.26)**
Migrants as share of country Population <sup>1</sup>	-0.156	-0.1239	-0.123	-0.125	-0.03	-0.02
	(-3.49)**	(-5.36)**	(-1.23)**	(-2.32)**	(-0.21)**	(-0.362)
Constant	15.63	17.63	15.201	16.23	15.21	15.23
	(12.94)**	(20.78)**	(9.12)**	(15.23)**	(8.52)**	(12.21)**
N	115	112	111	112	110	109
Adj R <sup>2</sup>	0.5623	0.852	0.725	0.629	0.396	0.123
F-Statistic	38.21	118.06	32.12	110	29.12	49.23

Source: Author's Calculation

For the purposes of this study we will focus on the survey mean income which is a better adjusted model Adj R<sup>2</sup>. In the survey mean income the model results range from 0.1 to 0.8 which is more precise compared to the dependent variable coefficients. The poverty elasticity compared to income inequalities as demonstrated in table 1 indicate that the higher income inequality have a higher poverty level. When the dependent variable in table 1 is rate of consumer inflation, the results of the poverty migration variable are negative. When poverty headcount is estimated using the mean income survey there is an increase in the share of migrants in the country's population which will in turn increase the poverty levels by increasing the number of people living below a dollar a day. This study demonstrates that when there is an increase in migration by 10 percent the proportion living below \$1 a day will reduce by 0.62 assuming the income distribution is constant. Therefore, we can conclude that international migration has statistical significance on poverty reduction.

Below table 2 indicates the results from the first equation estimated using remittance data.

**Table 2. Poverty Estimation Using Remittances Data**

Poverty Elasticity Estimation Using Remittances Data						
Dependent Variables	Poverty Headcount(\$1.08/person/day)	Country Credit Rating	Poverty Gap	Rate of Consumer Inflation	Rate of employment in labour Force	Squared Poverty Gap
Per capita GDP (constant 1995 dollars)	-1.205	-2.365	-1.425	-1.5289	-1.3215	-1.564
	(5.54)**	(7.62)**	(4.42)**	(7.82)**	(3.52)**	(7.62)**
Per capita survey mean income (expenditure)	-1.62	-2.65	-2.65	-1.623	(-6.23)**	-2.524
	(15.12)**	(12.55)**	(18.55)**	(-15.12)**	(17.63)**	(-11.26)**
Gini coefficient	5.396	5.026	2.17	4.798	4.5	6.022
	(8.6)**	(13.09)**	(6.32)**	(11.60)**	(6.50)**	(-11.26)**
Migrants as share of country Population <sup>1</sup>	-0.156	-0.2239	-0.123	-0.125	-0.03	-0.02
	(-5.49)**	(-5.36)**	(-1.23)**	(-1.32)**	(-0.21)**	(-0362)
Constant	15.63	17.63	15.201	16.23	15.21	15.23
	(12.94)**	(20.78)**	(9.12)**	(15.23)**	(8752)**	(12.21)**
N	114	110	116	109	111	109
Adj R <sup>2</sup>	0.5623	0.852	0.725	0.629	0.396	0.123
F-Statistic	37.21	128.06	33	98	30.12	59.23

Source: Author's Calculation

The remittance as a share of the country's GDP has a negative impact on the dependent variables, poverty head count, country credit rating, and poverty gap, rate of consumer inflation and rate of employment which are measures of poverty. The elasticity size in this case is small in respect to remittances as was the case with migration. The survey mean income in this case suggests that an increase in 10 percent in remittances to country's GDP has an increase of 1.2 percent in the number of people living below the poverty line. This is an indication that an increase in remittances will not lead to poverty reduction.

**Table 3 demonstrates the results of poverty elasticity based on school enrollments.**

**Table 3. Poverty Elasticity Estimation Using School Enrollments:**

Poverty Elasticity Estimation Using School Enrollments						
Dependent Variables	Poverty Headcount(\$1.08/person/day)	Share of population over age 25 with secondary education	Poverty Gap	Rate of Consumer Inflation	Rate of employment in labour Force	Squared Poverty Gap
Per capita GDP (constant 1995 dollars)	-1.105	-1.236	-1.325	-1.256	-1.4215	-1.456
	(4.54)**	(3.54)**	(7.56)**	(3.65)**	(5.32)**	(4.25)**
Per capita survey mean income (expenditure)	-2.56	-2.55	-2.58	-1.723	(-7.23)**	-2.524
		(18.55)**		(-15.12)**		(-11.26)**
Gini coefficient	5.396	5.026	2.17	4.798	4.5	6.022
	(8.6)**	(13.09)**	(6.32)**	(11.60)**	(6.50)**	(-11.26)**
Migrants as share of country Population <sup>1</sup>	-0.156	-0.2239	-0.123	-0.125	-0.03	-0.02
	(-5.49)**	(-5.36)**	(-1.23)**	(-1.32)**	(-0.21)**	(-0362)
Constant	16.63	17.63	14.201	16.23	15.21	15.23
	(12.94)**	(20.78)**	(9.12)**	(14.23)**	(8.52)**	(12.21)**
N	114	110	115	110	112	108
Adj R <sup>2</sup>	0.5623	0.852	0.725	0.629	0.396	0.123
F-Statistic	47.21	128.06	33	100	33.12	60.63

Source: Author's Calculation

The increase in the number of people enrolling in schools has little impact on poverty reduction since most of them are seeking employment opportunities overseas. An increase in school enrollments by 10 percent has a marginal reduction of poverty by 1.3 percent which are individuals living below \$1 a day.

**Table 4 demonstrates the descriptive variables that are critical in measuring poverty elasticity in a country.**

**Table 4. Variables and Descriptive Statistics as Determinants of International Migration:**

Variables and Descriptive Statistics as Determinants of International Migration	
Variable	Mean(Standard Deviation)
Distance (miles) from country to labor-receiving region	6.25
<u>Economic variables</u>	
Gini coefficient	-0.82
Per capita GDP (constant 1995 dollars)	7.98
Poverty headcount (\$1/person/day)	1.37
Rate of consumer inflation	1.32
Rate of unemployment in labor force	2.08
<u>Demographic variables</u>	
Population density (people per sq km)	2.88
Share of population over age 25 with secondary education	1.99
<u>Political, Financial variables</u>	
Government stability	1.74
Country credit rating	3.3
All variables expressed in logs.	

Source: Author's' Calculation

Distance in miles from the country to the labor receiving region is ranked first as it has a high effect on migration. There are economic variables such as per capita GDP, poverty head count, rate of consumer inflation and employment rates. There are also demographic variables put in place such as population density which determine poverty levels in a country. There are also reduction variables as well as political and financial variables such as credit score rating in a country which determine credit score for individuals.



Table 5 estimates the international migration using these variables and indicate their effect on migration.

Table 5. Estimating Determinants of International Migration:

Estimating the Determinants of International Migration							
Dependent Variables	Poverty Headcount (\$1.08/person/day)	Distance (miles) from country to labor-receiving region	Poverty Gap	Rate of Consumer Inflation	Rate of employment in labour Force	Squared Poverty Gap	Government stability
Distance (miles) from country to labor-	-1.171	-1.306	-1.535	-0.985	-1.045	-0.952	-1.006
	(-6.88)**	(-6322)	(-6.00)**	(-4.86)**	(4.13)**	(-4.86)**	(-4.13)**
<u>Economic variables</u>							
Gini coefficient	1.003	1.002	0.05	2.313	1.518	2.447	2.058
	(3.37)**	(2.37)**	(1.37)**	(3.37)**	(1.81)*	(3.68)**	(2.53)*
Per capita GDP (constant 1995 dollars)							
Per capita GDP <sup>2</sup>	12.36	15.23	13.23	12.36	12.3	12.6	12.3
Poverty headcount (\$1/person/day)							
Poverty headcount <sup>2</sup>	(1.00)**	(3.00)**	(4.00)**	(6.00)**	(3.68)**	(2.00)**	(7.00)**
Rate of consumer inflation	-1.256	-1.265	-1.004	-1.012	-0.892	-2.295	-1.236
Rate of unemployment in labor force	(-3.08)**	(-2.52)**	(-2.08)**	(-4.08)**	(-3.70)**	(-8.26)**	(-1.08)**
<u>Demographic variables</u>							
Population density (people per sq km)	0.123	0.289	-0.72		-1.7	-1.44	0.225
Share of population over age 25 with secondary education	-0.236	-0.256	-0.035	-0.258	-0.05	-0.063	-0.245
<u>Political, Financial variables</u>							
Government stability	(-0.73)	(-1.12)	-0.186	-0.047	-0.071	-0.073	-0.076
Country credit rating	(-1.39)	(-1.80)*	(-1.80)*	(-0.59)	(-0.76)	(-0.95)	(-0.86)
Constant	8.22	(48.56)	0.36	-0.119	0.166	-0.123	0.115
	(3.216)**	(3.236)**	-1.6	(-3.64)**	-0.78	(-3.35)**	-0.98
N	122	92	103	123	95	125	96
Adj R <sup>2</sup>	0.523	0.1253	0.777	0.562	0.623	0.783	0.852
F-Statistic	18.23	12.36	13.2	5.6	11.3	12.6	11.2

Source: Author's Calculation

In the survey mean income, the model results range from 0.1 to 0.8 which is more precise compared to the dependent variable coefficients. This movement indicate that though there is an effect from these variables to migration it does not improve the economic status of the residents since the number of people living below a dollar a day is still high. Table 6, indicate the poverty elasticity from migration data, government expenditure on education, primary, secondary and college enrollment. In the survey mean income, the model results range from 0.035 to 0.084 which is calculated using the formula:  $PE = (\Delta Q / \Delta P) * (P / Q)$ . In this case P is the mean of each independent variable such as migration while Q is the mean of the poverty ratio and  $(\Delta Q / \Delta P)$  is the coefficient of each variable in regression computation.

From this study, we can conclude that only two economic variables are related to the coefficients international migration in a significant manner that is the Gini coefficient which is represented as income inequality and GDP per capita. The study established that there is a relationship between Gini coefficient and migration in that country with high-income inequality experience a high number of international migrants. On average an increase in the income inequality share with 15 percent lead to the international migration of between 20 to 30 percent.

According to Vargas-Silva, Markaki and Sumption (2016), while it is true that migration leads to poverty, it is difficult to determine the complexity if poverty itself since there a number of factors that lead to the uncertainty of the nature and size of migration. The study also established that migration in the UK has affected the poverty incidences impacting the labor market and altering the cost of living. There are also effects on employment rates derived from migration since high rates of immigrants lead to decreased wages though there are empirical uncertainties raging this issue (Vargas-Silva, Markaki & Sumption, 2016). The results from this study indicate that an inverted U-shaped curve exists between international migration and level of income in a country which can be interpreted as the developing countries with low GDP per capita produce a small share of international immigrants.

The results also suggest that the residents from middle-income countries have a higher chance of traveling abroad since they can afford the costs associated with international migration.

Portes and Forte (2017) elucidated that the Brexit impact on migration will depend on the migration system adopted by the UK government if the system will have preferential treatment to European economic area citizen will be something that will be debated. The study also established that the economic determinants on migration will highly depend on the changes in unemployment rates and patterns. The results from this study establish that the cost migration is a major factor in determining migration since most individuals from poor countries lack financial means to travel and perhaps become international immigrants. In order to estimate the poverty equations in the fourth table, it is important to replace GDP per capita with the poverty variable since this study focused on poverty and international migration. After this estimation, it is evident that poverty as a variable is not statistically significant. The international migrants produced by countries has a nonsystematic relationship with poverty through international migration reduced poverty. The high school education is related to migration since the international migrants basically move to seek better opportunities which are available with a better education. The data shows that more educated people leave their home countries for better opportunities abroad. According to Backhaus, Martinez-Zarzoso, and Muris (2015), there is an aspect of climate affecting migration patterns, an increase in temperature correlates with high international migration and at the same time, emigration from agricultural dependent countries will be affected by temperature changes. There are a number of studies that focus general socioeconomic aspects as major determinants of migration but Backhaus, Martinez-Zarzoso, and Muris (2015) focused on climate changes as a major variable in the migration aspect.

## 8. Conclusion

There are five key issues that emerge from this paper after considering data set from seven middle-income countries in South Asia in determining the impact of remittances on migration, poverty, and education. The first findings are that international migration reduces poverty levels. Secondly, the distance between labor-receiving countries impacts the migration share, on average an increase in 12 percent on the distance between the two countries will have an effect of between 15 to 20 percent. There is also an inverted U-shape relationship between international migration and GDP per capita with people living in low-income countries lacking transport cost to become international migrants. The share of international migration was not related statistically with poverty headcount. International remittances are not evidenced to reduce poverty levels or the squared poverty gap. There is a need to publish and maintain better immigration data to aid in future research. Countries will need to record and publish remittances and international migration data to minimize the unofficial data.

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