CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction & Review Approach

Migration from Bangladesh to the rest of the world is not a new incidence. Bangladesh has a long history of migration and overseas remittances since 1942(Mahmood, 1991).Remittances inflow to Bangladesh has increased at an average annual rate of 19 percent in the last 30 years from 1979 to 2008 (Hussain, 2009). Between 1976 and 2010 about a total of 71.5 Lakhs people emigrated temporarily from Bangladesh sending a total of 5 Lakhs Crore Taka to their families or relatives or their friends in 2009, total remittances to Bangladesh was about 11.8 percent of the country's GDP(BBS,2010). Bangladesh had become one of the top 10 remittance-recipient countries in the world. Bangladesh's position in 2008 was ninth in that of 'top 10' list after India, China, Mexico, Philippines, Poland, Nigeria, Egypt and Romania (Ratha et al., 2008). It is very interesting to note here that a large part of remittances remains unrecorded and it is about 50 to 200 percent of the officially recorded remittances (Aggarwal et al., 2006).The flows of remittance are more stable than other types of private capital inflows like official development aids (ODA) and foreign direct investment (FDI) and are counter cyclical (World Bank, 2006) as the flows increase during downturns as emigrant workers went to provide financial support to the family members in the country of their origin (Sayan, 2006).That is remittance act as a significant macroeconomic stabilizer in the developing countries.

In any developing countries the common problem is shortages of foreign exchange reserve which is very essential to pay the import bills. Bangladesh is not an exceptional country but Bangladesh depends more on remittances to meet the problem of payment of the import bills. Remittances promote growth through smoothing the investment constraint as it act as a substitute for in-efficient or non-existent credit markets (Giuliano & Ruiz-Arranz, 2009).There may be positive impact of remittances on economic growth if remittances are used for the purpose of children's education and welfare expenses such as health care because in the long run there may be a positive impact on labour productivity and hence output of the home country. Even if remittances are spent on consumption or real estate there will be a positive multiplier effects on GDP (Chimhowu et al., 2005)

2.2 Review of Theoretical Issues

Since the phenomenon of remittance flows is highly intertwined with that of migration where remittances is considered to be one of the major impacts of migration, theories on remittances is highly related to and originate from the theories of migration.

From Prakash (2009) we have the following ideas about the theories on migration: *Neoclassical Explanation:* According to Neoclassical approach, people from areas characterized by resource deficiency, unemployment, low wages and marginal productivity are attracted to areas characterized by relative labour scarcities but with abundant capital, resources and higher wages. The outflow of labour migrants from the underdeveloped and rural regions is beneficial because it will lead to a more balanced distribution of capital and labour that contributes to economic development in the out-migration region. *The New Economics of Labour Migration (NELM):* Migration is viewed as a family, household, or community strategy to diversify sources of income, minimize risks to the household, and overcome barriers to credit and capital. Individual is studied in the context of the 'group'.

Solimano (2003) has focused on motives of remitters to remit to their families. There are four motives of remittance which are as follows:

i) The Altruistic Motive: The migrant send remittances back home because he cares about the well being of his or her family in the home country. Sending remittances yields a satisfaction to the emigrant out of a concern with the welfare of his family. There is a no "*quid pro quo*". According to altruistic motive the sending amount of remittances decreases as the family attachment decreases gradually (Solimano, 2003).

ii) The Self- interest Motive:

Emigrants remit to the home country for an economic and financial purpose. They invest their earnings to the home country as it is the best and secured in terms of investment. Their investments in the host country may earn higher interest or profit but there may be higher risk profile. In the home country family members can observe their investments during their emigration period (Solimano, 2003).

iii) Implicit Family Contract I: Loan Repayment:

The theory assumes that families develop a sort of implicit contract among those who choose to live abroad, the migrant, and those who stay at home. The contract combines elements of investment and repayment. The family invests in the education of the emigrant and usually finances the costs of migrating (travel and subsistence costs in the

host country). This is the loan (investment) element of the theory. Due to obligations of repaying the loan (principal and interests) the migrant send back to the family in the form of remittances. Generally, the amount remittances do not necessarily decrease over time as in the altruistic model (Solimano, 2003).

iv) Implicit Family Contract II: Co-Insurance

Another variant of the theory of remittances as an implicit family contract between the migrant and those at home relies on the notion of risk diversification. Assuming that economic risks between the home and host country are not positively correlated (e.g. a recession in Bangladesh does not necessarily cause a recession in U.A.E or the U.S) then it becomes a convenient strategy for the family as a whole, to send some of its members abroad (often the most educated) as an emigrant as a way to diversify economic risks. The migrant, then, can help to support his family in bad times at home. Conversely, family of migrant also can give assurance during bad time in host country (Solimano, 2003).

Stark and Lucas (1988) see remittances as one component of a longer-term understanding between a migrant and his or her family, an understanding that may involve many aspects including education of the migrant, migration itself, coinsurance, and inheritance. The family group as a whole can potentially gain from such arrangements, though the distribution of gains between migrant and home may be a matter for bargaining, and each may be the net beneficiary at different phases.

According to Taylor (1999) the new economics of labour migration(NELM) argues that (1) migration decisions are part of family strategies to raise income, obtain funds to invest in new activities, and insure against income and production risks; and (2) remittances, or in some cases simply the potential for remittances, consequently set in motion a development dynamic, loosening production and investment constraints faced by households in imperfect market environments and creating income growth linkages.

At a macro level, it is not always possible to test appropriately for the macroeconomic impact of remittances because of poor data quality (Rapoport and Docquier, 2005).According to Rapoport and Docquier (2005) remittances may have a short-run macroeconomic impact through their effects on price or exchange rate levels. The long run implications of remittances, however, would seem to be more significant. First, remittances impinge on households' decisions in terms of labor supply, investment, education, migration, occupational choice, fertility, etc., with potentially important

aggregated effects. Secondly, another channel whereby remittances may affect a country's long-run economic performance is through their distributional effects and impact on economic inequality, a key issue from an endogenous growth perspective.

Bouhga-Hagbe (2006) argues that "altruism," as a motive to send money home, would contribute to the stability of these flows. Using a simple framework that relates workers' remittances to agricultural GDP, which is used as an indicator of economic "hardship" in the home country, evidence suggests that altruism could have played an important role in the flow of remittances to Egypt, Jordan, Morocco, Pakistan, and Tunisia in recent years.

According to Chami et al. (2008) economic theory gives us no reason to suppose that the macroeconomic effects of workers' remittances should necessarily be uniform from country to country or from time to time. In theory, the nature of these effects depends on a variety of characteristics of the receiving economy, as well as of the remittance flows themselves.

2.3 Importance of Remittances in Bangladesh

Khatri (2007) Bangladesh has a comprehensive overseas employment policy, which was only adopted in 2006 after its earlier Emigration Ordinance 1982 and three rules were found to be inadequate in protecting migrant workers from fraudulent practices. There are three government agencies to manage the welfare of migrants: the Ministry of Expatriates' Welfare and Overseas Employment; its Bureau of Manpower, Employment, and Training (BMET); and Bangladesh Employment and Service, Ltd. (BOESL). Whereas BOESL functions as a consultant and recruitment agency for Bangladeshis looking for foreign employment, BMET protects the interests of the emigrants and provides vocational guidance and counseling. Bangladesh has also set up the Wage Earners' Welfare Fund to expand the scope of coverage for migrant workers.

Khatri (2007) also points out that there are many terms used to describe the informal remittance systems such as 'alternative remittance systems', 'underground banking', 'ethnic banking', and 'informal value transfer system'. In different parts of the world, the terms include: *fei-ch'ien* (China), *hundi* (Pakistan and Bangladesh), hawala (India and the Middle East), *padala* (Philippines), *hui kuan* (Hong Kong), and *phei* kwan (Thailand).

Farid et al. (2009) examine the various issues of international migration and remittance flows of Bangladesh. They find overseas employment, remittances flow has been increasing every year with its increased share in GDP and export earnings. Major share of total remittances come from the Middle East countries. Azeez and Begum (2009) pointed out that remittances are close to triple the value of the official development assistance (ODA) in low-income countries and comprise the second largest source of external funding for developing countries after foreign direct investment (FDI) and also it has emerged as the least unstable source of financial flows for countries afflicted by shocks and constitute the single most important source of insurance for many poor countries.

Chowdhury et al. (2010) and Ali (2014) mentioned that remittance earning increasing day by day but at a lower rate than the increase in emigration from Bangladesh due to the increasing share of unskilled or semi-skilled labors than the professionals in international migration and remittance affects almost all the macro-economic indicators of a country positively. Rahim and Alam(2013) pointed out that the world has suffering from the global financial crisis. That is why, the job opportunities are shrinking drastically for the last couple of years. As a result, the government of Bangladesh is now facing tremendous challenges to send people abroad for employment Miah et al (2014) observed that in case of labor migration, Bangladesh is highly dependent on Middle East countries. Demand for Bangladeshi labours from Saudi Arabia is decreasing due to world financial crisis. Also Government of Saudi Arabia stops manpower import from Bangladesh due to unfair practices and dishonesty of recruiting agencies.

2.4 Literature on Determinants of Remittances

El-Sakka and Mcnabb(1999) find that both exchange rate and interest rate differentials are important in attracting remittance flows through official channels in Egypt. They also find that imports financed through remittance earnings have a very high income elasticity which suggests either that these imports are consumer durables and luxury goods or that they are undertaken by higher income groups.

Higgins et al. (2004) find that immigrants are highly motivated by portfolio variables in nine Western Hemisphere nations. Bouhga-Hagbe (2004) provides a model on how altruism, “attachment” to the home country, and portfolio diversification may act as

potential motives behind workers' remittances. It shows that the level of workers' remittances depends on how great are their degrees of altruism and "attachment" to their home country, and should also depend on interest rate differentials between the home country and the country of residence if portfolio diversification motives are significant in the decision to remit. The model is applied to Morocco using co-integration techniques. The paper then discusses the stability of remittances in Morocco and the policy implications in light of the empirical findings.

Gupta (2005) analyzes the determinants of remittances to India and finds that their growth over time can be explained by the increase in migration and total earnings of the migrants. Remittances are also affected by the economic environment in source countries, and appear to be countercyclical—that is, higher during periods of low economic growth in India. None of the remaining economic or political variables considered in the paper, including political uncertainty, interest rates, or exchange rate depreciation, are found to affect remittances significantly.

Aydas, Neyapti, and Metin-Ozcan (2005) find out that macroeconomic variables, specifically, domestic and host country incomes, black market premium, interest rate differentials, growth, inflation rate and periods of military regime, significantly affect remittance flows in Turkey for the 1979-1993 period. Among them, the negatively significant effects of black market premium, inflation and military regime periods as well as the positive significant effect of growth point at the importance of sound exchange rate policies and economic and political stability in attracting remittance flows.

Niimi and Özden (2006) examine the determinants of remittance flows at the cross-country level and find that the education level of migrants relative to the population in home countries, the size of the economy, and the level of economic development of recipient countries adversely affect remittance flows. Schiopu and Siegfried (2006) examine the importance of altruistic versus investment motives using a new panel data set of bilateral flows from 21 Western European to 7 EU neighboring countries. They find that the difference in GDP between the host and home countries increases remittances, which they conclude that altruism is important for remitting. By contrast, the interest rate differential between the countries is insignificant, i.e. the investment motive to remit is weak at best.

Barua, Majumder and Akhtaruzzaman (2007) identify macroeconomic determinants of inflow of workers' remittances in the context of Bangladesh over the 1993 to 2005 period. They find that income differential between host and home country is positively correlated with the inflow of remittances. Inflation differential between home and host country is found to be negatively correlated with the inflow of remittances. Devaluation of domestic currency or (increase in exchange rate) appeared to be positively correlated with the flow of workers' remittances in Bangladesh. Niimi et al. (2008) find that migrants act as risk-averse economic agents and send remittances back to the household of origin as part of an insurance exercise in the face of economic uncertainty.

Richard H. Adams Jr. (2009) finds that the skill composition of migrants does matter in remittance determination in the developing countries. Countries which export a larger share of high-skilled (educated) migrants receive less per capita remittances than countries which export a larger proportion of low-skilled migrants. Havolli (2009) using the data from a survey conducted in Kosovo in 2006, suggests that, among others, the motive to invest and perceptions about the business environment are significant determinants of remittances.

Hasan (2010) examines the macroeconomic determinants of workers' remittances in Bangladesh and he finds that if the domestic interest rate goes up by 1%, on average, then the remittance will increase by 1.94%. Again, if the GDP of the rest of the five countries increases by 1%, then remittance will increase by 3.06 %. Singha et al. (2010) find that remittances are larger for countries with larger diaspora in sub-Saharan Africa

Lin (2011) finds that macroeconomic conditions in remitting countries and exchange rate fluctuations influence remittances in Tonga. In particular, remittances growth falls when the Tongan currency appreciates, but increases with higher real GDP growth and lower unemployment in remitting countries. Begum and Sutradhar (2012) find that in the short run there exists a positive relationship between domestic exchange rate and remittance. The analysis of labour migration shows that unskilled labour migrants' are the principal source of remittance flows in Bangladesh. On the other hand, it is also observed that the wage rate for Bangladeshi unskilled workers are low compared to the wage rate of skilled or semi-skilled migrants. According to the estimated equation, it is found that domestic inflation have a positive relation with remittance implying that higher inflation at home country, which reduces the purchasing power of migrants'

family, induced migrants to send more remittances in Bangladesh. On the other hand, remittance is also very sensitive to the GDP of the six host countries.

Ali (2012) examines the influence of few selected macroeconomic factors which are assumed to have influence on the flow of foreign remittances in Bangladesh and he found that professional and unskilled migrant have very low negative but significant regression coefficients but semi-skilled migrants have positive significant coefficient. Piracha and Saraogi (2012) explain that a combination of household and migrant characteristics and some community-level variables are the key elements in explaining remittance behavior. Melkadze (2012) using quarterly data on remittances to Georgia suggests that remittances compensate for relatively unfavorable economic conditions in Georgia – that is, they increase when the growth gap between the remittance-source countries and Georgia widens, emphasizing the compensatory nature of remittances. Remittance flows to Georgia are negatively affected by high unemployment rates in the source countries. The study also reveals that money transfers respond to exchange rate fluctuations

Jackman (2013) using a panel of 93 countries, finds that altruistic factors (such as the age dependency ratio and the standard of living), insurance motives (captured by economic shocks at home and natural disasters), portfolio variables (interest rate volatility and exchange rate volatility), the share of skilled migrants and economic volatility in the sending country all have significant impacts on remittance volatility.

Al-Assaf and Al-Malki (2014) employing the ARDL and VECM approaches to find out the main macroeconomic determinants that affect remittances to Jordan during the period of 1972-2009 they find that macroeconomic factors of host countries are much more significant than home country macroeconomic factors, confirming the fact that remittances are most likely to be influenced by external factors but they could not find any significant effects of interest rate and inflation in both home and host countries on the Jordanian remittances.

2.5 Literature on Remittances and Growth

Quibria (1986) showed that steady flows of remittances can solve the problems of foreign exchange, improved the balance of payments and increased national savings and also in another work (1997) finds that aggregate GNP of the home country will

increase if remittances per capita exceed the host country wage rate. Stahl and Arnold (1986) pointed out that there may be negative impact of remittances on growth in the host country if there exist a “demonstration effect”. This demonstration effect can motivate the remittance recipients to consume imported goods. Hence if this effect becomes wide-spread this can reduce savings and investments that may be sufficient to reduce the growth rate of the home country. Stahl and Habib (1989) showed the multiplier effect of remittances in economics. They explain that remittances increase savings which increase the growth through multiplier. Even they calculated the multiplier for Bangladesh for the period of 1976-1988. The value of multiplier is 1.24.

Chami et al. (2000) find that remittances have negative effects on growth in their study on 113 countries. Murshid et al. (2002) find a multiplier of 3.33 using a short run Keynesian structural equation type model which means a flow of 1 million of Taka of remittances can increase 3.33 million of Taka of national income. Mahamud (2003) claims that remittances faster the growth in Bangladesh. Again if recipients become highly dependent on the “easy money” which causing them to reduce labour market participation, there may exists the problem of moral hazard between remitters and recipients. That is remittances do effect economic growth negatively (Chami et al., 2003).

An IMF (2005) finds no statistical link between remittances and per capita output growth studying on 101 developing countries. Glytos (2005) investigates the impact of exogenous shocks of remittances on consumption, investment, imports and output in five Mediterranean countries building a Keynesian type econometric model with a dynamic perspective and a sound theoretical basis. The model is used for estimating short and long-run multipliers of remittances, through which the impact of remittances on growth and other key macroeconomic variables is estimated and he suggests that remittances can import more capital goods into the host country for domestic production which can help to increase the growth rate of the home country.

Aitymbetov (2006) seeks to assess the macroeconomic implications of growing inward remittances for Kyrgyzstan with statistical principles and methods of deriving estimates of the marginal propensity to consume, marginal propensity to invest and marginal propensity to import from time series of remittances, consumption, income, import and investment. He finds that remittances have a positive impact on economy both directly

and indirectly through its multiplier effect. Zeisemer (2006) argues that remittances increase savings which intern increase investment by decreasing interest rate and also increases the rate of literacy. Finally remittances increase the rate of growth.

Jongwanich (2007) finds that remittances have a positive but marginal impact on economic growth in Asia and Pacific countries. Fayissa (2008) using an unbalanced panel data from1980 to 2004 for 37 African countries shows that remittances boost growth in countries where the financial systems are less developed by providing an alternative way to finance investment and helping overcome liquidity constraints. On the other hand Pradhan et al. (2008) find a positive impact on growth in their work with 39 developing countries over the 1980-2004 periods.

Barajas et al. (2009) finds that remittances have no impact on economic growth. Rahaman(2009) using the Autoregressive Distributed Lag (ARDL) procedure examines the effects of exports, FDI and expatriates' remittances on real GDP of Bangladesh, India, Pakistan and Sri Lanka. He finds close similarities of long-run and short-run dynamics of the variables between Bangladesh and India. But between Pakistan and Sri Lanka in terms of their short-run dynamics with no significant long-run causal flows is found. According to Catrinescu et al. (2009) assert that officially recorded remittances to developing countries have increased over the last decade, but research has not come to a consensus over whether remittances have a positive or negative impact on long-run growth. Hence country specific studies become necessary.

Giuliano and Ruiz-Arranz (2009) analyze how a country's capacity to use remittances and its effectiveness in doing so might be influenced by local financial sector conditions. Given the difficulty of borrowing in developing countries, they explore the hypothesis that remittances can substitute for a lack of financial development and hence promote growth. Raihan et al. (2009) show that remittances have positive effects on the economy and they reduce poverty but Rahman (2009) concludes that remittance seems to have insignificant and ambiguous effects on Bangladesh's GDP. Ahmed and Uddin (2009) investigates the causal nexus between export, import, remittance and GDP growth for Bangladesh using annual data from 1976 to 2005 and find limited support in favor of export-led growth hypothesis for Bangladesh as exports, imports and remittance cause GDP growth only in the short run.

Muhammad and Ahmed (2009) examine the dynamic impact of workers' remittances on economic growth of Pakistan. For this purpose, they use a Keynesian type simultaneous econometric model with a dynamic perspective. The macroeconomic key variables are investigated with an eventual purpose of estimating their respective contributions to economic growth. They found that the highest induced growth rate by remittances to output growth took place in the early 1980s particularly, 1982-83 which corresponds to the high inflow of remittances from the Middle East. Vargas-Silva et al. (2009) examines the potential of remittances for promoting economic growth and reducing poverty in Asian countries using data for more than 20 countries in the region for 1988–2007.They find positive relationship between remittances and home country real gross domestic product (GDP) per capita growth. A 10% increase in remittances as a share of GDP leads to a 0.9–1.2% increase in GDP growth.

Ahmed (2010) in his study, it is examined whether workers' remittances have growth impact on Bangladesh economy, by using data pertaining to 1995-2006 period and finds that remittance flows to Bangladesh have been statistically significant but have negative impact on growth but exports and domestic investments positively affect the economic growth, while foreign direct investment has no consequential effect.

Tansel and Yaşar (2010) estimate a Keynesian simultaneous, dynamic macro econometric model to investigate the impact of remittances on key macro variables such as consumption, investment, imports and income in Turkey. The estimated impact and dynamic multipliers indicate that impact of remittances on consumption; imports and income are all positive and reduce gradually while that on investment wears out in the second year. The impact multiplier for income implies a substantial increase in income due to remittances through the multiplier process.

Jayaraman et al. (2010) study the long run growth effects of remittances received by Fiji, by employing an augmented Solow growth model which assumes constant returns to scale production function. The model was duly extended by including two shift variables, namely remittances as percentage of GDP, and a variable representing financial sector development, namely broad money as a percentage of GDP for an empirical study of the relationship between remittances and economic growth in Fiji during a 30-year period (1979- 2008). The study findings for Fiji study shows that remittances have had a positive and significant effect on economic activities.

Belmimoun et al. (2010) study the impact of Migrants' remittances on the Algerian economy in the short and long term, using Vector Error Correction Model (VECM) during the period of 1970-2010. The results show that the remittances have a negative impact on Algerian economy in both short and long term, since the increase in remittances by 1% will lead to a decline in GDP per capita by 0.02 % in the short term and by 0.006 % in long term.

Siddique et al. (2010) investigate the causal link between remittances and economic growth in three countries, Bangladesh, India and Sri Lanka, by employing the Granger causality test under a VAR framework using time series data over a 25 year period; they found that growth in remittances does lead to economic growth in Bangladesh but in India, there seems to be no causal relationship between growth in remittances and economic growth; where as in Sri Lanka, a two-way directional causality is found.

Paul and Das (2011) find a long run positive relationship between remittances and GDP in Bangladesh. The adjustment of this relation, however, goes against traditional belief in that GDP does not respond to the movements in remittances while correcting disequilibrium after a shock in the system, but the reverse is true. There is no evidence on remittance-led growth in the short run. Innovation accounting shows that the impact of output on remittances is remarkably stronger than that of remittances on output. Yasmeen et al. (2011) find that workers' remittance has positively related with the private investment and total consumption which results increase in GDP and economic growth of Pakistan.

Ahmed et al. (2011) empirically examine the impact of remittances, exports, money supply on economic growth in the context of Pakistan using bounds testing approach and find that remittances have a positive impact on economic growth of Pakistan in both the long run and short run. Das and Chowdhury (2011) using panel cointegration and pooled mean group (PMG) approach they find a positive long run relationship between remittances and GDP in 11 developing countries. However, the magnitude of the remittance-GDP coefficient is rather quite small.

Iheke (2012) analyzed the effect of remittances on the Nigerian economy during the period 1980-2008 and he found that remittances, per capita income, investment and time were the positive and significant factors influencing output while consumer price

index significantly influenced output negatively. Das (2012) studies on Bangladesh, Egypt, Pakistan, and Syria over the period 1975-2006 and suggest that remittances have a positive impact on economic growth in Pakistan and Syria but a negative impact in Bangladesh and Egypt. Negative remittance-growth coefficients in those two countries suggest a counter-cyclical relationship.

Khathlan (2012) empirically examined the effects of worker remittance, gross fixed capital formation, FDI, exports and inflation on economic growth in Pakistan during the period 1976- 2010. He finds a positive and significant relationship between worker remittances and economic growth in both the long-run and the short-run. Cooray (2012) employing panel data over the periods of 1970-2008 investigates the impact of migrant remittances on economic growth in South Asia and suggests that remittances have a positive effect on economic growth when education levels and financial sector development are comparatively high.

Ukeje and Obiechina (2013) investigate the empirical impact of the workers' remittances on economic growth in Nigeria using a time series data, from 1970-2010 in an error correction methodology (ECM), the long-run static model indicates that workers' remittances is significant and has positive impacts on economic growth. Furthermore, the short-run dynamic model revealed that the lagged value of workers' remittances is significant and impacts positively on economic growth. Sharaf (2014) using the ARDL bounds testing approach to cointegration, along with a vector error-correction has examined the long-run causal relationship between remittances and output in Egypt during the period from 1977 to 2012. Results of the cointegration bounds test show a statistically significant positive, long-run relationship between GDP and remittances with causality running from remittances to GDP.

Kyophilavong et al. (2013) concluded that the relations between remittance, financial development, and economic growth are country specific. Long-run bidirectional causality exists between remittance and economic growth in Bangladesh. Short-run unidirectional causality between economic growth and remittance exists in India. Reverse causality exists for Mexico and the Philippines. Salahuddin (2013) investigates the relationship between migrants' remittances and economic growth for a panel of some Asian countries namely; Bangladesh, India, Pakistan and Philippines. He finds

long run positive relationship between remittance inflow and economic growth in these countries.

Shimul (2013) tried to find out the relationship between remittance flow and economic development in Bangladesh using two modern time series econometric approaches - bound testing Autoregressive Distributed Lag Models or Unrestricted Error Correction Model and Engle-Granger two step procedures for co-integration test and finds that remittance is not significant contributing factor for the GDP per capita both in the short and long run where as the foreign direct investment is found significant factor in the short, though it is not significant factor in the long run. Goschin (2013) finds a significant positive impact of remittance inflows on the economic growth in Romania over 1994-2011.

Akinpelu et al. (2013) investigates the impacts of remittance inflows on the economic growth of Nigeria. They employed remittance inflows, and some other traditional sources of economic growth, such as Gross Capital Formation, Foreign Direct Investment, openness and foreign exchange rate to evaluate the influence of remittance inflows on economic growth of Nigeria. Co integration and causality tests were deployed to analysis the data collected, the result of our study revealed that there are long run equilibrium relationship among the variables that were employed. Furthermore, the causality test shows uni-direction causality from Gross Domestic Product to Remittance Inflows Gross, Capital Formation to Remittances, and Remittance Inflows to Openness.

Tufail et al. (2013), the main purpose of this study is to investigate the impact of worker remittance on economic growth of Pakistan by using annual data for the years 1991 to 2010 and they conclude that worker remittances received from overseas Pakistani has a positive and significant impact on economic growth of Pakistan after control for other important determinants of economic growth like household finical consumption, financial development, saving and current account balance. Dilshad (2013) identifies the impact of workers' remittances on economic growth of Pakistan by analyzing time series data of twenty two years from 1991 to 2012 and concluded that there exist a significant positive relationship between workers' remittances and economic growth in Pakistan.

Masuduzzaman (2014) finds a long run positive relationship between inflow of remittance and gross domestic products (GDP) in Bangladesh. It is also revealed that remittances have a significant positive effect on financial development. Singh and Mehra (2014) analyze the importance and impact of international remittances on the Indian Economy by using the time series data with the help of Johansen's cointegeration techniques and Granger's causality analysis and found that remittances have a positive and significant long run effect on the real gross domestic product per capita (LGDP) of India.

Bayar (2015) examines the causal relationship among the real GDP per capita growth, personal remittances received and net foreign direct inflows in the transition economies of the European Union including Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Poland, Romania, Slovak Republic and Slovenia during the period 1996-2013 by using causality test. He finds that remittances and FDI net inflows had significant impact in the explanation of the economic growth. Remittances affect the economic growth by contributing to the national savings and meeting foreign exchange requirements of the countries partially, while FDI net inflows affect the economic growth by providing resources including capital and technical knowledge, also creating job creation and employment.

The literature on remittances discusses particularly the impact of remittances on poverty and income distribution mainly. Again major portion of that literature either qualitative or descriptive or presenting more general surveys in nature. Empirical or econometric work on the macroeconomic effects of remittances particularly on specific countries like Bangladesh is very limited. There is no still clear picture on the relationship between remittance inflows and economic growth either in empirically or theoretically. Many economists argue that there is a positive effect of remittances on output growth and, more broadly, on economic development. Similarly there are many studies show negative relationship between remittances inflows and economic growth. Empirical literature on the impact of remittances on economic activity, including output growth gives us inconclusive results.

We find some findings as positive impact of remittances on economic growth, some findings as negative effects and even some studies claim no relationship between remittance inflows and economic growth. The economic and socioeconomic outcomes

of remittance inflows in an economy depend largely on how the economy itself functions, political and economic institutions, and informal institutions and culture.

2.6 Literature on Remittances and Exchange Rate

Amuedo-Dorantes and Pozo (2004) test the impact of workers' remittances on the real exchange rate using a panel of 13 Latin American and Caribbean countries. They find that workers' remittances have the potential to inflict economic costs on the export sector of receiving countries by reducing its international competitiveness. Their findings raise concerns parallel to those raised by Dutch Disease or Resource Boom models, where resource discoveries result in real exchange rate appreciation and shifting of resources from the traded to the non-traded sectors of the economy.

The appreciation of the real exchange rate and the deterioration of the country's competitiveness are likely to be less important in the longer-term than in the short term due to a long-term mechanism that works in the opposite direction of the spending effect. An increase in emigrants' remittances boosts capital accumulation through its effect on domestic saving and investment. This applies in particular when the motive to remit is self-interest. On the other hand, remittances motivated by altruism, that is the care of emigrants for relatives left behind in the country of origin, are more likely to be used for consumption and thus less likely to contribute to saving and investment. In the longer term, capital accumulation growth will increase the production of both tradable and non-tradable (Bourdet and Falck, 2006).

According to Lopez, Molina and Bussolo (2007) when flows are too large relative to the size of the recipient economies, they may also bring a number of undesired problems. Among those probably the most feared in this context are the possibility of a real exchange rate appreciation and a loss of competitiveness in the tradable sector.

Acosta, Lartey and Mandelman (2007) using Bayesian methods and Salvadorian data, they develop and estimate a general equilibrium model of a small open economy to examine whether an increase in remittances causes Dutch disease effects. For the theoretical model, they consider three cases: one where remittances are exogenously determined another where remittances are countercyclical, and finally the case where remittances act like capital inflows. The results generally suggest that the inability of the economy to absorb remittances leads to the realization of the Dutch disease

phenomenon under each of the cases considered. This is because whether altruistically motivated or otherwise, an increase in remittances ultimately culminates in a rise in household incomes and consequently an increase in consumption that is biased toward non-tradable. In addition, remittances result in a decrease in the labor supply that increase production costs of the non-tradable sector that is relatively labor intensive. This in turn results in rising non-tradable prices which is consistent with real exchange rate appreciation, and consequently an expansion of the non-tradable sector at the expense of the tradable sector. They also show that these conclusions hold even in a scenario in which self-interested remittances are not initially channeled to household consumption but to investment.

Barajas et al. (2010) investigate the impact of workers' remittances on equilibrium real exchange rates (ERER) in recipient economies. Using a small open economy model, they show that standard "Dutch Disease" results of appreciation are substantially weakened or even overturned depending on: degree of openness; factor mobility between domestic sectors; counter cyclicality of remittances; the share of consumption in tradable; and the sensitivity of a country's risk premium to remittance flows.

Makhlouf and Mughal (2011) find evidence for both spending and resource movement effects, both of them in the short as well as the long-run in Pakistan. Remittances cause an appreciation of the real exchange rate and loss of competitiveness of Pakistan's exports sector along with a concomitant rise in the share of the non-tradable sector in the economy. Chowdhury and Rabbi (2011) using Cointegation an Error Correction model they investigate the effects of increasing flow of remittances on the real exchange rate of the country. Their results suggest that the influx of workers' remittances significantly appreciating the real exchange rate by lowering the relative prices of tradable to non-tradable of Bangladesh compared to its major trading partners.

Makhlouf (2013) conducts a meta-analysis of existing literature to estimate the overall effect of remittances on receiving countries' real effective exchange rate (REER) with fixed and random effect meta-analysis on studies taken from EconLit, Google Scholar and various working paper series and examine a total of 53 regressions taken from seven published and unpublished studies. Both the fixed and random effect models indicate a highly significant impact of foreign remittances on the REER. The results confirm the theoretical argument that a massive foreign flow induces loss of

competitiveness. His study suggests that both in low and middle income economies remittances stimulate an appreciation of exchange rate. Rabbi et al. (2013) pointed out that the huge flow of remittances affects the production sector and employment structure, as well as the scale of external trade competitiveness of the economy as measured by the real exchange rate (RER).Using Johansen cointegration and Vector Error Correction models, they find that the flow of remittances is appreciating the RER and decreasing the external trade competitiveness of Bangladesh; thus, the procedure is slowly bringing about deterioration in the economy of Bangladesh, a process known as Dutch Disease.

Nikas and Blouchoutzi (2014) test the applicability of the "Dutch Disease" for two small transition economies under a free floating exchange rate regime, namely Albania and Moldova. However, the econometric results based on the ordinary least squares fixed effects; show that the impact of the workers' remittances on the real exchange rate varies among the countries examined. Albania has already faced the "Dutch Disease" problem while Moldova experienced a depreciation of the real effective exchange rate due to remittances.

2.7 Literature on Remittances and Inflation

Balderas and Nath (2008) derives generalized impulse responses from the estimation of a vector autoregression (VAR) model to examine the inflation–relative price variability (RPV) relationship, and to investigate if remittances could account for the observed relationship using monthly data between 1995 and 2005 for Mexico and they find that remittances have significant positive effects on both inflation and RPV. Ball et al. (2010) using a theoretical model and panel vector autoregression techniques to the seven Latin American countries with yearly and quarterly data predict that remittances should temporarily increase inflation and generate an increase in the domestic money supply under a fixed regime, but temporarily decrease inflation and generate no change in the money supply under a flexible regime.

Narayan, Narayan and Mishra (2011) examine the determinants of inflation in both the short run and the long run for 54 developing countries using a panel data set covering the 1995-2004 periods. Using the Arellano and Bond panel dynamic estimator and the Arellano and Bover and the Blundell and Bond system generalized method of moment's estimator, they find evidence that in developing countries remittances

generate inflation. The effect of remittances on inflation is more pronounced in the long run.

Satti et al. (2013) investigates the impact of financial development and globalization on inflation by incorporating foreign remittances and economic growth in inflation function in case of Bangladesh during the period of 1976Q1-2012Q4. They find that financial development increases inflation. Globalization stimulates inflation. Economic growth declines inflation but foreign remittances raises it. Iqbal, Nosheen and Javed (2013) examine the impact of foreign remittances on inflation in Pakistan covering a period (1980-2012) using Vector Error Correction Model (VECM) they show that foreign remittances have significantly positive impact on inflation. Khan and Islam (2013) show using Vector Autoregressive (VAR) techniques that one percent increase in remittance inflows in Bangladesh during 1972-2010 periods increases inflation rate by 2.48 percent in the long run but in the short run there is no significant evidence found.

Nisar and Tufail (2013) stated that remittances play a significant role in the economic development of recipient economy through different micro and macroeconomic channels and the adverse impact of remittances in the form of Dutch disease and inflation cannot also be overlooked. They examine the impact of remittance on inflation and its different categories, namely, food inflation, footwear and textile inflation, housing and construction inflation. The study employed Johansen (1990) and Johansen & Juselius (1990) cointegration technique to check the existence of long run relationship between remittances and inflation. Vector Error Correction technique is further applied to examine the extent and direction of relationship between variables and to check the stability of models. The results indicated the existence of one cointegrated vector for all equations. Moreover, remittances, money supply and real per capita income are found to have positive impact on inflation and its different categories. The results revealed that among different inflation categories food inflation is most effected and housing & construction inflation is least effected by remittances.

Abdul-Mumuni (2016) examines the effect of international remittances on inflation in Ghana from 1979 to 2013 by incorporating international remittances as an exogenous variable to the standard inflation function. Applying the bounds testing approach, the empirical results indicate that international remittances have a significant effect on

inflation in the long-run. However, in the short-run, no significant relationship is evident between these two variables.

2.8 Literature on Remittances and Development

If remittances are used for conspicuous consumption or unproductively by an excessive degree of capital intensity in the agricultural sector there would have negative impact on development (Oberoi and Singh, 1980). Ali (1981) identifies that remittances help for favorable balance of payment. Stahl and Habib (1989) find that remittances tend to be spending within those sectors which have relatively strong linkages with the rest of the economy in Bangladesh. Adams and Page (2005) studying 71 developing countries finds that remittances significantly reduce the level, depth and severity of poverty in developing world. Remittances behave as a very stable source of foreign exchange (Ratha, 2005).

According to Faini (2006) there is no evidence that skilled workers remit more. This is not so simply because they come from relatively wealthy families. Rather, it also reflects the fact that skilled migrants are relatively more likely to spend a longer time span abroad, thereby weakening their ties with the home country, presumably reflecting the fact that they are keener (and more able) to bring their most close relatives in the host country. Zeisemer (2006) argues that remittances increase savings which intern increase investment by decreasing interest rate and also increases the rate of literacy. In any developing countries there are some basic problems like inequality in income, income volatility, credit crunch, and poverty and employment opportunity. Remittances can help prevent balance of payment crisis providing a constant source of foreign currency (Lopez-Cordova and Olmedo, 2006).

Hasan (2006) explains remittance has significant macroeconomic impact at household level and the poorer the household, the more impact or benefits remittance income can have alleviating poverty. Use of remittances is not same for different remittance receiving countries. Generally most of the receiving countries use remittances for their living expenses, education, health and investments purposes (Carrasco and Ro, 2007).

Hasan (2008) explains remittance has significant macroeconomic impact at household level and the poorer the household, the more impact or benefits remittance income can have alleviating poverty. Calero et al. (2008) show that remittances increase school

enrolment and decrease incidence of child work, especially for girls and in rural areas in Ecuador. Raihan et al. (2009) suggest that remittances play a very important role in Bangladesh with regard to macroeconomic stability and household well-being, which are indicated by consumption level and poverty incidence. Giuliano and Ruiz-Arranz (2009) suggest that remittances may act as an alternative way to promote investment in those countries in which there is poor financial sector.

Orrenius et al. (2010) using state-level data from Mexico during 2003-2007 to examine the aggregate effect of remittances on employment, wages, unemployment rates, the wage distribution, and school enrollment rates suggest that while employment, wages, and school enrollment have risen over time in Mexican states, increasing remittances do not account for these trends. But, remittances may lessen some measures of income inequality. Two-stage least squares specifications among central Mexican states suggest that remittances shift the wage distribution to the right, reducing the fraction of workers earning the minimum wage or less.

Kumar (2011) explores, using bounds test, the short-run and long-run effects of remittances, exports and financial development on per worker income using the annual data for the period 1980-2009 in Pakistan. The results show exports are significant both in the short-run and long-run while remittances is positively significant only in the long-run but has a lagged negative effect similar to financial development in the short-run. Islam and Ferdaous (2011) argue that migrants' remittances in Bangladesh played a crucial role in the economic development of the country. More than 25% of its foreign exchange earnings are derived from the remittances of the migrant workers. Remittances can potentially help to promote economic development by providing a mechanism to share risks, reduce poverty and improve equality.

Alam et al. (2011) pointed out that remittance contributed for the development of both sending and receiving countries as well as contributed at family level and community level. At family level, migration may improve household earnings, food, health, housing and educational standards. At the community level, improvement could be noticed in health, education, sanitation and infrastructure benefiting both migrants and non-migrant households.

Barai (2012) explain the importance of remittances on social and economic indicators like nutrition, living condition and housing, education, health care, poverty reduction,

social security, and investment activities of the recipient households. Yassen (2012) gives insights on two important channels through which remittances affect growth i.e. institutions and financial development. Using fixed effects approach the empirical analysis points to the fact that institutions and financial development play an important role in how remittances affect economic growth. Through the financial development channel remittances are found to play a mixed role in MENA labor exporting countries. Through their negative interaction with credit they promote growth by substituting credit, thus improving the allocation of capital and hence accelerating economic growth.

Islam et al. (2013) explain how remittance sector and the ready-made garment (RMG) sector fight against recent global recession in Bangladesh. Islam et al. (2013) analyze the socio-economic impacts of migration for Bangladesh uses data from 1991 to 2011 using cointegration test as well as Ganger Causality test between two variables such as Growth Rate of Remittance (GRR) and Literacy Rate (LR) and find cointegration between these variables. That means in the long run the growth of remittance have a positive impact in increasing literacy rate which may lead to socio-economic development of Bangladesh. But in case of Ganger Causality test they did not find any unidirectional causality between GRR and LR.

Elseoud (2014) investigates the relationship between workers' remittance and the main macroeconomic variables in Egypt during the period (1991-2011).He concludes that there is unidirectional causality running from workers' remittances to capital formation, total exports, total imports, money supply and exchange rate, while there is bidirectional causality between workers' remittances and each of private consumption, government spending, and economic growth.

2.9 Consolidation of Research Ideas Brought out in the Literature

The impact of remittances in the home country of migrant workers, there is debate; some argue that remittances have a positive impact on economic growth and some argue it has negative impact on economic growth. In most of the previous studies have been established the null hypothesis as a statement of correlation and not causation. Now question is whether remittances are a statistically significant factor in determining economic growth and whether the relation between remittances and economic growth is causal. Large number of studies is qualitative in nature regarding the impact of remittances on an economy in terms of social measures such as health, education and

demoralization (Rahman et al., 2006) and also most of the previous studies are based on panel-data consisting of number of countries. From the panel-data analysis we can answer important questions on average but that may not be suitable for individual countries that seeking to manage domestic policies.

So it is very important to study further in a particular country regarding the linkage between remittance income and economic growth. So here in this paper Bangladesh has been chosen to find out the relation between remittances and Gross Domestic Product (GDP). In Bangladesh, remittances sent by the migrant workers to their home country have played an important role to promote economic development in their home countries in different ways. This paper has tried to find out the impact of remittances on economic growth in the economy of Bangladesh. The findings of the study have important policy implications not only for Bangladesh but also for other developing countries that depend on remittance income.

Under these circumstances it is clear that very few studies are there which examined the impact of remittances on GDP or Inflation or Exchange Rate. Again we have found some studies on remittances and its impact on important macroeconomic variables in Bangladesh in particular in different time periods by different researchers. But our studies on remittances and its impact on some important macroeconomic variables (GDP, Exchange Rate, and Inflation) will be taken at a time on the same time space. From the above literature review some important research gap or not covered fully has been identified in area of remittances in Bangladesh. There are so many studies on determinants of remittances in a economy of Bangladesh and so many factors are influencing remittances. Some macro economic factors such as home and host country GDP, exchange rate, interest rate, inflation, crude oil price in international market, wage rate, number of migrants and the relative rates of return of different financial and real assets may affect the flow of remittances.

Now the questions are what are the macroeconomic determinants of remittances in Bangladesh? What are the relationship between remittances and its determinants? How and how much the determinants affect remittances? And what are the appropriate policies should be taken on the inflow of remittances in Bangladesh? Hence it is very necessary to find out the determinants of remittances inflow for formulating appropriate economic policies. Large number of studies is qualitative in nature regarding the impact

of remittances on an economy in terms of social measures such as health, education and demoralization (Rahman et al., 2006) and also most of the previous studies are based on panel-data consisting of number of countries. From the panel-data analysis we can answer important questions on average but that may not be suitable for individual countries that seeking to manage domestic policies. So it is very important to study further in a particular country regarding the linkage between remittance income and economic growth. So in our future study we shall study on particular country Bangladesh to find out the relation between remittances and Gross Domestic Product (GDP).

On the other hand, regarding the impact of remittances in the home country of migrant workers, there is debate; some argue that remittances have a positive impact on economic growth and some argue it has negative impact on economic growth. In the literature reviews of Bangladesh we also may observe that there are still no strong arguments in favor or against of positive impact of remittances. So in future I shall emphasize on this area of research. It is also found that there is very little study on impact of remittances on consumption, investment, and import in the Bangladesh. In this regard we shall build a Keynesian type econometric model with a dynamic perspective following Glytos (2005) to investigate the impact of exogenous shocks of remittances on consumption, investment, imports and output in Bangladesh. Also we cannot ignore the Impact of remittances on real exchange rate in a small open country like Bangladesh. Study on this side very rare. So in future there are so many scopes to explore the impact of remittances on real exchange rate

Lastly, we would like to show whether remittances are inflationary or not in Bangladesh. Following Nisar and Tufail (2013) we shall examine the impact of remittance on inflation in Bangladesh, although they examine the impact of remittance on inflation different categories, namely, food inflation, footwear and textile inflation, housing and construction inflation. The study will also be employed Johansen (1990) and Johansen & Juselius (1990) cointegration technique to check the existence of long run relationship between remittances and inflation. Vector Error Correction technique is further be applied to examine the extent and direction of relationship between variables and to check the stability of models. Hence country specific studies become necessary. The studies on Bangladesh in particular are few in numbers.