

Regional Integration and Trade Promotion to Confrontation the Poverty: A Case Study of China with South Asian Countries

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Abstract

Poverty is an important factor that represents the social and economic condition of any country. The role of international trade and integration among different regions is considered to be most influencing to reduce the level of poverty. This study explores the negative and significant relationship between international trade growth and poverty in China and South Asian countries for the period of 1981-2017. To examine the presence of long run relationship among variables Pedroni (1999, 2004) cointegration technique have been applied and after the confirmation of long run relationship among variables Fully Modified Ordinary Least Square (FMOLS) has been used to attain long run elasticities of the regressed variables. The results of this study confirm the existence of negative and long run relationship between International trade and poverty. Higher level of international trade in term of specialization and exports increases production, creates more job opportunities, increase per capita income and reduce the poverty rate in country. Furthermore foreign direct investment (FDI) has also negatively affecting and helpful to reduce

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the poverty in the whole panel taken into analysis. Both of the coefficients estimated through FMOLS are explaining the long run reduction in poverty and statistically significant.

Keywords: International Trade, FDI, Poverty, Panel Cointegration, South Asia

1. INTRODUCTION

1.1 Background

It has been predefined conception that international trade put economic development on the growing edge. The economic liberalization policies bring economic success and peace within and among the different economies, also bring private enterprise, enhance the probabilities of innovation and develop the labor force more effectively and efficiently. It has been recorded that international trade can decrease the poverty because of the effectiveness and production of couple of intermediary and finish goods with the assistance of regional openness among the different economies (Harrison, A. 2007).

Firstly, trade liberalization stimulates and improved the specialization on specific commodities. Secondly, developing regions have an benefit over the abundant unskillful resources which can be employed when there is limited trade obstacles, it may discussed that because of trade openness the investment and private enterprise will be part of the markets which creates the employment prospects among the countries. It has been the preset opinion by the regional integration promoters, higher the trade liberalization greater will be the economic growth, which is ultimately beneficial for the country to reduce poverty. To the definite degree the trade liberalization driven economic policies does not support the accurate in Africa. The openness towards the advanced market in Africa led to inefficiency, cost of tariff revenues and destabilized existing productivity (Goldberg, P. K., & Pavcnik, N. 2004).

There are several of opinions emphasized on poverty decline and trade promotion with the help of regional incorporation. A progressive relationship has been recognized in both in terms of its

influence and dynamics. Trade advancement enhanced the specialism and get increases from exchange which produces accessibility and availability of larger ranges of commodities between the different countries. The developing countries are blessed with the unskillful labor which can be systematically utilized and free trade lead towards an economic growth (Nissanke, M., & Thorbecke, E. 2007).

As the current notable feature is the new development in the intra-regional FDI movements and trade affiliation. The trade and volume of FDI in China and South Asian countries has started growing in recent times. China has appeared as significant investors in India, Sri Lanka and Pakistan. Infrastructure sector in South Asian countries has been fascinating a lot of capital from China and China Pakistan Economic Corridor (CPEC) is recent example with an investment of \$43 Billion initially in 2016, which raised up to \$62 billion in 2018 and integrating the whole Asian region with the economy of China (Ministry of planning and development reforms Pakistan). As economic transformations in India and Pakistan and liberalization activities pick up momentum, a huge FDI inflows are estimated to rise. Different private companies are making enormous investments in the SAARC economies, predominantly in the labor intensive manufacturing and services sectors. Pharmaceuticals and Information and communications technology (ICT) are their other preferred areas of investment (Sally and Sen, 2005). Subsequently 2000, South Asian countries have considerably increased their FDI in each other's economic activities to boost the trade sector in the whole region and this tendency is expected to go more faster in the coming years (Das, 2006). Strengthening international trade and investment association is integrating South Asian Countries and China, which will turn into favorable influence on economic growth of South Asian Region and also indirect influence over South Asia's integration with the rest of Asia (Winters, L. A., McCulloch, N., & McKay, A. 2004).

The trade has some positive association with the economic growth and as well as with the economic development. Economic growth can be enhanced by increasing the Gross Domestic Product (GDP) growth rate and GDP per capita whereas in sense of economic development it reduces poverty, creates employment and develops. South Asian countries maintained an extremely protective trade system for over four to five decades until end of 1985's (SAARC).

Tariff rates were extremely high and non-tariff obstructions kept competing imports away from the national marketplaces. It was only in the 1997s and 2005s when SAPTA (South Asian Preferential Trade Agreement) and SAFTA (South Asian Free Trade Area) proceeds place in which India, Sri Lanka, Pakistan, Maldives, Bangladesh and Bhutan sign an agreement that trade preferment policies will be introduced in these countries and then strengthened during the last six to seven years. The part of exports of these countries in the world market has increased from 14% to 25% (UNCTAD, 2014) but the poverty has stayed near to stagnant in all these economies during the same era. In short South Asian countries simply increasing their share in international trade because of abundance in labor and cheaper raw material, in 2014 share of exports by this region was 25% percent would have been \$ 4.7 trillion but still they are fighting hard to attain a sustainable economic development (World Bank Report, 2015).

During the period of protection in trade the manufacturing and tax revenue was growing less than 7 percent yearly. Once the tariff reforms were exaggerated in SAARC countries since 1997 and 2005, manufacturing revenue and exports have all grown-up in double digits. This very correlation shows fears that decline in tariffs and other trade barriers leads to hurt domestic manufacturing industry and negatively impact tax revenue collection. On the other hand, level of exports will also fall by harming the domestic manufacturing sector (Kalwij and Verschoor, 2005).

Role of china also not been ignored in South Asian Countries on the basis of its increasing volume of trade in this region. China has setup free trade agreements (FTA) with Pakistan, India, Sri Lanka, Nepal, Maldives and Bangladesh. One Belt One Road (OBOR) that is labeled as Belt and Road Initiative (BRI) is setup by china to connect with Africa, Europe and Asia along road routes and five maritime and it includes two initiatives China Pakistan Economic Corridor (CPEC) and Bangladesh-China-India-Myanmar (BCIM) corridor to expend the volume of trade and approach to international markets. These initiatives indicating the significant concern of china in South Asia and it will also open up new markets for china in these countries which are helpful to reduce down the poverty in this important region of the world (Cyrill, M. 2017).

1.2 Objective of Study

- 1) To identify the economic relationship between trade promotion and poverty reduction.
- 2) To explore the empirical relationship between the trade promotion and poverty reduction.
- 3) To explore the empirical relationship between FDI and poverty reduction.

1.3 Research Question

- 1) What are the relationship between poverty and trade promotion in China and South Asian countries?
- 2) How poverty can be reduce through trade promotion?
- 3) Does regional integration is helpful to reduce poverty?

1.4 Operational Definition

1.4.1 Regional Integration: Regional integration is a procedure in which adjoining states come into an agreement in order to upgrading cooperation through mutual institutions and rules.

1.4.2 Trade Promotions: refers towards the free trade, abolition of tariffs, removal of trade barriers and openness.

1.4.3 Poverty: Poverty is not simple to define and evaluate because it is the complex and multidimensional issue. The economic literature recognized the poverty either through the consumption or income approach. There are numerous measurement tools identified for the estimation of poverty and most prominent is Poverty Headcount Index which measures the population living lower than poverty line against the definite defined threshold in a country.

1.5 Research Limitations

Every research has some certain limitations which have some kind of impact on the research. This research also have some certain limitations as well, first, the data only relied upon the International financial institution such as World Bank, because the researcher does not have any satisfactory alternate. Secondly, certain time limitations restricts the researcher to extend the scope of the study as well as improve source of the data in order to discover the significant association between the variables and thirdly, the issue have certain political and economic extents and limited number of researchers

have focused towards it, so there is absence of the literature on the said subject.

2. LITERATURE REVIEW

Harrison (2007) has revisited the evidence on the relation between trade and economic growth and highlights the complications of previous multi country regression examination. She explores that there is no indication in the aggregate data that trade developments are good or bad for the poor (Harrison, 2007, p.13). Rather than concentrating on trade only (as an estimate to openness), Heshmati (2007) has lately developed two composite indices of globalization, the Kearny index and his own index with four dimensions (political 15 engagement, technology, economic integration and personal contact) to indicate the level of globalization of 62 economies including South Asian countries. Using these indicators study has undertaken a multi country regression investigation to examine the influence of globalization on poverty. In this study, which also included South Asian countries, Heshmati (2007) finds a weak relation between globalization and poverty. In contrast Ravallion (2007) has also tried to contribute to this examination using a multi country data base on the basis of macro lens. He concluded that “based on cross-country assessments, it is significant to say that expanding outward trade, globalization and integration among different regions in general is a powerful force for poverty reduction in developing countries specially (Ravallion, 2007, p.138). Most of the other cross country studies reveal that there is strong and clear evidence to propose that trade liberalization decreases poverty in South Asia.

The relation between poverty and trade liberalization is one of most debatable topic in recent years especially for the countries having more potential in trade sector like china to achieve the economic development. Major query of this debate is to investigate that how international trade affects the poverty. The existing literature on this debate has both type’s direction of this relationship as some economists argue that trade liberalization and trade integration among different countries has significant contribution to reduce poverty (Goldberg and Pavcnik, 2004; Harrison, 2007; Nissanke and Thorbeck, 2007; Hertel and Winters, 2006). Contrary to

it, some argued that trade does not, as it widens the income gap between rich and power relative poverty Naranpanawa (2010).

Several studies used the different models and econometric techniques based on the availability of statistical data. According to Selvanathan (2010) study growing international trade volume has significant effects on economic growth and social structure. Furthermore, he argued that in developing countries enhancement in trade sector develops the manufacturing sector and increases the economic growth level in short run that significantly reduces the poverty. Similarly a study by Bannister and Thugge (2001) explained that removing of international trade barriers and promoting trade reforms have positive affect over income of the poor and employment, an essential for poverty elevation is rapid economic growth and it required a transparent and sustained regime of trade liberalization based on sustained economic growth. Thus, trade reforms have an important role in reduction of poverty in medium term.

Winters (2000) argued in a study about the effect of trade promotion and labor market in Bangladesh and India. Study found that when there is an acceleration of trade liberalization, the growth rate of employment in formal manufacturing sector increases but growth rate of real wages declines for the labor but in informal manufacturing sector employment declines. Winters (2000) discuss that because there is increase in formal employment that likely to have huge effect over poverty reduction as formal wages are well above the poverty line in these both developing countries.

Winters, Mcculloch and Mckay (2004) discussed in detail the role of trade liberalization in poverty alleviation for developing countries, study explained that trade liberalization in developing economies is not the prime determinant to reduce the poverty however empirical evidence broadly favor this argument that trade liberalization leads to reduce poverty in the long run and on average. Trade liberalization essentially involves distributional changes; it may well reduce the welfare of some individuals (in the short run) and may be some of these are poor. Though there are many reasons for assurance that trade liberalization will contribute absolutely to poverty reduction. Sometime additional policies are needed to enhance the impact of trade liberalization on economic condition of country including poverty reduction but it depends on country prospective.

There is lots of literature available that poor individuals are less able to protect themselves than richer one against adverse effect of policy reforms including trade reforms, in such type of situation role of complimentary policy is important to strength the looser class of individual nut is clear that trade liberalization is good for poor class by strengthen the economic growth, promoting manufacturing sector, creation of employment prospects and increasing wages for the labor. Even though trade liberalization may not be the influential instrument for poverty reduction in a country, but it is one of the easiest to adjustment. Many pro-poor policies are expensive and complex to implement trade reforms such as abolition of nontariff barriers and tariff reduction and uniformity not only save resources but easy to do, hence trade reforms is the most cost effective tool for the government for poverty reduction.

The importance of regional integration in understanding the trade poverty nexus is further taken up by Kalwij and Verschoor (2005) and examine the impact of international trade and globalization on poverty, concentrating on the sensitivity of poverty to aggregate variations in income distribution because of trade openness. For this purpose, they compose poverty trends into distribution effect and an income effect over the period 1980-98 by making the assumption of a log normal income distribution for 6 major developing regions Eastern Europe, East Asia and Central Asia, Middle East and North Africa, Central and Latin America, Sub-Saharan Africa and South Asia. Their estimation of poverty elasticities of income and inequality vary considerably across different regions taken into analysis. Study concludes that except the Sub-Saharan Africa income distribution has improved and poverty rate has been decline in all the regions taken into the study during this period.

Ravallion (2007) observes more specifically the association between poverty and trade openness using three different techniques first, a macro aggregate cross country regression of the influence of trade over poverty; second, a macro time series investigation of China; and third, a micro lens based on a Calculable General Equilibrium model analyzing. Ravallion shows that the relation between international trade and poverty is fragile and that it is challenging to determine that trade openness is an influential force for poverty decline in developing countries. But, the fragile nature of the trade

poverty association cannot essentially be generalized to all countries. The data taken are more suggestive of variation (and noisy) effects of trade openness on poverty in developing countries. Under a set of particular conditions increase in trade opening could clearly be very helpful and effective in reducing poverty.

Jenkins (2005) focuses his study on the impact of integration of the open economy on the poor in their part of as producers. His vital question about the effect of globalization on income and employment opportunities for poor people is focused through case studies of three value chains garments, textile and horticulture in four countries Vietnam, Kenya, Bangladesh and South Africa. In the context of examining the relative performance among case study economies, study proposes to make a perfect conceptual difference between “unsuccessful globalizer” and “non-globalizer” and he categories Kenya as an unsuccessful globalizer, whereas Vietnam is successful in integrating in terms of consequence though remaining comparatively closed in terms of policy. Further the influence of increased exports on employment in Bangladesh and Vietnam has been much more significant and in all four countries due to increase in employment and improved income distribution by opening up the economy, globalization and enhancing international trade there is a significant reduction in the poverty rate.

Most of literature about the relation between trade promotion and poverty reduction has fluctuations in results. Some study does not support this relationship but in case of developing countries specially studies that examining this relationship in South Asian region likely to have positive connection between trade promotion and poverty reduction in this region.

3. METHODOLOGY

Regional integration, trade promotion and poverty reduction for the panel of China and South Asian economies, econometric methodology is deliberated in this segment. Before proceeding to the final estimation technique it is necessary to check the order of integration of the variable whether these variables are stationary at level, at their first difference and at second difference. It is stated that if the variables have same order of integration i.e. $I(1)$ then it is possible

they have a long run equilibrium relationship with each other. The panel co-integration method established by Pedroni, (1997) has been used to examine the association between trade and poverty. The subsequent segments will elaborate panel co-integration approach. Furthermore study also checked the long run elasticities of independent variables through Fully Modified OLS (FMOLS).

Methodology of Sally, R. and R. Sen (2005). The study applied a panel examination for China and South Asian countries. Study also used Foreign Direct Investment (FDI) as a key economic variable that have strong impact The details of variables which are used in this study are as follows:

3.1 Dependent Variable

- Poverty (Poverty headcount ratio at \$1.90 a day) (2011 PPP) (% of population)

3.2 Independent Variables

- Trade Promotion (Share of international Trade as percentage of GDP).
- Foreign Direct Investment (Net inflow as percentage of GDP)

3.3 Dimensions

The dimension and range of the study is to empirically and theoretically examine the association between trade advancement and poverty decline. The research has thoroughly investigated the international trade share scenario with all probable and existing obstacles prevailing in China and South Asian Countries.

3.4 Relationship between Variables

The research has empirically analyzed the relationship trade promotion, FDI and poverty reduction. It analyzes the social, economic and political reasons of promoting economic liberalization and its impact on the socio-economic development indicators. In order to hold the scope of research it has only emphasizes trade promotions which have/have not some positive influence on poverty decline while it will not disregard many important factors which support the research study. FDI is one of the prominent factors that enhance the level of international trade in most of the country if pervious

literature will be studied. The impact of prime independent variable trade promotion likely to have positive impact on poverty reduction or poverty headcount ratio decreases with the increase in trade volume (Ravallion and Martin 2001).

3.5 Hypothesis

H₀: Trade Promotion has no significant relationship with poverty reduction.

H₁: Trade Promotion has a significant relationship with the poverty reduction.

H₀: FDI has no significant relationship with poverty reduction.

H₁: FDI has significant relationship with poverty reduction.

Data for all other economic variables have taken from World Development Indicators published by World Bank.

In the light of given debate a Panel regression analysis specification is

$$Y_{it} = \alpha + \beta_1 TRD_{it} + \beta_2 FDI_{it} + \mu_{it} \quad (3.1)$$

Where Y_{it} is Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population) of country i for time period t , α is the constant term, TRD is the international trade share as percentage of GDP, FDI is foreign direct investment as percentage of GDP, β 's are the coefficients of both independent variables that has an effect on poverty, whereas μ_{it} indicates error term.

4. RESULTS AND DISCUSSION

4.1 Panel Unit Root Test

After data collection of all variables panel unit root test has been applied to identify the stationarity level of all variables before analyzing the panel cointegration technique. Panel unit root tests proposed by Levin & Lin (LL) test, Im, Pesaran & Shin test (1997) and Maddala & Wu (1999) has been applied to check the integration order of the variables in the context of panel data analysis.

Table 4.1

Variables	Method							
	Levin, Lin & Chu t*		Im, Pesaran and Shin		ADF - Fisher Chi-square		PP - Fisher Chi-square	
	Statistic	Prob.	Statistic	Prob.	Statistic	Prob.	Statistic	Prob.
Poverty	-5.6406	0.000	-5.6360	0.000	52.675	0.000	123.30	0.000
Trade	-9.5159	0.000	-8.2822	0.000	72.087	0.000	92.743	0.000
FDI	-3.0027	0.001	-2.4684	0.004	30.926	0.004	63.426	0.000

Table 4.1 indicating the probability values and statistics of all four panel unit root test. All four tests have the similar null hypothesis that there is a unit root implication that variable is non stationary. Decision to reject the null hypothesis be determined by the probability value of the variables for each test given in the table.

Results of panel unit root tests are observed from table 4.1 that all the three variables selected in this study for the analysis of China and South Asian countries are stationary at first difference concluding that the integration order of all three variables is same that is I(1).

4.2 Panel Cointegration

Engle and Granger (1987) explained that if two variables let X and Y same integration order and after estimation by OLS residual of X and Y is found to be stationary at level I(0). Then, this is an evidence that there exist a long run relationship between X and Y. This method has further extended as a panel cointegration by Pedroni (1999, 2004) for panel data.

This study analysed following panel cointegration equation (4.2) to confirm the long run relationship among dependent and independent variables and results are given in table 4.2.

$$Y_{it} = \alpha_0 + \sum_{i=1}^k \alpha_1 y_{t-1} + \sum_{i=0}^k \alpha_2 TRD_{t-1} + \sum_{i=0}^k \alpha_3 FDI_{t-1} + e_t \quad (4.1)$$

Table 4.2: Pedroni Approach of Panel Cointegration

	Statistic	Prob.	Weighted statistic	Prob.
Panel v-statistic	-1.127776	0.7582	-0.801251	0.7174
Panel rho-statistic	1.658321	0.8615	1.474683	0.8175
Panel PP-statistic	-2.195442	0.0121	-3.156282	0.0007
Panel ADF-statistic	-2.187570	0.0129	-2.816857	0.0017

Individual AR coefficients, (Between-dimension)		
	Statistic	Prob.
Group rho-statistic	2.356785	0.9214
Group PP-statistic	-6.123649	0.0000
Group ADF-statistic	-2.898592	0.0016

The long run association result from Pedroni approach (1999, 2004) of panel cointegration is given in Table 4.2 for China and South Asian countries. Table 4.2 has divided into two parts within dimension and between dimension, probability values and statistics in both parts are examined to test the similar null hypothesis that “there is no cointegration among variables” means there is no long run relationship among variables. Decision to reject the null hypothesis be determined by the probability value of different statistic given in the table. Probability value less than 0.05 approves the rejection of null hypothesis to each statistics. In the first part of the Table 4.2 (within dimension) panel pp-statistics and panel ADF-statistics showing the existence of significant long run association among variables on the basis of probability value that is less than 0.05 confirms the rejection of null hypothesis that there is no cointegration among variables.

Similar is the case in second part of the Table 4.2 (between dimension) group PP-statistics and group ADF-statistics ascertaining the long run relationship among variables of China and South Asian region as the probability values of these statistics are also rejecting the null hypothesis and confirming the long run relationship among the variables taken into analysis.

Summarizing the outcome of Pedroni (1999, 2004) cointegration method, as out of eleven statistics six are rejecting the null hypothesis as shown in the table 4.2. It is observed from the results that maximum number of statistics rejecting the null hypothesis so it is an indication that there exists a long run association between variables selected for estimation.

4.3 Fully Modified Ordinary Least Square (FMOLS)

To tackle the issue of serial correlation and endogeneity Pedroni (2001) recommended Fully Modified Ordinary Least Square (FMOLS) for panel data. Furthermore this test gives superior results if the sample size for the regression is small (Ravallion and Martin, 2001). After checking the presence of long run relationship among variables through panel cointegration test the study applied full modified ordinary least square (FMOLS) by estimating the equation (4.3) to obtain long run elasticities of both independent variables and the result of FMOLS are given in table 4.3.

$$Y_{it} = \alpha_{gi}TRD_{it} + \alpha_{ti}FDI_{it} + \sum_{j=1}^p \beta_{g1ij}TRD_{it-j} + \sum_{j=1}^p \beta_{t1ij}FDI_{it-j} + s_i + \varepsilon_{it} \quad (4.2)$$

Table 4.3: Fully Modified Ordinary Least Square Results

Dependent variable = Poverty Headcount Ratio				
Explanatory Variables	Coefficients	Std. Error	t-statistics	Prob.
Trade	-0.043138	0.012872	-3.351305	0.0005*
FDI	-0.027646	0.012850	-2.151439	0.0097*

Note: Statistics significant are indicated by (*).

Result of Fully Modified Ordinary Least Square (FMOLS) method are given in above table 4.3 confirming that both of the independent variables are statistically significant and have affect on dependent variable in the long run. Probability values of both independent variables (trade and FDI) less than 0.05 confirming the rejection of null hypothesis of study (given in Chapter 1).

First and prime independent variable of the study is trade (% of GDP) and results representing that if the value of trade (% of GDP) rise by 1 unit it will reduce the poverty by 0.043 units and vice versa in the long run because there is a negative relationship between trade (% of GDP) and poverty reduction of selected panel of countries and both variables will moves in opposite direction.

Economically increase in the volume of trade allow a country to concentrate in the production of those goods in which it has absolute and advantage, and then by attaining economies of scale the international market can be capture by that country by providing variety of goods, thus increase in trade (exports) needs more production that require more labor also and leads toward significantly increase in employment opportunities that improves the living

standard not only but also helpful to reduce the poverty rate in a specific economy (Berg, A and A. Krueger, 2003).

Trade can helpful at three basic stages to boost a country's economic growth and to reduce poverty. First, the accurate policies boost trade expansion in overall, which support to generate income and make available the resource base for development in developing countries. Second, governments can encourage exports exactly in sectors that maximize income and jobs. Third, they can benefit the poorest individuals those who barely participate in the formal economy to become active contributors in export activities (World Bank Report, 2015).

Foreign direct investment (FDI) has also negative and significant impact on poverty. Although FDI is not the prime independent variables, but it's an important factor especially in South Asian developing countries which are attaining too much FDI in recent century and also for China which is main investor in these countries. Foreign direct investment is a key element of positive economic growth and development in developing countries partly because the right essence of economic development is the fast and efficient transfer and cross-border acceptance of best practices (Khan, M.A and A. Qayyum, 2007). Foreign direct investment is specifically sound suited to effecting this transference and transforming it into broad-based growth not only by advancement of human capital. Economic Growth is the single most significant factor in reduction of poverty, so FDI is also central and key variable to achieving that important goal of poverty reduction set by World Bank (Harrison, A)

5. CONCLUSION

Poverty reduction is most essential factor and one of the most important goals of World Bank millennium development goals that needs to be motivated by the policy makers of any country of the world. Social and economic development of any country can be directly observed by looking over its poverty rate. International trade play a vital role in reducing poverty rate especially in China and South Asian countries as developing countries of the world contributes more than 50% of the total world's trade (WTO Report) and the people living in extreme poverty has been decreased to half since 1990, to

just below one billion people. Trade has facilitated increase the amount and quality of jobs in developing economies, stimulated economic growth, increase the driven productivity, increase in exports, increase per capita income and finally helpful to boost the economic growth which is key to decline the poverty (Berg, A and A. Krueger, 2003).

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