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Nexus between Human Development and Trade Liberalization: Comparative Analyses of Developed and Developing Countries

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Abstract: The purpose of this study is to compare the impact of trade liberalization on human development among developing and developed countries. The study collected data from seven developing and seven developed countries for the period 2005 to 2019. The human development index (HDI) is used as a measure of human development (social development), and trade openness (trade percentage of GDP) is used as a proxy for trade liberalization. The study concluded that in both developing and developed economies, trade liberalization encourages human development further; it is also concluded that economic growth (GDP) of both economies also plays an important role in encouraging human development while an increase in population burdened human development in both economies. However, inflation critically impacts human development in developed countries while showing no effect on developing countries.

Key Words: Human Development, Trade Liberalization, Economic Growth

JEL Classification: O15, B17, O4

Introduction

The difference between the term development and economic growth is quite significant [Banik (2012)]. Human development means the achievement of good health, better education facilities and a quality standard of living by the average citizens of the country. United Nations Development Program (UNDP) measures the country's development by the Human Development Index (HDI), which is the average education index, life expectancy index as well as per capita GDP index of an economy. It shows that the development of a country has an extensive concept than growth.

Therefore, for long-run economic growth it is necessary for a country to achieve economic growth and development both, the countries which overlook development but have good growth cannot achieve long-run economic growth [(Banik (2012)]. Trade liberalization not only eradicates tariff as well as non-tariff barriers or other trade restricting policies but also encourages the free flow of export and import across countries. With the help of liberalization, countries can encourage their economic growth, and development and also reduce the level of poverty. Hence trade becomes the base for long-run economic growth. It is observed that after the implementation of trade liberalization policies, developing countries grew more rapidly as compared to developed economies in terms of their GDP as they pay high tariffs on

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agricultural and industrial products [(IMF 1990)]. Moreover, it is also detailed that trade can produce major welfare gains by encouraging allocative efficiency, increasing capacity utilization, attaining economies of scale in production and producing a large number of differentiated products offered for consumption. Trade can expand the choices of people by growing the markets for different commodities, increasing the level of employment, which leads to higher incomes available for spending on different goods and services and especially to attain education and health facilities.

Trade liberalization also helps the industries of developing countries to become more competitive and efficient because of the easy excess to the low cost of inputs which can be imported from foreign countries. Liberalization facilitates the industries in innovation and to produce commodities by using new technologies, which increases their export demand. This increase in export requires more labour to produce export items. In this way, it increases the employment in the industrial sector and also the income of the labour class and helps in raising their standard of living.

Liberalized trade amplifies the foreign direct investment inflow in developing economies. Due to higher investment and trade, the developing states can attain higher growth, generate more jobs, shrink poverty and increase the understanding, expertise, and efficiency of their labour force. Similarly, trade liberalization helps development by changing the prices which are faced by households for their major consumption items, which helps in increasing their purchasing power and also the standard of living. Hence, the elimination of trade barriers would induce activities which are labour-intensive activities providing income, employment and knowledge for a huge segment of people, especially the poor. Hence trade liberalization is good for both developed and developing countries.

Theoretical Framework

The economic explanation for the hypothesis that trade liberalization encourages human development or the well-being of the economy is based on the theory presented in the 17th century by Adam Smith– called "Theory of Absolute Advantage". In theory, Smith argued that every nation would gain if they also practised free trade and specialized in producing those goods of which they have a complete or absolute advantage and export it to other nations with the goods of which they have a complete or absolute disadvantage. By doing so, resources would be utilized in the most efficient manner and increase the output of both commodities.

David Ricardo, in his book titled "Principles of Political Economy and Taxation" published in 1817, extended the Absolute Advantage theory by incorporating Comparative Advantage theory. According to the theory, the nations with absolute disadvantage in both goods can beneficially trade among them if they specialize in producing that product for which they have a comparative advantage and also export that commodity, similarly import that commodity for which they have a comparative disadvantage. In this way, the countries which are more open can easily catch the more efficient technologies from the rest of the world and encourages the efficient allocation of resources through comparative advantage and increases the competition in the domestic and international market.

On the other hand, endogenous growth theory has also supported the positive effects of trade liberalization on HDI through growth, as trade openness gives exposure to innovation incentives, technology flow and spread of knowledge. Similarly, endogenous productivity and trade models of monopolistic competition with heterogeneous firms also give theoretical support for a positive link between trade openness and growth. According to the theory explains that growth boosts with trade liberalization because the less efficient firms exit from the country, and transportation costs are also reduced. Similarly, Heckscher Ohlin's theory (1920) also supports the hypotheses of the study. According to the theory, a country should export the commodity which intensively uses the factor in which the country has factor abundance and so on.

All the above theories provide strong evidence that trade liberalization effect the well-being or growth of the economy in a positive manner, which further upsurges the per capita income of an economy that is the major indicator of encouraging education and health expenditures and thereby boost the HDI of the country. The study selected HDI because there are three approaches through which the study measures the well-being or development that are 1) the neo-liberalism approach, according to which well-being can be measured by maximum utility (GDP per cap), 2) the basic-needs approach, according to which the economic well-being is measured on the basis of the availability of food and water and 3) the human development approach or HDI approach according which the well-being of the economy is measured on the basis of the availability of education and health facilities and on a good standard of living (e.g. literacy, life expectancy, and Gross national income (GNI) per capita).

The given three approaches of HDI claim to broaden the dimension of human development. Hence, HDI is acknowledged as the standard measurement of social development or well-being by all three Bretton Woods Institutions (World Trade Organization (WTO), International Monetary Fund (IMF), and World Bank). There are different endogenous factors that affect the HDI of a country, for instance, population growth; if there is a quantitative growth of population, it becomes a burden on the economic and social growth of any economy and becomes a measure cause of poverty, reduces the standard of living especially in developing countries. At the same time, the educated or qualitative increase in the human population can help encourage the development of the country. Hence, the HDI of the country can only be boosted if the population of the country is educated and healthy.

Further, the economic growth (per capita GDP) of any country is also important to strengthen the HDI of a country. As the per capita GDP of any country increases, the standard of living of its population also increases. Standard of living is a sign of economic welfare and also explains the quality of life of the population in a country. With a high standard of living, people can able to fulfil their basic requirements easily like food, clean water, education and a better place to live. Moreover, inflation is another important factor that affects the HDI of a country through its impact on the population's living standards. Inflation reduces the purchasing power of the population, which further decreases the expenditures of people on their health and education as the prices of medicines, books and other consumption items increase. The high rate of inflation boosts the poverty level in the country and hence worsens the social development or HDI of the country [Osiakwan and Armah (2013)].

Given the significance of the issue, the general aim of the research is to examine the association between trade liberalization and with development of the economy or HDI in developing and developed countries. At the same time, the detailed goals of the research are to identify the effects of population, economic growth and inflation on human development in both economies and to suggest useful policy implications to improve human development through trade. The study selected seven developing countries (Pakistan, India, Nepal, Bangladesh, Iran, Indonesia and Bolivia) and seven developed countries (Austria, Norway, United Kingdom, France, Italy, Luxemburg and Belgium). The study is important as it lengthens the existing literature; by providing a comparative study on trade liberalization (trade openness) and human development in developing versus developed nations. To the best of the authors' knowledge, the above objectives are not fulfilled in previous literature using the time frame of 2005 to 2019.

After the introduction, section 2 of this study is based on the literature of relevant studies, section 3 explains data and methodology, empirical results are given in section 4, and lastly, section 5 gives the conclusion and policy suggestions of the study.

Literature Review

There are different studies exist on the issue regarding how trade liberalization affects human development indicators with mixed results; for example, in 2003, Nourzad and Powell performed panel data analysis for forty-seven developing states using the time period 1965-1990. On the bases of different measures of openness, for instance, total trade volume per GDP, openness index of Dollar, as well as black market premium, it was found that there is a positive effect of openness on HDI and real GDP.

In 2003, Reuveny and Li analyzed how inequality in income is affected by the openness of the economy and its democracy. The authors used the GINI coefficient as a proxy of income equality while trade flows and inflows of foreign direct investment, as well as financial capital, were used for economic openness. The study used pooled time series analysis for 69 developing and least developed nations covering the time period from 1960 to 1996. The results show that income inequality is increased due to liberalized trade in developed economies while decreasing in LDCs.

Rigobon and Rodrick (2004) inspected the link between openness, income, democracy and rules of law. On the basis of OLS models and GMM, it was found that the level of income is improved due to openness. However, openness causes a negative effect on democracy, while there is a progressive link between openness and the rule of law.

In 2009 Gunduz et al, found that trade has a positive impact on income. Employed the panel data of 106 economies. Furthermore, it is revealed that trade also has a positive influence on human development, but this is only for high as well as medium income economies, while the link weakens in lower medium income countries in case of considering only non-income components of the index.

In 2010 Ejaz used the time series data of Pakistan from 1973-2009 and examined the causality between trade growth and poverty. It was found that there is a bidirectional relationship exists between poverty and growth in the long run. Further, Hamid and Amin (2013) analyzed the influence of trade on human development in OIC countries. The research used panel data from 1980-2009, and on the bases of the generalized method of moment application, it is revealed that trade has a significant positive influence on HDI across countries while there is an insignificant impact of trade on HDI without income. The outcomes highlighted that trade only affects the HDI through the income channel, while it does not affect the other components of the HDI.

Ahmad and Luqman (2012), in their research, focused on the variables HDI, Poverty, income inequality, and political stability in Pakistan. The outcomes of the ordinary least square method of estimation highlighted that trade liberalization reduces poverty while population growth and income inequality increase poverty.

In 2012 Fatah et al. observed the rate of growth for Malaysia, Indonesia and China; they also studied the relationship between openness, life expectancy at birth, political rights, civil rights, human development and foreign direct investment with economic growth. On the basis of the least square quantitative technique, the study found that life expectancy, openness, foreign direct investment and political freedom are significant determinants and had positive effects on growth in China, Indonesia and Malaysia during the period 1980 to 2005. It was also revealed that human development is positively related to economic growth.

Zehra and Alam (2015) examined the influence of trade liberalization and human development among developing as well as developed countries for the period 2005 to 2012. It was found that trade liberalization has a positive effect on human development for both developing as well as developed countries. Further, in 2017 Mustafaa et al. identified the link between trade openness, human development and economic growth. After applying the error correction model to the data of 12 (developing) Asian economies, it was revealed that trade openness or liberalization positively affects human development.

Jawaid and Waheed (2017) examined the impact of aggregated as well as disaggregated trade on human development in Pakistan. The study used yearly time series data from 1980 - 2013. The research used five variables for trade-in separate models with HDI for instance, (1) total trade (2) aggregate exports (3) aggregate imports (4) primary goods' export, manufactured as well as semi-manufactured commodities and lastly (5) import of capital goods, consumer goods and industrial inputs for consumer and capital goods. The results of cointegration and OLS suggested that all variables significantly and positively affect human development, excluding the import of consumer commodities and the export of semi-manufactured commodities.

Byaro (2021) inspected the consequences of trade liberalization on outcomes of health for instance life expectancy as well as the mortality rate of children under five years for thirty-three sub-Saharan African economies. On the bases of the two-step system Generalized Methods of Moments (GMM) estimator for the period 2000 to 2016, it was found that liberalized trade improves health indicators of sub-Saharan African economies.

Data and Methodology

The research is based on observing the influence of trade liberalization or trade openness on HDI among developing and developed economies using some control variables, for instance, the total population of the specific country, economic growth and inflation. For this purpose, the research has selected seven counties in each set of developed and developing economies. The countries included in developing economies are Pakistan, India, Nepal, Bangladesh, Iran, Indonesia and Bolivia. The countries included in the set of developed economies are Austria, Norway, the United Kingdom, France, Italy, Luxemburg and Belgium. The annual data of trade liberalization (TL), Human Development Index (HDI), Total population (POP), Gross Domestic Product (GDP constant 2005) and inflation (CPI) for the period 2005 to 2019 has drawn from World Development Indicators. The study is limited to 2019 as the data on HDI is not available after 2019. The selection of countries is depended on the accessibility of HDI data. The model of the study is given below:

$$LNHDI_{it}= \beta_{0t} + \beta_1 LNTL_{it} + \beta_2 LNPOP_{it} + \beta_3 LNGDP_{it} + \beta_4 LNCPI_{it} + \upsilon_{it} \quad (1)$$

$$LNHDI_{it}= \beta_{0it}+\beta_1 LNTL_{it} + \beta_2 LNPOP_{it} + \beta_3 LNGDP_{it} + \beta_4 LNCPI_{it} + \upsilon_{it} \quad (2)$$

Equations 1 and 2 are the model for developing and developed economies

Where “i" shows countries and "t" shows time period, TL is total trade as a percentage of GDP

HDI= (Education Index + Health Index + Income Index)/3

To empirically analyze the above two models, a fixed effect panel data analysis is most suited as the time period is greater than the number of countries. Further, the simple pool regression will distort the correct picture of the link among dependent and independent variables across the countries and also captures the heterogeneity or omitted variable bias. Hence the study used the panel fixed effect technique.

By using fixed effect the study takes into account the individuality of each country. For developing countries, the study used a fixed effect by varying the intercept of each country with time, which means intercepts are time variants but keep constant the slope coefficients across countries (as shown in eq 1).

This method controlled the unobserved heterogeneity. The fixed effect coefficients wiped out all the country's actions and diminished the risk of omitted variable bias. Because fixed effects models depend on within-group action. Hence, the estimated coefficients of fixed effect models are not biased. For developed countries, the individuality of each country is considered by varying the intercept of each country but keeping constant time and the slope coefficients (as shown in eq 2) that also controlled the unobserved heterogeneity and the estimated coefficients of fixed effect.

Empirical Results

This section explains the empirical analysis table 1 below depicts the outcomes of fixed effect for developing countries, while table 2 shows the fixed effect outcomes for developed countries.

Table 1. Results for Developing Countries

Variables	Coefficients	t-values	Standard Error
Intercept	1.707	2.01	0.855
LN Openness (TL)	0.209	2.11	0.119
LN Total Population (POP)	-0.111	-2.84	0.039
LN GDP	0.116	3.36	0.034
LN Inflation (CPI)	0.131	-1.08	0.120

Source: Author's calculation

Table 2. Results for Developed Countries

Variables	Coefficients	t-values	Standard Error
Intercept	2.505	3.37	0.741
LN Openness (TL)	0.082	2.97	0.027
LN Total Population (POP)	-0.197	-4.52	0.043
LN GDP	0.133	3.62	0.036
LN Inflation (CPI)	0.271	3.90	0.069

Source: Author's calculation

On the basis of the above results, it is seen that there is a positive and significant link between trade liberalization and HDI for both developing and developed economies. It shows that trade liberalization is necessary for human development as a more open economy provides different opportunities for jobs to both skilled and unskilled labour. It reduces unemployment and increases the standard of living so that people have more money to spend on their health and education. Additionally, the results explain that there is a negative and significant influence of population growth on human development for both economies but it is more severe for developing countries. As the population growth increases it creates a burden, both at the micro and macro level and reduces the expenditure on health and education. The findings elaborate that economic growth positively and significantly impacts human development in both economies because good economic growth encourages the standard of living of the population and, in turn, increases their welfare. It is also seen that inflation dampens human development in developed economies. It explains that inflation increases poverty and reduces expenditures on health and education, which are the major elements of human development.

Conclusion and Policy Suggestions

The purpose of the paper is to investigate the influence of trade liberalization on human development in developing and developed countries using economic growth, inflation and population growth as control variables. To accomplish the goals, the researchers observed the annual data of all variables for seven developing as well as seven developed economies from 2005-2019. On the bases of the fixed effect technique, it is found that trade liberalization has a positive influence on human development for both economies. Further, population growth adversely affects human development, whereas economic growth improves human development in both economies. The results of the research satisfy both theory and literature both. Moreover, it is also concluded that inflation has an adverse effect on HDI for developed economies while having no impact on developing countries.

Therefore, according to the results of the study, policymakers should adopt liberalizing trade policies because free trade has many spillover effects, it creates new job opportunities for labour and also increases the income of the poor, and this increase in income is the basic instrument to achieve quality education and health. Further, there is a need for product diversification and value-added commodity production to attract export by developing countries and also to develop their manufacturing sector to encourage the export of manufactured commodities.

Moreover, trade itself directly provides the flow of resources, which are used to provide health and educational services and used to build infrastructure of roads, ports and water supply that helps to upgrade the human development situation in a country. Trade provides greater market access for the export of agricultural and non-agricultural commodities of developing countries which is very important to facilitate the benefit of trade liberalization. Beyond trade liberalization, another important policy for developing nations is to improve their industrial and agricultural sectors to improve economic growth. Development in these sectors will encourage human development through economic growth.

There is a need to develop such types of programs which increase the literacy rate, control the population and provide health facilities to encourage HDI.

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