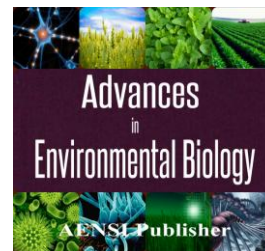




AENSI Journals

## Advances in Environmental Biology

ISSN-1995-0756 EISSN-1998-1066

Journal home page: <http://www.aensiweb.com/AEB/>

## The exploration into the effect of globalization on Human Development Index (HDI): The selected Developing and Developed Countries

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### ARTICLE INFO

#### Article history:

Received 10 September 2014

Received in revised form

23 October 2014

Accepted 27 November 2014

#### Keywords:

Globalization, Human Development, KOF Index, Panel data

### ABSTRACT

The phenomenon of globalization is one of the controversial topics to which the countries are exposed at present. Given that globalization is followed by several and different impacts on economic, social, and political conditions etc. in the countries; thus, this investigation has been carried out in order to explore the effect of globalization in two groups from Developing Countries and Developed Nations in terms of Human Development Index (HDI) during years 1980-2010. For this purpose, KOF globalization index (economic, social, political, and comprehensive aspects) has been employed as globalization index. The research model was estimated by means of econometric panel techniques including panel data unit root, panel co-integration, and panel data model. The results derived from this study signify that all four globalization aspects of HDI have been positive and significant in both groups of countries and rate of their effect was greater in developing countries than in the developed nations. Furthermore, Gross Domestic Product GDP per capita had positive and significant impact and also population growth rate had negative and significant effect on HDI.

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**To Cite This Article:** Yaser Sistani Badooei., The exploration into the effect of globalization on Human Development Index (HDI): The selected Developing and Developed Countries. *Adv. Environ. Biol.*, 8(19), 136-148, 2014

### INTRODUCTION

Certainly, globalization is the foremost and most distinct phenomenon in our time. Vastness and spreading the phenomenon of globalization is to the extent that it has affected more or less all social, economic, and political fields relating to the human. The multidimensional aspect of this phenomenon and special complexity has caused difficulty in proposing an accurate and clear definition from this term. For this reason, there is no theoretical unanimous agreement between scientists in proposing accurate definition regarding globalization since this phenomenon has not approached to its ultimate development level and it is still subjected to change and transformation and everyday a new aspect of this phenomenon is revealed from its various dimensions.

Today, our economy and community advances toward globalization faster than any other time [38,18]. Some of scientists have tried to define globalization generally and within total framework of political, economic, and cultural developments including Mac Grew states: globalization is to establish various and mutual relations among governments and communities, which have led to creating the current global system and also the process thereby the events, decisions, and activities in any part of world may be accompanied with important consequences for other people and communities in other parts of earth planet [3].

Goldin and Reinnert assume the globalization as overseas simple interaction. Bardhan [15] argues that globalization is a phenomenon that will be led to anything for all the people. Stieglitz [36] deems the globalization as proximity of world countries and nations together and thus severe reduction in costs of transportation, communication, and also removing the synthetic barriers in way of flow of commodities and services, capital, and knowledge (individual, to some extent). Gills et al consider globalization as a group of multidimensional and complex processes, which cover several fields including economy, ideology, politics, culture, and environment. The globalization logic basically stems from capitalism logic i.e. to keep and expand process of accumulation of capital and therefore it is placed at the front of globalization process. Norris [27] deems globalizations as integration of economy, culture, governance, and national technologies, which lead to complex and interwoven relations. Keohane and Nye [25] assume globalization as a consequence that is derived from completion of 3 processes including economic, political, and social globalizations. Clark considers

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globalization as process of creating transcontinental communication network that acts as an intermediate for transferring various flows of individuals, knowledge, commodity, capital, and ideas.

From another view, one can consider globalization as a strategy for discovery of opportunities in various points of the world and using them for optimization of activities of an institute [28].

Globalization includes technological, economic, political, and cultural transactions, which are widely created via advanced communications, transfers and transmissions, and infrastructures.

Apart from agreement over proposing a comprehensive definition for globalization, one can employ two approaches in exploring this term. In the first attitude, globalization is studied by nature and mechanism and this approach has explored theoretical dimension of globalization and expressed its possible consequences. In the second approach, globalization is investigated with focusing on its realized effects in various countries. With gathering evidences in this approach, the created consequences are analyzed and explored. The second approach has been taken in this essay. The major question of research is that: does the globalization process affect significantly on Human Development Index (HDI) in developing and developed countries?

Thus, with respect to importance of subject of human development and this point that why some of countries possess higher HDI than other nations; therefore, we need to recognize scientifically its effective factors. The present essay is intended to explore and compare the impact of globalization in both groups of developing and developed countries in terms of HDI during years (1980-2010).

Based on the goal of this study, the continued part of this essay has been organized as follows: At second section we have reviewed the theoretical bases of the subject and in third chapter the research empirical studies are reviewed. In fourth part, we propose research model and in fifth section the empirical results of this study are analyzed. The sixth or last part of this essay has been devoted to conclusion and presentation of suggestion as policy for this study.

## *2-Theoretical bases:*

The economy of modern world and communities moves toward globalization more than ever.

Globalization prepares the ground for transferring technology and improvement of quality of life for many people in developing nations [10].

Economic development and international trade has led to formation of the world interdependent economic system that moves toward conversion into the world integrated economy. The importance and role of international economic institutes and multilateral treaties are continuously increased and propose a modern system of commercial and economic rules, procedures, and principles to the world following to its trend. Globalization is a multidimensional phenomenon with various economic, social, and political aspects. The globalization is called under title of the process of quick economic merging between countries including trade liberalization, investment flow, and also technology related changes. In another place, globalization has been discussed as the reduction in barriers including technological or legal types for economic exchange among the nations. Despite of this fact that phenomenon of globalization has several aspects including technology- related changes, immigration, and displacement of investment and capital, the given discussion is more focused on trade and trade liberalization in economic texts wherever it is talked about globalization. The trade liberalization, which has been defined as a movement toward free trade through reduction in tariffs and other commercial barriers, is deemed as the foremost prime mover (impetus) for globalization. During two past decades, quick increase in stream of goods and services across the borders of various countries has been one of the visible aspects for increase in economic integration of the countries [9].

Globalization refers to increase level of mutual dependency between the countries through free trend of goods and services importation and exportation, free flow of workforce, political freedom, military alliance, and so forth. With emerging of globalization, developing countries have implemented structural equalizations in resources allocation and human resources development. Globalization is the interlinked rising trend of individuals, groups, enterprises, and countries, which greatly affects on trade and human development. Also, economic liberalization is assumed as a type of globalization throughout the world that will highly affect on human development [31]).

Trade liberalization by reduction in price of the imported commodities and keeping low price for the substituted commodities of importation will improve Quality of Life. The noticeable increase in income per capita, faster growth, and further reducing of poverty that most of developing countries such as South Korea, Malaysia, Thailand, India, and Vietnam etc. have experienced in more open economy during recent years may confirm this issue [19].

The integration of world markets through some ways like reduced trade barriers, improvement of communication and Foreign Direct Investment has provided the possibility for free capital flow among the world countries and this may accelerate economic growth in these countries. The pros for globalizations claim that the developing countries can increase the speed of their development by this method [23].

Bhagwati as one of UN advisors argues that the globalization is deemed as a very strong and efficient power to release the countries from the abyss of poverty and pauperism since it accelerates their economic

growth. According to his opinion, the right of acquisition to further alternatives has been provided for the trained laborers in developing countries due to globalization and these workers may compete for receiving higher wages in world market and to be benefitted from working better conditions.

Further and easier access to goods from other countries for world people, emerging of financial markets and possibility for utilization from foreign credit sources, creating world common market that has emerged under the influence of freedom of goods and services exchange and ability for competition in world jobs market have been assumed as the positive outcomes of globalization.

Globalization will provide access to information, empowerment of people, regulation of corporate activities, responsibility and responsiveness, through increase in economic freedom [14]. At the same time, the scientists in social scientists have explored the impact of globalization on several issues including employment and wage, human rights, and social stresses and tensions, which will be able to affect on human development [13].

According to theory from Sirgy et al about mechanism of impact by globalization on human development index (HDI) as Quality of Life (QOL), the world commodity and services mobility has led to creating further job opportunities in the advantageous sectors and incomes have been increased in exportation sector and this will reduce the price of imported goods; therefore, the Purchase Power will be increased in exporting countries and thereby it will contribute to improving quality of life in these nations [35]. Doubtlessly, the country that more succeeds in enhancement of capital and trade transactions etc. with other countries has the more chance in improving its social welfare. For example, in industry sector the imported trend of modern technology may increase organizational and administrative efficiency in domestic enterprises and in addition to further income; it allows the given country to produce the cultural products.

Most of the writers, who have so far talked and written about globalization and its consequences in the community, especially in Third World Countries, worked further in the economic area. This group of experts has referred to globalization in some cases including merge of markets and goods, rising competition, improvement in production techniques, expansion of financial flows etc. as the effects and consequences of globalization in their definition of globalization.

With a brief view toward theories of international trade, Ranis (2004) shows that these theories are unanimously agreed in this point that the trade has caused economic growth and development of the countries and also the economic growth in turn leads to improvement and increase in human development [17].

The positive effect of globalization on human development can be discussed in the following cases:

1- Better educational system: With respect to the benefits caused by globalization, educational system will be turned into a preference [26].

2- Improvement of quality of life through accessibility to diversified products: Those countries, which have made their economies more open during recent years, have experienced also further reduced poverty [19].

3- Improvement in Gross Domestic Product GDP: With directing any country toward the industries with higher relative advantage, the globalization will lead to redistribution of income and improvement in GDP [31].

4- Employment and income distribution: The trade liberalization directly affects on employment scenario and wage status in a country [31].

5- Globalization leads to improving Human Development Index (HDI) and gender egalitarianism [39].

In addition to emphasis on communicative dimension of globalization, Anthony Mac Grew posits some cases as the properties of globalization as follows:

1) Political, social, and critical activities have affect beyond the national borders and it is also affected by them.

2) The size of mutual actions (exchanges) is increased and a new world system is created.

3) Rising intensity and extent of communications lead to removal of distance and contraction of time and place and cause developing the communications so that anyone can also feel a global sign in his/ her life along with the local life.

4) The growing communications create new problems and issues at transnational level, which can be resolved only through global cooperation. The problem of drug abuse may be assumed as one of these transnational problems.

5) Formation of interwoven networks restricts the national actors and reduces their governance and autocracy so that it creates the volume and intensity of contracted communications and networks among the governments and international organizations, communities, Non- Governmental Organizations (NGOs), and multinational enterprises. These networks cause to create a world system that leads to systemic restrictions for activity of the aforesaid actors and reduced their authority.

However, according to some analyses, the globalization mainly possesses economic nature and some experts like Manuel Castles have only emphasized on economic dimension of globalization, no one can overlook other components and dimensions of globalization since globalization is a general project (or process) that covers human's life and it is accompanied with political, cultural, and economic, and social manifestations [4]. These elements and dimensions can be implied as follows:

a) Economic dimension is the globalization of economy along with privatization, trade liberalization, deregulation in trade, reduction of taxes, minimization of governmental supervision, quick growth in multinational enterprises, expansion of world financial centers, immigration of workers, change in transportation and communication networks, and dependence of economic value on trade of information not trade of materials [7].

b) Political dimension includes political aspect of globalization, reduced role of government- nations and increase role and sovereignty of transnational enterprises and organizations. In world politics, the national governments gradually lose their control, administration, and powers and their supervision downplays over domestic forces. The governments are assumed the agents for realization of globalization in political field, which weaken them internally with joining voluntarily to transnational networks and organizations and especially World Trade Organization (WTO) and increase dominance of central countries over them [2].

c) Social aspect, quick developing migrations and tourism industry, globalization of lifestyles and world common issues are considered as symbols of social globalization [4].

Schultz maintains that rising of human capital is the origin for economic growth and development and this regard, balance between human and financial capitals is assumed as necessary condition for growth and development. Based on Schultz's opinion, human investment includes healthcare service costs, educational costs (formal, informal, and on the job), and those costs which lead to improve life expectancy etc. are deemed as investment in human capital [1].

Overall, one can discuss about standard by expressing positive relationship among trade and HDI in such a way that the rising of income affects on life level among individuals and improves it. Rising of income, in turn, has prepared some educational opportunities and healthcare and medical services and it leads to presentation of more appropriate social services by the government. The trade effect on human development can be divided into direct and indirect impacts. The direct impacts are in fact the rising of income due to increase in trade that may in turn lead to subsequent improvements in human development. Also, indirect effects emerge with expansion of cultural interactions and developing diversified commodities, which are available for the consumers. Trade may deliver new types of commodities and services in national domestic markets including medical and healthcare equipments as well. These agents increase health, nutrition, and lifetime for the people of a country and cause improving human development index HDI in that country [18].

### *3-A review on empirical studies:*

Akhter [13] explored the impact of economic freedom and corruption on globalization of economy and human development by means of covariance matrix for 75 countries in 1998. The results showed that economic freedom has positive and significant effect on globalization of economy and human development and it was indicated that corruption has negatively affected on human development.

In an investigation, Ahmad [12] studied the impact of world trade, trend of entering stock capital and foreign direct investment as globalization index on human development by means of data analysis in Pakistan and during period (1998-2002). The results indicate that HDI has been improved simultaneously with raising the related variables to globalization.

Tsai [37] investigated the effect of economic, political, social, and comprehensive globalization by means of KOF index on human development index as welfare and quality of life by the aid of dataset for 112 countries during time period 1980-2000. The results of this study show that only political globalization has improved life welfare while the social globalization has negatively affected on human welfare and at the same time although economic globalization has positive impact but this effect has not been significant.

Sabi [32] surveyed the impact of economic openness as globalization index on human development by means of sectional regression for 150 countries and four groups of countries with different income levels for 2006. The results of this investigation indicate that economic openness has positively affected on human development for all of these groups of countries.

In a study, Rabbanee et al [31] explored trade freedom as globalization index for human development to number of southeastern countries of Asia by means of sectional data for three time periods 1990, 1995, and 2000. The results of a change in geopolitical status that leads to further trade liberalization in developing countries may suggest human resources development.

In a research, Sapkota reviewed globalization by means of KOF index on quality of life, particularly HDI and gender development and reduced poverty by the aid of fixed effects technique for 126 developing countries during time period (1997- 2005). The results of this study indicate he found that the globalization not only increases human and gender development, but also reduces noticeably human poverty.

Effiom et al [21] in an essay explored the impact of trade liberalization as globalization index on human capital by the aid of Vector Auto-Regression (VAR) Model in Nigeria. The results show a little effect of trade liberalization on human capital.

Tavakolnia and Zadmeher [5] in their essay analyzed the effect of globalization on Quality of Life (QOL) by means of dataset method for 14 developing oil exporting countries and within time interval (1991-2009). In

this survey, Human Development Index (HDI) has been employed as Quality of Life (QOL) and the ratio of trade to Gross Domestic Product (GDP) as globalization index. The results of this exploration indicate globalization index has positive and significant effect on HDI as quality of life index.

Ahmadi and Hozar Moghadam (2013) explored the impact of trade liberalization and foreign direct investment flow for HDI by means of dataset technique in 144 developing countries and during time period (2002-2012). The results show that foreign direct investment is not the only effective factor on human development index. Moreover, it was deduced from this study that the conditions for international competition and foreign direct investment might play fundamental role in economic growth and development.

#### 4-Model presentation:

With respect to the conducted interpretation based on effect of globalization on human development index HDI in this essay and following to studies done by Sapkota (2011) and Tsai (2007), to review the relationship among globalization index with HDI, the regressive equation is as follows:

$$\ln HDI_{it} = \alpha_0 + \alpha_1 KOF_{it}^{economic} + \alpha_2 KOF_{it}^{social} + KOF_{it}^{political} + \alpha_4 KOF_{it}^{overal} + \alpha_4 pop_{it} + \alpha_5 \ln GDP + \varepsilon_{it} \quad (1)$$

Where:

HDI: It is Hybrid Human Development Index in three elements including life expectancy, education, and Gross Domestic Product (GDP) per capita. HDI is a simple mean out of three above components.

Life- expectancy, education, and GDP per capita are totally the basic factors, which increase power of choice in humans. The long life together with health is measured by life- expectancy index from the birthday. Life expectancy shows the expectation for survival of a person since birthday provided that the current mortality pattern at time of his/ her birthday remains the same. The knowledge (education) is computed by means of literacy rate in adults and hybrid ratio of gross enrollment in primary, secondary, and high schools. Thus, the given index is derived from mean weight of adult literacy index and hybrid gross enrollment index and life competency standard is calculated by GDP per capita (based on USA Purchasing Power Parity (PPP)). The related data to this index have been extracted from UN website (United Nations Development Program) UNDP.

KOF: When a process like globalization affects on human's fate with such dimensions, some criteria and scales form for its measurement and comparison. KOF index is one of indices, which rank globalization with focus on criteria in the western world. This index is deemed as a criterion of economic globalization, social, and political variables. The social globalization index with 38% has assumed as the highest weight. Similarly, economic globalization index with 36% and political globalization index with 26% have been ranked at next positions. We explained about way of calculations of globalization indices for each of globalization aspects in the following tables:

**Table 1:** Economic globalization index

| Economic globalization ( $KOF^{economic}$ )            |        |                |
|--------------------------------------------------------|--------|----------------|
| Indices and variables                                  | Weight | Source         |
| a) Real flows                                          | 50     |                |
| Trade (percentage of GDP)                              | 21     | World Bank     |
| Foreign direct investment stock (% of GDP)             | 28     | UNCTAD         |
| Portfolio investment (% GDP)                           | 14     | IMF            |
| Payment of equity to foreign governments (% GDP)       | 27     | World Bank     |
| b) Restrictions                                        | 50     |                |
| Importation hidden barriers                            | 24     | Gwartney et al |
| Custom tariff mean rate                                | 27     | World Bank     |
| Tax on international trade (percent of current income) | 26     | Gwartney et al |
| Restrictions on capital account                        | 23     | Gwartney et al |

**Table 2:** Social globalization index

| Social globalization ( $KOF^{social}$ )          |        |                        |
|--------------------------------------------------|--------|------------------------|
| Indices and variables                            | Weight | Source                 |
| a) Statistics of personal communications         | 34     |                        |
| Volume of overseas telephone conversations       | 25     | World Bank             |
| Volume of transfers (% GDP)                      | 3      | UNCTAD                 |
| International tourism                            | 26     | IMF                    |
| Foreign population (percent of total population) | 21     | World Bank             |
| International letters (per capita)               | 24     | Universal Postal Union |
| b) Statistics of data flows                      | 35     |                        |
| Internet users (per 1000 users)                  | 33     | World Bank             |
| TV (per 1000 users)                              | 36     | World Bank, ITU        |
| Trade in newspaper (% of GDP)                    | 31     | UNCTSD                 |
| c) Cultural proximity data                       | 31     | Gwartney et al         |

|                                              |    |                 |
|----------------------------------------------|----|-----------------|
| Number of MacDonald restaurants (per capita) | 45 | Various sources |
| Number of IKEA shops                         | 45 | IKEA            |
| Book trade (% GDP)                           | 10 | UNESCO, UNCTSD  |

**Table 3:** Political globalization index

| Political globalization ( $KOF^{political}$ )                    |        |                                           |
|------------------------------------------------------------------|--------|-------------------------------------------|
| Indices and variables                                            | Weight | Source                                    |
| a) Number of embassies in the country                            | 25     | Europe World Yearbook                     |
| b) Membership in international organizations                     | 28     | CIA World Fact Book                       |
| c) Cooperation in missions of Security Council of United Nations | 22     | Department of Peacekeeping Operations, UN |
| d) International Treaties                                        | 25     | United Nations Treaties Collection        |

Pop: population growth rate and lnGDP: is logarithm of Gross Domestic Product GDP per capita in which they have entered as controlling variable. The related data have been extracted from World Bank Website in 2013. The given model has been estimated for time period (1980-2010) in 74 developing countries with respect to Human Development Index HDI (Albania, Azerbaijan Bulgaria, Bahrain, Brazil, Colombia, Costa Rica, Algeria, Ecuador, Iran, Jamaica, Kuwait, Mexico, Maurice, Malaysia, Oman, Panama, Peru, Romania, Saudi Arabia, Trinidad and Tobago, Tunisia, Turkey, Uruguay, Venezuela, Bolivia, Botswana, China, Dominican Republic, Egypt, Fiji, Guyana, Honduras, Indonesia, India, Jordan, Cambodia, Morocco, Moldova, Mongolia, Mongolia, Nicaragua, Philippines, Paraguay, El Salvador, Swaziland, Vietnam, Burundi, Benin, Burkina Faso, Bangladesh, Central Africa, Ivory Coast, Cameroon, Congo Republic, Ethiopia, Kenya, Lesotho, Malagasy, Mali, Mozambique, Malawi, Niger, Nigeria, Pakistan, Rwanda, Sudan, Senegal, Chad, Togo, Congo Democratic Republic, Zambia, and Zimbabwe) and 30 developed countries with respect to HDI (Argentina, Australia, Austria, Belgium, Canada, Switzerland, Chile, Cyprus, Denmark, Spain, Finland, France, UK, Hungary, Ireland, Island, Italy, Japan, Luxemburg, Malta Isle, Netherland, Norway, Nepal, New Zealand, Poland, Portugal, Qatar, Sweden, USA, and UAE). It requires noting that these countries have been classified according the human development reports in 2013.

### 5-Empirical results:

#### 5-1- panel data unit root tests:

If number of observations for time series is great in each of time intervals one can explore the unit root analysis (the existing reliability) for each of those intervals. But the power of testing unit root is very low when period of data is short. Under such conditions, dataset- based unit root test is required to increase strength of tests. For example, the common unit root tests are utilized such as Dickey- Fuller test, Augmented Dickey-Fuller Test, Philips- Perron test for a time series, which has lesser strength and they are biased toward side of acceptance of theory. This status is intensified when sample size is small. One of the methods which have been suggested to remove this problem is to employ panel data to increase sample size and the unit root test is used in dataset therefore it necessitates before estimation of research model to test the reliability of all used variables in estimations since the reliability of variables may lead to occurrence of problem of false regression whether concerning to data in time series and or in dataset. In any case, it is necessary to use at least one of the five Levin, Lin and Chu test, Im, Pesaran and Shin test, Fisher- ADF test, Fisher- PP test, and Hadri test for the common unit root test.

These tests are so-called panel unit root tests and theoretically they are unit root tests of multiple (time) series, which have been used for panel data structures. The trend of determination of reliability for all of tests is the same except Hadri test and with rejection of null hypothesis  $H_0$  the unit root is also rejected and this denotes the reliability of variable. Thus, with rejection of null hypothesis  $H_0$  unreliability is rejected as well and reliability is approved and it has reliability at this level and or with one and or two differences so that in order to identify this part, it should be noticed that the rate of probability (Prob) should be 5 or 10% smaller.

In order to determine common unit root for variables, four tests have been utilized including Levin-Lu and Chu test, Im- Pesaran and Shin test, Fisher Phillips- Perron (PP) test, Fisher Augmented Dickey- Fuller (ADF) test.

**Table 4:** Results of Common Unit Root Test of model variables for developing countries

| Levin, Lin & Chut   | Im, Pesaran and Shin W-stat | ADF                 | Fisher | Chi-square | PP - Fisher Chi-square | Unit root                |
|---------------------|-----------------------------|---------------------|--------|------------|------------------------|--------------------------|
| -9.51<br>(0.0000)   | -11.328<br>(0.0000)         | 401.273<br>(0.0000) |        |            | 638.631<br>(0.0000)    | HDI(first difference)    |
| -16.476<br>(0.0000) | -20.89<br>(0.0000)          | 718.768<br>(0.0000) |        |            | 1352.74<br>(0.0000)    | KOFeco(first difference) |
| -20.317<br>(0.0000) | -24.377<br>(0.0000)         | 848.068<br>(0.0000) |        |            | 1448.02<br>(0.0000)    | KOFpol(first difference) |
| -14.367<br>(0.0000) | -17.973<br>(0.2878)         | 622.624<br>(0.0000) |        |            | 1251.19<br>(0.0000)    | KOFsoc(first difference) |

|                     |                     |                     |                     |                          |
|---------------------|---------------------|---------------------|---------------------|--------------------------|
| -18.551<br>(0.0000) | -22.055<br>(0.0000) | 759.75<br>(0.0000)  | 1352.12<br>(0.0000) | KOFove(first difference) |
| -8.596<br>(0.0000)  | -12.141<br>(0.0000) | 430.81<br>(0.0000)  | 912.32<br>(0.0000)  | lnGDP(first difference)  |
| -14.928<br>(0.0000) | -18.198<br>(0.0000) | 714.888<br>(0.0000) | 137.272<br>(0.7258) | Pop(level)               |

**Table 5:** Results of Common Unit Root Test of model variables for developed countries

| Levin, Lin & Chut   | Im, Pesaran and Shin<br>W-stat | ADF<br>square       | Fisher<br>Chi-<br>square | PP - Fisher<br>Chi-<br>square | Unitroot<br>Variables    |
|---------------------|--------------------------------|---------------------|--------------------------|-------------------------------|--------------------------|
| -6.325<br>(0.0000)  | -7.371<br>(0.0000)             | 164.988<br>(0.0000) | 274.36<br>(0.0000)       |                               | HDI(first difference)    |
| -10.49<br>(0.0000)  | -11.084<br>(0.0000)            | 244.09<br>(0.0000)  | 457.813<br>(0.0000)      |                               | KOFeco(first difference) |
| -14.685<br>(0.0000) | -13.48<br>(0.0000)             | 293.68<br>(0.0000)  | 431.45<br>(0.0000)       |                               | KOFpol(first difference) |
| -5.119<br>(0.0000)  | -0.5597<br>(0.2878)            | 295.137<br>(0.0000) | 116.09<br>(0.0000)       |                               | KOFsoc (level)           |
| -9.501<br>(0.0000)  | -10.925<br>(0.0000)            | 238.899<br>(0.0000) | 486.689<br>(0.0000)      |                               | KOFover (level)          |
| -12.195<br>(0.0000) | -11.793<br>(0.0000)            | 258.441<br>(0.0000) | 342.998<br>(0.0000)      |                               | lnGDP (first difference) |
| -7.828<br>(0.0000)  | -7.896<br>(0.0000)             | 185.387<br>(0.0000) | 55.505<br>(0.6405)       |                               | Pop<br>(level)           |

Source: Research findings: the figures in parentheses are p-value.

With respect to results of Table 4 and 5 and review the calculated statistic values and probability of their acceptance they show that all variables in developing countries except population growth rate; are placed at reliability level and they became reliable by using difference equation one time. Similarly, all variables in developed countries became reliable by using difference equation once except for population growth rate and social globalization index.

#### 5-2- Panel data Co-integration analysis:

The presence of long run economic relationships is tested in panel data co-integration analyses. The main idea in co-integration analysis is that although most of time series are not reliable (including stochastic trends), the linear composition of these variables may include unit root (without stochastic trend) in long run.

Co-integration analyses contribute us to test and estimate long run balance relationship. If an economic theory is correct, a special group of variables, which has been identified by the given theory, are related together in long run. Furthermore, economic theory only asserts relations statically (in long run) and gives no information about short- term dynamism among variables. If the theory is reliable, we expect that despite of lack of reliability for variables, a static linear composition of these variables may be reliable and without stochastic trend. Otherwise, reliability of the aforesaid theory is challenged. For this reason, co-integration analysis has been widely used for testing economic theories and approximation of long run parameters [22].

Upon using panel data, co-integration test is done generally by means of method suggested by Pedroni (1995 & 1999). Engle- Granger Co-integration Test (1987) is conducted according to test of reliability of residues of a regression when the variables of the first- order (or I(1)) integrated regression equation is done [. Kao (1999) proposed augmented dickey- fuller co-integration test with assuming the co-integration vectors are homogeneous at all intervals [29].

Thus, if variables are co-integrated then their residues I(0) should be co-integrated with zero- order. On the other hand, if variables are not co-integrated, residue will be I(1). Pedroni (2004) and Kao (2000) developed this test for the integrated data.

The results of co-integration tests are given by means of Pedroni and Kao tests (assuming null hypothesis based on lack of co-integration for these two tests) in Table 6, 7, 8, and 9. The results of Pedroni co-integration test comprise of 7 statistics, which have been identified in two classes. The first group is within- dimensions including v- and rho (p) panel statistics similar to Philips and Perron test (1988), panel statistic- pp (non-parametric panel), and ADF (parametric panel), which are similar to single- equation ADF test. The second group is called between- dimensions, which can be compared with panel mean test. This group includes 3 group tests of rho, pp, and ADF [30]. As it seen, according to the given results in the aforesaid tables, co-integration or the existing long- run balanced relationship is shown between globalization indices, Human development index (HDI), Gross Domestic Product (GDP), and population growth for both groups of the countries. In tables 6 and 8, co-integration test for developing countries in three statistics of rho, pp, and ADF groups and also three panel statistics of rho, pp, and ADF relating to Pedroni test as well as the relevant statistics for Kao test are accepted at level 1%.

Likewise, in Table 7, co-integration test of developed countries in two statistics of pp and ADF groups and also two panel statistics of pp and ADF for Pedroni test and also the relevant statistic to Kao test with respect to Table 9 are accepted at level 1%. These results indicate that there is strong long run relationship between the indices relating to globalization and population growth rate to HDI in both groups of countries.

**Table 6:** The results of Pedroni co-integration test for model of developing countries

| With intercept and trend |                | With intercept |                | Pedroni Cointegration |
|--------------------------|----------------|----------------|----------------|-----------------------|
| P-value                  | Test statistic | P-value        | Test statistic |                       |
| 0.9741                   | -1.945         | 0.022          | 1.992          | Panel v-Statistic     |
| 0.0000                   | -12.716        | 0.0000         | -15.519        | Panel rho-Statistic   |
| 0.0000                   | -16.845        | 0.0000         | -15.28         | Panel PP-Statistic    |
| 0.0000                   | -6.650         | 0.0000         | -7.558         | Panel ADF-Statistic   |
| 0.0000                   | -5.2138        | 0.0000         | -8.884         | Group rho-Statistic   |
| 0.0000                   | -15.741        | 0.0000         | -15.28         | Group PP-Statistic    |
| 0.0000                   | -8.231         | 0.0000         | -9.537         | Group ADF-Statistic   |

Source: Research findings

**Table 7:** The results of Pedroni co-integration test for model of developed countries

| With intercept and trend |                | With intercept |                | Pedroni Cointegration |
|--------------------------|----------------|----------------|----------------|-----------------------|
| P-value                  | Test statistic | P-value        | Test statistic |                       |
| 0.0000                   | -17.423        | 1.0000         | -4.797         | Panel v-Statistic     |
| 0.9983                   | 2.9354         | 1.0000         | 4.4173         | Panel rho-Statistic   |
| 0.0000                   | -10.953        | 0.0000         | -8.322         | Panel PP-Statistic    |
| 0.0000                   | -4.523         | 0.0000         | -5.654         | Panel ADF-Statistic   |
| 1.0000                   | 4.3268         | 1.0000         | 3.9855         | Group rho-Statistic   |
| 0.0000                   | -19.423        | 0.0000         | -13.225        | Group PP-Statistic    |
| 0.0025                   | -2.836         | 0.0000         | -4.727         | Group ADF-Statistic   |

Source: Research findings

**Table 8:** The results of Kao co-integration test for model of developing countries

| P-value | t-Statistic | Kao Co-integration |
|---------|-------------|--------------------|
| 0.0096  | -2.3407     |                    |

Source: Research findings

**Table 9:** The results of Kao co-integration test for model of developed countries

| P-value | t-Statistic | Kao Co-integration |
|---------|-------------|--------------------|
| 0.0018  | -2.912      |                    |

Source: Research findings

### 5-3- Results of estimation:

Before review on results of model estimation, it is necessary to explain briefly about panel data method. Initially, it should be found whether the studied sections are homogeneous or not. If the sections are homogeneous, one can employ integrated sum of least square without any concern about creating interpretation error; otherwise, panel data technique should be utilized.

In terms of econometrics, this concept means:

$$Y_i = Z_i \delta + U_i \quad \text{Restricted model} \quad (2)$$

$$Y_i = Z_i \delta_i + U_i \quad \text{Unrestricted model} \quad (3)$$

$i = 1, 2, \dots, N$

The statistic of this test has F- explanation and in fact it is as if we encounter both restricted and unrestricted models where intercepts are fixed and identical in the restricted model:

$$F_0 = \frac{(RRSS - URSS)/(N-1)}{URSS/(NT - N - K)} \sim F_{N-1, N(T-1)-K} \quad (4)$$

In Eq. (4), RRSS denotes Restricted Residual Sum of Square; URSS stands for Unrestricted Residual Sum of Square, T is time period, N represents for sections, and K is number of the given explanatory variables. Now if this result is derived based on the above test that the sections are not homogeneous then we should employ one of the estimation techniques of panel data including Fixed Effect or Random Effect methods. In order to make decision about selection among two aforesaid techniques, one should be aware that the fixed effect method is usually efficient when total statistical population is taken into consideration and if some samples are selected randomly (sampling) among a great population then random effect technique will be more efficient. In this regard, Hausman (1987) has suggested a test based on which the existing difference among estimators in fixed effect and random effect techniques has been assumed as null hypothesis therefore by rejection of null hypothesis in these methods one can conclude that application of fixed effect technique is more preferred.

Thus in order identify type of model estimation by the method of integrated data or dataset, F-Limer test was used and to select type of estimation, Hausman test was chosen among fixed effect or random effect technique. Estimations were done by the aid of E-views 7 software. The aforesaid results are given in Tables 10 and 11:

**Table 10:** The results of tests to determine method of estimation of model in developing countries

| Type of test | First equation    | Second equation   | Third equation    | Fourth equation   |
|--------------|-------------------|-------------------|-------------------|-------------------|
| F- Limer     | 157.9<br>(0.0000) | 564.7<br>(0.0000) | 348.8<br>(0.0000) | 438.6<br>(0.000)  |
| Hausman      | 73.6<br>(0.0000)  | 66.64<br>(0.0000) | 59.15<br>(0.0000) | 102.4<br>(0.0000) |

**Table (11):** The results of tests to determine method of estimation of model in developed countries

| Type of test | First equation    | Second equation   | Third equation    | Fourth equation  |
|--------------|-------------------|-------------------|-------------------|------------------|
| F- Limer     | 321.2<br>(0.0000) | 318.3<br>(0.0000) | 348.8<br>(0.0000) | 330.2<br>(0.000) |
| Hausman      | 37.65<br>(0.0000) | 28.1<br>(0.0000)  | 32.45<br>(0.0000) | 44.2<br>(0.0000) |

As it seen in Tables 10 and 11, the results of F-Limer test and Hausman test of dataset suggest the estimation of human development model by means of fixed effect technique for both groups of the countries. Likewise, due to lack of some statistical data of variables in total period, the unbalanced panel technique has been utilized to estimate coefficients of the model.

**Table 12:** The results from estimation of Human Development Index (HDI) model for developing countries by means of fixed effect technique

|                          | 1                   | 2                   | 3                   | 4                     |
|--------------------------|---------------------|---------------------|---------------------|-----------------------|
| <i>c</i>                 | -1.47 *<br>(0.0000) | -1.20 *<br>(0.0000) | -1.22 *<br>(0.0000) | -1.22 *<br>(0.0000)   |
| <i>KOF<sup>eco</sup></i> | 0.36 *<br>(0.0000)  | 0.207 *<br>(0.0000) | 0.14 *<br>(0.0000)  |                       |
| <i>KOF<sup>so</sup></i>  |                     | 0.302 *<br>(0.0000) | 0.241 *<br>(0.0000) |                       |
| <i>KOF<sup>pol</sup></i> |                     |                     | 0.18 *<br>(0.0000)  |                       |
| <i>KOF<sup>ov</sup></i>  |                     |                     |                     | 0.57 *<br>(0.0000)    |
| <i>Pop</i>               | -0.04 *<br>(0.0013) | -0.01<br>(0.2894)   | -0.009<br>(0.4545)  | -0.016 **<br>(0.0473) |
| <i>Ln(gdp)</i>           | 0.09 *<br>(0.0000)  | 0.05 *<br>(0.0000)  | 0.04 *<br>(0.0000)  | 0.045 *<br>(0.0000)   |
| <i>F-Limer</i>           | 157.9<br>(0.0000)   | 564.73<br>(0.0000)  | 348.8<br>(0.0000)   | 438.76<br>(0.0000)    |
| <i>Hausman</i>           | 73.6<br>(0.0000)    | 68.986<br>(0.0000)  | 45.648<br>(0.0000)  | 55.656<br>(0.0000)    |
| <i>R<sup>2</sup></i>     | 0.78                | 0.92                | 0.95                | 0.95                  |
| <i>F-statistic</i>       | 1702.36<br>(0.0000) | 2010.72<br>(0.0000) | 1587.07<br>(0.0000) | 2095.4<br>(0.0000)    |
| <i>Total observation</i> | 2227                | 2227                | 2227                | 2227                  |
| <i>Cross section</i>     | 74                  | 74                  | 74                  | 74                    |

Source: Research findings; \* significance level (1%), \*\* Significance level (5%)

**Table 13:** The results from estimation of Human Development Index (HDI) model for developed countries by means of fixed effect technique

|                          | 1                      | 2                   | 3                    | 4                      |
|--------------------------|------------------------|---------------------|----------------------|------------------------|
| <i>c</i>                 | -0.89 *<br>(0.0000)    | -0.85 *<br>(0.0000) | -0.88 *<br>(0.0000)  | -0.86 *<br>(0.0000)    |
| <i>KOF<sup>eco</sup></i> | 0.17 *<br>(0.0001)     | 0.13 *<br>(0.0031)  | 0.09 *<br>(0.0077)   |                        |
| <i>KOF<sup>so</sup></i>  |                        | 0.09 *<br>(0.0000)  | 0.07 *<br>(0.0163)   |                        |
| <i>KOF<sup>pol</sup></i> |                        |                     | 0.1304 *<br>(0.2542) |                        |
| <i>KOF<sup>ov</sup></i>  |                        |                     |                      | 0.29 *<br>(0.0014)     |
| <i>Pop</i>               | -0.023 ***<br>(0.0909) | -0.03<br>(0.1301)   | -0.03<br>(0.1713)    | -0.033 ***<br>(0.0997) |
| <i>Ln(gdp)</i>           | 0.056 *<br>(0.0000)    | 0.049 *<br>(0.0000) | 0.045 **<br>(0.0000) | 0.044 **<br>(0.0000)   |
| <i>F-Limer</i>           | 312.27<br>(0.0000)     | 564.73<br>(0.0000)  | 348.8<br>(0.0000)    | 430.26<br>(0.0000)     |

|                          |                     |                    |                    |                    |
|--------------------------|---------------------|--------------------|--------------------|--------------------|
| <i>Hausman</i>           | 62.31<br>(0.0000)   | 56.69<br>(0.0000)  | 58.81<br>(0.0000)  | 72.56<br>(0.0000)  |
| <i>R<sup>2</sup></i>     | 0.68                | 0.95               | 0.96               | 0.85               |
| <i>F-statistic</i>       | 643.545<br>(0.0000) | 635.53<br>(0.0000) | 645.67<br>(0.0000) | 680.61<br>(0.0000) |
| <i>Total observation</i> | 924                 | 924                | 924                | 924                |
| <i>Cross section</i>     | 30                  | 30                 | 30                 | 30                 |

Source: Research findings; \* significance level (1%), \*\* Significance level (5%), \*\*\* Significance level (10%)

As it observed in Table 12 and 13, the effect of globalization on human development index has been estimated by means of four indices of economic, political, social, and comprehensive globalization for both groups of countries. The economic, political, social, and comprehensive globalization indices are statistically significant according to their probabilities in tables for both groups of countries and they have compatible signs to this theory.

With respect to the first equation, the coefficient of economic globalization was estimated 0.36 for developing countries. Namely, one percent increase in economic globalization index (which the variables used for determination of this index are given in Table 1) HDI index is increased 0.36% and this index will be increased 0.17% for developed countries. As a result, difference among these coefficients for these two groups of countries expresses this point that the economic globalization has further affected on human development index in developing countries. Of these positive effects by economic globalization one can refer to increase in international competition with reducing transportation costs, rising efficiency, IT growth and spreading E-commerce therefore the economic enterprises assume all of world markets as their own market. The globalization of economy provides this opportunity for the developing countries to enter into integrated trade system throughout the world and along with developed countries and as equal members and free of any discrimination they can be benefitted equally from interests and positive outcomes of developing trade and economic growth and merging and alliance of global economy. According to many theoretical and applied models, trade growth may lead to improvement in human development through increase in competition to efficiency growth, creating job opportunities in advantageous sectors, rising governmental revenue, and transfer of technology and knowledge.

The second equation in Table 12 and 13 has derived the coefficient of social globalization index (which the variables used for determination of this index are given in Table 2) with respect to economic globalization index and this indicates that one percent increase in the related index to globalization will increase 0.3% in HDI for the developing countries and also with one percent increase in this globalization index, the HDI has been increased 0.09% for the developed countries.

The social globalization is concerned with human interaction in cultural communities and subjects such as family, religion, business, and pervasive education system. For example, social globalization will affect on human aspects with technological advancements and policy for encouraging international business, particularly in business outsourcing, educational system, and mass media. Outsourcing may comprise of anything ranging from IT outsourcing, IBM or HP- IT management through outsourcing of very small and simple services like improving the campaign against accidents and data storage and what it may consist among them and mentors of cultural and language programs are trained for this task for education of students. Additionally, mass media, internet, and social networks can reduce cultural barriers by providing the opportunity for data exchange for the people throughout the world.

Third equation in Table 12 and 13 has derived coefficient of political globalization index (which the variable utilized for determination of this index are given in Table 3) with considering economic and social globalization indices so this indicates that one percent increase in the related globalization index will increase HDI 24% for developing countries and with one percent increase in globalization index, HDI has been increased 13% for developed countries. The national borders are downplayed with occurrence of Age of Information and this phenomenon widely and negatively affects on autocracy and independence of action for national governments and undermines national governance for those states and removes their traditional authorities. In fact, globalization of politics means that the issues and subject, which have already belonged to domestic and governance fields of governments, will spread further to global dimensions over the time. Some issues like immigration, destruction of environment or mass destruction weapons are essentially global. Some other subjects like domestic crises of countries will be automatically spread to global dimensions in terms of several pressures by the governments, transnational enterprises, and Non- Governmental Organizations (NGOs) and global communication systems. From political perspective, globalization will exert dramatic impacts on culture and political ties at world level. Spreading cosmopolitan paradigm and international levels and ethnicities, upgrading democracy and growth of political culture at world level, conversion of traditional authority of communities into systematic and competitive power, growth and expansion of citizenship rights, improving and growth of awareness within a civil community, transformation of political insights, change in way of attitude toward political life, exchange of information, ideas, thoughts, and political values at macro and international

level and systematization of pluralism and freedom of selection within the frames of political development and civil community have included a noticeable part of globalization effects in political field at world level. Inter alia, the most prominent political sign of globalization is overthrowing political totalitarian and authoritarian systems, tendency to democracy and political pluralism, and respect for human rights. Political globalization refers to growing trend toward multilateralism (in which UN plays key role) and toward the emerging systems of multinational governments as well as appearance of national and international NGOs, which act as observers for governments, have been increased. With respect to Table 3, it can be found that as the coefficient of this index increases, it will lead to improving political stability where the political stability act as one of the effective factors on economic and human development in communities in two ways i.e. increase in domestic and foreign investments and prevention from brain drain for development.

The fourth item in Tables 12 and 13 is related to comprehensive globalization index that shows this fact that one percent increase in the globalization related index will cause HDI for developing countries to be increase 0.59% and also with one percent increase in this globalization index, HDI has increased 0.29% for the developed countries.

The variable of population growth rate has shown the negative effect on growth of human development index for both groups of the countries. Also population growth is one of the intervening factors in human development. Based on subjective deduction as well as theoretical studies, the short term relationship among population growth in a country with income level per capita, health and rehabilitation development, and quantity and quality of education and training is assumed negative. Particularly this condition is totally tangible in developing and less- developed countries [24].

Variables of GDP indicate positive and significant effect on HDI among both groups of countries. Higher rate of production per capita provides wider domain of selection for the consumer and makes it possible to as well to consider quality in selection of consumed portfolio and the needed services in addition to quality and diversification. Similarly, with respect to this point that with improving income the level of healthcare and education is also increased in the society, income per capita also indirectly affects on HDI through improvement in healthcare and education for the people.

#### *Conclusion:*

The real meaning of globalization is to increase mutual dependency among the countries. We live in a world that is on the one hand very limited and integrated and on the other hand it is very large and diverse. Our world is a single totality in which any scarcity and redundancy in each of its element may affect on its other constituents.

The globalization is a phenomenon that has formed with unprecedented increase in foreign investments and internal capital, expansion of trade volume and diversity of international contracts, quick and developing transfer of technology and international workforce and expansion of international transportation and communications and media and data exchange processes in farthest points of the world and creating virtual world of communication and data and it has appeared with various waves, which latest one is related to spreading data and internet network. Globalization has created several outcomes in economic, social, cultural, and political fields, which have been unprecedented in its history. The hierarchy of authority and stratification of community was considered due to main factors of discriminations and inappropriate distribution of knowledge as well as synergy in decisions (with breaking geographical constraints) so at present it has been broken via international media and internet and the human, who had been deem as alien and overlooked in his/ her country and capital, can currently make aware of information from any point of the world with wide information networks in the farthest place in the world and participate in many public and civil centers. The globalization has even led to the deepest social and political developments so that that trend along with giving information to the people in communities, which have been restricted and closed at that time, have led to overthrowing many dictatorship regimes. Democracy still suffered from such constraints and assumed its permanent wish i.e. direct and immediate participation of people inaccessible and impractical and inevitably always acted by intermediacy of representatives and indirect vote of citizens and for this reason the democracy determinant principle (participation) might be exposed with serious constraints upon realization in the communities so that currently with the presence of information world and global communication, it shows the perspective for actual realization of synergy and direct participation of any human from any part of the world and approached this permanent wish closer to reality.

This essay explores the impact of effective factors as controlling variables on human development index for two groups of the selected developing and developed countries during time period (1990-2010).

The results, which have been derived from approximation of this model, signify that the variables of economic, social, political, and comprehensive globalization and GDP variable have positive and significant effect while variable of population growth rate has negative and significant impact on human development index for both groups of developing and developed countries selected in this study. But the noticeable point is that

with respect to results of estimation one can find that the developing countries will increase human development index with moving toward globalization with further benefits.

## REFERENCES

- [1] Ahmadi, A.M, and N. Hozar Moghadam, 2013. 'The review of effect of trade liberalization on Human Development Index (HDI) in the developing countries', Quarterly of globalization strategic studies, (11) 4: 109-134.
- [2] Afroogh, A., 2008. 'We and globalization', 1st Ed. Tehran: Sura Pub.
- [3] Behkish, M.M., 2001. 'Iranian economy in the bed of globalization', Tehran: Ney Pub.
- [4] Bayat, A., 2007. 'glossary of lexicon', 3rd Ed. Qom: Islamic though & culture pub.
- [5] Tavakolnia, M.R. and A. Zahedmehr, 2011. 'Analysis the globalization effect on Quality of Life (QOL) index based on panel data estimation for oil exporting countries', Quarterly of globalization strategic studies, (3) 2: 19-36.
- [6] Jasbi, A., 2002. 'Generality on globalization', 1st Ed., Tehran: Resistance culture Pub.
- [7] Hejazi, M.H., 2003. 'Globalization and religion (essays collection)', 1st Ed, Tehran: Rozaneh Pub.
- [8] Zahedi, S.H.A., 2011. 'Globalization and sustainable development', Quarterly of globalization strategic studies, (3)2: 1-18
- [9] Sharifi Ranani, H., F. Shooaee, M. Mir Fattah and M.R. Tavakolnia, 2013. 'the review of economic liberation effects on macroeconomic parameters in Iran: With focus on trade liberalization', Quarterly of globalization strategic studies, 100(4): 29-58.
- [10] Feqh Majidi, A and P. Ali Moradi Afshar, 2012. 'The study on relationship among globalization of economy and economic growth in Middle East and North African (MENA) countries', Journal of sociopolitical information, (4)26: 92- 101.
- [11] Mazaheri, M.M and A. Kavooosi, 2011. 'Conservation of Persian- Islamic identity in globalization process', Quarterly of globalization strategic studies, (3)2: 37-62.
- [12] Ahmad, N., 2005. Governance, Globalization, and Human Development in Pakistan. The Pakistan Development Review, 44(4): 585-594.
- [13] Akhter, S., 2004. Is Globalization What It's Cracked Up to Be? Economic Freedom, Corruption, and Human Development. Journal of World Business, 39(3): 283-295.
- [14] Balestrini, P.P., 2001. Amidst The Digital Economy, Philanthropy in Business as a Source of Competitive Advantage. Journal of International Marketing and Marketing Research, 26: 13-34.
- [15] Bardhan, P., 2006. Globalization and Rural Poverty. World Development, 34(8): 1393-1404.
- [16] Bhagwati, J.N., 2005. In Defense of Globalization. New York: Oxford University Press.
- [17] Bundala, N., 2012. Economic Growth and Human Development; a Link Mechanism: An Empirical Approach. MPRA Paper 47648, University Library of Munich, Germany.
- [18] Davies, A., and G. Quinlivan, 2006. A Panel Data Analysis of the Impact of Trade on Human Development. Journal of socio-economics, 35(5): 868-876.
- [19] Dollar, D., 2004. Globalization, Poverty, and Inequality since 1980. World Bank Policy Research Working pp: 3333.
- [20] Dreher, A., 2006. Does Globalization Affect Growth? Empirical Evidence from a new Index. Applied Economics, 38(10): 1091-1110.
- [21] Effiom, L., P.S. Ubi, E.O. Okon and E.E. Itam, 2011. Trade Liberalization and Human Capital in Nigeria: A Vector Autoregressive Analysis. European Journal of Economics, Finance and Administrative Sciences, 40: 154-168.
- [22] Enders, W., 2004. Applied Econometric Time Series (Second Ed.). Hoboken: John Wiley & Sons. ISBN 0471230650.
- [23] Farlex Financial Dictionary, 2009. Farlex, Inc. Goldin, I., & Reinert, K. 2007. Globalization for Development: Trade, Finance, Aid, Migration, and Policy. Revised Edition. Washington, DC: World Bank and Palgrave Macmillan.
- [24] Kelley, A.C., and R.M. Schmidt, 1995. Aggregate Population and Economic Growth Correlations: The Role of the Components of Demographic Change. Demography, 32(4): 543-556.
- [25] Keohane, R.O., and J.S. Nye, 2000. Introduction, In J. S. Nye and J. D. Donahue (eds.) Governance in a Globalizing World, Washington D.C: Brookings Institution., pp: 1-44.
- [26] Lai, W.H., 2003. The Impact of Globalization on Human Resource Development in Malaysia. Academy of Human Resource Development International, USA (AHRD) and National Institute of Development Administration (NIDA).
- [27] Norris, P., 2000. Global Governance and Cosmopolitan Citizens, In Joseph S. Nye and John D. Donahue (eds.) Governance in a Globalizing World. Washington D.C: Brookings Institution, pp: 155-177.

- [28] Pearce, J.A., and R.B. Robinson, 2011. Strategic Management, McGraw Hill, International Edition, Singapore.
- [29] Pedroni, P., 1995. Panel Co-integration: Asymptotic and Finite Sample Properties of Pooled Time Series Tests, with an Application to the PPP Hypothesis. Indiana University Working Papers in Economics, pp: 95-013.
- [30] Pham, T., and D. Nguyen, 2010. Does Exchange Rate Policy Matter for Economic Growth? Vietnam Evidence from a Co-Integration Approach. *Economics Bulletin*, 30(1): 169-181.
- [31] Rabbanee, F.K., M.M. Haque and F. Hasan, 2010. Globalization and Human Development-Realities and Recommendation for Developing Countries. *Asian Affairs*, 30(1): 32-49.
- [32] Sabi, M., 2007. Globalization and Human Development. International Conference on Globalization and Its Discontents, Cortland, the Sage Colleges, USA.
- [33] Sapkota, J.B., 2011. Impacts of Globalization on Quality of Life: Evidence from Developing Countries.
- [34] Global Institute for Asian Regional Integration (GIARI) Working, pp: 2011-E-1.
- [35] Sirgy, M.J., D.J. Lee, C. Miller and J.E. Littlefield, 2004. The Impact of Globalization on a Country's Quality of Life: Toward an Integrated Model. *Social Indicators Research*, 68: 251-298.
- [36] Stiglitz, J.E., 2003. Globalization and Its Discontents. *Economic Notes*, 32: 123-142.
- [37] Tsai, M.C., 2007. Does Globalization Affect Human Well-being? *Social Indicators Research*, 81(1): 103-126.
- [38] Urata, S., 2002. Globalization and the Growth in Free Trade Agreements. *Asia-Pacific Review*, 9(1): 20-32.
- [39] Wood, A., 1991. North-South Trade and Female Labor in Manufacturing: An Asymmetry. *Journal of Development Studies*, 27(2): 168-189.