THE IMPACT OF ECONOMIC GLOBALISATION ON MACROECONOMIC PERFORMACE IN PAKISTAN (1980-2010)

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Abstract

This study is devoted to empirically investigate the association between Globalization and economic growth in context of Pakistan for the period 1980-2010. Globalization is defined in this paper as trade openness and financial integration (Net capital flow) FDI, Foreign Aid and worker remittances for capital inflow and capital outflow is proxied by Debt servicing. Other important variables are also included to the model because of their importance. These inputs are gross domestic investment (GDI) and human resource development (HRD). ARDL technique is employed to achieve the basic goal of the study. This study employed Bound testing procedure to co-integration. The co-integration results reported long fun relationship between the mentioned variables. Trade openness affects positively and significantly economic growth both in the short and long run. The impact of financial openness is negatively and significant. The overall impact of globalization is positive because the coefficient of trade openness is higher and more significant than financial integration. Domestic investment and human resource development positively and significantly affect economic growth in Pakistan. The government of Pakistan should focus on more open and liberal policies regarding trade and formulate growth promoting foreign investment policies. The process of globalization with adequate policies will certainly benefit economic growth in Pakistan.

Keywords: Globalization, Economic Growth, ARDL, Pakistan.

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Introduction

1.1 GLOBALIZATION

Globalization refers to the unification of the world economy and societies. This unification is brought by the forces of cross country flows of information, ideas, technologies, goods, services, capital, finance and people. The unification of the world economy have can have numerous facets like cultural, economic, political and social [1]. In fact, social and cultural unification are considered as a cause of the loss of cultural integrate and values. The cultural and social unification also hearts cultural domination. Therefore social and cultural integration is restricted [2]. This study is restricted to economic globalization: (i) transaction in goods and services, (ii) flow of capital of (iii) movement of people and (iv) transfer of technology. The people movements are mostly restricted because of social, cultural and religious values, but now a day the people movements are banned because of security reasons Afzal (2007).

1.2 ECONOMIC GLOBALIZATION

This study deals with economic aspects of globalization and ignoring the other dimensions of globalization. Main measures or streams of economic globalization are

- Trade integration (Import and Export as % of GDP)
- Financial integration (Capital inflow – capital outflow)
  - Capital Inflow: FDI, Foreign Aid and workers' remittances and
  - Capital outflow: Proxies by as debt servicing

1.3 Forces Responsible for Economic Globalization

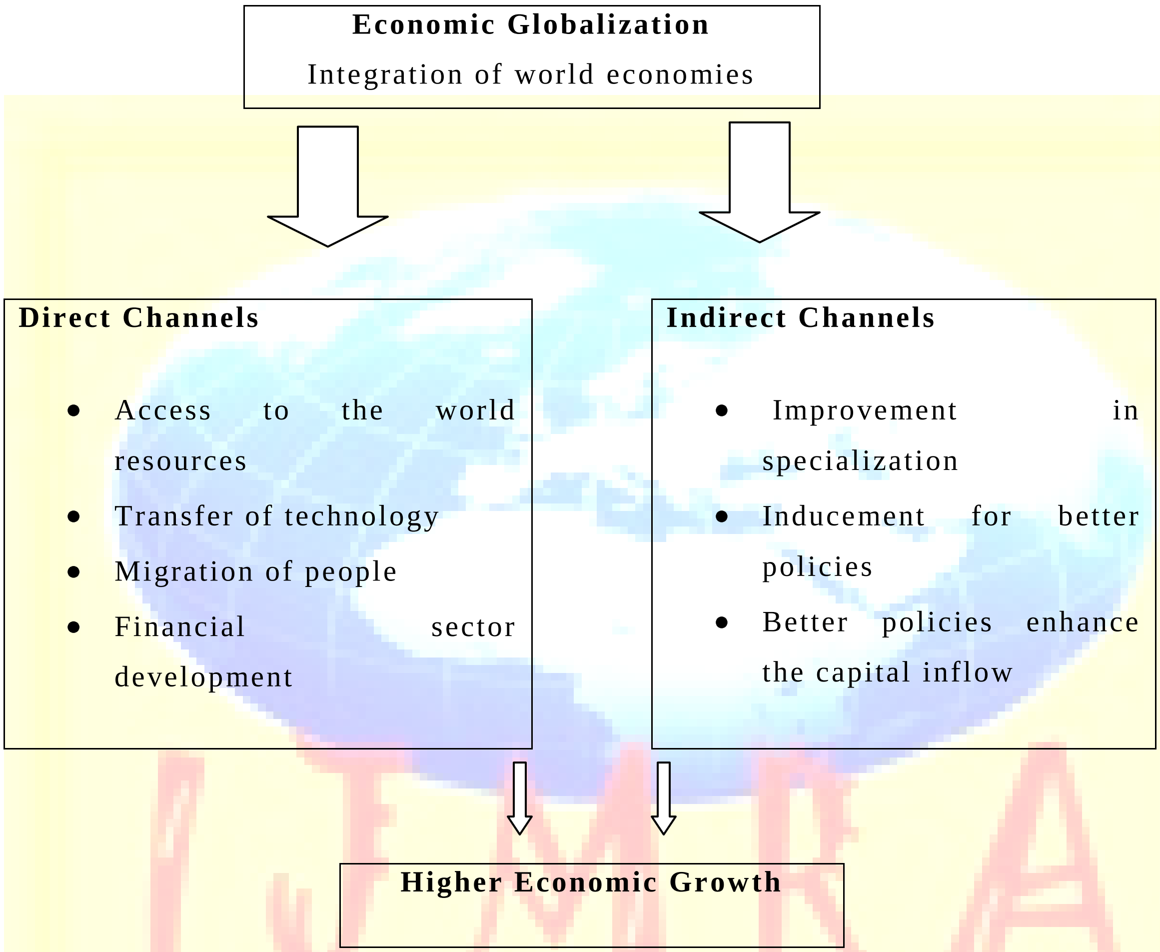
The essential forces which is responsible for globalization are

- New innovation and progress in Technologies
- Reduction in space and time
- Integration of economies
- Reduction in barriers on cross border transaction
- Information's revolution

(2006) definitions of globalization: A comprehensive overview and proposed definition. He has mentioned the different aspects of globalization. Streeten (1998) also provide a comprehensive detailed about the definitions of globalization by different authors and the world leading institutions and agencies.

1.4 General concept of Globalization and Economic Growth

We can easily explain the concept of globalization and economic growth with the help of the following diagram



The above diagram clarifies that globalization positively contributed both directly and indirectly. It provides access to foreign capital, technology, specialization and improvement in policies enhances economic growth.

1.5 History of Globalization

The process of liberalization or minimization of restriction on cross-border flow of goods and services and capital are known as globalization. Baldwin and Martin (1999), O'Rourke et al. (2000), Maddison (2001), Nayyar (2001) Williamson (2002), Mostert (2003) and Solimano and watts (2005) identify the following two waves of globalization:

- late 19th century wave of globalization and
- The late 20th Century wave of globalization.

The period of pre World War 1st of 1870 to 1914 was considered the first wave of globalization. Rapid integration was observed in the world trade, capital flow and mobility of people. The process of globalization was mainly due to the forces of technological innovation and progress in means of communication. There were comparatively free trade and mobility of people across the country's borders as before. The formality Passport and visa were not mostly required and very few barriers and restrictions on funds flow. The speed of globalization was slowdown during the period of 1920 to 1940s (Between 1st and 2nd World War (WW)). The period observed the adoption of various restrictions in order to restrict free flow of goods and Services and movement of people in order to prevent domestic economy from foreign competition. Most countries considered that they could flourish their economies bitterly in the presence of high protective environment. After World War II the 2nd episode of Globalization was started, all the developed economies decided that they would not repeat the previous committed mistakes. The process of globalization was started after 1945; but it took enough time to achieve the same position of pre 1st WW. The majority of the new independent developing economies from the colonial power after immediately the Post-2nd WW era adopted import substitution industrialization (ISI) policy. The Soviet Union community was also protected from the system of globalization. But the time has changed, in the last quarter of the 20th century; the phenomenon of globalization has started with greater strength. The Soviet Union bloc is getting integrated with the rest of the world. Developing countries are also turned towards more globalized policy to get economic growth. Yet, most studies were of the view that the today economy is more globalized on term of trade and capital markets than the 19th century globalization while less globalized in term of people mobility. However, the current process of globalization is of more importance than the early period (19th century) due to its nature and pace of communication. The current period of globalization is not only due to its rapid pace and also characterized by the enormous development in new information technologies (IT) on market integration, efficiency and industrial organization [3].

[3] For the detail of periods of globalization see Nayyar (2006) and Daudin et al (2008).

1.6 Globalization and Pakistan

year	Trade % of GDP	Remtt % of GDP	FDI % of GDP
1980	30. 40	8.23	0.13
1985	27. 20	8.72	0.25
1990	30. 90	5.48	0.61
1995	29. 60	3.41	0.81
2000	29. 00	1.44	0.69
2005	31.60	4.04	1.48
2008	35.90	4.07	3.25

Source: Author's calculation based on SBP {Hnd Book Of Statistics (HBS) 2010}.

The bird's eye view of the above table enables us to identify that what happened to components of globalization in Pakistan. Trade as a proportion of GDP rose from 30% of GDP in 1980 to about 36% of GDP in 2010. The same is the case for FDI inflow it increased from 0.13% of GDP in 1980 to 3.25% of GDP in 2010. The case of workers' remittances is a little different for Pakistan economy, its contribution to GDP disturbed in the middle are of 1990s and then started increasing in 2000s.

1.6 Objective of the study

As we have mentioned earlier that Pakistan participated in the current wave of globalization, so the prime objective of this study to explore the impact of this participation on economic growth of Pakistan.

2. Review of literature

During the last decade a plethora of literature existed on the diverse concept of globalization. Three different perceptions existed about the impact of globalization on economic growth in developing economies. The different views being supported that globalization have been positive experience for developing countries; globalization have been negative experience for developing countries and finally globalization have no effect on developing countries (Simpson 2007, Afzal, 2007 and Cepal). These views are investigated. Globalization literature makes it cleared that the processes of globalization being uneven and unequal (for example Afzal 2007; Nayyar 1995). The globalization experience has differed between developed and developing countries, and among the developing countries (Nayyar 1995). Furthermore, the experience has varied within individual countries (Cepal 2002). There have been regional differences with respect to developing economies during the most recent period of globalization. Asian countries have increased their participation in the international economy while

African countries have actually reduced (Binswanger & Lutz 2003). All the developing economies depend on foreign technology. Many economists have the view that MNCs are the key source for developing economies to reduce the space with the world leaders in technology or to keep more freely economic environment. FDI may have positive contribution to economic performance like trade, in order to increase the volume of export and generating employment opportunities. Along with growth and generation employment FDI have minimize the balance of payment deficit. But FDI may have negative with exploitation and degradation of environment. Along with positive impact of FDI, it also negatively affects balance of payment too, later in the form of capital out flow as a profit of the firm (Chundnovsky & Lopez 1999).

A few empirical studies are included here to disclose that what the empirical studies told about the relationship between globalization and economic growth of the developing countries.

Nasim (1998) investigated the effects of globalization on growth of the East and South Asian countries. He argued that the acceptance of new and advanced technologies by the East and South Asian countries make possible the fast economic growth. Mustafa et al. (2001) have analyzed the impact of globalization on agriculture sector and poverty in Pakistan. They have reported the negative contribution of globalization to agriculture in Pakistan and have given some suggestions to get rid of the adverse affects of globalization to agriculture and poverty. Dreher Axel (2003) examined the impact of globalization on economic growth for 123 countries. Panel data were used for period of 1970 to 2000. The globalization-index was used having three different dimensions like economic, political and social integration. The empirical results showed that globalization enhance economic growth. Prasad et al. (2004) in their comprehensive study the impact of financial globalization on economic growth and instability in developing economies. The results found that there is no a robust causal association between financial liberalization and economic growth. Stability in macroeconomic performance emerges to be an important requirement for economic growth and hence financial globalization is useful for developing economies. Jatuliaviciene and Kucinskiene (2006) in their study for Lithuanian economy provide that the drivers of globalization influence environmental forces, providing opportunities for economic and development of local, multinational and global business enterprises and countries. Further added that over the last year the Lithuanian economy has been one of the fastest growing economy in Europe. They conclude that there is positive association between economic freedom and economic growth.

Naveed and Shabbir (2006) investigate the relationship between trade openness a, FDI and economic growth for 23 develop countries for the period of 1971-2000.they used Fixed effect and control set of variables .they found trade openness has positive and significant affect on GDP per Capita , while FDI has not significant affect on growth. They also test causality between the variables they found that openness only caused GDP. Afzal (2007) analyzed the impact of globalization on economic growth for the economy of Pakistan for the period of 1960-2006 using trade openness and financial integration as proxy for globalization. The co-integration result suggests that there is a long run relationship between globalization and economic growth. He further added Pakistan's economy can certainly benefited from globalization provided the country pursues sound adequate policies. Hussain et al. (2009) elucidated the impact of globalization on distribution of income in Pakistan. Annual time series data were employed for the period of 1972-2005. The empirical results supported the traditional wisdom that liberalization of the economies to the rest of the world has positive effects on the income distribution. Income inequality can be reduced with the foreign capital diffusion. The high degree of openness in trade with trade deficit must also be controlled. The phenomena of the globalization can be used as a useful tool for the economy but its nature should be taken into account. Kaker et al. (2011) investigated the impact of globalization on economic growth in Pakistan. They used annual time series data for the period of 1980 to 2009. The results of co-integration and ECM model reported that globalization positively contributed economic growth of the country.

Roy (2012) investigated the impact of globalization on economic growth in Indian economy. OLS, Johansen's co-integration and granger causality techniques were employed to disclose the mentioned impact. The regression results show that private investment, openness and human resource development have significant positive impact on economic growth via GDP growth. Financial integration negatively affects economic growth but not significant. Johansen's co-integration procedure confirmed the long run relationship (co-integrated) existed between globalization, other variables and economic growth in India. The results of Error-correction model (ECM) also verified the co-integration relationship. Bi-directional causality was observed between globalization and economic growth.

The previous studies conducted for Pakistan economy are not inconvenient i.e. Afzal (2007) used the data for the period of 1960 to 2004 while up to 1980 the Pakistan economy was restricted and provides inefficient results. And the other studies used OLS and Johansen's co-integration techniques. OLS did not tell anything about long run, while Johansen's co-integration does not provide efficient results for short sample set.

3. Methodology and Data Sources

This study followed the model used by Afzal (2007) and Roy (2012) with a little distinction in financial integration. Both of the studies ignore the importance of workers' remittances. The economic growth is proxied by GDP growth. The economic growth has four growth components, namely; trade openness, financial integration, domestic investment and human resource development. The model of this study is of the type.

$$Y = \beta 0 + \beta_1 TOP + \beta_2 FI + \beta_3 HRD + \beta_4 DI + U \quad (1)$$

Where Y is the real GDP, TOP id the trade openness, FI is financial integration, DI is domestic investment and HRD is human resource development.

Bond testing procedure is employed due to its reliability. This methodology is more efficient because it applied in case of small sample size, in mix up both of order I(0) and I(1). While the other two integrating approaches (Engle granger and Johansen's co-integration) are not applies incase of the above cases.

The long run relationship can be estimated by the following equation is of the type

$$GDP_t = \alpha_1 + \sum_{i=0}^{q} \eta_{i4} TOP_{t-1} + \sum_{i=0}^{q} \eta_{i5} FI_{t-1} + \sum_{i=0}^{q} \eta_{i2} DI_{t-1} + \sum_{i=0}^{q} \eta_{i3} HRD_{t-1} \cdots (2)$$

And the short rum estimate can be achieved with the help of the following equation

$$\Delta GDP_t = \alpha_1 + \sum_{i=1}^{p} \eta i1 \ \Delta \ GDP_{t-i} + \sum_{i=0}^{q} \eta i2 \ \Delta \ TOP_{t-i} + \sum_{i=0}^{q} \eta i3 \ \Delta FI_{t-i} + \sum_{i=0}^{q} \eta i4 \ \Delta DI_{-i} + \sum_{i=0}^{q} \eta i5 \ \Delta HRD_{-i} + \Omega_1 ECM_{t-1} \qquad (3)$$

The annual time series employed for the period of 1980 t0 2010 and data are collected from State Bank of Pakistan, Economic survey of Pakistan and World Bank (WDI). The data are converted into real form and as a % of GDP.

4. Empirical analysis:

4.1 Unit root testing

Table 1: Results of ADF and PP Tests

Variables	ADF test Statistics Level	Ist Difference	PP-test Statistics Level	Ist Difference	Order of Integration (at 5% level of significance)	Order of Integration (at 10% level of significance)
GDP	-1.419	-4.05*	-1.312	-4.042*	I(I)	I(I)
	(0.567)	(0.004)	(0.609)	(0.004)		
TOP	-2.136	-5.105*	-2.158	-5.113*	I(I)	I(I)
	(0.233)	(0.000)	(0.215)	(0.000)		
FI	-1.667	-6.085*	-2.103	-6.081*	I(I)	I(I)
	(0.435)	(0.000)	(0.448)	(0.000)		
GDI	-3.352**	-3.640**	-1.6245	-3.018**	I(0)	I(0)
	(0.023)	(0.012)	(0.210)	(0.043)		
HRD	-3.468**	-8.105*	-3.49**	-8.031*	I(0)	I(0)

*, ** represent 1% 5% level of significance

The above table shows that the first three variables are integrated of order I(1) while the last two variables are stationary at level. The results support the application ARDL testing procedure. There no existence of any order I(2), therefore we can apply the said testing procedure for the estimation. All the used diagnostic tests indicate the absence of any problem is shown in Table 3. These tests are

- Jarque-Bera statistic for normality of residuals,
- Breusch-Godfrey test for serial-correlation,
- ARCH residuals for Hetro-scedasticity and
- Ramsey RESET test for specification error.

Sketch of Cumulative sum of recursive residual (CUSUM) and Cumulative sum of square of recursive residual (CUSUMSQ) statistic indicate no evidence of mis-specification and structural instability for the period estimated.

4.2 Bond Testing Procedure

The first step in ARDL procedure is the testing of long run relationship

Table 2: Test for Long Run relationship

Equations	F-Calculated (P-value)	F-Statistics Critical values at 5% level^ I(O) ----- I(1)	Result
1 . Fy (GDP / TO, FI, DI. HRD)	**9.54 (0.023)***	**(3.29)----(4.37)**	**Co-integration**
2. Fy (TO / GDP, FI, DI. HRD)	2.24 (0.187)	(3.29)----(4.37)	NO Co-integration
3. Fy (FI/ TO, GDP, DI. HRD)	0.1816 (0.670)	(3.29)----(4.37)	No Co-integration
4. Fy (DI/ TO, GDP, DI. HRD)	0.8963 (0.610)	(3.29)----(4.37)	No Co-integration
5. Fy (HRD/ TO, GDP, DI. DI)	1.8963 (0.425)	(3.29)----(4.37)	No Co-integration

* Represent significant at 5% level

Different models are tested against long run relationship there is only one relation is found between globalization and economic growth as shown in the figure. The purpose of the above tests, whether there is any other co-integration association between the employed variables. If any other long run relationship are existed then the ARDL procedure are less efficient.

Long-run Estimates of the Growth model:

$$LnGDP_t = 5 + 0.35\ TOP_t - 0.06\ FI_t + 0.16\ DI_t + 0.1\ HRD_t + 0.02\ D91\,T.Vs$$

$T.Vs \rightarrow$ (0.55) (3.81)* (-3.5)* (2.4)** (2.17)** (1.74)

Short-run Estimates of the Growth model:

$$\Delta GDP_t = 0.05 - 0.36\ \Delta GDP_{t-1} + 0.16\ \Delta TOP - 0.002\ \Delta FI + 0.03\ \Delta HRD$$

$T.Vs \rightarrow$ (0.48) (-1.78)*** (2.60)* (0.29) (0.85)

$$+0.14\Delta DI_t \quad 0.01\ \Delta D91_t - 0.02\ \Delta D91_{t-1} - 0.51\ ECM_{2t-1}$$

(3.39)* (1.11) (-2.85)* (-2.30)**

*, ** and *** represents the significance at 1%, 5% and 10% respectively

The long run and short run shows that both the measures of globalization affect significantly. The effect of trade openness is positive is positive on the other side the second measures affect negatively, the coefficient of trade openness is greater than the coefficient and more significant too. The overall impact of globalization is positive. The result of this study is consistent with Afzal (2007) and Roy (2012) and contradicts with the findings of Shahbaz et al. (2008). According to Shahbaz et al. (2008) trade openness erodes while financial openness promotes economic growth in Pakistan. The value of ECM is negative and significant its value is 0.51 shows that any disequilibrium in the model will be adjusted within the second year.

Table 3: Diagnostic Tests

Tests	F-Statistic	Probability
1. Serial Correlation	1.150	0.301
2. Hetro-scedasticity	0.069	0.794
3. Normality*	1.760	0.420
4. Functional Form	1.615	0.224

*.Chi square test for Normality

Figure 1 (a)

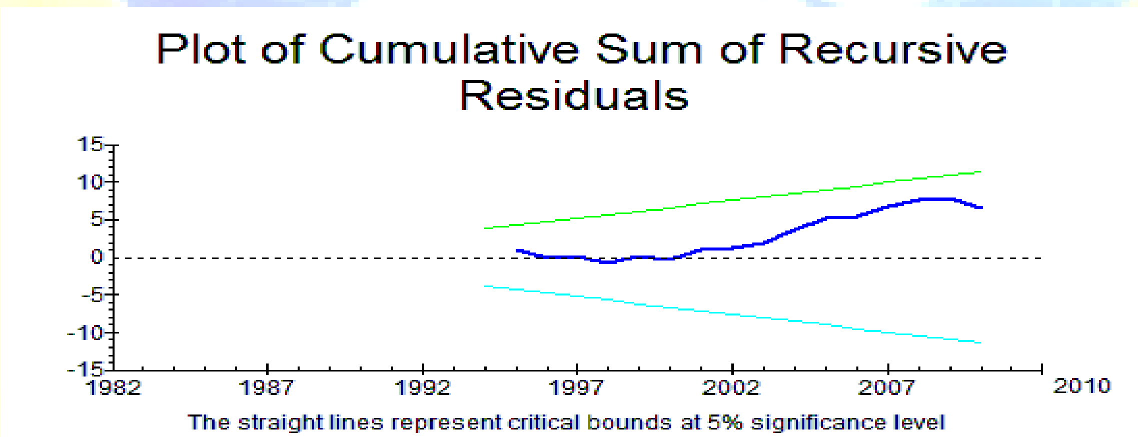
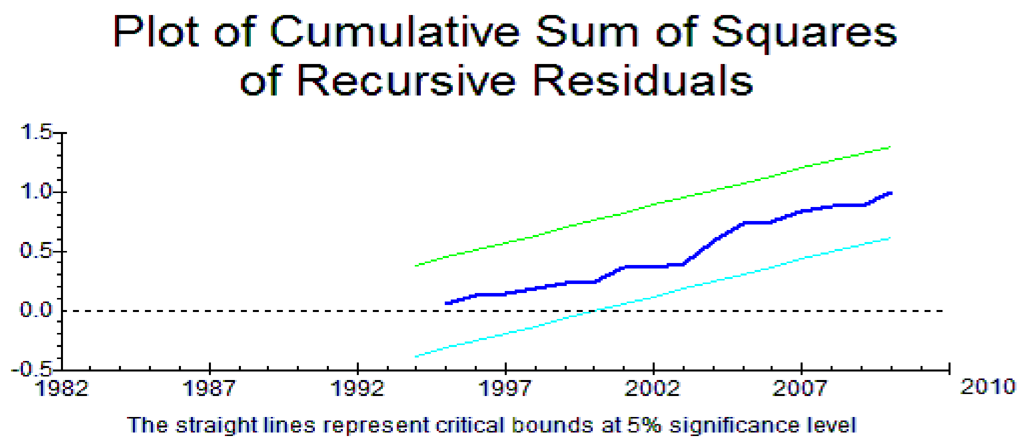


Figure 1 (b)



Conclusion and Policy Recommendations

The prime objective of this study is to investigate the impact of globalization on economic growth in Pakistan over the period of 1980 to 2010. The results of both the ADE and PP tests confirm that there no variable of order I(2). ARDL co-integration was employed and long run relationship was found among the variables. Globalization was measured by trade openness and financial and other important variables were also included to the model due to their importance. The variables are gross domestic investment and human resource development. The empirical results show that both the measures of globalization affect economic growth significantly. Trade openness affect positively and significant while financial integration affect negatively and significant. The other variables positively and significantly affect economic growth. Globalization in the form of trade integration provides opportunities for a greater access to large market; maximum utilization of the domestic resources enhances economic growth. The overall impact of globalization is considered to be positive because the coefficient of trade openness is higher and more significant than financial integration. Pakistan should adopt more liberal and open trade policies, with appropriate policies to promote export growth, investment in human capital (HRD) and domestic Investment leads growth in Pakistan. Globalization can be used as tool to control and reduce income inequalities and poverty by enhancing economic growth and to achieve the goal of economic development in Pakistan.

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