

Does Labor Mobility and Economic Globalization Matter for Inclusive Growth? Evidence from Pakistan

Yasmin Anwar¹

Abstract

This study empirically estimates the impact of economic globalization and mobility of labor on inclusive growth in Pakistan. To achieve inclusive growth is crucial for economies because that brings equal formation of opportunities and their access to everyone through participating in growth process. Economic globalization would stimulate the process of development in developing countries by reducing gap in techniques of production and enhancing exports, generating employment opportunities, declining the poverty ratio rather than creating jobless growth in developing countries. Labor force rapidly increasing in developing countries such policies that help to augment globalization process in positive way via increasing mobility of skilled labor to developed countries the target of inclusive growth could be achieved in developing countries like Pakistan. There exist few studies which indicate the globalization and labor mobility important variable for inclusive growth with positive effects on developing countries. In this study economic globalization, WRI, government spending on health, female to male labor force participation rate, political globalization, trade, FDI and inflation will be treated as independent variables whereas, real per capita income will be treated as dependent variable proxy for inclusive growth. Time series data will be used span from 1982 to 2016. Before applying any empirical technique for confirmation of results the preliminary step is to check stationarity of data by using ADF. The findings of the study show there is positive effect of economic globalization, FDI, trade, PG, WRI, inflation, F/M LFP on inclusive growth in Pakistan in the intervening time 1982-2016. Policy implications for the study are government should put serious emphasis on target and achieving inclusive growth through allow economic globalization and in the country. More skilled people should be mobile between countries which will bring more revenue and will play a vital role in economic growth to enhance GDP per capita.

Introduction

The growth will be called inclusive when there is growth in all sectors of the economy such as agriculture, manufacturing, services and industries. There should be numerous opportunities available for everyone in the society apart from gender, race, religion and belongs to rich or poor income groups². World Bank also start focusing on inclusive growth in the context of prosperity and equality among each income group (low and high) both should get benefit from the increased growth of the country (Beegle et al., 2014). Zhuang et al., (2014) determined some factors of speedy growth in Asian countries, those factors were technical know-how, globalization and market-oriented modifications. Those factors shown negative effect on growth by creating inequality in the economies in favor of skilled labor, capital intensive techniques, and urban areas of production of developed countries. Globalization is the phenomenon with both effects on inclusive growth positive and negative. Ample literature supports that with economic and political globalization in the country helps to achieve sustained inclusive growth in the economy.

¹ Independent Researcher and Graduate from Economics Department, University of Gujrat.
Email: Yasmin.Anwar01@gmail.com

² Corrado & Corrado (2017)

Globalization is openness of borders by providing new opportunities to all countries for promoting their inclusive growth. Economic globalization provides equal opportunity for all countries to be socially and economically more active and let them know the cultures and traditions of other countries. It helps to remove or minimize the restrictions on trade, also support better communication and exchanging the technology and skills between the nations. By using more advanced technology of production poor countries can also get speedy and inclusive growth in all sectors by increasing their per capita income. The pattern of growth and development might have shown significant effect on per capita income and reducing poverty of the country. There are some which found globalization promote economic growth but many studies also estimate that globalization divide the people and increase gap between rich and poor. Globalization increases inequality in the economy (Ahmad, 2005).

Globalization have both opportunities and challenges for the economy it can increase the pace of growth rate but it can also lead economy towards income inequality within the country. It can increase trade opportunities and FDI but it can also reduce domestic production by allowing more imports in the country. But, by making suitable policies and investing more in human capital such as increase the rate of education and health expenses we can prepare skilled labor and able to achieve targeted inclusive growth in every sector and get advantage from the process of globalization (Nissanke & Thorbecke, (2006); Ahmad, (2005); & Birdsall, (2002)).

Inclusive growth ensures both aspects; one is creating opportunities and second is equal access of those opportunities to everyone apart from rich or poor person. Growth can only be increased and sustained for long time if and only if equal employment opportunity rights given to everyone. Transitions from low productivity to high can help to decrease poverty and generating employment facilities in every sector either its agricultural sector, industry or services sector in developing countries. For long term and sustained growth developing countries must reduce their trade barriers and attain specialization in some products to earn foreign exchange. They need to focus more on education sector and should try to build skilled labor by giving them advanced training. Education will provide skill and increase the income. More investment in health sector is also required because when labor has good health he can produce more efficiently anything. Government play important role in providing facilities to poor people in both sectors educating them and sound health (Ali & Zhuang, 2007).

There are some other determinants which also effect inclusive growth such as, inflation, FDI, trade, remittances, health indicators, education indicator, labor force participation, female labor force participation and exchange rate fluctuations of the economy. Less inflation in the country brings more stability and inclusive growth by increasing the living standard in the country. Inclusive growth is measured by real per capita income. More openness in trade anticipated to increase the resources of the country and will provide further expansions from trade and increase the inclusive growth in the country in the form of per capita income (Kumah & Sandy, 2013).

The growth is not said to be inclusive until provide equal employment opportunities to everyone in the society. Employment created and provide jobs for everyone in the society in public or private sector. Growth in production has increased the wages of public servants and profits of private owners. Both growth in employment and growth in productivity are important phenomenon of inclusive growth (Ianchovichina & Lundstrom, 2009). There is another dimension of which cannot be ignored for growth i.e. female labor force participation rate in this study female to male labor force participation has been used. Female to male labor force participation rate explain how many females are working in front of per hundred males. Kabir & Natalli (2013), empirically found the more female to male labor force participation brings more inclusive growth in the economy.

There are some aspects of female labor force participation ratio such as with more participation equally with men, women will get their power and more equal rights. They will get education facilities, better health facility and then able to keep wealth, property and do business equally like men afterwards, they would be able take decisions with better understanding. Women can be more empowered by participating more and increase their living standards and play vital role in the economy because women are 50 percent of total world's population (Kabir, 2016). Health of worker of a country is also an important indicator to determine inclusive growth of the country. It also helps to understand the seriousness of government and either it is pro-poor or not for their residence. More spending of government on health indicate the worker is more efficient in his work and positively contribute in inclusive growth (Tandon & Zhuang, (2007); Rauniyar, & Kanbur, (2010)). More foreign trade and FDI, encourage inclusive growth in a country, because within country new techniques of production can be adopted brought by foreign technical specialists. More trade can also polish the abilities of workers and techniques in the economy by giving them technical training and skills. So, the production will increase which further increase growth of the country (Lederman, 2013).

There were studies which mainly focus on poverty, inequality, trade, exchange rate with inclusive growth in Pakistan. This study has potential to contribute in the existing literature because only few studies have been conducted before with economic globalization, labor mobility and inclusive growth. So, this research has ample contribution and findings of the study has ability to give suitable policy recommendations for improvement of inclusive growth and globalization.

Literature Review

The growth will be called inclusive when there is growth in all sectors of the economy and available opportunities are for everyone in the society apart from gender, race etc.³ People used word globalization in different frameworks according to their studies. Globalization has positive and negative effects on inclusive growth in the existing literature given below, huge studies found positive effects of globalization. Theoretical channels also provided to support literature review on the topic.

Mukherjee & Dutta (2017) employed GMM technique on 142 countries from 1996-2013 to measure the result of social and economic globalization on governance indicator. This study used GMM technique to check the endogeneity of variables and checked the marginal effect of economic globalization on social globalization. The marginal effect proved that low income countries were socially less globalized and got less benefit from economic globalization. Higher income countries got more benefit by economic globalization. More income per capita of a country identification of more good governance in the economy.

Latif, et. al., (2017) estimated the association among ICT, FDI, economic growth, trade and globalization. The study investigated the relationship for Brazil, Russia, India, China and South Africa (BRICS) economies for the period of 2000-2014 by using fixed effect OLS, FMOLS, DOLS and group-mean estimated method. FDI and globalization have a long run effect on economic growth and bi-directional association among GDP and FDI, GDP and globalization, GDP and trade. There exists single-directional causal association from globalization to trade. Globalization also granger cause ICT in BRICS countries.

Aslam & Zulfiqar (2016) estimated the determinants of inclusive growth in LICs and MICs which were education, health, TOP, GDP per capita and institutional umbrella for long and short run impact. VECM technique applied for long run impact. All determinants significantly affect the inclusive growth in long run. GDP per capita and effectiveness of

³ Corrado & Corrado (2017)

government, inflation rule of law also helps to improve the quality of health in both periods. To estimate the response of shocks and diversity of variables in five years IRF employed. This study concluded that without robust institutional infrastructure inclusive growth cannot be achieved in LICs and MICs.

Aoyagi & Ganelli (2015) has explored determining factor of inclusive growth in Asia by cross country empirical evaluation. The study found fiscal rearrangement, macroeconomic stability by a steady monetary policy, more trade sector reforms by improving the structure of Asia, more productivity with less unemployment were determining factors of inclusive growth. The fiscal rearrangement affects the inclusive growth more than any other factor. According to this study macro stability and structural reforms are more influential in achieving inclusive growth in Asia.

Alinsato (2015) estimated globalization and poverty nexus with role of infrastructure for 133 developing countries. The study used 2SLS method and concluded that more globalization reduces poverty with better infrastructure facilities. When easy access to ICT provided in a country the country become more globalized and less poor than before.

Anand, Mishra & Peiris (2013) estimated a technique to measure the inclusive growth by using PPP GDP per capita and income distribution for low income and emerging economies. The study used micro analysis of social opportunity and macro analysis for pro-poor growth. The determinants of inclusive growth were found macroeconomic stability, human capital, and improved structure of the country for fostering growth. Globalization FDI, and TOP also played positive role in enhancing inclusive growth.

Singh, Jindal & Jindal (2011) debate on such policies which were used to enhance inclusive growth in India by more globalization in economic, political, cultural, financial terms. The study concluded that there needed more comprehensive approach to check the multiplied impact of globalization on inclusive growth in the developing economies. Rapid industrialization decreasing inclusive growth but its effect can counterbalance with more stable macroeconomic policies and structural reforms. This study suggest policy for Asia that there should be improved monetary policy then it will counterbalance inflation, unemployment, reduce deficit of trade and enhance inclusive growth by more productivity in every sector.

Ali and Son (2007) explored new method of social opportunity to measure inclusive growth in Philippine. When social opportunities increase the growth said to be inclusive, availability of opportunities and distribution among population of those prospects measured as social prospects. There exists one to one relationship with SOP function higher curve brings higher opportunities. When opportunity curve shift upward that shows more income distributed among poor with more inclusive growth.

Ahmad (2005) found the effects of globalization for Pakistan up-to 2004 on governance indicators. The study confirms that globalization can only have positive effect in Pakistan when governance will be good. Bad governance does not show any positive effect of globalization in Pakistan. However, control of corruption, political stability of the economy, better quality of regulations can show positive effects of globalization.

Globalization have different effects on inclusive growth, through FDI, trade, education, health and many other channels. Parsad et al. (2003) found strong positive relationship between globalization and economic growth by enhancing trade openness and bringing more foreign investment in the country. Easy access of cross border flow of goods and services stimulate growth of a country. Globalization may raise the speed of economic development in a country by more FDI, migration of labor, portfolio investments in developing countries use more advance technologies of production and ICTs. These factors may contribute in inclusive growth by increase production, better facilities of resources and

providing capital which required to the nation (Nissanke & Thorbecke, (2006) & Ahmad, (2005)).

However, more globalization can also affect negatively on inclusive growth. Such as, there will be more income and health discrepancies between developed and developing countries. Developing countries invest less in their human capital comparatively developed countries which bring gap in their skilled labor and health of labor that decline their inclusive growth. Skilled labor will get more benefits from globalization rather than an unskilled labor in globalization. Stolper-samuelson theorem also providing proof of difference between skilled and unskilled labor between developed and developing regions. Empirically, (Nissanke & Thorbecke, 2006) verified the gap of wages among skilled and unskilled labor, as unskilled labor of poor economy may work on low wage in any other developed country. Through globalization and migration of unskilled income inequality will be less in developed countries but developing nations would face more inequality in their incomes because of foreign currencies exchange rates (Culpeper, 2002). Income inequality may have positive effect on inclusive growth in developing countries if it will be trickle down in the form of investments in home country of an unskilled labor (Ahmad, 2005).

By reviewing above literature, the crux of the literature could be that globalization have both negative and positive effects on inclusive growth in developing economies. The countries themselves might developed such policies and set their targets in that way how they are going to get benefits from globalization. For implementation of strong policies political stability in those countries is the foremost requirement to achieve benefits for promoting growth.

Methodology and Discussion on Results

This study basically follows Dreher (2006) model for economic and political globalization and then added some social (Health, F/M LFP), inflation, remittances, trade, FDI to check wide determinant of these effect on inclusive growth in Pakistan. Dreher (2006) took real GDP per capita to measure as inclusive growth. To the best of my knowledge for this study empirically estimated with all those determinants is first time for the case of Pakistan by using data span 1982-2016. Data of variables taken from WDI and KOF. The table 01 given below of the descriptive stats of the data. In descriptive statistics mean, median, maximum value, minimum value standard deviation and other values are given.

	GDPPC	EG	F/M	FDI	HEXP	INF	PG	WRI	TRADE
Mean	869.61	32.01	19.63	0.9599	2.743	8.066	6.820	4.888	33.604
Median	833.74	31.43	18.59	0.6770	2.639	7.689	6.334	4.865	33.69
Maximum	1181.59	42.06	29.82	3.6683	3.401	20.28	8.257	10.24	38.90
Minimum	598.40	21.96	8.697	0.1026	2.457	2.539	4.994	1.453	24.51
Std. Dev.	163.65	6.639	6.703	0.8381	0.2529	3.886	0.8659	2.209	3.145
Skewness	0.171	0.005	0.135	1.9947	1.157	0.825	-0.078	0.388	-0.663
Kurtosis	1.936	1.525	1.834	6.360	3.427	3.961	1.753	2.441	3.702
Sum	30436.45	1120.5	687.27	33.59	96.01	282.3	238.73	171.08	1176.1
Sum Sq Dev.	910658.4	1498.1	1527.95	23.88	2.176	513.4	25.49	166.05	336.47
Observation	35	35	35	35	35	35	35	35	35

This table shown that mean value of GDPPC is 869.61 while, its maximum value is 1181.59 was in 2016. GDPPC shown increasing trend with every passing year in Pakistan. Economic globalization mean is 32.01 and Pakistan is 146th number out of 207 countries. Maximum values for EG is 42.06 while its minimum value was 21.96 in 1982. Female to male labor force participation rates mean value is 19.63. Maximum 29.82 female were active out of 100 males which were in 2016. FDI as percentage of GDP taken in this study and its

mean value is 0.9599 less than 1 percent of GDP. Maximum FDI came 3.6 percent in 2007 Gen. Musharraf's era. Mean value of expenditures by government on health were 2.7 percent and maximum expenses were done by government 3.4 percent in 2006 during Gen. Musharraf's era. Mean inflation is 8.06 percent and maximum was 20.28 percent in 2008 due to global financial crises started from USA and spread around the world. Minimum inflation was in 2015 during PMLN government which was only 2.5 percent due to global decrease in oil prices to 30\$ per barrel. Mean value of political globalization 6.8 and maximum political globalization was in 2008 which were 8.25. Mean value of workers' remittances as a percentage of GDP 4.8 percent. Maximum WRI was 10.24 percent of GDP in 1983. Mean value of net trade 33.6 while maximum net trade is 38.9 in 1990.

$$GDPPC = f(\text{WRI, EG, F/M, FDI, PG, TRADE, INF, HEXP})$$

This is the functional form of the model, all independent variables taken as log form for same unit of variations.

Table 02: Augmented Dickey Fuller (ADF) Test of Stationarity

Series	At Level		At 1 st Difference		Decision
	With intercept	Intercept and trend	With intercept	Intercept and trend	
LGPPC	-0.4560(1)	-2.735(1)	-3.7711(0)***	-3.6132(0)***	I(1)
LWRI	-1.5294(0)	-1.3878(0)	-5.0781(0)***	-5.50966(0)***	I(1)
LFDI	-2.1078(0)	-3.1257(3)	-5.5465(0)***	-5.7814(0)***	I(1)
LEG	-1.2787(0)	-2.7773(0)	-7.4350(0)***	-7.4068(0)***	I(1)
LTRADE	-1.0949(0)	-2.0858(0)	-6.6966(0)***	-6.9781(0)***	I(1)
LPG	-2.4445(0)	-3.7710(0)	-7.6315(0)***	-7.5189(0)***	I(1)
LHEXP	-1.9166(0)	-2.8073(0)	-5.2026(0)***	-5.1188(0)***	I(1)
LF/M	-2.2095(0)	-2.2073(0)	-5.0528(0)***	-5.3446(0)***	I(1)
INF	-2.4845(0)	-2.3651(0)	-7.0759(0)***	-7.0690(0)***	I(1)

In time series data stationarity check is the foremost step for further estimations because then suitable estimation technique can be applied according the result of stationarity. Table 02 has shown the ADF test for stationarity and its result indicate that all the variables are stationary at first difference as their probability values is less than 0.05 on first difference. This confirms that the study Johnson's cointegration test and VECM can be used to find normalized equation. But, firstly unrestricted VAR applied for selection of lag length. According to Schwarz information criterion one lag length selected for further estimations. Maximum lags could be chosen 2 out of 2, One lag is selected.

Table 03: VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	190.7573	NA	1.33e-16	-11.01559	-10.60746	-10.87827
1	405.2351	298.9691	4.87e-20	-19.10516	-15.02377*	-17.73190
2	542.1664	116.1841*	5.84e-21*	-22.49494*	-14.74031	-19.88574*

* indicates lag order selected by the criterion, LR: sequential modified LR test statistic (each test at 5% level), FPE: Final prediction error, AIC: Akaike information criterion, SC: Schwarz information criterion, HQ: Hannan-Quinn.

Table 04 illustrate the values of trace and Max- eigenvalue test, these tests confirms the existence cointegration equations in the model. According to trace test 6 cointegration equations exist in the model. There exist 4 cointegrating equations exist in the model confirming through max-eigen value test.

Table 04: Trace-Stat Max-Stat

Trace-Stat				Max-Stat			
Null	Alter.	LR	5% C.V	Null	Alter.	LR	5% C.V
r=0	r≥1	354.2455*	197.3709	r=0	r=1	111.6126*	58.43354
r≤1	r≥2	242.6329*	159.5297	r=1	r=2	68.97784*	52.36261
r≤2	r≥3	173.6551*	125.6154	r=2	r=3	45.12391	46.23142
r≤3	r≥4	128.5312*	95.75366	r=3	r=4	41.28765*	40.07757

$r \leq 4$	$r=5$	87.24350*	69.81889	$r=4$	$r=5$	35.77516*	33.87687
$r \leq 5$	$r \geq 6$	51.46834*	47.85613	$r=5$	$r=6$	23.72617	27.58434
$r \leq 6$	$r \geq 7$	27.74217	29.79707	$r=6$	$r=7$	19.29210	21.13162
$r \leq 7$	$r \geq 8$	8.450074	15.49471	$r=7$	$r=8$	7.918418	14.26460
$r \leq 8$	$r=9$	0.531656	3.841466	$r=8$	$r=9$	0.531656	3.841466

*denotes rejection of the hypothesis at 5% level. The lag length (1-3) of VAR was selected based on AIC criterion. Cointegration tests were conducted, if series have NO trend and has only intercepts.

Table 05 present normalized cointegration equation of the model. This normalized cointegration shows the values of coefficients S.E and t-stats which are significant in the model.

Table 05: Normalized Cointegration Coefficients

Variables	LWRI	LEG	LFDI	LF/M	LPG	LTRADE	LINF	LHEXP
Coefficient	0.068	0.086	0.053	0.418	0.056	0.312	0.020	0.343
S. E	(0.003)	(0.023)	(0.004)	(0.011)	(0.026)	(0.032)	(0.004)	(0.037)
T-Stats	[19.30]	[3.627]	[12.01]	[36.72]	[2.169]	[9.671]	[4.922]	[9.540]

*The numbers in parentheses under the estimated coefficients are the asymptotic standard errors. The numbers below parentheses are calculated t-statistics. To reject the null hypothesis of zero coefficients, the calculated t-values are compared with critical values (i.e. 2) at 5 % level of significance.

$$\text{GDPPC} = 6.4484 + 0.067 \text{ WRI} + 0.08 \text{ EG} + 0.41 \text{ F/M} + 0.05 \text{ FDI} + 0.31 \text{ TRADE} + 0.02 \text{ INF} + 0.34 \text{ HEXP} + 0.05 \text{ PG}$$

In this normalized equation WRI, EG, F/M LFP, FDI, PG, TRADE are in positive relationship with GDPPC. WRI shows the mobility of labor in foreign economies, as labor more mobile they will go to other countries by doing jobs in overseas country. Workers of developing countries usually are not skilled because lack of education, however, some skilled worker also move to abroad this term used as brain drain effect. All the workers send remittances to home country, which increase the living standard of their family and inclusive growth of the country. Pakistan is among top 5th remittance receiving countries and received 6.9% remittances of GDP in 2016⁴. By 1percent increase in WRI GDPPC increases with 0.067percent.

Economic globalization is derived from KOF index of globalization. Economic globalization provides equal opportunity for all countries to be socially and economically more active. It helps to remove or minimize the restrictions on trade, also support better communication and exchanging the technology and skills between the nations. By using more advance technology of production poor countries can also get speedy and inclusive growth in all sectors by increasing their per capita income (Ahmad, 2005). With 1percent increase in EG GDPPC increase by 0.08percent significantly. This result of the study is consistent with (Nissanke &Thorbecke, (2006); Dreher, (2006); Ahmad, (2005); & Birdsall, (2002)).

Female to male labor force participation ratio is significant and positively contribute in inclusive growth, 1percent increase in labor force participation rate brings 0.41 percent inclusive growth in the economy of Pakistan. Kabir & Natalli (2013), empirically found the more female to male labor force participation brings more inclusive growth in the economy. They will get education facilities better health facility and then able to keep wealth, property and do business equally like men afterwards, they would be able take decisions with better understanding. Women can be more empowered by participating and increase the inclusive growth (Kabir, 2016).

FDI and trade also effect positively in inclusive growth of the country. More trade and foreign investment open more opportunities and technical skills of foreign countries to developing countries. More trade will bring more employment in developing countries when their exports will increase. By increasing 1percent FDI and trade, inclusive growth occurs by

⁴ Economic Survey of Pakistan

0.05 and 0.31 percent respectively. These results are in consistent with (Gwartney, Lawson, & Clark, (2005); Lederman, (2013)).

Low inflation is used to measure the stability in the economy if prices are stable no inflation then growth is also stable but in Pakistan it is positively related with inclusive growth. More prices of factor of production, generate more resources as the return will high on the investment privately so this will increase the growth in the country. Ayyoub, Chaudhry, & Farooq, (2011) found when inflation is less than 6-7percent it is considered as moderate inflation and has a positive relation with growth in the economy, Nasir & Nawaz, (2009) also supports the results. One percent increase in inflation bring 0.02 percent increase in inclusive growth. Government expenditures on health also shown positive effects on inclusive growth. One percent increase health expenses brings 0.34 percent increase in inclusive growth in Pakistan. More spending of government on health shows that the government adopting pro-poor poor policies and indicate the worker is more efficient in his work and positively contribute in inclusive growth (Tandon & Zhuang, (2007); Rauniyar, & Kanbur, (2010)). Sala-i-Martin, (1997) confirms that political globalization increases the inclusive growth by providing more political rights to residence of a country, this study also confirms the positive relationship between PG and IG, by increasing 1 percent PG IG increases up to 0.05 percent.

Table 06 present the diagnostic tests of the model, which confirms that there is no non-normality, heteroskedasticity, serial correlation exists in the model by comparing their p-values greater than 0.05. DW stats also confirms that there is no autocorrelation present in the model. CUSUM and CUSUM Sq. is stable. In VECM, the coefficient of lagged ECM is negative and significant which shows convergence towards equilibrium in the long run. The value of coefficient shows that 41.9 % deviation from equilibrium is mitigated in one year

Table 06: Diagnostic Tests

J.B Histogram Normality Test(Prob.)	1.4103 (0.4940)	LM serial correlation (Prob.)	0.70919 (0.5029)
Heteroskedasticity Test: ARCH test	0.849659 (0.3638)	Durbin Watson Stats (Prob.)	1.946922 0.000000
Heteroskedasticity Test: Breusch-Pagan-Godfrey	0.823182 (0.5900)	CUSUM	Stable
		CUSUM Sq.	Stable
ECM (-1)	Coefficient	S. E	T- Stats
	-0.419507	(0.10735)	[-3.90769]

Conclusion and Policy Implications

In time series data first step is to check stationarity of all variables that have been checked by using ADF unit root tests which confirm that all variables are integrated of order one I (1). After confirming that all variables are stationary at first difference the suitable technique was Johnson cointegration technique. Johnson cointegration technique confirms the existence of cointegration in two models and its VECM term was negative and significant. The coefficient of ECM (-1) was highly significant and negative which proves the convergence towards equilibrium and adjustment speed from SR to LR. This study has been used real GDPPC to measure the inclusive growth in Pakistan for the period of 1982-2016 as dependent variable. In independent variable WRI, EG, TRADE, FDI, Female to male labor force participation rate, Health expenses, INF, and PG taken. All the variable shows positive and significant effect on inclusive growth. Diagnostics were also checked for both models which all confirm the non- existence of serial correlation, non-normality and non-stability of the models.

The government should focus on enhancing positive effects of economic globalization in Pakistan which further increases trade and brings more FDI. The study shows positive and

significant effect of female to male labor force participation rate which confirms that no inclusive growth can be achieved until female does not participate in the economy. Worker mobility positively contribute in inclusive growth in the country their sent remittances should be used more for productive growth purposes of the economy. If skilled labors are mobile then flow of remittances can be increased. Government needs to invest more in human capital such as health and education. Such policies should be formulated which helps to reduce inflation for macroeconomic stability and to get its complete advantage in the economy.

References

- Ahmad, N., & Ghani, E. (2005). Governance, Globalisation, and Human Development in Pakistan [with Comments]. *The Pakistan Development Review*, 585-594.
- Ali, I. (2007). Inequality and the imperative for inclusive growth in Asia. *Asian development review*, 24(2), 1.
- Ali, I., & Son, H. H. (2007). Measuring inclusive growth. *Asian Development Review*, 24(1), 11.
- Ali, I., & Zhuang, J. (2007). Inclusive growth toward a prosperous Asia: Policy implications (No. 97). ERD Working Paper Series
- Ali, I., & Zhuang, J. (2007). Inclusive growth toward a prosperous Asia: Policy implications (No. 97). ERD Working Paper Series.
- Alinsato, A. S. (2015). Globalization, Poverty and Role of Infrastructures. *Journal of Economics and Political Economy*, 2(1), 197.
- Anand, R., Mishra, M. S., & Peiris, S. J. (2013). Inclusive growth: Measurement and determinants (No. 13-135). International Monetary Fund.
- Aoyagi, C., & Ganelli, G. (2015). Asia's quest for inclusive growth revisited. *Journal of Asian Economics*, 40, 29-46.
- Aslam, A., & Zulfiqar, K. (2016). Policy Framework for Inclusive Growth: A Case Study of Selected Asian Countries. *Policy*, 12, 21-40.
- Ayyoub, M., Chaudhry, I. S., & Farooq, F. (2011). Does Inflation Affect Economic Growth? The case of Pakistan. *Pakistan Journal of Social Sciences (PJSS)*, 31(1).
- Birdsall, N., & Hamoudi, A. (2002). Commodity dependence, trade, and growth: when 'openness' is not enough.
- Birdsall, N., Williamson, J., & Deese, B. (2002). Delivering on debt relief: From IMF gold to a new aid architecture. Peterson Institute.
- Corrado, G., & Corrado, L. (2017). Inclusive finance for inclusive growth and development. *Current Opinion in Environmental Sustainability*, 24, 19-23.
- Culpeper, R. (2005). Approaches to globalization and inequality within the international system. United Nations Research Institute for Social Development.
- De Weerd, J., Beegle, K., Friedman, J., & Gibson, J. (2014). The challenge of measuring hunger.
- Dollar, D., & Kraay, A. (2002). Growth is Good for the Poor. *Journal of economic growth*, 7(3), 195-225.
- Gwartney, J. D., Lawson, R. A., & Clark, J. R. (2005). Economic Freedom of the world, 2002. *The Independent Review*, 9(4), 573-593.
- Ianchovichina, E., & Lundström, S. (2009). Inclusive growth analytics: Framework and application.
- Iqbal, N., & Nawaz, S. (2009). Investment, inflation and economic growth nexus. *The Pakistan Development Review*, 863-874.

- Kabeer, N., & Natali, L. (2013). Gender Equality and Economic Growth: Is there a Win-Win?. IDS Working Papers, 2013(417), 1-58.
- Kabir, N. (2016). Women's economic empowerment and inclusive growth: labour markets and enterprise development. School of Oriental and African Studies, UK.
- Kumah, F. Y., & Sandy, M. (2013). In search of inclusive growth: The role of economic institutions and policy. *Modern Economy*, 4(11), 758.
- Latif, Z., Latif, S., Ximei, L., Pathan, Z. H., Salam, S., & Jianqiu, Z. (2017). The dynamics of ICT, foreign direct investment, globalization and economic growth: Panel estimation robust to heterogeneity and cross-sectional dependence. *Telematics and Informatics*.
- Lederman, D. (2013). International trade and Inclusive Growth: a primer. *Indian Growth and Development Review*, 6(1), 88-112.
- Mukherjee, D., & Dutta, N. (2017). What determines governance across nations: Do economic and social globalization play a role?. *Economic Modelling*.
- Nissanke, M., & Thorbecke, E. (2010). Globalization, poverty, and inequality in Latin America: Findings from case studies. *World Development*, 38(6), 797-802.
- Prasad, E., Rogoff, K., Wei, S. J., & Kose, M. A. (2005). Effects of financial globalization on developing countries: some empirical evidence. In *India's and China's recent experience with reform and growth* (pp. 201-228). Palgrave Macmillan, London.
- Rauniyar, G., & Kanbur, R. (2010). Inclusive growth and inclusive development: a review and synthesis of Asian Development Bank literature. *Journal of the Asia Pacific Economy*, 15(4), 455-469.
- Sala-i-Martin, X. X. (1997). I just ran four million regressions (No. w6252). National Bureau of Economic Research.
- Singh, H. P., Jindal, S., & Jindal, A. Globalization and Inclusive Growth.
- Tandon, A., & Zhuang, J. (2007). Inclusiveness of Economic growth in the People's Republic of China What Do Population health outcomes Tell Us, ERD Policy Brief Series No. 47. Economics and Research Department, Asian Development Bank, Manila.