

International Journal of Advanced Social Studies

Article History Received: September 24, 2021 Revised: December 11, 2021 Accepted: December 15, 2021 Published: December 28, 2021

© The Author(s) 2021.

This is an open-access article under the CC BY license (http://creativecommons.org/licenses/by/4.o/).
*Corresponding Email: muzaffarali.gc@gmail.com

Research Article

Determinants of Pakistan's Exports in Selected Asian Countries. A Panel Gravity Model Approach

Muhammad Tayyab and Muzaffar Ali* Government Graduate College Garh Maharaja Ahmad Pur Sial District Jhang, Pakistan

Abstract

The study investigates to estimate the determinants of exports of Pakistan with selected Asian economies utilizing a gravity approach of trade. This research consists of panel data using time from 1980-2020. The econometric techniques pooled OLS, fixed effects, and random-effect estimators have been used in this study. The result shows that the product of Pakistan's GDP and selected Asian countries positively and significantly impacts Pakistan's exports. Similarly, the product of Pakistan's per capita income and selected Asian economies also positively impacts Pakistan's exports. The impact of distances is negative but insignificant. The novelty of this research is that it observes the effect of qualitative variables along with basic gravity variables. The study also finds language and FTA's positive and insignificant impact on dependent variable export. The impact of Common Border and Religion is negative and insignificant on export. These results are against the economic theory. The findings of the study suggest that Pakistan should accelerate its GDP level so that its exports may increase. Pakistan should adopt the policy of free trade among Asian economies. Pakistan should increase trade relations with Muslim countries so that the positive impact of cultural similarity (religion) may be captured.

Keywords: Asian countries, Exports, Determinants, Panel data

Introduction

The role of international trade is very significant in earning foreign exchange and achieving economic development. Exports are considered to be an important part of international trade. Goods are produced at the domestic level and shipped to foreign countries. Export plays a dynamic role in the formation of domestic capital and determines the balance of payment deficit (Irshad et al., 2018). Determining economic development factors are human resources, natural resources, capital formation, technical advancement, and political and social factors. Technological advancement is crucial among them in the present age (Muhammad, 2017). Macroeconomic determinants of exports the study finds that energy crises negatively affect Pakistan's exports to the UAE (Javed et al., 2018). Exports are an important part of a country's GDP. Exports greatly affect economic growth, employment level, and balance of payment. There are three main types of Pakistan exports. Primary commodities, semi-manufactures, and manufactured goods. It includes raw cotton, raw wood, cotton waste, fish, rice, hides and skins, leather, cotton yarn, cotton thread, cotton cloth, synthetic textile, footwear, animal casing, cement, paints and varnishes, manufactured and raw tobacco, ready garments and sports (Khattak & Husain, 2010). There is a close association between exports, trade, and economic growth. Economic growth increases output, which leads to higher trade earnings (Ali & Khan, 2016).

The efficiency of any economy highly depends on goods production, geographical position, technological advancement, presence of natural factors, capital, highly experienced labor, and social, political, and financial priorities. Pakistan is a third-world country that relies on exporting primary and low-value goods. Pakistan

occupies a small position in the international market. The GDP of Pakistan is US\$ \$ 246.88 billion, and Pakistan's share in foreign trade is 0.18%. Inefficient allocation and exploitation of natural resources have been a major problem in the development of Pakistan since its very beginning (Gulzar et al., 2016). Trade is the main channel for transferring knowledge of technology. In the view of classical economists like Adam Smith, Ricardo, and John Stoat's Mill, international trade has favorable effects on output. Exports are an important source of foreign exchange. Trade builds strong relations among trading nations. It increases the growth of total factors productivity and encourages foreign direct investment. The promotion of exports is the main source of optimal utilization of a nation's resources. The trade sector's returns highly depend on accelerating export growth.

Jan and Shah (2019) explored Pakistan's trade map to South Asian countries by applying a gravity approach to trade. This research quantified the long-run impact of gravity variables. This research used panel data during the period 2003 to 2017. In this research, PMG and DOLS methods are applied. The sign of the coefficient of variables justifies the theoretical background of the gravity model. The impact of RGDPs and the population of Pakistan and partner countries is positive on bilateral trade and language similarities; common borders also positively impact mutual trade, while the distance and exchange rate have a negative impact. Irshad et al. (2018) examined Pakistan's trade potential using the gravity approach of trade during the 1992-2015 period of panel data. This study applied various estimation methods to acquire unbiased and maximum diversity in results. The outcomes from EGLS, REM, Two-stage EGLS, GMM, Tobit, and PPML have made clear that Pakistan's free trade agreement with partner countries is positively accelerated by GDPs, religion, WTO, trade openness and common border, while negatively accelerated by geographical location and inflation. The study also derives the impact of common language and (trade agreement) PTA, which was found to be pessimistically exaggerated on Pakistan's bilateral trade flow with free trade agreement partners.

Different research studies were conducted on Pakistan's trade with other countries to estimate the impact of different factors on trade (Javed & Ghafoor, 2013; Meijers, 2014; Javed et al., 2016; Ambreen et al., 2017; Javed et al., 2017; Hanif, 2018; Fatima et al., 2019; Nazeer et al., 2019; Javed et al., 2020; Ali et al., 2021; Nazir et al., 2022). Majeed et al. (2006) investigated the main determinants of exports in developing countries. The study finds communication facilities are greatly important in promoting economic growth and exports. A stable exchange rate policy is necessary to reduce the exchange rate risk concern with import prices and profit consideration to direct investors in developing countries. Agriculture exports should change into industrial exports in developing countries because industrial goods keep handsome prices in world markets. In this way, import substitution will take place. Khan et al. (2021) investigated the causal linkage among Pakistan's agricultural goods export, industrialization, urbanization, transportation, energy consumption, and carbon emission. The ARDL model is applied to analyze short- and long-term relations among the chosen variable. An increasing trend in urbanization, transportation, and carbon emission resulted in reduced agricultural goods exports of Pakistan. Long-run estimates suggest that an increasing trend of energy consumption will accelerate the exports of agricultural products. Increasing trends of industrialization, transportation, and energy consumption positively accelerate the export of agricultural products. The impact of urbanization and carbon emissions on Exports reduce Pakistan's agricultural goods exports.

Hussain (2018) examined the effect of supply-side variables on Pakistan's export structure on a disaggregated level. The relative price has a greater influence on the export behavior of raw materials and value-addition manufactured products. Cost-related factors highly influence the promotion of value addition manufacturing and cotton export. The findings of the study suggest the role of production capacity and domestic demand is vital in all types of export, while in the short-run, the relative price, cost of production and production capacity reveal a mixed impact on export supply of primary and manufacture export categories. Jadoon et al. (2018) examined the determining factors of Pakistan exports by applying time series data from 1990 to 2016. Econometric tests were also used to check co-integration among variables. Unit root test was used to check co-integration among variables. A vector error correction technique is applied to capture the short-run effect of variables. The impact of FDI, GDP and, employment level and export is positive, but the impact of consumption expenditure on dependent variable export is negative. This study uses Johnson's co-integration

test to capture the long-run effect of the repressor. The findings of test reveal that in the long run, all variables are co-integrated. The Govt. should encourage FDI and GDP which would help increase Export of Pakistan. Shamim (2015) examined the link between exports and remittances by analyzing 32 years of time series data from 1981 to 2012. This paper used the OLS method to capture the result. The study also uses other econometric test like the Granger causality test, Augmented Dickey-Fuller test, Error Correction Model, Co-integration, and sensitivity analysis. The study finds the opposite effect of remittance on exports in Pakistan in the long run, which is totally different from the previous research to date.

Ahmad et al. (2018) analyzed this research to investigate the impact of the exchange rate on export-dependent variables utilizing time series data in the case of Pakistan for the period 1970 - 2015. The data used in this study was taken from the World Bank and the International Monetary Fund. Phillip Peron and Augmented Dickeyfuller test has been applied to check stationary among regress or. The ARDL model is used to check the relationship among variables. The study also used the OLS method. The study finds a negative but insignificant impact in the case of Pakistan, while the impact of the world's income on exports is positive and significant. Shafique et al. (2016) observed the impact of exchange rate volatility on Pakistan's real exports and trade flows. The study has used time series data for the period of 1970-2008. The OLS, co-integration, and error correction models are utilized to explore the association between explanatory and dependent variables.

Majeed et al. (2006) investigated the main determinants of exports in developing countries. The study finds communication facilities are greatly important in promoting economic growth and exports. A stable exchange rate policy is necessary to reduce the exchange rate risk concern with import prices and profit consideration to direct investors in developing countries. Agriculture exports should change into industrial exports in developing countries because industrial goods keep handsome prices in world markets. In this way, import substitution will take place. Javed et al. (2015) investigated the effect of the major determinants from Pakistan to UAE. Primary data were collected for two rice varieties, super basmati and Pk. 386. The findings for super Basmati to UAE market reveal that education, average purchase price, and average sale price significantly affected its export. Results for PK-386 export showed that age, average purchase prices, and average marketing cost were significant variables. Kamal et al. (2021) examined the trade competitiveness of ASEAN countries in the Chinese market. The study used advanced econometric techniques, the PPML model, and constant market share analysis to investigate the potential of trade and competitiveness. The distance of market size, open trade, revealed comparative advantage position and joint border play a dynamic role in bilateral trade with ASEAN, China, and Pakistan. The coefficients of all variables were empirically significant.

As the literature shows, exports play an important role in a country's economic growth. This is the main source of earning foreign reserves as the trade is the engine of economic growth. It further explores the relationship between exports and its determinants in Pakistan. International trade functions as an engine of growth in developing nations like Pakistan. It plays a vital role in the long-term growth. Pakistan has faced persistent trade defecate in the last many decades. This necessitates exploring major variables influencing exports to cover Pakistan's trade deficit so that appropriate measures may be suggested to policymakers to design a suitable trade policy. This becomes more important in Pakistan, where a few studies were conducted to explore the effects of major variables on Pakistan's exports. The main objective of this study is to explore the nature of the relationship between export and its determinants. The study will determine the importance of exports in Pakistan's economic growth. Pakistan is facing a permanent deficit in its payment balance. This study will help to improving the balance of payment situation. This study is going to identify the policy-related variables that have a significant impact on the export of Pakistan.

Methodology

This section contains model specifications and a brief description of the variable used in the export determinants. To estimate the model, the study will use POLS, Fixed Effect, and Random Effect techniques to find the relationship between export and its determinants. The study will also apply other diagnostic techniques. Hausman test will be used to choose the fixed effect, or the random effect is preferred. Bruesh-Pagan LM test will be applied to select POLS, or random effect is preferred. To check the multicollinearity

problem among variables, this research will use the variance inflation factor (VIF). The present study will use the White Test for heteroskedasticity to find the problem of heteroskedasticity in the error term. There is a rare chance of autocorrelation in panel data analysis for this purpose; the serial cross-dependence test (CD) will be used to get reliable results from research.

The current research utilized secondary data from various variables from 1990 to 2020. The data has been taken from the WDI and international trading center.

Theoretical Foundation

The origin of the gravity model is Newton's Law of Gravitation, and Poyhonen (1963) is the founder of this idea in the field of international trade. This model describes that the trade size between countries depends on the gravitational force between two objects, directly proportional to their respective masses (where GDP stands as a proxy for mass) and inverse on the distance between them (which is used for the proxy of transportation costs). The equation of gravity is explained as follows:

$$F = G \frac{m1 \cdot m2}{r2} \approx Trade_{ij} = \alpha \cdot \frac{GDPi \cdot GDPj}{Distance ij}$$
 (1)

The transformed equation is given below:

 $Log (Trade_{ij}) = \alpha + \beta_1 log (GDP_i . GDP_j) + \beta_2 log (Distance_{ij}) + \mu_{ij}$

 $\text{Log } (Export_{ij}) = \alpha + \beta_1 \log (GDP_i.GDP_j) + \beta_2 \log (Distance_{ij}) + \beta_3 (\text{Border}) + \beta_4 \text{LANG}_{ij} + \beta_6 \text{fta}_{ij} + \beta_7 \text{ Religion} + \mu_{ij} + \mu_{ij}$

Augmented Gravity Model

In addition to the traditional variables, several other conditioning variables can be added to the gravity model to account for other factors affecting bilateral trade. For instance, the basic model might include GDP per capita in the partner countries as an additional argument. More complicated models might contain other explanatory variables such as dummies for the common border (Border), common language (LANG), common religion (Religion), FTA, etc. As usual, the dummies can take values of units or zero. A representative equation is as follows:

 $\label{eq:log_export_ij} \text{Log}\left(Export_{ij}\right) = \alpha + \beta_1 \log \left(GDP_i \cdot GDP_j\right) + \beta_2 \log \left(Distance_{ij}\right) + \beta_3 (\text{Border}) + \beta_4 \text{LANG}_{ij} + \beta_6 \text{ fta}_{ij} + \beta_7 \text{ Religion} + \mu_{ij} + \mu$

 $export_{ijt}$ = export of country i to country j in year t

 $import_{ijt}$ = Import of country i to country j in year t

 gdp_{it} = GDP of country i in year t.

 gdp_{jt} = GDP of country j in year t.

 $pcgdp_{it}$ = Per capita gdp of country i in year t.

 $pcgdp_{jt}$ = Per capita gdp of country j in year t.

Religion= Religion, a dummy variable, given a value of 1 if country i and j have a common religion or o otherwise.

Lang = Common language, a dummy variable which is given a value of 1 if country i and j shares a common official language or a value of 0 otherwise.

 $bord_{jt}$ = Border, dummy variable, which is given a value of 1 if country i and j share a common border; otherwise, o.

 fta_{it} Dummy variable representing free trade agreement between country i and country j in year t.

ε_{iit} = Error term

In this model, GDP and distance are basic gravity variables. GDP stands as the proxy of the economic volume of the trade partner. Theoretically, this idea reveals that a high GDP level promotes high trade among countries. So, higher trade is associated with a higher GDP level. Thus, the expected sign of GDP is positive and significantly impacts exports. The negative impact of variable distance covers transport costs among the trading countries I & j. It is considered that Great distance imposes greater transport costs, and the expected sign of distance is supposed to be negative and significant. The study includes a dummy variable common border, which has a value of 1 if countries have joint borders or otherwise o. There is a great chance of higher trade among countries in the presence of a common border. Hence, this may be considered a positive significant association with dependent variable export. The variable FTA is also included in the model, which has a value of 1 if countries i and j have FTA; otherwise, it is o. This variable FTA is assumed to be a positive and significant sign. This research includes religion and language as cultural variables. The same language and religion promote higher trade among the economies. So, the expected sign of this coefficient are significant and positive.

Description of Variable Used in Model

Trade in goods and services between two countries is the dependent variable. It is the sum of exports and imports (in value terms).

Gross Domestic Product (GDP)

The economy size is measured in the form of GDP and population. Higher trade is attributed to a greater GDP level. A positive relationship between Export and GDP is described in most gravity approach studies. Production of GDPs of two countries using the proxy of market size and the producing efficiency of two economies. A positive relationship is assumed between Export and GDP.

Per Capita GDP (PCGDP)

The higher per capita GDP level is considered a sign of development and a good proxy for developed economies. The country's development phase is described in the form of a higher per capita GDP level. Hence, a positive association is supposed to be between per capita GDP and exports.

Distance

Most of the gravity studies explained a negative relationship between distance and export. Higher distance among trading economies negatively impacts Pakistan's exports among trading countries. In light of the above discussion, Pakistan should build strong trade relations with neighboring Asian countries to reduce transport-related expenditures. Therefore, exports to Pakistan could be increased, which would help reduce the trade deficit. Pakistan has constantly faced a trade deficit for many decades, so it is necessary to design export-leading policies to solve this grave issue.

Common Border

A common border is of great importance in international trade. Common border economies easily exchange goods and services, so we expect a positive impact of the border on Pakistan's exports in the case of Asian countries. Pakistan should accelerate bilateral trade among border-joining countries.

Common Language

Common language is considered a positive factor in accelerating trading ties among countries. The people of the countries with a common language can have the same culture and trade. Language is considered a positive factor in promoting trading relationships among trading economies. So, the expected sign of the coefficient common language is positive and significant.

Free Trade Agreement

A free trade agreement among countries promotes higher trade among trading partners. The free flow of goods and services among countries accelerates trade volume positively. Thus, the free trade agreement's positive and significant impact on Pakistan's exports.

Religion

People of two or more countries share a common religion, which means more similarity in culture, tradition, and religious festivals. This refers to more trade and close relations among countries. Therefore, the dummy for a common religion is expected to have a positive sign.

Results and Discussion

The result of the Pooled Ordinary Least Square, Random Effect Model, and Fixed Effect Model will be explained. The study has also applied other diagnostic techniques for the reliability of the estimated results. Almost all types of data have the problem of multicollinearity in their regressor. Therefore, the study used the variance inflated factor technique to check the multicollinearity problem in data. Mostly, cross-sectional and panel data face the problem of heteroskedasticity mean non-constant variance. The problem of heteroskedasticity to find in data White test for heteroskedasticity has been used. Autocorrelation is a rare problem in panel data. For this purpose, a dependence serial correlation test was used. The resulting relationship of each variable with export will be discussed in the light of different previous studies.

Table 1. Estimated coefficient of the export model.

Export	Pooled (OLS)		Fixed Effect			Random Effect			
1980-2020	Coefficient	T	P> t	Coefficient	T	P> t	coefficient	Z	P> z
Lngdpij	.3817315	12.54	0.000	0.217264	2.16	0.031	.2102634	2.70	0.007
Lnpcgdpij	.0378463	0.97	0.331	.3080694	2.19	0.029	.3159702	2.92	0.004
Distance	.00001883	2.98	0.003	Omitted			000173	-0.59	0.555
FTA	-2.161202	-9.82	0.000	.9828264	1.35	0.177	.1025917	0.17	0.861
C.border	1233773	-1.09	0.274	Omitted			4834185	-0.82	0.411
Language	-2.189226	-8.41	0.000	Omitted			.1121989	0.12	0.901
Religion	8359131	-8.18	0.000	Omitted			5287276	-1.03	0.301
Cons	-13.1457	-11.91	0.000	-11.49529	-3.57	0.000	-9.832503	-3.86	0.000
No.obs		528		528			528		
F		30.44							
Prob > F	i	0.000		0.0000			0.0000		
R – squarec	l	0.5381		0.5213			0.5199		

The result of above table reveals that the product of GDP and Per Capita Income are positively and significant association with export. These results confirm that country with higher GDP level more trades and exports. While on the other hand contrary to the economic theory distance is found positive and significant relation to export in the findings of pooled ordinary least square but according to the results of the Random Effect technique, distance impact negatively and insignificant to export of Pakistan. Religion is also negatively and significantly related to exports, contrary to the expected result of economic theory and previous studies. In the findings of POLS, the FTA, Common Official Language and Common religion affect exports negatively and obtained coefficients are highly significant. These results are contrary to economic theory and previous studies. On the other hand, the obtained coefficients through random effect method are positive and insignificant relation to export. The results are according to the economic background and previous studies. The coefficient of common border is also negative, these results are same in the findings of POLS and Random Effect method but its coefficient is insignificant. The reason is that Pakistan has a huge border with India and

Afghanistan. Pakistan has not good strategic relation with these countries. The study also applied another test like Bruesh Pagan LM Test and Hausman Test. The P-value of brush pagan LM test reject the null hypothesis of pooled ordinary least square is preferred and accept the alternative hypothesis random effect is preferred. So, in the light of these tests the study will rely on the findings of Random Effect method. Hence in the findings of POLS, Fixed Effect and Random Effect GDP and per capita income of Pakistan and partner countries are determining factors of exports. The current study found that GDP of partner countries accelerate positively to export. Gul (2011) found product of GDPs stimulate export positively. Masood et al. (2021) and Atif et al. (2019) derives same result.

The present study concludes that per capita income of Pakistan and partner selected Asian countries are the important determinant of Pakistan export. GDP per capita is the best proxy to measure development level of the country. Estimated coefficient of per capita income is positive and significant impact on Export of Pakistan. According to the gravity model distance is main factor to determine the trade and negative relation to trade. In our analysis distance is negatively associate to export. Masood et al. (2021) extract the similar results. Distance is used as proxy of transportation cost in our analysis.

In our analysis FTA positively stimulate to export but its impact is insignificant in the light of Random Effect model. While, in pooled ordinary least square this coefficient is negative and highly significant. So, study will rely in the results of random effect model which is preferred in the light of Bruesh Pagan Test and Hausman test. Pakistan has a border with India, Afghanistan, China and Iran. Pakistan has a huge border with China and Afghanistan. There is mostly big chance in involving smuggling and illegal trade among these countries. In this research the coefficient of common border is negative and insignificant opposite the economic theory in both model POLS and RE. Common language is considered positive factor to accelerate trading ties among countries. The people of the countries who have common language is chance to same culture and trade. Language is considering a positive factor to promoting trading relationship among trading economies. So, obtained coefficient of common language is positive and insignificant.

People of two or more countries share a common religion mean more similarity in culture, tradition and religious festivals. This refers to more trade and close relation among countries. Therefore, the dummy for a common religion is expected to have a positive sign. The study derives that the coefficient of religion is positive and insignificant impact on Export of Pakistan.

 $Table \ {\bf 2}. \ Result \ of \ multicollinearity \ test.$

Variable	VIF	1/VIF
Language	6.09	0.164318
Fat	6.00	0.166665
Lnpcgdpij	3.60	0.277548
Lngdpij	2.97	0.337023
Distance	2.26	0.443028
Religion	1.82	0.548624
Common border	1.57	0.635477

According to value of TOL the problem of multicollinearity not exist in the explanatory variables because the value of TOL is not close to zero. We observe that each value of TOL is greater than 0.05. Hence concluding results from TOL is suggested that no multicollinearity in the model exist and hence do not reject null hypothesis. Because achieving value from TOL is between 1 to 6 which is not close to 10. So, we can say that our results are free from multicollinearity problem.

Table 3. White heteroskedasticity test.

Source	Chi ²	Def.	P
Heteroskedasticity	245.47	39	0.0000
Skewness	57.81	8	0.0000
Kurtosis	2.52	1	0.1127
Total	305.80	48	0.0000

Chi ² (25)	162,19
Prob > chi ²	0.0000

The probability of Chi – square obtained from white test is 0.0000 which is less than 0.05 level of significant which reject the null hypothesis and accept alternative hypothesis

So, there is problem of heteroskedasticity in the model because panel data mostly contain problem of heteroskedasticity. This problem is solved by obtained through robust standard errors.

Table 4. Bruesh Pagan LM Test.

Chi2 (1)	786.93
Prob chi2	0.0000

The probability value of Breusch pagan LM test is lesserthano.05. So, in the light of getting results from Bruesh-Pagan LM test reject the null hypothesis in favor of random effect and POLS is not preferred.

Table 5. Hausman Test.

Variable	Fixed	Random	Deference	S.E.
Lngdpij	.2172164	.2102634	.0069529	.0639188
Lnpcgdpij	.3080694	.3159702	.0079008	.0898491
Fta	.9828264	.1025917	.8802347	.4289838
Chi2(3)		6.69		
Prob > chi2		0.0823		

As the p- value of Hausman test is more than 0.05. So, accept the null hypothesis random effect is preferred and reject the alternative hypothesis fixed effect is consistent.

Conclusions and Recommendations

The study has been arranged to check relationship determinants of Export of Pakistan to selected countries of Asia by adopting a gravity approach of trade. This study has used various estimation techniques to capture the relationship among gravity variable. Among different estimation methods this research depends only the findings of Random effect model because this method of estimation addresses the time invariant variable properly. Concluding results of the study reveal that GDPs product of partner countries highly accelerate the Export of Pakistan. There is positive and significant association exist in GDPs of Pakistan and selected Asian economies. So, it is observed that gross domestic product of trading partner positively stimulates export growth of Pakistan. This result is according to economic theory and previous studies. Study also includes per capita GDPs product of trade partner countries of selected Asian countries with Pakistan. The coefficient of per capita income is positive and highly significant this employ that role of per capita income in stimulating export growth of Pakistan in case of selected Asian countries is vital. This result is also economic theory and previous literature. Distance negatively impacts exports of Pakistan selected Asian countries but the coefficient of distance is not significant in relation to Export of Pakistan. Distance plays no role in expansion of export growth of Pakistan. The unique point of this research is that it includes qualitative variable along with basic gravity variable. Pakistan has a border India, Afghanistan, China and Iran but border plays no significant role to accelerate Export of Pakistan. The study examines negative effect of border to export of Pakistan in selected Asian countries. Some studies examine the same result. This finding is against the economic theory. Pakistan has a huge border with China and Afghanistan. There is a big chance of smuggling and illegal trade among these countries. In this research, the coefficient of common border is negative and insignificant, opposite to the economic theory in both models POLS and RE.

This research includes free trade agreements and common official language as dummy variables in the Gravity model. The study observes positive and insignificant effects of FTA and common official language on dependent variable export to selected Asian countries. The results of FTA and the Common official language

show that this variable's impact is nothing on Pakistan's export growth. However, in the findings of POLS, the FTA and common language are highly significant but negatively impact Pakistan's exports. These results are opposite the theory and literature. But study relies only on the findings of the random effect model. The study also derives religion's negative and insignificant impact on the dependent variable export. This result of the Random effect in the findings of POLS is significant and negative.

The findings of the study show that the government must adopt such policies to increase trade volume with large economies of the region so that exports may increase and the problem of trade deficit can be solved. The government should resolve political issues in such a way that trade-related policies do not suffer. Pakistan should increase trade with neighboring countries so that transport costs may be reduced. Structure rigidities such as faulty organization and immature and unskilled labor force create obstacles in improving the greater adaptability and flexibility towards the production structure of Pakistan's exporting and importing commodities. Such bottlenecks must be eliminated on a priority basis, as much time has already been wasted. There is a need to improve the country's basic infrastructure. The government should immediately provide exporters with a strong and clean infrastructure like communication, transport, highways, and wellfunctioning ports. The weakness in the basic infrastructure, such as frequent power breakdowns and transportation failure, interrupt the production process and create hurdles for exports to meet their delivery right in time. The exporters should be provided with compensatory and concessionary finance; they should be given rebates, tax holidays, bonuses, etc. They are allowed to import the machinery that is used in producing export goods. The export processing Zones should be increased in the country in addition to Karachi and Lahore, where only the export industry could be set up. The study suggested that the government should take appropriate, solid steps to improve competitiveness, market access, product sophistication, and diversification. The study will prove very useful in stimulating economic development. To accelerate free trade among Asian countries, Pakistan would sign a free trade agreement with Asian economies. Geographically, Pakistan is situated in the South Asian Region, which can play a dynamic role for Central Asian nations in fostering trade among them. Asia is the biggest continent of the world by population. It plays a very vital role in international trade, so Pakistan can expand its trade by increasing Asian demand. The study provides a guideline to hold further studies to explore the impact of micro and macro-economic factors on Pakistan's competitiveness in the Asian area. Pakistan must design macro-level policies and ease of doing business to capture the Asian market for trade cooperation in diverse areas. Future research may focus on industry-related and standard improvement.

References

- Ahmad, B., Mehdi, M., Ghafoor, A., & Anwar, H. (2018). Value chain assessment and measuring export determinants of citrus fruits in Pakistan: an analysis of primary data. Pakistan Journal of Agricultural Sciences, 55(3), 685-692.
- Ali, G., Li, Z., & Khan, M. A. (2016). Evaluating the Importance of Exports and Its Determinants in Economic Growth of Pakistan: An Empirical Analysis from ARDL Approach. Global Business and Management Research, 8(4), 31.
- Ali, M., Khatoon, R., Hayat, M. M., & Javed, I. (2021). Trade determinants between Pakistan and United Arab Emirate: A time series analysis. Journal of Social Sciences Advancement, 2(1), 25-29.
- Ambreen, Z. E. B., Hussain, K., Ahmad, U., & Ajmair, M. (2017). Factors affecting the services sector growth in Pakistan: A time varying parametric approach. Journal of economics library, 4(3), 388-395.
- Atif, R. M., Mehmood, H., Haiyun, L., & Mao, H. (2019). Determinants and efficiency of Pakistan's chemical products' exports: An application of stochastic frontier gravity model. PloS one, 14(5), e0217210.
- Fatima, K., Nisar, U., & Yasmin, H. (2019). Factors affecting the bilateral trade of Pakistan with major trading partners. Journal of Economic Impact, 1(1), 19-28.
- Gul, N. (2011). The Trade Potential of Pakistan: An Application of the Gravity Model Nazia Gul and Hafiz M. Yasin. Lahore Journal of Economics, 16(1), 23-62.
- Gulzar, A. (2016). Does Trade Openness has noteworthy effect on Bilateral Trade Flows of ECO Countries; an Empirical Investigation. Timisoara Journal of Economics and Business, 9(2), 95-114.

- Hanif, M. (2018). An Analysis of International Trade of Pakistan: With a Focus on Exports. Paradigms: A Research Journal of Commerce, Economics, and Social Sciences, 12(1), 22-30.
- Hussain, S. (2018). Asymmetric Effects of Exchange Rate Changes on Domestic Production and Stock Prices in Pakistan. Doctoral dissertation, Pakistan Institute of Development Economics, Islamabad, Pakistan.
- Irshad, M. S., Xin, Q., Hui, Z., & Arshad, H. (2018). An empirical analysis of Pakistan's bilateral trade and trade potential with China: A gravity model approach. Cogent Economics & Finance, 6(1), 1504409.
- Irshad, M. S., Xin, Q., Hui, Z., &Irshad, H. (2018). An empirical analysis of Pakistan's bilateral trade and trade potential with China: A gravity model approach. Cogent Economics & Finance, 6(1), 1504409.
- Jadoon, A. U., Guang, Y., Ahmad, A., & Ali, S. (2018). Determinants of Pakistan's Exports: An Econometric Analysis. Comparative Economic Research. Central and Eastern Europe, 21(3), 95-108.
- Jan, W. U., & Shah, M. (2020). A Panel Analysis of Trade Gravity between Pakistan and South Asian Countries. Comparative Economic Research. Central and Eastern Europe, 23(4), 187-207.
- Javed, I., & Ghafoor, A. (2013). Determinants of rice export from Pakistan. In Proceedings of the Sixth International Conference on Management Science and Engineering Management: Focused on Electrical and Information Technology (pp. 793-801). Springer London.
- Javed, I., Ashfaq, M., & Anwar, N. (2017). Exports of major agricultural products from Pakistan to United Arab Emirates: Performance and comparative advantage. Science, Technology and Deveopment, 36(1), 53-60.
- Javed, I., Ashfaq, M., Adil, S. A., & Bakhsh, K. (2016). Analysis of agricultural trade between Pakistan and United Arab Emirates: an application of gravity model. Journal of Agricultural Research, 54(4), 787-799.
- Javed, I., Ghafoor, A., Ali, A., Imran, M. A., & Ashfaq, M. (2015). Margins and determinants of rice export from Pakistan to UAE market. Pakistan Journal of Agricultural Sciences, 52(2), 557-563.
- Javed, I., Ghafoor, A., Ali, A., Imran, M. A., & Ashfaq, M. (2015). Margins and determinants of rice export from Pakistan to UAE market. Pakistan Journal of Agricultural Sciences, 52(2), 557-563.
- Javed, I., Nabi, I., Yasin, M., & Razzaq, A. (2018). Macro determinants of exports from Pakistan to United Arab Emirates (UAE): An empirical analysis. Journal of Agricultural Research (03681157), 56(3).
- Javed, I., Rehman, A., Nabi, I., Razzaq, A., Saqib, R., Bakhsh, A., ... & Luqman, M. (2020). Performance and macroeconomic determinants of basmati rice exports from Pakistan. Sarhad Journal of Agriculture, 36(2), 617-624.
- Kamal, M., Qayyum, U., Khan, S., & Ngozi Adeleye, B. (2021). Who is trading well with China? A gravity and constant market share analysis of exports of Pakistan and ASEAN in the Chinese market. Journal of Asian and African Studies, 57(6), 1089-1108.
- Khan, Z. A., Koondhar, M. A., Khan, I., Ali, U., & Tianjun, L. (2021). Dynamic linkage between industrialization, energy consumption, carbon emission, and agricultural products export of Pakistan: an ARDL approach. Environmental Science and Pollution Research, 28, 43698-43710.
- Majeed, M. T., & Ahmad, E. (2006). Determinants of Exports in Developing Countries. The Pakistan Development Review, 45(4), 1265-1276.
- Masood, A., Ullah, S., Tahira, Y., & Aslam, M. (2021). Impact of China-Pakistan regional trade agreement on Pakistan's exports: An analysis using gravity trade model. Pakistan Journal of Applied Economics, 31(1), 99-112.
- Meijers, H. (2014). Does the internet generate economic growth, international trade, or both?. International Economics and Economic Policy, 11, 137-163.
- Nazeer, S., Javed, I., Bakhsh, A., Yasin, M., Javaid, H., & Fatima, K. (2019). Margin and determinants of mandarin (Kinnow) export from Pakistan. Pakistan Journal of Agricultural Research, 32(1), 205.
- Nazir, S., Javed, I., & Azra, M. L. (2022). Mandarin exports from Pakistan and its macroeconomic determinants. Sarhad Journal of Agriculture, 38(2), 563-571.
- Poyhonen, P. (1963). Toward a general theory of international trade. Ekonomiska Samfundets Tidskrift, 16(2), 69-78.
- Shafique, S., Chaudhry, I. S., Ahmad, R., & Bakar, M. A. (2016). Exchange Rate Volatility and Trade Flows in Pakistan. Pakistan Journal of Social Sciences (PJSS), 36(2), 1135-1142.
- Shamim, M. A., Panhwar, D. I. A., Rizvi, S. M. A., & Shaikh, E. A. (2015). Impact of remittances on export performance: Time series evidence from Pakistan. IBT Journal of Business Studies (JBS), Ilma University, Faculty of Management Science, 11(2), 123-135.