Journal of Social Sciences Research & Policy (JSSRP)

Does Institutional Quality Promote Export Diversification in Pakistan?

Salahuddin[1], Javed Iqbal[2]
1. PhD Scholar, School of Economics, Quaid-i-Azam University, Islamabad, Pakistan.
2. Professor, School of Economics, Quaid-i-Azam University, Islamabad, Fulbright Postdoc Fellow, University of Nebraska at Omaha USA.

How to Cite This Article: Salahuddin. & Iqbal, J. (2026). Does Institutional Quality Promote Export Diversification in Pakistan?. *Journal of Social Sciences Research & Policy. 4 (01), 119-133.*
DOI: https://doi.org/10.71327/jssrp.41.119.133

ISSN: 3006-6557 (Online)
ISSN: 3006-6549 (Print)

Vol. 4, **No.** 1 (2026)
Pages: 119-133

Key Words:
Export Diversification, Intensive margin Extensive margin, Institutional quality, Gravity model, PPML, Probit

Corresponding Author:
Salahuddin
Email: salahuddin@eco.qau.edu.pk

Abstract: *The study examines the impact of institutional quality on Pakistan's export diversification. We measure export diversification through extensive and intensive margins of trade by using highly disaggregated data at the HS-6 digit level. We construct a composite index of institutional quality by using multiple indicators of institutional quality defined by the World Bank for Pakistan and its 69 trading partners over the period 2013-2024. The study applies gravity framework estimated using Poisson Pseudo-Maximum Likelihood (PPML) and Probit models for empirical evidence. The empirical evidence indicate that strong institutional environment in export destination markets significantly promotes export diversification in Pakistan. In contrast, institutional environment at domestic level primarily supports the intensive margin. We derive several policy implications based on empirical evidence. Pakistan should improve its domestic institutional environment to promote export performance, while greater emphasis should be placed on targeting export markets with well-established institutional frameworks, as such markets are more attractive and conducive for exporters. In addition, maintain market based exchange rate through appropriate macroprudential policies can further support export diversification. Moreover, the positive relationship between population growth in importing countries and export performance suggests that policymakers should prioritize labor intensive sectors that are more responsive to demographic trends. The study provides actionable insights for policymakers in Pakistan and offer broader lessons for developing economies on how to navigate bilateral trade relationships, expand market participation, and promote export performance in an increasingly uncertain global trade environment.*

Introduction

Institutions are well-known major determinants in economic performance and international integration. Institutional quality in general refers to the efficacy of governance systems, rule of law, protection of property rights, the quality of regulatory mechanisms, enforcement of contracts and credibility and predictability of policy systems that influence economic relations (North, 1990). A predictable and sound

institutional environment not only ensures efficient allocation of resources but also minimizes transaction costs, curbs opportunistic behavior and increases investment in human along with physical capital (Williamson, 1985). Consequently, the quality of institutions becomes instrumental in defining long-term economic performance, trade integration and capacity of nations to differentiate their export base. Conversely, a poor institutional environment distorts incentives, raises risks, and restricts market access which inhibits market economic growth and integration into world markets. With growing interconnections among economies, the significance of institutional quality has been revisited in explaining variation in growth rates, trade performance, and export diversification between nations.

A substantial body of theoretical and empirical evidence makes a bidirectional connection between institutional performance and performance in the long-run perspective. North (1990) stresses that institutions establish the incentive system of economies that shapes productive activities in the long run. Based on this concept, Acemoglu et al. (2005) state that one of the main reasons for observing continual cross-country income and development gaps is due to institutional variation. It is very likely that countries with inclusive institutions that safeguard property rights, political stability, and rent-seeking behavior tend to have a higher amount of investment, productivity, and long-term economic growth. It is also empirically supported that the indicators of governance in terms of the quality of regulation, the rule of law, and anti-corruption control are positively correlated with GDP and long-term growth rates (Rodrik et al., 2004; Siyakiya, 2017).

The institutions are very critical in determining the translation of the economic reforms and openness to long-term economic growth. The positive impacts of trade liberalization, financial integration, and foreign direct investment occur mostly in transparent and predictable institutional frameworks (Bolaky and Freund, 2004). However, in weak institutional environment, openness can bring limited or even negative outcomes, because bad governance encourages rent-seeking behaviour, policy reversals as well as inefficient allocation of resources. Consequently, the quality of institutions not only directly influences the level of economic performance but also dictates the nature of response to globalization and external shocks by economies. Most recent empirical research indicates that regulation quality and the political stability positively relate to economic growth, and that the political stability has a one-way impact on economic performance in developing and low-income nations (Dixit 2009; Yildirim and Gokalp 2016; Dalyop 2018; Nair et al., 2021; Arvin et al., 2021). In the same spirit, Kamah et al. (2021) discovered that inclusive growth thrives greatly in a strong institutional environment. These results imply that good institutions of governance lead to transparency and conducive economic environment and spur improved economic performance in the region. It is expected that effective governance would at least contain corruption, high regulatory standards, promote the rule of law, political stability and lack of violence, government effectiveness, and voice and accountability.

International trade is especially sensitive to the role of institutions because transactions have more information asymmetries, enforcement problems, and policy risks compared to domestic transactions. Anderson and Marcouiller (2002) demonstrate that the low enforcement of contracts and insecurity have a statistically significant adverse impact on bilateral trade pattern creating implicit barriers to trade as big as tariffs. Likewise, Groot et al., (2004) show that institutional gaps will alter bilateral trade patterns by increasing transaction costs and limiting market access as well. These results point to the fact that quality of institution is a critical determinant of trade performance that works with the traditional instruments of trade policy. Consequently, a predictable and stable institutional environment is essential in fostering bilateral trade because the quality of institutions determines economic growth and trade flows (Acemoglu et al., 2005; Pose & Storper, 2006). The institution quality is an increase in

trade performance by eliminating market abuse, including monopoly, in the form of tariffs and quotas (Groot et al., 2004, Yu et al., 2015), and the quality of institutions reducing the trade can also put tariff barriers on the performance of the market (Guiso et al., 2009; Francois & Manchin 2013).

In addition to aggregate trade volumes, institutional quality does control the composition and sustainability of trade. Francois and Manchin (2013) demonstrate that trade in differentiated and value-added commodities generating sector-specific investments and enforcing credible contracts particularly requires institutional quality. The weaker institutional quality in these sectors is a disproportionate deterrent to entering and expanding exports and therefore limits firms' opportunities to scale up exports and capitalize on global value chains (GVCs). Quality regulatory frameworks and strong legal systems at the firm level motivate the exporters to invest in technological upgrading, quality improvement and innovation, when weak institutional environment predisposes the firm to low value-added products (Guiso et al., 2009). Subsequently, the level of institutional quality impacts not only the extent of trade between countries, but the nature and sustainability thereof.

The impact of quality of institutions on trade and diversification vary significantly between developed and developing nations. The developed economies generally enjoy a well-developed legal framework, regulatory transparency and the capacity to enforce their laws, which stabilizes their expectations and facilitates the deep-rooted integration of their markets with international markets. However, in developing countries, such institutional weaknesses as unpredictability of the regulations, corruption, and low enforcement tend to become binding constraints on export performance. Anderson and Marcouiller (2002) claim that these weaknesses serve as invisible non-tariff barriers, which restrain market access by exporters of low-income economies disproportionately. The existence of such institutional gaps is useful in explaining why trade policies that are similar have such mixed results across nations and why the developing economies are more susceptible to external shocks.

Notably, the results of trade are not only influenced by the domestic institutional quality, but also by the institutional climate of destination markets. Governance conditions in partner countries are considered by exporters as they make market selections and decide upon their export plans. Good institutions in destination markets increase credibility of policies, uniformity in their enforcement, and risks associated with transactions, consequently increasing the appeal of foreign markets to exporters (Osnago et al., 2018). In contrast, poor institutional qualities in destination markets increase the uncertainty levels and risk premiums, preventing entry and curtailing export growth. This interaction between foreign market and domestic market institutions is thereby important in establishing the bilateral trade flows, the diversification of exports and the behaviour of firms.

The current literature reveals strong empirical findings that quality of institutions dictates economic growth, trade patterns, sectoral performance and trade costs. Nevertheless, in spite of the aggregate and sectoral studies, little focus has been given to the study of the way different aspects of institutions influence export diversification among the trade margins. Specifically, the literature on trade diversification as determined by institutional quality is rather scarce in the economic literature. This is even more true in the age of global trade policies that are becoming more volatile, thus making the aspect of institutional quality all the more relevant. Regular and unflinching fluctuations in tariffs, trade conflicts, regulatory frameworks, as well as trade agreements renegotiation increases the risks of entry and expansion in a foreign market. In this case, the domestic institutions are very important in determining the ability of firms to evolve and diversify their exports.

In this context, the connection between the institutional setting and the trade performance remains an issue that requires further research. This paper is a contribution to the existing literature by looking into

the impact of factors of regional institutional environment and national institutional environment on trade performance in Pakistan which has been given comparatively less emphasis. In particular, we determine the impacts of various dimensions of institutional quality on export diversification at the HS six-digit level, including extensive and intensive margins of exports.

The remaining section of the study is structured as follows. The literature review presents a brief overview of the extant literature. Empirical specification and data section explain model formulation, data and variable description, and empirical results and discussion section presents and discusses the empirical evidence of the study. Finally, conclusion and policy implications conclude the study with key insights and policy recommendations.

Literature Review

Institutional quality is an essential element of economic organization because it determines incentives, minimizes uncertainty, and regulates the application of rules and contracts. Quality institutions offer equitable and clear legal systems, guarantee property rights and credible execution of policy. Thus, bilateral trade patterns and long-term investment decisions are enabled through well-established institutional environment. Conversely, a poor institutional environment affects economic growth and trade negatively in that it creates uncertainty, raises transaction costs, as well as destabilizes market efficiency.

The extant literature established that the institutional quality is a major determinant of economic growth and trade performance. According to Valeriani and Peluso (2011), the greater the performance of governance, the larger the investment, trade, and productivity which are related to better economic growth. Adding to the literature, Nawaz et al. (2014) employ the panel data set and discover that quality of institution positively affects the economic growth of the developing and developed economies. Their analysis indicates that institutional reforms are widely beneficial at both low- and high-income levels. Chong and Calderon (2000) study a causal relationship between institutional environment and growth in both directions and conclude that a better institutional quality encourages economic performance. These researches show that good quality institutional environment, such as stable and effective system of governance, effective enforcement of the law and accountability can result in long run economic development and integration of the world markets.

According to the available literature in the area of international trade, the quality of institution will be very critical in deciding on bilateral exchange of products and services in terms of its impact on the transaction costs, contract enforcement, and predictability of economic interactions. Theoretical literature concludes that poor enforcement of laws increases insurance and inventory expenses, commercial risk and deters bilateral trade flow. Adding to the existing body of knowledge, Groot et al., (2004), Daude and Stein (2007), and Meon and Sekkat (2008) can conclude that good governance, represented by good regulatory systems in a country, has higher levels of trade, but weak governance creates uncertainty and becomes an implicit cross-border trade barrier. In the same way, Anderson and Marcouiller (2002) establish that weak institutional environment in terms of corruption and ineffective contract enforcement is one of the significant ways in which international trade flows are diminished. Their study concludes that improvements in impartiality and transparency are associated with substantial increases in import volumes, particularly in countries with higher income and capital endowments. In addition, Groot et al., (2004) find that similarity in institution promotes bilateral trade. Their study confirms that good institutional quality is associated with greater trade intensity. Levchenko (2007) suggests that institutional differences are particularly consequential among capital-abundant and high-income economies where governance determines the cost and reliability of international

transactions. Berkowitz et al., (2006) indicate that countries with stronger legal and regulatory frameworks tend to export higher value-added goods. While weak governance framework imposes implicit costs that constrain trade flows. The empirical evidence further indicates that democratic institutions promote bilateral trade flow (Yu, 2010) and that both institutional environment in destination markets and institutional distance between partners significantly affect bilateral trade pattern (Álvarez et al., 2018).

Institutional quality influence bilateral trade pattern through different interrelated channels. Nunn (2007) show that contract enforcement constitutes a central mechanism, particularly when property rights and payments are separated over time. Strong institutional environment enables firms to engage in institution intensive and intermediate goods trade along complex value chains, whereas weak institutional enforcement discourages participation due to increased risk exposure. Good quality of institutions also facilitates information flows by ensuring reliable access to regulations, market conditions, and partner behavior, which minimize search and negotiation costs for heterogeneous products (Rauch and Trindade, 2002; Volpe et al., 2010). In addition, effective institutional quality supports long run trade relationship thorough increased trust and mitigating risks arising from opportunistic behaviour and regulatory inconsistency (Dixit, 2004; Guiso et al., 2009). In contrast, corruption and weak enforcement declines trade participation through increasing both the risks and costs of the cross-border transactions (Dutt and Traca, 2010; Musila and Sigue, 2010).

Empirical evidence further indicates that the effects of different indicators of institutional quality vary systematically across sectors and partner country characteristics. Studies at aggregate level consistently document a positive relationship between governance effectiveness and total trade volumes (Álvarez et al., 2018; Francois and Manchin, 2013; Yu, 2010). Álvarez et al., (2018) evaluate the impact of quality of institutions on aggregate and sectoral bilateral trade patterns using a sectoral gravity framework estimated by PPML. Their study finds that institutional conditions in destination markets and distance in institutions between trading partners significantly determine bilateral trade pattern. However, at disaggregated level or sectoral analysis, scholars reveal that manufactured products benefit most from strong governance, while primary goods are comparatively less sensitive. Méon and Sekkat (2008) examine the impact of institutional quality on aggregate and sectoral exports using panel data for the period from 1990 to 2000. They show that the quality of institutions significantly promotes manufactured goods exports. While at the same time their study finds that aggregate and non-manufactured exports remain largely unaffected with institutional quality. In addition, they suggest that regulatory quality emerges as the most robust determinant of manufactured export performance, while non-manufactured exports respond primarily to political stability and accountability. The findings from these studies support the argument that weak institutional quality constrains a country's capacity to export high value-added products and restrict its integration into global value chains (GVCs).

It has been broadly recognized in the empirical literature that good quality institutional quality encourages comparative advantage and trade specialization. Levchenko (2007) incorporates institutional quality into trade theory by modeling contract enforcement within an incomplete contracts framework. The study demonstrates that differences in institutional environment reverse standard trade predictions. The study also highlights that industries that rely heavily on institutions tend to source more from countries with stronger legal systems. Similarly, Nunn (2007) shows that institutional quality determines specialization patterns by shaping participation in contract dependent industries. In addition, scholars argue that good institutional quality facilitates entry into more sophisticated segments of the GVCs. whereas weak institutional framework and deficient governance effectiveness

limits movement into high value activities such as Feenstra et al., (2013).

Recent studies conclude that institutional quality heterogeneous impact across products, stages of value addition, and trading partners development levels. In this regard, Lin et al., (2020) examine the impact of different parameters of governance performance on bilateral trade in coconut products using a structural gravity type framework for the period 1996-2016. Their study shows that government effectiveness significantly promotes exports of high value-added coconut products. While the indicator voice and accountability reduce trade in both high- and low-value categories. They suggest heterogeneous effects across processing stages. Heo et al., (2020) examine the impact of institutional environment on NAFTA's trade with 105 countries from 2006 to 2017 using a system GMM estimator. They explore that the trade elasticity of institutional quality is strongest for middle-income partners and weakest for low-income countries. In addition, Hou et al., (2020) investigate the effect of the quality of institutions on trade costs using panel data for 133 countries during the period of 1995 to 2014. They demonstrate that improvements in institutional environment significantly reduce total trade costs through investment protection and bureaucratic efficiency. The empirical evidence highlights the complementarity between institutional reform and conventional trade facilitation policies.

Country and firm level empirical studies provide further evidence on institutional mechanisms. Yusuf et al., (2021) analyze the effect of institutional worth on bilateral trade performance between Malaysia and 25 African OIC countries using a gravity model estimated by PPML over 1985-2016. The study finds that weak governance and regulatory inconsistency impede trade among OIC African economies, while supporting Malaysia's export performance. Abreo et al., (2021) analyze the role of institutional quality in determining Colombia's export performance. They show that improvements in governance efficiency and contract enforcement significantly enhance Colombia's export performance and market access. Khan et al., (2022) empirically evaluate the effectiveness of institutional quality in determining performance of trade of SMEs in Pakistan. The study uses biannual data from 2000 to 2019 and applies ARDL approach. They identify a non-linear relationship between quality of institutions and SME trade performance in Pakistan. Firm-level evidence further indicates that exporters achieve higher volumes and more durable trading relationships in economies with strong contracting institutional quality (Araujo et al., 2016). In addition, institutions condition the effectiveness of trade policies and external assistance. Tadesse et al., (2019) show that Aid for Trade reduces bilateral trade costs only when supported by strong regulatory capacity and the rule of law, whereas weak institutional quality limits its effectiveness.

Empirical Specification and Data

The study applies to an extended form of the gravity model for empirical examination which was originally developed by Tinbergen (1962). In the economic literature the gravity framework broadly used to empirically analysis the determining factors of bilateral trade flows. According to gravity model we assume that bilateral trade pattern between trading partners is directly relates to their economic size, measured by GDP of country, and inversely relates to the distance between trading partners, which represents the transportation related costs. This empirical model has gained significant importance over the past decade due to its strong and robust theoretical foundation, flexible specification, and robust predictive power (Anderson & Van Wincoop, 2003; Baier & Bergstrand, 2007). Accordingly, a large body of recent research examining the roles of institutional quality, trade cost, and trade facilitation has adopted various extensions of the gravity model.

The study applies an augmented version of the gravity models on panel data for empirical analysis that captures the effects of institutional quality on Pakistan's export performance through the extensive and

intensive margins of trade. We follows the methodology of Álvarez et al., (2018) and Lin et al., (2020) to evaluate export diversification under different circumstances.

$$T_{ijkt} = \alpha + \beta_1 lnGDP_{it} + \beta_2 lnGDP_{jt} + \beta_3 lnDist_{ij} + \beta_4(IQ_{it}) + \beta_5(IQ_{jt}) + \beta_6 lnPop_{it} + \beta_7 lnPop_{jt} + \beta_8 lnREER_{it} + \beta_9\left(Lang_j\right) + e_{ijt}$$

In the above equation, the subscripts *i* denotes the exporting country, Pakistan; *j* refers to Pakistan's trading partners, *k* represents the specific product at HS-six-digit level, and *t* represents the time dimension. The analysis relies on annual bilateral trade data covering time period 2013 to 2024. The variable T_{ijkt} serves as the primary dependent variable and captures both extensive and intensive margins of export at the HS-6-digit level. The variables GDP_{it} and GDP_{jt} denote the real gross domestic product of Pakistan and its partner countries, respectively, while Pop_{it} and Pop_{jt} measure the population sizes of the exporting and importing economies. The term $Dist_{ij}$ represents the geographical distance between trading partners. Institutional quality in Pakistan and in partner countries is captured by IQ_{it} and IQ_{jt}, respectively. $REER_{it}$ Represents the real effective exchange rate of Pakistan. Finaly, $Lang_j$ is a dummy variable indicating a common official language, taking the value 1 if country *j* uses English as an official language, and zero otherwise.

Export diversification driven by two key components, such as the extensive margin, which reflects the introduction of new products or the expansion into new markets, and the intensive margin, which captures the increase in export volumes of products already being traded. Scholars define both margins differently such as Hummels and Klenow (2005) and Baier et al., (2014) define the intensive margin as a country's share in world exports and the extensive margin as the share of its export product set in the global export basket. Bernard et al., (2007) conceptualize the extensive margin as the number of products exported to a given destination and the intensive margin as the average export value per product. Alternative interpretations further refine these concepts. Amurgo and Pierola (2008) associate the extensive margin with the introduction of new products and the intensive margin with the expansion of existing products. More recently, Regis (2018) define the extensive margin as the probability of firm participation in export markets and the intensive margin as the nominal export value per exporting firm.

This study adopts the approach of Regis (2018) to measure both the extensive and intensive margins of trade. For the extensive margin, the dependent variable $T_{ijkt}$is defined as a binary indicator that takes the value of 1 if there is positive trade in product k between exporter i and importer j in year t, and 0 otherwise:

$$T_{ijkt} = \begin{cases} 1, & \text{if } \mathrm{EX_{ijkt}} > 0 \\ 0, & \text{if } \mathrm{EX_{ijkt}} = 0 \end{cases}$$

Here, EX_{ijkt} denotes Pakistan's exports of product "k" to country "j" in year "t".

For the intensive margin, the dependent variable T_{ijkt} is defined as the natural logarithm of the total export value of product k from country i to country j in year t, conditional on positive trade:

$$T_{ijkt} = \begin{cases} \mathrm{lnT_{ijkt}} & \text{if } \mathrm{EX_{ij}} = 1 \\ 0 & \text{if } \mathrm{EX_{ij}} = 0 \end{cases}$$

In this specification, EX_{ijkt}serves as a discrete indicator, equal to 1 if the product is exported and 0 otherwise.

Institutional quality is a key determinant of bilateral trade. Robust institutions promote fair competition and facilitate trade (Groot et al., 2004; Yu et al., 2015; Osnago et al., 2018), whereas weak institutions

can impede trade similarly to tariff barriers (Anderson and Marcouiller, 2002; Francois and Manchin, 2013). This study investigates how the institutional quality of trading partners affects Pakistan's export diversification at both margin of trade. We measure institutional quality using the World Bank's Worldwide Governance Indicators (WGI), which provide annual, cross-country scores for five key dimensions including political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. These indicators are widely used as proxies for institutional performance in empirical research. To avoid multicollinearity and simplify interpretation, we combine these five dimensions into a single composite institutional quality index by taking their average value for each country and year. Generally, using this approach facilitate a clearer assessment of impact of institutional quality on trade outcome. This method captures the overall institutional environment in a single measure.

Theoretically GDP and geographical distance of trading partners are the fundamental determinants of bilateral trade flow in the gravity model. GDP represents the market size, production capacity, and purchasing power of economy. In general, larger economies typically exhibiting higher trade volumes (Bergstrand, 1985; Karemera et al., 2015). In this study we use the GDP of both trading parties including Pakistan and its major export markets to empirically evaluate effects of GDP on the export performance using both margins of exports. The second core variable of gravity model is geographical distance. Geographical distance captures the transportation related costs and theoretically it is assumed that longer distances generally increase shipping expenses and reduce trade flows. We measure distance between the capitals of trading partners in kilometers.

Theoretically it is assumed that devaluation of domestic currency relative to foreign currency promote export performance by increasing a country's price competitiveness in international markets. This study uses the real effective exchange rate (REER) of Pakistan in our empirical analysis to account for relative price competitiveness. The study use REER to control exchange rate induced variations in exports across both margins of exports which is empirically and theoretically consistent with prior studies including Rodrik (2008) and Berman et al., (2012).

The empirical analysis employs a balanced panel dataset covering the period from 2013 to 2024 for all variables used in the study. The sample includes 69 importing countries for Pakistan, as listed in Appendix table A1.

Empirical Results and Discussion

This study examines how regional and national institutional quality influences Pakistan's export performance along both the extensive and intensive margins. The empirical analysis is based on panel data covering the period from 2013 to 2024. In order to make reliable inferences for policy purposes, the dataset entails all bilateral product-level observations at the HS level six-digit level that comprises zero trade flows as well. Zero observations in large numbers pose econometric challenges in log-linear gravity forms. To resolve this problem, the analysis is based more on the Poisson Pseudo Maximum Likelihood (PPML) estimator, which is currently common in gravity model studies. PPML can provide the same estimates in heteroskedastic conditions and requires no arbitraryity that would transform the zero trade values into arbitrary constants or eliminate an observation. Due to these reasons, it is broadly viewed as a proper estimator to be used in models of trade flows (Silva and Tenreyro, 2014). In the case of the extensive margin, the research uses a binary response structure and estimates a Probit model according to the study suggested by Helpman et al. (2008).

This study examines the determinant impacts of the institutional quality in the context of the export-performance in Pakistan by considering both the national institutional environment and institutional

quality in Pakistan's trading partners. Table 01 empirical findings indicate that institutional quality is a strong trend with a positive relationship with Pakistan's export performance in the intensive and extended margin. Particularly, investment in the institutional quality of destination markets boosts the two margins of Pakistan exports to a great extent which means that excellent governance, efficiency of the regulatory framework and institutional tranquility in the countries where they are imported help them to penetrate more easily besides increasing the levels of exports. Conversely, the institutional quality of Pakistan itself has only a statistically significant and positive impact on the intensive but not significant impact on the extensive frame of reference. This implies that to the extent that domestic institutions are improved, the existing exporters are making sales and not driving entry into new export markets or products. The empirical data indicate that one point in institutional quality of the importing nations increases Pakistan's high-order margin (intensive margin) by 0.21 and causes high-level diversification of exports (extensive margin) to rise by 0.14. Likewise, an increase in domestic institutional quality by one point in Pakistan will result in a 0.27-point rise in intensive margin. These results indicate a dynamic nature of foreign as well as domestic institutional environments that can help define the export performance of Pakistan, and the destination country institutions have a more substantial role in facilitating diversification and market growth.

The estimated coefficients indicate that both domestic and importing countries' institutional quality positively affect export performance at both margins. This suggests that better institutional quality enhances export performance. Our findings align with previous studies by Alvarez et al., (2018) and Osnago et al., (2018), which found that better quality of institutions facilitates exports performance at different margins of trade. The findings demonstrate that enhancing institutional quality in both exporting and importing countries facilitates trade. Moreover, the results validate the hypothesis that trade flows are more likely with partners that possess stronger institutional environment.

Table 01: ***Estimated Results of Intensive and Extensive Margins of Export***

	Intensive Margin-PPML	**Extensive Margin-Probit**
$lnGDP_{it}$	-0.621** (0.254)	-0.625*** (0.204)
$lnGDP_{jt}$	1.138*** (0.017)	1.254*** (0.030)
$lnDist_{ij}$	-1.314*** (0.016)	-1.406*** (0.027)
IQ_{it}	0.269** (0.030)	0.020 (0.066)
IQ_{jt}	0.209*** (0.009)	0.139*** (0.015)
Pop_{it}	0.145 (0.761)	-0.431 (0.605)
Pop_{jt}	0.820*** (0.006)	0.769*** (0.123)
$lnREER_{it}$	-0.819*** (0.104)	-0.812*** (0.082)
$lang_{jt}$	0.290*** (0.008)	0.362*** (0.016)
_const	-0.953 (4.235)	2.678 (3.329)

Note: Value of robust standard errors are in parentheses and p***<0.01(Significant at 1 percent),

p**<0.05(Significant at 5 percent), p*<0.10(Significant at 10 percent).

The traditional gravity model variables including geographical distance and the GDP of trading partners are statistically significant and exhibit the expected signs. The GDP of the Pakistan's trading partners has a statistically significant and expected positive signs in both cases. The estimated coefficient of GDP indicates that a 1% increase in the importing country's GDP increases the intensive and extensive margins of Pakistan's exports by 1.14% and 1.25%, respectively.

This indicates that GDP growth in destination markets positively affects both margins of Pakistan's exports. Larger economies attract more trade, as seen in the positive coefficients of destination market GDPs. Economic growth in Pakistan's trading partners boosts their purchasing power, increasing demand for imported products and, in turn, raising both the extensive and intensive margins of exports. These results are in line with Hummels and Klenow (2005) and Chen (2013). The relationship between intensive margin and GDP in Pakistan, however, is negative and statistically significant but unexpected. The estimated value of coefficient means that domestic GDP increases by 1 percent, and the intensive margin of exports decreases by 0.62 percent.

Pakistan has been dominated by domestic consumption as a contributing factor to GDP growth. The consumption spending relative to GDP was more than 90 percent during the past decade with a higher figure of 92 percent recorded in 2013 and 97 percent in 2022. This has boosted domestic consumption within the domestic economy instead of exports which have contributed to development in the economy. As GDP increased, exports did not increase; in fact, they declined, with exports ranging between 9 percent of GDP in 2013 and 8 percent in 2022. In a domestic market with high demand levels, local firms tend to focus on the local market at the expense of exports, hence reducing exports despite GDP growth. Further investments in non-export activities, including real estate and domestic retail are also increasing the GDP without increasing exports. Also, there are often energy shortages and energy expenses are high which raises the cost of production and thus Pakistani products are not as competitive abroad.

The geographical distance is a proxy for transportation costs. According to the results, there is a strong impact of distance on both margins of export on the performance of Pakistan through exports. In line with the space equilibrium theory, there is an inverse relationship between distance and bilateral trade flows. Based on the estimated coefficient of distance in Table 01, a 1 percent increase in bilateral distance will lower the intensive and extensive margins of the exports of Pakistan by 1.31 percent and 1.41 percent, respectively.

The coefficient of population estimated indicates that the 1 percent increase in population in the importing countries adds up to a substantial enhancement of both the margins of export of Paksitan. This indicate that population growth in destination markets positively influences Pakistan export performance. The empirical evidence indicates that 1% increase in Pakistan's trading partners population contribute to increase in intensive and extensive margin by 0.82% and 0.77%, respectively.

The findings reveal that REER significantly influences both margins of exports. The estimated coefficients are statistically significant and display the expected negative signs, suggesting that an appreciation of the domestic currency relative to foreign currencies reduces both margin of export. The estimated coefficients reported in tables 01 show that 1% increase in REER contributes to decrease in intensive and extensive margin of aggregate exports by 0.82% and 0.81%, respectively.

Quantifying the effects of cultural barriers on trade flows is challenging. Therefore, this study uses a common official language dummy as a proxy for cultural similarities. The findings of the study show that a common language significantly and positively affects both margins of exports. If Pakistan and its

trading partner share a common language (English), the extensive and intensive margins of exports increase by less than 1% compared to countries without the same official language. These results are consistent with the findings of Helpman et al., (2008) and Shepotylo (2016).

Conclusion and Recommendations

The study evaluates the role of local and regional institutional qualities in determining Pakistan's trade margins at HS-six-digit level, an area that has received limited attention in the existing literature. Empirically, the study estimates regressions using a gravity model with PPML and Probit methodologies.

The study finds that those strong institutional environments contribute to significantly increase in Pakistan export performance. The institutional quality in Pakistan's trading partners significantly increases Pakistan export performance at both extensive and intensive margin. However, improvement in Pakistan own institutional quality promote only export value of existing exports.

In addition, GDP growth in Pakistan exporting markets significantly contributes to export diversification in Pakistan. Although Pakistan's domestic GDP growth experiences a negative association with its export margins due to factors including consumption driven economic growth, weak export orientation, high import dependence, and structural constraints. Moreover, REER appreciation consistently reduces Pakistan export performance. In contrast, population dynamics in importing economies positively influence both extensive and intensive margins of Pakistan export.

According to the findings of the study, specific measures can be taken in the following ways. The study shows that institutional quality in destination markets enhances Pakistan export performance via both margins. Therefore, Pakistan should focus on exporting markets which has well established institutional environments as these markets are more attractive for exporters. Additionally, for the sake of enhancing Pakistan's export diversification, Pakistan should make efforts to improve its domestic institutional environment.

The negative effect of REER appreciation on export diversification shows the importance of maintaining competitive exchange rate conditions through appropriate macro prudential tools. Moreover, since population growth in importing countries positively influences export margins, governments should prioritize labor intensive sectors that are most responsive to demographic trends.

This study has certain limitations. First, it employs a composite index of institutional quality constructed by averaging value of five institutional dimensions for each country and year which provides a general measure of institutional quality. However, this method may conceal the distinct effects of individual institutional components. Therefore, future research could examine each institutional indicator individually to empirically determine heterogeneous impacts of individual institutional indicator. This method may lead to strengthen the robustness and interpretability of the empirical results.

Appendix

Table A1: ***List Of Countries Included for Empirical Analysis***

S. No	Country	S. No	Country	S. No	Country	S. No	Country
1	Afghanistan	**19**	Egypt	**37**	Mauritius	**55**	Slovenia
2	Argentina	**20**	Finland	**38**	Mexico	**56**	South Africa
3	Australia	**21**	France	**39**	Morocco	**57**	Spain
4	Bangladesh	**22**	Germany	**40**	Mozambique	**58**	Sri Lanka
5	Belgium	**23**	Ghana	**41**	Myanmar	**59**	Suriname
6	Benin	**24**	Greece	**42**	Netherlands	**60**	Sweden
7	Benin	**25**	Hong Kong	**43**	New Zealand	**61**	Switzerland
8	Bermuda	**26**	Indonesia	**44**	Nigeria	**62**	Tanzania

9	Brazil	**27**	Ireland	**45**	Norway	**63**	Thailand
10	Bulgaria	**28**	Italy	**46**	Oman	**64**	Togo
11	Cameroon	**29**	Japan	**47**	Peru	**65**	Türkiye
12	Canada	**30**	Jordan	**48**	Philippines	**66**	UAE
13	Chile	**31**	Kazakhstan	**49**	Poland	**67**	United Kingdom
14	China	**32**	Kenya	**50**	Portugal	**68**	USA
15	Colombia	**33**	Korea	**51**	Qatar	**69**	Vietnam
16	Côte d'Ivoire	**34**	Kuwait	**52**	Romania		
17	Czech Republic	**35**	Lithuania	**53**	Russian Federation		
18	Denmark	**36**	Madagascar	**54**	Saudi Arabia		

References

Abreo, C., Bustillo, R., & Rodriguez, C. (2021). The role of institutional quality in the international trade of a Latin American country: evidence from Colombian export performance. *Journal of Economic Structures*, *10*(1), 24.

Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as a fundamental cause of long-run growth. *Handbook of economic growth*, *1*, 385-472.

Álvarez, I. C., Barbero, J., Rodríguez-Pose, A., & Zofío, J. L. (2018). Does institutional quality matter for trade? Institutional conditions in a sectoral trade framework. *World Development*, *103*, 72-87.

Amurgo-Pacheco, A. (2008). Patterns of export diversification in developing countries: Intensive and Extensive Margins (Vol. 4473). *World Bank Publications.*

Anderson, J. E., & Marcouiller, D. (2002). Insecurity and the pattern of trade: An empirical investigation. *Review of Economics and statistics*, *84*(2), 342-352.

Anderson, J. E., & Van Wincoop, E. (2003). Gravity with gravitas: A solution to the border puzzle. *American economic review*, *93*(1), 170-192.

Araujo, L., Mion, G., & Ornelas, E. (2016). Institutions and export dynamics. *Journal of International Economics*, *98*, 2-20.

Arvin, M. B., Pradhan, R. P., & Nair, M. S. (2021). Are there links between institutional quality, government expenditure, tax revenue and economic growth? Evidence from low-income and lower middle-income countries. *Economic analysis and policy*, *70*, 468-489.

Baier, S. L., & Bergstrand, J. H. (2007). Do free trade agreements actually increase members' international trade?. *Journal of international Economics*, *71*(1), 72-95.

Baier, S. L., Bergstrand, J. H., & Feng, M. (2014). Economic integration agreements and the margins of international trade. *Journal of International Economics*, *93*(2), 339-350.

Bergstrand, J. H. (1985). The gravity equation in international trade: some microeconomic foundations and empirical evidence. *Review of Economics and Statistics*, 474-481.

Berkowitz, D., Moenius, J., & Pistor, K. (2006). Trade, law, and product complexity. *the Review of Economics and Statistics*, *88*(2), 363-373.

Berman, N., Martin, P., & Mayer, T. (2012). How do different exporters react to exchange rate changes?. *The Quarterly Journal of Economics*, *127*(1), 437-492.

Bernard, A. B., Jensen, J. B., Redding, S. J., & Schott, P. K. (2007). Firms in international trade. *Journal of Economic perspectives, 21(3), 105-130.*

Bolaky, B., & Freund, C. L. (2004). *Trade, regulations, and growth* (Vol. 3255). World Bank Publications.

Chen, W. C. (2013). The extensive and intensive margins of exports: The role of innovation. *The World Economy*, *36*(5), 607-635.

Chong, A., & Calderon, C. (2000). Causality and feedback between institutional measures and economic growth. *Economics & Politics*, *12*(1), 69-81.

Dalyop, G. T. (2019). Political instability and economic growth in Africa. *International Journal of Economic Policy Studies*, *13*(1), 217-257.

Daude, C., & Stein, E. (2007). The quality of institutions and foreign direct investment. *Economics & Politics*, *19*(3), 317-344.

De Groot, H. L., Linders, G. J., Rietveld, P., & Subramanian, U. (2004). The institutional determinants of bilateral trade patterns. *Kyklos*, *57*(1), 103-123.

Dixit, A. (2009). Governance institutions and economic activity. *American economic review*, *99*(1), 5-24.

Dixit, A. K. (2004). Lawlessness and economics: Alternative modes of governance (Vol. 1). Princeton University Press.

Dutt, P., & Traca, D. (2010). Corruption and bilateral trade flows: extortion or evasion?. *The Review of Economics and Statistics*, *92*(4), 843-860.

Ekeocha, P. (2023). Global policy uncertainty and trade performance: The moderating role of institutional quality. *World Development*, 165, 106–130.

Feenstra, R. C., Hong, C., Ma, H., & Spencer, B. J. (2013). Contractual versus non-contractual trade: The role of institutions in China. *Journal of Economic Behavior & Organization*, *94*, 281-294.

Francois, J., & Manchin, M. (2013). Institutions, infrastructure, and trade. *World development*, *46*, 165-175.

Guiso, L., Sapienza, P., & Zingales, L. (2009). Cultural biases in economic exchange?. *The quarterly journal of economics*, *124*(3), 1095-1131.

Helpman, E., Melitz, M., & Rubinstein, Y. (2008). Estimating trade flows: Trading partners and trading volumes. *The quarterly journal of economics*, *123*(2), 441-487.

Heo, Y., Thanh Huyen, N. T., & Doanh, N. K. (2021). Impact of the institutional quality on NAFTA's international trade: a system GMM approach. *Journal of Economic Studies*, *48*(3), 537-556.

Hou, Y., Wang, Y., & Xue, W. (2021). What explains trade costs? Institutional quality and other determinants. *Review of Development Economics*, *25*(1), 478-499.

Hummels, D., & Klenow P. (2005). The Variety and Quality of a Nation's Exports. *American Economic Review, No. 3, Vol 95.*

Kamah, M., Riti, J. S., & Bin, P. (2021). Inclusive growth and environmental sustainability: the role of institutional quality in sub-Saharan Africa. *Environmental Science and Pollution Research*, *28*(26), 34885-34901.

Karemera, D., Koo, W., Smalls, G., & Whiteside, L. (2015). Trade creation and diversion effects and exchange rate volatility in the global meat trade. *Journal of Economic Integration*, 240-268.

Khan, M. F., Khan, M. I., & Naqvi, K. A. (2022). Impact of institutional quality on trade performance of small and medium enterprises in Pakistan. *Journal of Economic Sciences*, *1*(1), 33-47.

Levchenko, A. A. (2007). Institutional quality and international trade. *The Review of Economic Studies*, *74*(3), 791-819.

Lin, J., Flachsbarth, I., & von Cramon-Taubadel, S. (2020). The role of institutional quality on the performance in the export of coconut products. *Agricultural Economics*, *51*(2), 237-258.

Méon, P. G., & Sekkat, K. (2008). Institutional quality and trade: which institutions? Which

trade?. *Economic inquiry*, *46*(2), 227-240.

Musila, J. W., & Sigué, S. P. (2010). Corruption and international trade: An empirical investigation of African countries. *World Economy*, *33*(1), 129-146.

Nair, M., Arvin, M. B., Pradhan, R. P., & Bahmani, S. (2021). Is higher economic growth possible through better institutional quality and a lower carbon footprint? Evidence from developing countries. *Renewable Energy*, *167*, 132-145.

Nawaz, S., Iqbal, N., & Khan, M. A. (2014). The impact of institutional quality on economic growth: Panel evidence. *The Pakistan Development Review*, 15-31.

North, D. C. (1990). Institutions, institutional change and economic performance. *Cambridge University Press*.

Nunn, N. (2007). Relationship-specificity, incomplete contracts, and the pattern of trade. *The quarterly journal of economics*, *122*(2), 569-600.

Osnago, A., Piermartini, R., & Rocha, N. (2018). The heterogeneous effects of trade policy uncertainty: How much do trade commitments boost trade? *World Bank Policy Research Working Paper*, (8567).

Osnago, A., Rocha, N., & Ruta, M. (2018). Institutions and trade: Evidence from trade policy uncertainty. *World Bank Policy Research Working Paper*.

Ranjan, P., & Lee, J. Y. (2007). Contract enforcement and international trade. *Economics & Politics*, *19*(2), 191-218.

Rauch, J. E., & Trindade, V. (2002). Ethnic Chinese networks in international trade. *Review of Economics and Statistics*, *84*(1), 116-130.

Regis, P. J. (2018). The extensive and intensive margins of exports of firms in developing and emerging countries. *International Review of Economics & Finance*, *56*, 39-49.

Rodrik, D. (2008). The real exchange rate and economic growth. *Brookings papers on economic activity*, *2008*(2), 365-412.

Rodrik, D., Subramanian, A., & Trebbi, F. (2004). Institutions rule: the primacy of institutions over geography and integration in economic development. *Journal of economic growth*, *9*(2), 131-165.

Shepotylo, O. (2016). Effect of non-tariff measures on extensive and intensive margins of exports in seafood trade. *Marine Policy*, *68*, 47-54.

Silva, J. S., Tenreyro, S., & Wei, K. (2014). Estimating the extensive margin of trade. *Journal of International Economics*, *93*(1), 67-75.

Siyakiya, P. (2017). The impact of institutional quality on economic performance: An empirical study of European union 28 and prospective member countries. *World journal of applied Economics*, *3*(2), 3-24.

Tadesse, B., Shukralla, E., & Fayissa, B. (2019). Institutional quality and the effectiveness of aid for trade. *Applied Economics*, *51*(39), 4233-4254.

Tinbergen, J. (1962). Shaping the World Economy: Suggestions for an International Economic Policy. *The Twentieth Century Fund*.

Valeriani, E., & Peluso, S. (2011). The impact of institutional quality on economic growth and development: An empirical study. *Journal of Knowledge Management, Economics and Information Technology*, *1*(6), 1-25.

Volpe Martincus, C., Estevadeordal, A., Gallo, A., & Luna, J. (2010). Information barriers, export promotion institutions, and the extensive margin of trade. *Review of World Economics*, *146*(1), 91-111.

Williamson, O. E. (1985). The economic institutions of capitalism. Firms, markets, relational contracting. (pp. 61-75)

Yıldırım, A., & Gökalp, M. F. (2016). Institutions and economic performance: A review on the developing countries. *Procedia Economics and Finance*, *38*, 347-359.

Yu, M. (2010). Trade, democracy, and the gravity equation. *Journal of Development Economics*, *91*(2), 289-300.

Yu, S., Beugelsdijk, S., & de Haan, J. (2015). Trade, trust and the rule of law. *European Journal of Political Economy*, *37*, 102-115.

Yushi, J., & Borojo, D. G. (2019). The impacts of institutional quality and infrastructure on overall and intra-Africa trade. *Economics*, *13*(1), 20190010.

Yusuf, H. A., Afolabi, L. O., Shittu, W. O., Gold, K. L., & Muhammad, M. (2021). Institutional quality and trade flow: Empirical evidence from Malaysia and other OIC member Countries in Africa. *Insight on Africa*, *13*(2), 177-191.