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TRADE DYNAMICS IN CENTRAL ASIA: INSIGHTS FROM UZBEKISTAN'S PERSPECTIVE

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Abstract

This paper examines the trade dynamics of landlocked Central Asia, with a particular focus on Uzbekistan. The geographical disadvantages of Uzbekistan, a double-landlocked country, significantly impede its trade competitiveness due to high transportation costs and prolonged transit times. Historically dependent on commodities such as cotton, gold, and natural gas exports, Uzbekistan's economy remains vulnerable to global market fluctuations. To mitigate these challenges and enhance its trade potential, the study underscores the necessity of diversifying into value-added sectors and improving trade logistics infrastructure. By employing the gravity trade model, the paper evaluates the impact of trade facilitation measures on bilateral trade volumes within the Central Asian region. The findings highlight the critical role of infrastructure development, customs modernization, and regional cooperation in bolstering Uzbekistan's trade efficiency. The analysis reveals that countries with advanced trade facilitation measures engage in higher trade volumes with Uzbekistan, suggesting that strategic investments in transport infrastructure and regulatory reforms are pivotal. These efforts are essential for integrating Uzbekistan more effectively into global markets and fostering economic growth within the region.

Keywords: trade, Central Asia, Uzbekistan, trade competitiveness, cross-border trade, economic diversification, trade facilitation, regional cooperation

Introduction

Uzbekistan, positioned as a landlocked Central Asian nation, faces formidable trade competitiveness challenges influenced by its geographical location and economic history. The considerable cost and time associated with cross-border trade is chief among these hurdles, exacerbated by its double-landlocked status. It typically results in prolonged transit times and heightened transportation expenses, diminishing its competitiveness in global markets. Furthermore, Uzbekistan's trade portfolio, historically reliant on cotton, gold, and natural gas exports, renders its economy susceptible to price fluctuations and global market dynamics.

Uzbekistan must diversify into value-added sectors and enhance its trade logistics infrastructure to fortify its competitiveness. Addressing these challenges requires implementing strategic policy measures and fostering international cooperation to unlock Uzbekistan's full potential in global trade. Central Asia, a region comprising Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, is strategically significant due to its geographical location and abundant natural resources. Despite being landlocked, these countries have actively engaged in international trade, leveraging their strategic position along historical trade routes such as the Silk Road. This paper explores the foreign trade dynamics of Central Asia with a specific focus on Uzbekistan, examining overall trade data, key trends, and prospects.

Literature Review

Trade facilitation measures, comprising a range of policy initiatives and infrastructural enhancements, are pivotal in promoting international trade and economic growth (Anderson & van Wincoop, 2004). Grainger (2011) divides trade facilitation into four interconnected components: (1) the simplification and alignment of relevant regulations and processes, (2) the advancement of trade compliance systems, (3) the supervision and coordination of trade and customs procedures, and (4) the establishment of institutional frameworks to ensure the successful adoption of trade facilitation principles and sustained dedication to reform.

Portugal-Perez and Wilson (2012) state that trade facilitation measures can be divided into two aspects: a tangible aspect involving physical infrastructure such as roads and ports and an intangible aspect involving issues like transparency, customs management, and the business environment. The Bali Agreement emphasized the importance of measures related to the immaterial aspect. Investing in the intangible aspect can improve trade facilitation outcomes quicker for countries with extensive customs controls and bureaucratic processes, including landlocked countries (Grainger, 2014).

Trade facilitation is simplifying, modernizing, and harmonizing export and import processes. The United Nations Conference on Trade and Development (UNCTAD) emphasizes that efficient trade facilitation can significantly reduce trade costs, enhance economic competitiveness, and foster economic growth (UNCTAD, 2022). In Uzbekistan, improving trade facilitation involves enhancing customs procedures, investing in transport infrastructure, and promoting regional cooperation to streamline transit processes.

Overview of Foreign Trade Central Asia

Central Asia's trade landscape is influenced by its natural resources, particularly hydrocarbons and minerals. Kazakhstan, the largest economy in the region, is a major exporter of oil and gas. Turkmenistan, similarly, relies heavily on natural gas exports. Uzbekistan, Kyrgyzstan, and Tajikistan have more diversified economies but still depend significantly on extractive industries.

The region's trade partners include neighboring countries like China and Russia and more distant markets in the European Union (EU) and the United States. The Belt and Road Initiative (BRI) has further integrated Central Asian countries into global trade networks, enhancing infrastructure and reducing transportation costs. Three of five countries in Central Asia are members of the WTO: Tajikistan (2013), Kyrgyzstan (1998), and Kazakhstan (2015). Uzbekistan has expressed renewed commitment to join the WTO soon, and Turkmenistan currently holds WTO observer status, with its accession process just beginning. Additionally, Uzbekistan has joined the European Union's Generalised Scheme of Preferences Plus (GSP+), providing preferential tariffs

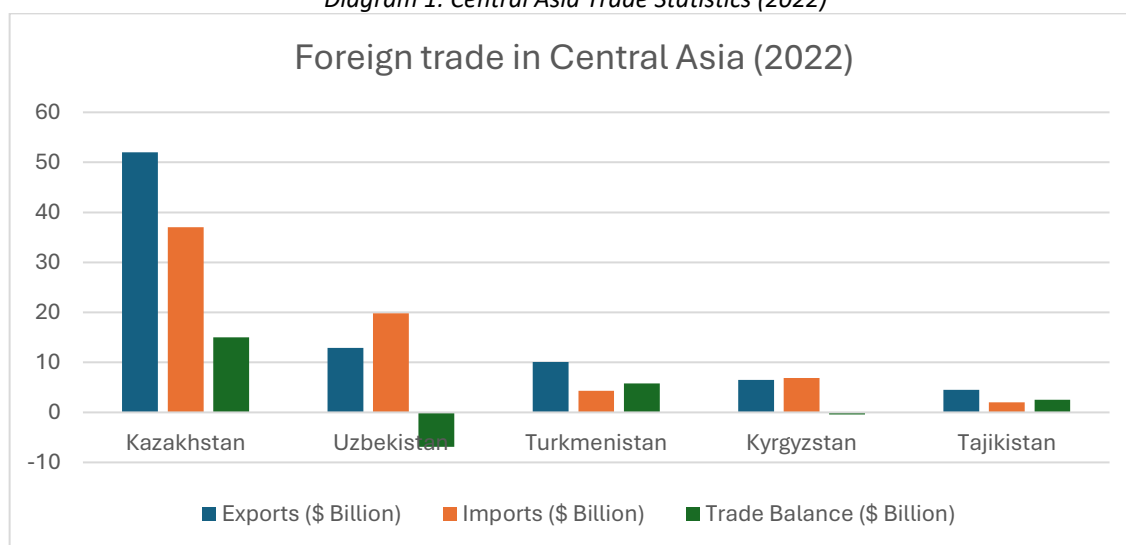
for products imported from Uzbekistan since April 10, 2021.

Central Asia's strategic location has made it a crucial nexus for several major trade corridors, facilitating regional and international trade. The most significant of these corridors include the Central Asia Regional Economic Cooperation (CAREC), which comprises six significant routes designed to enhance connectivity and trade. The CAREC corridors link the landlocked countries of Central Asia with global markets, stretching from the Caspian Sea in the west to China in the east. These corridors are pivotal in reducing transportation costs, improving logistics efficiency, and fostering economic integration.

According to the Asian Development Bank (ADB), trade along the CAREC corridors amounted to over \$8 billion in 2022, underscoring their importance in regional trade dynamics. The Belt and Road Initiative (BRI) further complements these corridors with significant investments in infrastructure projects such as railways, highways, and border facilities to boost trade capacity and reduce transit times. For instance, the Khorgos Gateway on the Kazakhstan-China border is one of the key BRI projects, serving as a significant logistics hub that handled over 200,000 TEUs (twenty-foot equivalent units) of cargo in 2022, according to China's Ministry of Transport. These corridors enhance trade within Central Asia and connect the region to Europe, the Middle East, and South Asia, positioning it as a vital link in global supply chains. Recently, Chairman of the Board of Uzbekistan Temir Yillari JSC Zufar Nazrullayev, CEO of Kyrgyz Temir Zholu State Enterprise Azamat Sakiyev, and CEO of China Railway Corporation Zhou Xing signed a Road Map for constructing China–Kyrgyzstan–Uzbekistan railway.

According to the World Bank, Central Asia's total merchandise exports were approximately \$86 billion in 2022. Kazakhstan accounted for over 60% of this total, with Uzbekistan contributing around 15%. The region's imports were valued at approximately \$70 billion, indicating a trade surplus primarily driven by Kazakhstan and Turkmenistan.

Diagram 1: Central Asia Trade Statistics (2022)



Source: World Bank

Critical trends in Central Asia's trade include increasing diversification of export products, greater engagement with China under the BRI, and ongoing efforts to improve trade facilitation and logistics. These trends are pivotal in understanding Uzbekistan's evolving trade dynamics.

Uzbekistan's Foreign Trade

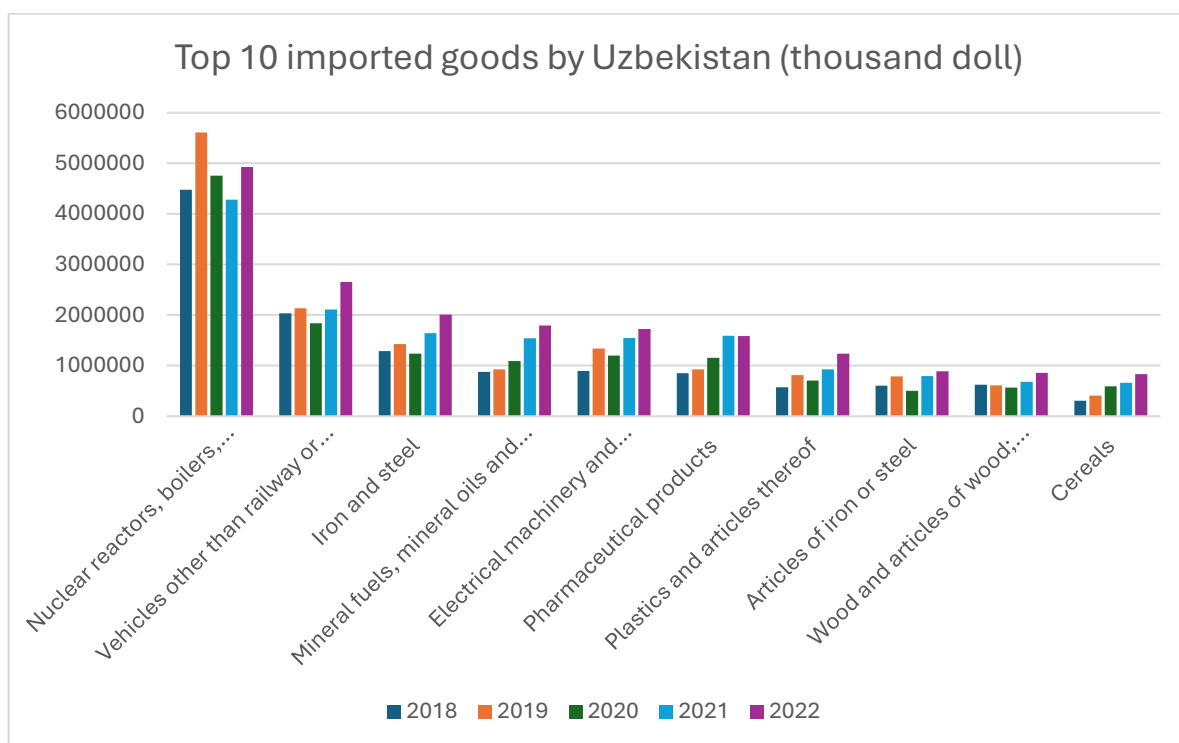
Uzbekistan, with a population of approximately 37 million, is the most populous country in Central Asia. Its economy is relatively diversified, with significant agriculture, manufacturing, and services contributions. Since 2016, the country has undertaken substantial economic reforms to liberalize trade, attract foreign investment, and modernize infrastructure.

Export and Import Structure

Diagram 2: Uzbekistan's Major Exports (2018-2022)



Diagram 3: Uzbekistan's Major Imports (2018-2022)



Source: stat.uz

Uzbekistan's export structure is dominated by natural gas, gold, and cotton, reflecting its resource-based economy. However, there has been a gradual shift towards exporting textiles and machinery, indicating efforts to diversify the export base. On the import side, vehicles, machinery, and mineral fuels are the top categories, driven by the country's need to modernize its infrastructure and industrial base.

Trade Partners

Regional and global economic partnerships also influence trade dynamics. Uzbekistan's main trading partners include the Russian Federation, China, Türkiye, Kazakhstan, South Korea, and Kyrgyzstan, with Russia and China being the top exporters to Uzbekistan. This regional cooperation, facilitated by initiatives like the Belt and Road Initiative (BRI) and the Central Asia Regional Economic Cooperation (CAREC) program, has been pivotal in boosting cross-border trade and economic integration. China is the largest trading partner, accounting for approximately 20% of Uzbekistan's total trade in 2022. Due to historical ties and geographic proximity, Russia and Kazakhstan are significant partners.

Diagram 4: Uzbekistan's major Importers (2018-2022)

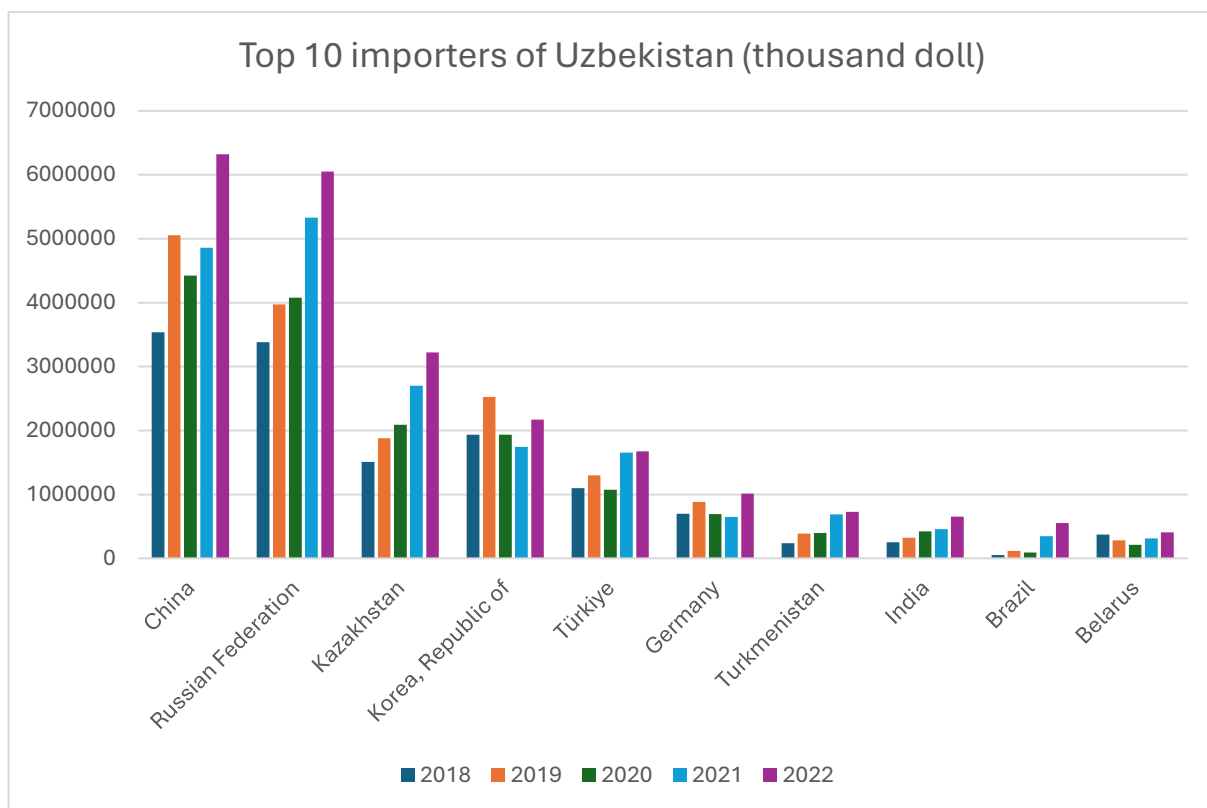
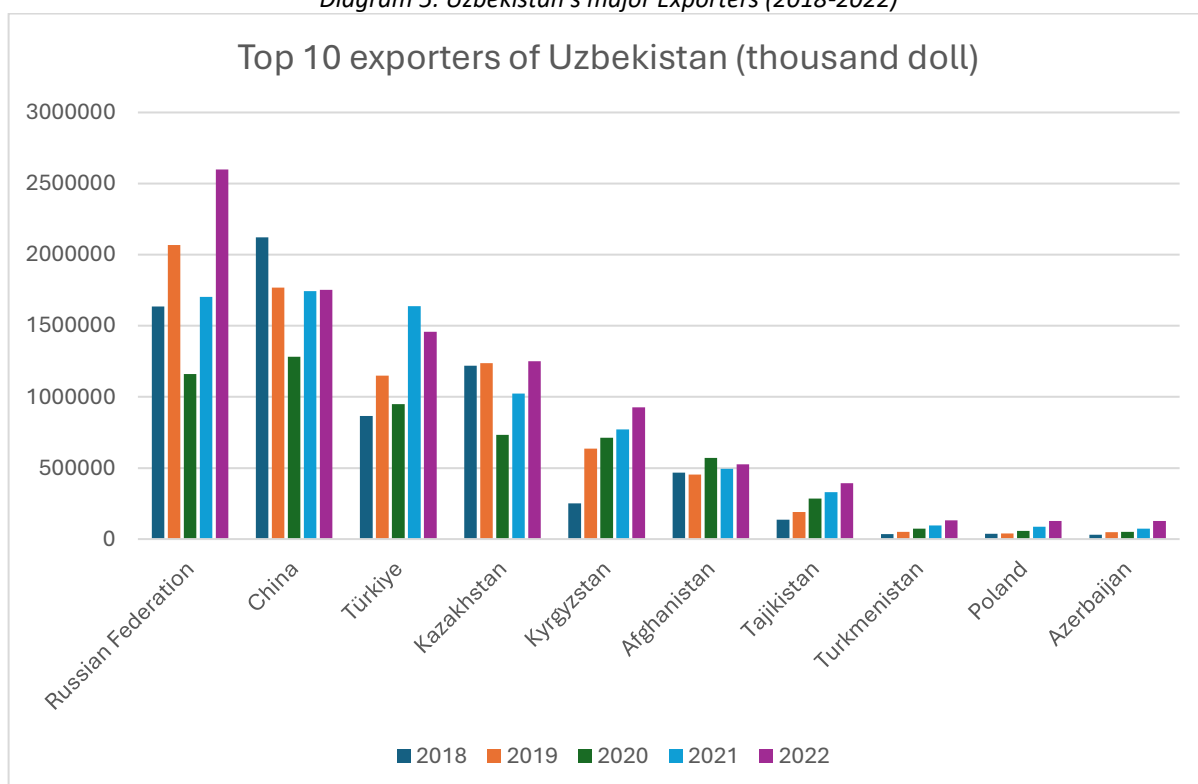


Diagram 5: Uzbekistan's major Exporters (2018-2022)



Trade Agreements and Initiatives

Uzbekistan actively pursues regional and international trade agreements to enhance its trade prospects. Key initiatives include joining the WTO, participating in the Eurasian Economic Union (EAEU) as an observer, and engaging with the EU under the GSP+ program. Additionally, Uzbekistan is investing in transport infrastructure, such as constructing the China-Kyrgyzstan-Uzbekistan railway, to improve connectivity and reduce trade costs.

Uzbekistan faces several challenges and opportunities in its trade dynamics. Firstly, more modern transport and logistics infrastructure is needed to improve trade efficiency. Additionally, complex customs procedures and regulatory barriers increase trade costs and delay transactions. Moreover, heavy reliance on commodity exports exposes the economy to global price fluctuations. Furthermore, regional instability and geopolitical tensions can disrupt trade routes and affect trade flows. On the other hand, expanding into value-added sectors such as textiles, machinery, and pharmaceuticals offers opportunities to reduce economic vulnerability. Strengthening ties with neighboring countries and participating in regional trade initiatives can enhance trade prospects. Moreover, upgrading transport and logistics infrastructure can significantly reduce trade costs and improve efficiency. Lastly, simplifying customs procedures and regulatory frameworks can streamline trade and attract foreign investment.

Methodology

This section employs the gravity trade model to analyze trade facilitation measures' impact on Uzbekistan's trade volumes. The gravity model posits that bilateral trade flows are positively related to the economic size of the trading partners and negatively related to the distance between them. By incorporating trade facilitation indicators, the model evaluates how improvements in infrastructure, customs procedures, and regulatory environments influence trade volumes.

Model Specification

The gravity model used in this analysis is specified as follows:

$$Trade_{ij} = G \frac{M_i M_j}{D_{ij}}$$

$Trade_{ij}$ is the trade flow between country i and country j

M_i and M_j are the economic masses (GDP) of countries i and j

D_{ij} is the distance between the two countries.

G is constant

To incorporate trade facilitation measures, the model is extended as follows:

$$Trade_{ij} = \alpha + \beta_1 GDP_i + \beta_2 GDP_j + \beta_3 D_{ij} + \beta_4 Infrastructure\ Quality_{ij} + \beta_5 Customs\ Efficiency_{ij} + \beta_6 Regulatory\ Environment_{ij} + \varepsilon_{ij}$$

Estimation and Results

The model is estimated using panel data for Uzbekistan and its major trading partners from 2018-2022. The results indicate that trade facilitation measures significantly impact trade volumes. Improvements in transport infrastructure, customs procedures, and regulatory environments are associated with higher trade volumes.

Table 5: Gravity Model Estimation Results

Variable	Coefficient	Standard Error	t-Statistic	P-Value
GDP (i)	0.85	0.12	7.08	0.000
GDP (j)	0.78	0.11	6.91	0.000
Distance	-0.56	0.09	-6.22	0.000
Infrastructure Quality	0.34	0.08	4.25	0.000
Customs Efficiency	0.29	0.07	4.14	0.000
Regulation Environment	0.27	0.06	4.50	0.000

Source: Author's Calculations

The positive coefficients for infrastructure, customs, and regulation variables suggest that investments in these areas can enhance trade volumes. Specifically, a 1% improvement in transport infrastructure is associated with a 0.34% increase in trade volume. Similarly, improvements in customs procedures and regulatory environment are associated with 0.29% and 0.27% increases in trade volume, respectively.

Policy Implications

The findings underscore the importance of trade facilitation measures in enhancing Uzbekistan's trade competitiveness. To foster a more conducive trade environment, policymakers should prioritize investments in transport infrastructure, streamline customs procedures, and improve the regulatory environment. Regional cooperation and integration efforts should be intensified to leverage the collective strengths of Central Asian countries and enhance their global trade prospects.

Addressing the trade challenges faced by Uzbekistan requires a multi-faceted approach, and key policy recommendations include enhancing infrastructure, customs modernization, regional cooperation, and diversification of the export portfolio. Specifically, investing in transport infrastructure, such as roads, railways,

and logistics hubs, can reduce transit times and costs; for instance, projects like the Tashkent-Andijan railway and the expansion of the Navoi Free Economic Zone are critical steps in this direction (Asian Development Bank, 2022).

Additionally, simplifying and modernizing customs procedures to reduce bureaucratic delays and improve transparency by implementing electronic customs systems and one-stop border posts can significantly streamline trade processes (World Bank, 2021). Moreover, strengthening regional cooperation through frameworks like the Central Asia Regional Economic Cooperation (CAREC) program can enhance cross-border trade efficiency, with collaborative efforts to harmonize regulations and improve border management being essential (CAREC, 2023). Finally, reducing dependency on a few commodities by developing value-added industries such as manufacturing and services is crucial, as this diversification can mitigate the impact of global price volatility on the economy (International Monetary Fund, 2021).

Future Prospects for Uzbekistan's Foreign Trade

Uzbekistan's future trade prospects are promising, driven by ongoing reforms, strategic infrastructure projects, and enhanced regional cooperation. Key factors influencing future trade dynamics include economic reforms, infrastructure development, regional integration, and diversification of export markets. Specifically, continued liberalization and structural reforms are expected to enhance Uzbekistan's trade competitiveness, with policies aimed at improving the business environment, reducing trade barriers, and promoting foreign direct investment (FDI) being crucial. Moreover, major infrastructure projects, such as the development of transport corridors and logistics hubs, will facilitate trade, with the Tashkent-Andijan railway and the expansion of the Navoi Free Economic Zone being notable examples. Additionally, strengthening ties with neighboring countries will boost trade. At the same time, enhanced cooperation under the Belt and Road Initiative (BRI), Global Gateway (EU), and the Central Asia Regional Economic Cooperation (CAREC) program will also play a significant role. Furthermore, efforts to diversify export markets beyond traditional partners like China and Russia will mitigate risks and enhance trade resilience, with expanding trade relations with the EU, the Middle East, and South Asia being key priorities.

Uzbekistan, like its Central Asian neighbors, faces the dual challenge and opportunity of being a landlocked country with a strategic geographical position, making its ongoing economic reforms, infrastructure investments, and regional cooperation efforts crucial for future trade growth. By diversifying its export markets and improving trade facilitation, Uzbekistan can enhance its role in the global trade network, thereby contributing to the economic prosperity of the entire Central Asian region. Although Uzbekistan's trade competitiveness is affected by its landlocked status and reliance on a limited range of export commodities, prioritizing trade facilitation and infrastructure development can help it overcome these challenges and improve its integration into global markets. This study underscores the critical importance of efficient trade logistics and regional cooperation in driving bilateral trade within Central Asia, offering empirical evidence of the significant benefits of

trade facilitation. Therefore, addressing these barriers is essential for advancing economic development and promoting regional economic integration in Central Asia.

Conclusion

Uzbekistan's trade dynamics are shaped by its geographic and economic context, which is characterized by significant challenges and opportunities. While infrastructure deficiencies, bureaucratic hurdles, and dependence on commodities present formidable challenges, opportunities for diversification, regional cooperation, and trade facilitation offer pathways to enhanced trade competitiveness. The gravity model analysis highlights the critical role of trade facilitation measures in boosting trade volumes, emphasizing the need for strategic investments in infrastructure, customs, and regulatory frameworks. By addressing these areas, Uzbekistan can improve its trade efficiency, integrate more effectively into global markets, and achieve sustainable economic growth.

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