Trade Facilitation Factors: National Versus Firm Level

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Abstract

The importance of international trade unequivocally imposes the imperative for its further promotion. The paper presents the state-of-the-art and analyzes the factors that facilitate trade. The conceptual framework aims to indicate the importance of continuous trade facilitation, present the related literature, and provide guidelines for further contributions to increase international trade's intensity, efficiency, and volume. To comprehensively analyze and present valid conclusions, trade facilitation factors are considered in two ways: 1) at the level of national economies, presenting the factors that contribute to countries’ exports/imports; and 2) at the level of individual companies, pointing out determinants for easier access to foreign markets. This way, a systematized overview of factors facilitating international trade is presented at the macroeconomic and firm levels. Also, the article provides recommendations for future development with special attention on non-tariff measures, export/import procedures, trade logistics, and modern technologies in facilitating international trade. The presented research framework is dedicated to policymakers and international trade managers. At the same time, it serves the purpose of future empirical research that would test and compare the impact of identified factors on the volume of international trade.

Keywords: export; import; international trade; non-tariff measures.

1. Introduction

Trade facilitation implies the influence of certain factors on increasing the intensity, efficiency, and volume of international trade. The World Trade Organization (WTO) defines trade facilitation as "simplification and harmonization of international trade procedures", whereby trade procedures are "activities, practices and formalities that include the collection, presentation, communication and processing of data required for the movement of goods in international trade". Some points of departure for the consideration of trade facilitation factors concern bureaucratic conditions, customs procedures, and applied payment methods. Later interpretations of this term see trade facilitation as a measure or policy that accelerates the movement, customs clearance and other operations related to the flow of goods (TF/UK, 2011). Such a concept includes not only customs, but also factors such as port facilities,
transport, and logistics. According to the definition of the UN Center, which deals with trade facilitation, it includes "simplification, standardization and harmonization of procedures and related flows of information needed to move goods from seller to buyer and execute payments" (UN/CEFACT, 2020).

International institutions that are particularly dedicated to international trade issues and its promotion are WTO, UN, and World Customs Organization (WCO), as well as other international and national agencies aimed at economic development, security of supply chains and specific issues related to functioning of international trade. Although a large part of the recommendations and actions in terms of the adoption and implementation of international trade policies originate from the aforementioned international institutions, whereby governments strive to implement international conventions and recommendations at the national level. Grainger (2011) points out that trade facilitation is basically a topic focused on operations and deserves to be approached "from below", from the point of view of individual economy, according to its needs and requirements. Such an approach provides strong arguments for an interdisciplinary research agenda and finding an adequate solution for international trade stimulation. The open question is whether the institutions have adequate capabilities related to international trade facilitation.

Research shows that WTO activities, efforts to reduce international barriers and policies aimed at promoting world trade were contributing to stimulation and stability of international commodity trade (Ossa, 2014; Bagwell et al., 2016; Larch et al. 2020). At the same time, Ossa (2014) states the example of trade wars as a bad example for international trade with negative impact for all participants in international markets. The benefit of preventing such tensions and avoiding trade wars is estimated at 340 billion USD annually. In addition to stimulating international trade, WTO membership, due to its activities, is also associated with economic growth and structural changes (Bagwell et al., 2016). Larch et al. (2020) found that accession to the GATT/WTO increased trade between member countries by 139%. However, some research did not prove the existence of concrete effects and positive consequences for trade facilitation through WTO membership (Rose, 2004), but it is undeniable that negotiations with the aim of reducing trade barriers and harmonizing regulations enable the growth of international trade. It is noticeable that after each round of negotiations within the GATT/WTO, which aim to find ways to stimulate and facilitate foreign trade, there is an increase in its volume. It includes principles of non-discrimination, reduction of tariffs, elimination of quantitative restrictions, elimination of non-tariff barriers and transparency.

At the same time, trade facilitation factors can significantly impact international trade activities for individual companies. There is no doubt that trade facilitation through the formation of an adequate institutional environment can contribute to the increase of international trade for individual participants as well. However, the question is the impact on small and large exporters. Fontagné et al. (2020) notice that while information availability benefits small and large exporters, other measures like advance ruling, appeal procedures, and the automation of border formalities tend to favor large exporters. Despite this, factors such as customs procedures, trade agreements, efficiency of supply chains, access to the market and entry requirements, efficiency of the payment mechanism, and application of modern technologies in these procedures, are prerequisites for a higher probability of access to foreign markets for individual companies.

The paper is structured as follows. After the introduction, trade facilitation is discussed at the macroeconomic level. The third part is devoted to the issues of international trade promotion from the perspective of individual companies. After that, the key determinants that
contribute to international trade facilitation from the micro and macro aspects are singled out. The last part of the paper presents conclusions and provides proposals for future research.

2. What facilitates trade between countries?

The growth of international activities and trade was especially initiated by the reduction of trade barriers, regional trade arrangements, and integrations. The emergence of the first serious economic integrations is related to the second half of the 20th century when the total exchange of goods in international markets was at a much lower level than today (Mangan et al., 2008). Economic integrations led to the growth of international trade, mainly through the increase in mutual trade between member states, as is the case within countries in the European Monetary Union (EMU) after joining this integration (Stanišić & Janković, 2012). In addition, the accession to the EU enabled the growth of international cooperation and the increase of bilateral foreign trade flows between member countries. Based on this fact, economic integration, as well as the conclusion of independent bilateral and multilateral trade agreements, which most often rely on the reduction and abolition of customs duties, can serve as a positive example of encouraging international cooperation and intensification of international trade. One of the key factors that can also have a significant impact on the volume of international trade is the effect of economic diplomacy, political and economic relations between countries, and activities to improve the country’s position in bilateral and multilateral relations through diplomatic activities (Moons & van Bergeijk, 2017).

With the decline in the level of tariffs in the world, trade facilitation through non-tariff instruments is gaining particular importance. Trade barriers for import and export also refer to the numerous documents required for the circulation of goods and services on international markets. Simplifying this procedure requires respect for safety standards and quality of goods. The regulations and procedural aspects of non-tariff measures include sanitary and phytosanitary controls and physical border inspections (Cadot et al., 2018). The growing intensity of international trade and modern distribution and procurement systems, together with logistics services and the emergence of e-business, have created pressure on countries to provide efficient, fast, and reliable border crossing and customs clearance procedures. Countries’ exports largely depend on the efficient execution of imports, hence the need for a holistic approach in order to manage international trade activities more effectively. Lack of transparency, rules and regulations, redundant and time-consuming customs clearance processes and requests for multiple different documents increase the costs and time of trading. These problems can be a greater obstacle to international trade than tariffs and quotas (Wilson, 2007). For this reason, it is important to improve administrative efficiency, reduce costs and time to enter the world market, and increase predictability in global trade.

Reducing bureaucracy and trade costs attracts investment and indirectly boosts economic growth. Trade facilitation measures can particularly benefit developing countries, where it often takes three times longer to export goods than in developed countries. Exports from developing countries require almost twice as many documents and six times as many signatures (World Bank, 2020). UN estimates that the average customs transaction involves 20 to 30 different entities and around 40 documents. According to OECD, a 1% reduction in transaction costs would increase global GDP by USD 43 billion, with two-thirds of that going to developing countries. Djankov et al. (2010) examined, using a gravity model of trade, how time lags affect trade. Their results indicate that each additional day of product delay reduces trade by more than 1%. The authors compare this data with the fact that one day of delay in the international delivery and transportation of a product is equivalent to an additional distance of 70 kilometers between trading countries. Analogously, Hummels and Schaur
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(2013) estimated that each day in transit of goods is equivalent to an additional duty of 0.6 to 2.1%.

The time of international transport, including the necessary customs and control procedures in international trade, is one of the most important factors. It can negatively affect the volume of international trade and reduces the chance that companies will access international markets at all. With the globalization of world markets and the intensification of global supply chains, timeliness of delivery is becoming imperative in achieving competitive advantage. Certain products are becoming more time-sensitive due to market trends and growing competition, so many developing countries need to shorten delivery times to remain competitive in global markets. OECD research (Nordås et al., 2006) shows that reforms in this sense can be implemented at relatively low costs even in low-income countries. The scope of this research provides case studies and econometric evaluations of the relationship between time, logistics services and trade performance, concluding that the time component forms an indispensable part of facilitating international trade.

International transport efficiency requires good logistic support. Transport issues, which mainly relate to infrastructure, should be treated separately from other elements of trade facilitation. The basic considerations of trade facilitation deal with institutional reforms and improving regulation, while facilitating transport and related logistics activities can be extremely useful in intensifying internal and international trade. The World Bank in its research on cross-border trade (Trading Across Borders) includes this segment of trade facilitation through the analysis of costs and time of transport and the efficiency of logistics centers and port facilities. This approach covers trade facilitation in a broader sense, where in addition to the procedural aspect of trade, the efficiency of international transport is emphasized. Accordingly, the trade facilitation process contains multiple dimensions, including border procedures, documentation flow, time required for export and import, trade costs, as well as physical connectivity factors, transportation, and infrastructure. Research (Marti et al., 2014; Zaki, 2015; Seck, 2016; Coşar & Demir, 2016; Fugazza & Hoffmann, 2017) confirmed that improving these determinants makes a positive contribution to increasing the intensity of international trade. When it comes to physical connecting factors, the transport infrastructure of an economy can be a decisive factor in stimulating international trade (Coşar & Demir, 2016). Public investments in road and rail infrastructure can significantly facilitate the movement of goods in domestic and international trade, where national transport infrastructure affects the ease of access to international markets. The value of 10-year trade flows generated by investment in road infrastructure per USD 1 invested ranges between USD 0.7 and USD 2. Traffic connectivity is a crucial determinant of bilateral trade, both in road and maritime transport.

3. What is important for individual companies?

The macroeconomic environment is certainly the starting point for business development and export promotion. However, within the general prerequisites for international trade facilitation, certain specific factors may differ significantly based on a particular industry or company itself. Seck (2016) suggests that improving the efficiency of customs clearance of goods, state procedures, trade financing, as well as road infrastructure, give a greater chance for an economy and its subjects to enter global trade flows. In that process, exports of goods are more sensitive to trade facilitation than imports, which has a favorable effect on the adjustment of the balance of payments. There is also a factor of distributional effect because larger and smaller companies benefit differently depending on which reform and direction of trade facilitation have the strongest impact. Segments of certain benefits should be considered
in a way to better use the trade potential of a particular economy especially when there is uncertainty about priority issues for multilateral agreements in the field of trade. In this regard, Grainger and Morini (2019) highlighted four interdependent factors that determine the degree of trade facilitation:

- Simplification and harmonization of applicable rules and procedures;
- System modernization and trade compliance;
- Administrative practices (management and state services);
- Institutional mechanisms and tools.

The importance of these factors can have a different impact depending on the individual requirements of companies when exporting or importing goods. One of the main goals of trade facilitation is to achieve the best possible competitive advantage for domestic companies in international markets. In this respect, and as an additional element besides administration and procedure requirements, Coşar and Demir (2016) concluded that the price of an average shipment via a high-capacity highway is about 70% lower than that of regional roads. This makes logistics particularly important. Efficient logistics and transport infrastructure thereby facilitate trade and enable participation in global supply chains. Fugazza and Hoffmann (2017) presented an empirical assessment of the relationship between bilateral connectivity through the maritime transport index and merchandise exports. Empirical studies show unequivocally that the lack of a direct maritime link with a trading partner leads to a lower export value. Each additional transshipment of goods is associated with as much as 40% lower value of bilateral trade. The results indicate that the quality of bilateral connectivity is a crucial determinant of international trade. Bilateral cooperation between trading partners and principles of economies of scale could boost the efficiency of international trade.

In addition to production costs, inputs, and labor force, international competitiveness also depends on trade costs such as the number and price of customs duties and shipments. Trade facilitation, through increasing the transparency and efficiency of international trade flows, aims to reduce the time and costs of operations in international trade. This implies a broad concept that can be applied to the entire supply chain, from the manufacturer to the end customer, and the efficiency of trade and logistics operations can be as important for competitiveness as the efficiency of production. In recent years, trade and transport costs have become an increasingly important topic in trade policy, so trade facilitation can rightly be considered a key element in trade and development strategies. The main reason for this perception is that the costs of international trade such as border procedures, documentary requirements, delays, and logistics costs have a significant impact on the volume of trade. As the costs of tariffs continue to decline, the hidden costs associated with non-tariff trade barriers now create the greatest burden (Czapnik & Saeed, 2016).

Zaki (2015) shows that a multitude of factors influence trade facilitation, including the Internet, bureaucracy, territorial aspect, as well as the timing of transactions for imports and exports. From individual companies’ perspective, the timing of imports has a greater negative impact on trade compared to the timing of exports. Also, an important condition for more intensive international trade is the liberalization of trade and a policy aimed at the openness of the economy. Considering the sectoral characteristics, seasonal products and products with high added value are more sensitive to changes in trade preferences than other products. This imposes difficulties in identifying the exact requirements from the individual level in terms of trade promotion, where the previously identified general requirements play a dominant role.
However, we must be aware of special requirements at the level of individual companies, where it is possible to set standards at the industry level.

When it comes to the impact of trade facilitation on companies’ exports, a large part belongs to their commitment to finding a way to stimulate exports in the given market environment. Participation in business associations, and chambers, as well as experience in foreign markets, can play an important role. However, there is also the question of specific characteristics of companies and their size. According to Li and Wilson (2009), SMEs' exporting behavior seems to be significantly less responsive to improvement in transportation infrastructure but much more responsive to policy predictability and IT services. This speaks in favor of the importance and stability of the economic, institutional, and legal environment, especially for SMEs. From the government’s point of view, the instrument for achieving this goal can be reforms directed to those areas. What is certainly important for individual companies is the number of days required for the export and import of goods, customs, and regulatory obstacles, corruption, political uncertainty, legal protection, transportation, and IT services. Fontagné et al. (2020) also pointed out information availability as an important factor for export promotion for companies and conclude that the institutional environment tends to favor large exporters.

4. Future determinants for international trade promotion

Since 2019, most progress occurred in improving the availability of trade-related information, simplifying documentary requirements, and automating and streamlining procedures (Sorescu & Bollig, 2022). Finding adequate measures for more efficient border control, which do not reduce the quality of the procedure, would significantly speed up the process and facilitate international trade. One of the ways for this is the introduction of modern technologies in customs procedures and the digitization of all necessary documentation. Automation and digitization of procedures leads to better availability of information, and more efficient reception and processing of documents electronically, which ensures that customs and other border agencies have complete information in the shortest possible time. What is also important is that the impact of trade facilitation factors will not be the same in all branches of industry (Ossa, 2015). For example, international trade in certain industries is not so important for the national economy, while on the other hand, certain economic sectors and branches of industry are crucial for the functioning of the economy. In that case, the consequences of an ineffective and inadequate international trade procedure can be many times more pronounced and with greater consequences for the economy, and that is why the main task is to establish relief for those branches that need it most and where specific measures will give the greatest results.

Another potential way for more efficient trade is the improvement of payment systems in international markets. Modern technology and innovations in international payments shape the way of international trade, aiming to increase its volume and efficiency. Traditional payment systems encounter numerous challenges during international transactions due to the large number of intermediaries, information delays, security challenges, and lack of trust between market participants. All that affects the efficiency and intensity of the international trade process. Blockchain-based payment technology has the potential to alleviate the downsides of traditional transactions in international trade across industries (Chang et al., 2019). Blockchain is an innovative technology that serves as a decentralized database that uses cryptography to generate a series of linked blocks of data (Nakamoto, 2008). Such a system could speed up and facilitate the process of making payments in international trade without intermediaries and improve overall trade performance.
Innovative payment systems make international trade more efficient and participants more secure, so the introduction of new payment methods can be considered as another facilitating factor in international trade. The WTO report “Can Blockchain revolutionize international trade?” also encourages the importance of introducing new technologies in international transactions. The initial advantages of modern payment technology concern the reduction of redundant documentation, the elimination of paper, greater security and speed, and lower transaction costs. In this way, Blockchain technology affects the various steps involved in the international trade of goods, from trade financing to customs procedures, certification, transport, and logistics, and helps move towards greater digitalization of trade. Also, there is a potential benefit of this technology in the service sector, intellectual property, and government procurement (Ganne, 2018).

In an attempt to find alternative non-tariff ways to facilitate international trade, more attention is being paid to international trade logistics. Marti et al. (2014) point out that the quality of logistics greatly contributes to the facilitation of trade, especially for exporting countries, while in the case of importing goods, logistics also plays one of the most important roles. The positive contribution of logistics to more efficient trade is present regardless of the observed country and the type of traded products, which makes its contribution even more significant. Improving logistics performance can lead to more efficient international trade with lower costs. In this regard, the Authorized Economic Operator (AEO), established in 2008 for customs operations in the EU, has the task of making the EU economy the most competitive region in the world in terms of logistics, by speeding up the execution of services, security of supply chains and more efficient customs clearance procedures. Regarding maritime trade, given the important role that ports play in developing countries, it is essential to improve port infrastructure and services. This would improve the efficiency of logistics performance, while the regulatory role of the public sector in such systems would help achieve competitive prices and high levels of regularity and accuracy, thus providing significant benefits to progress in logistics. Additionally, digitalization of the process improves the quality of logistics services and enables cargo tracking and more reliable customs control. More efficient monitoring and control systems also enable the fight against corruption, which is characteristic of customs activities in many developing countries.

Logistics systems could be especially important for the business environment and operation activities of individual companies (Ačimović et al., 2022). Also, it provides benefits for trade in many aspects, including customs, international shipments, logistics services, and trucking and tracing (Bugarić et al., 2020). Good logistics performance could even provide value-added in promoting international trade within global value chains (Zaninović & Bugarić, 2023).

5. Conclusion

The paper presents and analyzes the relevant trade facilitation factors that are important for international trade promotion between countries and individual companies. The effectiveness and application of trade facilitation measures strongly affect the position of the country on international markets and the ability to export and import for individual companies. Those actions have significant contributions to companies’ success, the volume of international trade, and the level of economic development for countries.

Factors that facilitate trade and contribute to increasing its volume between countries and individual companies cannot be considered completely separately. For this reason, they are presented integrally, emphasizing that differences may occur in the importance of individual
measures, depending on the needs of individual industries and companies. Identified trade facilitation factors:

- Reduction of customs duties;
- Abolition of quotas and other trade restrictions;
- Membership in international trade organizations;
- Bilateral and multilateral trade arrangements and integrations;
- Activities of economic diplomacy;
- Simple and reliable border crossing and customs clearance procedures;
- Reducing bureaucracy and trade costs;
- Reducing time to export/import;
- Improving international shipments and transport efficiency;
- Public investments in road and rail infrastructure;
- Improving the standards and quality of information processing;
- Bilateral cooperation;
- Better legal regulation;
- Digitalization and digitization of operations and procedures;
- Innovative payment systems;
- Implementation of new technologies within supply chain operations;
- Reduction of transport costs;
- Improvement of traffic and logistics infrastructure;
- Improving the quality of logistics services.

As the ways of reducing customs barriers have largely been exhausted, through existing economic integrations and trade arrangements, a significant shift in the promotion of international trade is given to non-tariff barriers, which represent a wide range of benefits with the aim of more effective participation of countries and companies in international markets. Current literature shows a larger number of factors at the level of countries, while the needs and requirements from the point of view of individual companies need the attention of future research in this area. Greater understanding from both perspectives and effective implementation of trade facilitation measures would increase the efficiency of export and import activities and make a direct contribution to the increase in foreign trade.

**Acknowledgment**

This paper has been fully supported by the University of Rijeka project uniri-mladi-drustv-22-59 and funded under the project line ZIP UNIRI of the University of Rijeka, for the project “ZIP-UNIRI-2023-2”.
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