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Developing and Enhancing the Competitiveness of the Palestinian National Product: The Leather and Footwear Sector—Analysis and Evaluation of Government Interventions

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Abstract: In view of the leather and footwear industry's declining market share and production activity, our study aims to identify the most important challenges facing the leather and footwear sector related to the decline in its market share and production activity. It also aims to assess government interventions that have sought to enhance the competitiveness of the sector. In this framework, data on the values and quantities of imported shoes for the West Bank during the period 2010–2021 were used to compare the change in their direction relative to another selected commodity under the appropriate conditions for the use of this model, where the study sample included a selected sample of shoe factories and tanneries owners in the city of Hebron, which numbered 232 factories. This study focused on the “Difference in Difference” methodology. The results showed that there are no indications that the import of shoes from China is affected by these politics, and the success of this policy lies in subjecting the flow of imported goods to the scrutiny of the Palestinian customs department. Furthermore, the study also provides a vision for the Palestinian government to create a legislative structure to protect and support the national product.

Keywords: government interventions; competitiveness; leather and footwear; production activity; development



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1. Introduction

In terms of production and exports, the Leather and Footwear Sector was one of Palestine's most important economic sectors from the 1970s through the 1990s. Many problems, however, have harmed the sector's market share and reduced its productivity. Our study investigates the variables that have contributed to the sector's decline, as well as how successful recent government interventions have been in improving its competitiveness, raising its domestic market share, and growing exports. Following that, a set of measures is presented with the goal of reviving and stimulating this promising sector's growth. The importance of our study lies in evaluating the contribution of the policy of raising the customs tariff in limiting the import of ready-made shoes to the West Bank markets after the adoption and implementation of this policy.

Industrial policy plays a vital and significant role in promoting economic development plans and industrial countries' policies. Customs tariffs are seen as an important aspect of this strategy, as well as a mechanism for setting payment scales and foreign currency balances. Many “third-world” countries rely on customs taxes to boost government revenue. The customs tariff is considered a vital part of this policy, and one tool in developing the scales of payments and foreign currency balances. Many of the “Third world” countries depend on customs tariffs in promoting government incomes [1]. The customs tariff policy is normally connected to the idea of the substitution of imports, where local industries are substituted with foreign ones by rising customs tariffs, especially on ready-made goods. Customs tariff has many forms. Some are imposed as a fixed value for each unit

of imported goods, as a rate of the item price (ad-valorem tariff), or both. In all cases, this policy contributes according to its proponents in developing local marketing [2].

Although most economists and schools of thought advocate for free trade, some advocate for protection, inward-looking policies, and import substitution, as shown in this article's historical and theoretical assessments. One of their main causes is that most of the presently industrialized nations employed tariffs effectively to safeguard their newborn sectors during the early phases of their economic growth. The other point is that due to the subsistence, decentralized, and small-scale character of their economic operations, collecting adequate taxes from domestic activities is extremely difficult in the early phases of economic growth. As a result, taxes on foreign commerce, mostly imports, cannot be ignored. Another rationale for implementing tariffs is the recurring challenges that have forced many developing nations to take out large loans from overseas to pay their debts and fund development initiatives, prompting some to coin the slogan "trade, not assistance". Even from the perspective of industrialized and big nations, the optimal tariff theory offers another argument against free trade. The dispute between trade optimists and pessimists has raged for centuries and continues to this day. Almost all parties agree on the significance of trade, but there is disagreement on how the advantages of free trade should be distributed between rich and poor countries. As a result, rather than theoretical generalizations, actual investigations and empirical research are needed to determine the effect of tariffs. One of the recent studies aiming to find out the supportive government impact is the Mondal and Jerry study (2022), where their main goal was to find out how manufacturers come up with ways to achieve better results, how government action affects the best results, how to improve the efficiency of the supply chain, and how government support can effectively increase sales volumes by improving the greening levels of products [3].

Despite the importance of the customs tariff policy's goals, economists continue to differ regarding its practicality. Many studies show that trade openness has a positive impact on economic growth and well-being [4–7]. In the Palestinian situation, the customs income shares formed the main part of the total income of the environment. It was approximately 24% in 2017. This high percentage might be the main reason that PLO did not adopt the customs tariff policy widely, as a tool to decrease imports and enrich the market share of the local products. Decreasing customs returns, in the case that it happens, will affect the governmental returns negatively for the short-term period, especially with tax evasion in the Palestinian market [8]. Despite the widespread use of tariff escalation and rising evidence of the benefits of low-input tariffs, present trade theory does not support it as a welfare-maximizing strategy. Early neoclassical models with homogenous commodities clearly compare input and final-good tariffs, but they do not prove that optimal input tariffs should be lower. Modern Ricardian trade models highlight that the first-best trade policy needs uniform tariffs across sectors, and that tariff de-escalation may be optimal in second-best settings without export taxes. According to our perspective, political counter-lobbying is the fundamental theoretical rationale for tariff escalation [9,10], in which all enterprises lobby for output protection, but final-good manufacturers counter-advocate against tariffs on their imported inputs.

Low-input tariffs are not just a crucial component of trade policy; empirical data also suggest that they improve firm and worker results in downstream industries. Lower input tariffs result in considerable productivity benefits, according to preliminary studies [11–13], while new evidence shows that recent US input tariff hikes hurt manufacturing employment [14,15] and exports [16].

There is no doubt that the issue of competitiveness is the topic of the hour for economists and others interested in this subject. When it comes to the reasons for the study of competitiveness of the footwear and leather sector, in particular, it stems from great attention to providing protection for Palestinian national products within highly competitive advantages; that is, whether to provide high production quality or low prices compared to similar products in other countries. The other reason is to promote the perfor-

mance of this sector on a purely scientific basis. Moreover, it is necessary to increase the contribution of these industries to the industrial sector and thus increase the contribution of this sector to the gross national product at the expense of other sectors, specifically the services sector, and ultimately to reach a high percentage of contribution to Palestinian foreign trade through these types of industries.

Based on the foregoing, the importance of the study lies in finding out the real reasons that stand in the way of increasing the competitiveness of the shoes and leather industry in a scientific and thoughtful way that will enable us to develop solutions that suit the desired goal. It is important to raise the competitiveness of these industries to be in line with the ranks of the countries that currently have an advantage in competitiveness in this field. This is achieved by analyzing government interventions by raising customs tariffs, as well as the government's direction to encourage clustering, which will also contribute to increasing the competitiveness of the product. The research gap lies in the lack of sufficient research talking about government interventions to protect the local product, especially in a country such as Palestine that does not have any presence or control of Palestinian customs officials over the flow of imported goods through Israeli ports, which poses a difficult challenge, as there is no port for the State of Palestine for political reasons. It is a country that is not economically independent, which negatively affects the effectiveness of the application of this policy.

Given the importance of the footwear and leather sector and the increase in the industrial sector's contribution to the national product, it was necessary to take into consideration the reality of this sector and the ways to support and develop it. While monitoring the increasing interest in the manufacture of shoes and leather, and to keep up with the civilized progress and the development of consumer tastes, we have set the objectives for our study as follows:

- Satisfying consumers' desires with Palestinian manufactured goods of high quality and reasonable prices that correspond to their budget.
- Achieving relatively high profitability for producers in order to increase the volume of their investments in these industries and motivate other owners of capital to invest in this sector or one of its links.
- Substituting our imports of similar goods and encouraging our exports of these goods in order to reduce the deficit in the Palestinian trade balance and the balance of payments, and thus reduce the flight of hard currency abroad spent on this type of goods.

Therefore, the study problem is limited to addressing the following research question based on the previous factors: Will the import of shoes from China be affected after the implementation of the decision to raise the customs tariff?

The study questions were focused as follows:

1. Is there a role for demand conditions in developing the competitive performance of shoe and leather factories?
2. Is there a role for supply conditions (production factors) in developing the competitive performance of Palestinian shoe and leather factories?
3. Is there a role for the supplementary and supply industries (cluster) in developing the competitive performance of the Palestinian shoe and leather factories?
4. Is there an impact of the governmental role that supports competitiveness in developing the competitive performance of the Palestinian shoe and leather factories?

However, our study is based on the main hypothesis that there are no statistically significant differences in the change (growth) of the import level between The treated group and the control group. In our study, the methodology used was "Difference in Difference". The methodology of "Difference in Difference" will be applied to isolate the impact of the factors accompanying the application of raising customs tariffs. This methodology is widely used to estimate the (causal effect) of governmental interventions by comparing changes that occurred in the treatment group via the governmental interventions targeted. We also

assessed changes that happened to imported shoes (control group) that the governmental interventions did not target. In this study, several final goods were chosen that were not subject to the customs tariff raising, functioning as the control group, and these were chosen based on the similarity between the pattern of importing and the pattern of importing shoes, which fulfill the condition of the (parallel and assumption) hypotheses.

The regression model estimation results show that the sign of the function ϑ is negative for all years after the Customs tariff was raised on shoes. However, the estimated value of this function was not statistically significant, which confirms the validity of the hypothesis and the appropriateness of the model used. However, the success of the policy of raising customs tariffs depends mainly on the correct disclosure of customs data, in addition to creating an entity for the Palestinian customs department.

According to Tseng et al., the protection of a national product is considered one of the pillars of the development of industrial production. Despite the fact that industrial and operation engineering are being pushed toward sustainability, the systematization of the information that underpins a company's production and operations, as well as their broad principles and numerous complementary aspects, is still lacking.

The industrial sector is moving towards lean manufacturing in Industry 4.0, with cyber-physical production systems, big-data-driven and smart communications, safety and security, artificial intelligence for sustainability, the circular economy in a digital environment, business intelligence and virtual reality, and environmental sustainability [17].

The protection of a national product is considered one of the pillars of the development of industrial production, but there is a lack of studies dealing with the issue of supporting the local product represented by the footwear and leather sector through government interventions, increasing its competitiveness in the market, developing it, and seeking its growth. So, our study focuses on the dissemination of a culture of support for the national product and directing the government toward issues on the legislation and laws that work to support a breakthrough in the industrial sector in general and overcome obstacles to the success of the national product. The government of Palestine plays a fundamental role in protecting products by creating a national product and encouraging the local national industry and producing them with international specifications that help the Palestinian industry compete. Furthermore, the absence of the local product from markets cannot guarantee the full achievement of the objectives of activating the law by giving preference to the national product in its contracts and supporting the ability of producers to strengthen their competitiveness in the domestic market and foreign markets.

2. Review of the Literature

Over time, economists have developed theories explaining World Trade, which are called "theories of international trade". Theories of international trade explain what exactly happens in international trade, such as mercantilist theory. This theory was popular in the sixteenth and eighteenth centuries. During that time, a nation's wealth consisted only of gold or other types of precious metals, so theorists suggested that nations begin to accumulate more and more gold and other types of metals. European countries began to do this. Adherents of mercantilism during this period stated that all these gems signified the wealth of the nation, and believed that the state would only be strengthened if the nation imported less and exported more. In our study, we look at trade policy in the context of intermediate and final good exchange. Tariffs on finished items are typically greater than those on inputs, a phenomenon known as tariff escalation. However, neoclassical trade theory—and, in particular, current Ricardian trade models—struggle to explain this. In the context of scale economies, we show that tariff escalation may be defended on efficiency grounds. A unilateral tariff in any sector raises a country's relative wage while also increasing the size and productivity of each sector, both of which improve welfare. International trade theory has progressed through several stages and is now regarded as one of the primary components of "globalization", alongside foreign direct investment (FDI) and other types of financial flows. The Mercantilists believed that stimulating exports

while limiting imports helped governments increase their wealth and power. Classical economists, on the other hand, introduced the idea of comparative advantage, which is based on resource endowments and efficiency. They were outspoken in their condemnation of government interference in trade, arguing that market forces can perform a better job if left alone. The Modern economists who came after the Classical economists, on the other hand, fought against the Classical economics' "laissez-faire" approach. Because the global economy is so linked, domestic policies such as monetary and fiscal policies by certain nations may have an impact on its trade partners, necessitating government action to closely monitor and implement remedial adjustments and remedies. This review of the literature discusses two aspects of trade: Trade theory and trade policy. The viewpoints of many schools of thought on trade theory are first recorded, and then the economic role of one of the tools for trade policies, the customs tariff, is examined from the perspectives of protection, revenue collection, the balance of payment, and economic growth. Reviews of international trade theories of economists may be divided into four groups based on their perspectives on international trade: Mercantilists, classical economists, neoclassical economics, and contemporary economists. These four schools of thought about international trade ideas are briefly discussed in the parts that follow.

2.1. The Mercantilists' Point of View

Mercantilists such as Jean Baptiste Say and Thomas Mun believed that exporting more commodities to other governments helped a nation amass greater wealth in the form of trade surpluses than importing them from outside in the seventeenth century. Overseas exchange in the form of gold and silver was required during the Mercantilist era to finance foreign purchases and pay foreign trade taxes.

According to the Mercantilists, the accumulated trade surplus, together with other domestic resources such as tax, allowed a monarch to increase their royal authority both at home and abroad. They spend the money at home to fund their armies and fleets. Simultaneously, they use it to compete with their overseas peers in the shipbuilding industry. As a result, the crown's strength was determined by its capacity to mobilize resources from both local and foreign sources. The Mercantilists were similarly concerned about how to enhance the authority of their governments.

2.2. Classical Economists' Point of View

The theory of international trade drew the attention of the most prominent economists of the eighteenth century, and their works are still used to guide us in understanding the importance and problems of international trade because the factors that prompted the theory still demand the attention of today's economists and policymakers. Classical economists such as David Hume, John Stuart Mill, David Ricardo, and Adam Smith had opposing views on the significance of commerce in the eighteenth century. Even if their following views emphasized the necessity of commerce more, their focus was not the same as that of the seventeenth-century Mercantilists. They were more worried about the crown's subjects than the crown itself [18]. They believed in the role of market forces rather than official rules and restrictions. Classical economics believed in a "world of harmony and peace", in contrast to the Mercantilists' belief in a "world of struggle and war".

They preached the idea of "laissez-faire", or little government interference in the economy. David Hume developed the influence of international commerce on local prices through his quantity theory of money. He claimed that prices and trade that flow naturally regulate the amount of money in circulation. In his work on the law of demand and supply, John Stuart Mill also demonstrated how foreign markets decide to price. Through his comparative advantage argument, David Ricardo, the originator of the free trade ideology, emphasized the necessity of free commerce. The relevance of the export-driven argument was further added to free trade by Adam Smith's productivity thesis, which went beyond the free trade concept. For Classical economics, a country's success is assessed in terms of its inhabitants' well-being, not in terms of the monarchy's authority.

2.3. Neoclassical Economists' Point of View

The free trade views of 19th century Classical economists such as David Ricardo and John Stuart Mill are founded on the premise of perfect worker specialization. According to this theory, trade is fueled by disparities in labor efficiency between nations for various products. However, two 20th-century neoclassical economists, Eli Hecksher and Bertil Ohlin, both from Sweden, contested this premise of the prominent Classical economists [19].

They replaced the complete labor specialization assumption with "component endowment trade theory", which posits that global relative labor productivity is the same. This argument is based on the idea that all nations can benefit from technical advancement, which Classical economists think causes disparities in labor productivity for various commodities in different countries. The source of trade, according to neoclassical economists' factor endowment theory, is variations in factor endowments, not differences in labor productivity. Land, capital, and labor are the components they view to be causes of international commerce.

2.4. Modern Economists' Points of View

Later on, economists who formed protectionist ideas began to confront both classical and neoclassical economists at the same time. The main criticism leveled against them is that they overlooked the effect that sovereign governments have on international trade. Instead of being separate countries, they treated the world's nations as regions or states inside a nation. However, national governments may influence international trade behavior in a variety of ways that are not available to domestic commerce. Taxes, subsidies, and quotas that can be applied to imported commodities may or may not be equally applied to domestic goods. Every sovereign nation's approach to designing and using these policy instruments may have an impact on its trade partners. The other main source of criticism came from individuals who believe that free trade does not benefit all countries equally. This school of thought contends that industrialized economies reap a greater share of the advantages of free trade than emerging countries. Thirlwall [20], for example, identifies three significant explanations for today's uneven trade benefits: Manufacturers in developed nations wanted primary products with low import content, technology allowed certain companies to replace synthetic inputs for raw materials, and developed countries favored low import content of basic goods.

Todaro and Smith [19] believe that several of the neoclassical economists' assumptions are far from reality, in addition to the three criteria identified by Thirlwall as being against the free-trade hypothesis. Some basic assumptions of neoclassical economists, according to Todaro and Smith [19], include: "fixed resources, full employment, and international immobility of capital and skilled labor; unemployment, resource underutilization, and the vent-for-surplus theory of international trade; fixed, freely available technology and consumer sovereignty; and trade gains accruing to nationals are easy to make on paper but difficult to achieve in practice". Even if customs tariffs are seen as a big commercial obstacle on one hand, they also provide their own set of benefits on the other. In other words, the demand for customs tariffs is determined by economic gains. Protective, revenue, income distribution, employment, balancing of payments, import substitution, and economic growth are all key economic functions it performs. Beyond these economic functions, some suggest that high levels of "nationalism" and "patriotism" [21], wealth redistribution, and national security are sometimes linked to customs tariffs [22].

Our study seeks to develop the competitiveness of the local Palestinian product represented by the sector of shoes and leather through the study of the impact of government interventions, where the objectives of the Palestinian government behind this intervention, according to the researcher's point of view after reviewing the literature and theories of international trade, are as follows:

- Providing adequate safeguards for domestic industries and investors;
- Providing producers and investors with "Price Signals";
- Promoting the replacement of locally produced items for imported commodities;

- Keeping the imbalance in the balance of payments under control;
- Importing dangerous and harmful items from other countries is prohibited;
- Serving as a source of revenue for the government

One of the main goals of applying customs tariffs is to act as an import substitute. Import substitution is a method that many developing nations have tried and continue to employ to replace imported commodities with equivalent indigenous ones. According to Todaro and Smith [19], “the economic rationale put forward for establishing import substituting manufacturing operations is either that the industry will eventually be able to reap the benefits of large-scale production and lower costs (the so-called infant industry argument for tariff protection) or that the balance of payments will be improved as fewer consumer goods are imported”. Even though tariffs are historically employed to raise income for the government, Krugman and Obstfeld [23] emphasize that the fundamental goal of tariffs is to safeguard domestic products against international competition. They also believe that tariffs were mostly utilized for protection in the early nineteenth century in the United Kingdom and in the late nineteenth century in Germany and the United States. According to Carbaugh [21], the goal of protective tariffs is “to shield import-competing manufacturers from international competition”. It is sometimes referred to as the “infant industry argument”. The tariff argument for defending argument industries is viewed as a transitory impediment to free trade. Protective tariffs, according to Carbaugh [21], are not the same as prohibitive tariffs, which are imposed to completely prevent foreign items from entering the nation. Some people, such as Felder, hold a different perspective on protective tariffs, explaining that they include a ban on international commerce in the protected item, a prohibition on imports solely, an import tariff, and an import quota. The contrast between nominal and effective tariff rates of protection aids in better understanding the idea underlying protective tariffs. According to Todaro and Smith [19], the nominal tariff rate of protection “states the amount, in percentages, to which the domestic price of imported products exceeds what their price would be in the absence of protection. Previous authors [19] defined the “effective rate of protection” as “the proportion by which the value generated at a specific step of processing in a domestic business can surpass what it would be without protection”. The effective tariff rates are the more appropriate basis for measuring the restricting effect of tariff structure on trade, as can be shown from these different definitions [20]. The effective rate of protection is commonly used to assess the level of protection provided to each activity as well as the impact of a country’s tariff schedule on domestic resource allocation [18]. In reality, as governments invented nontariff procedures such as import quotas, import licensing, foreign exchange control, export subsidies, and export restricting, tariffs’ protective influence waned [23].

The theoretical literature indicates that the tariff has two purposes: A fiscal function to produce income for government spending, and a protective role to provide assistance to troubled or strategic local infant industries by limiting foreign competition. For example, Slaughter [24] and Tybout [25] argue that protectionism, whether in the form of tariffs or non-tariff obstacles, permits emerging sectors to “learn by doing” and increase productivity before entering international commerce. The infant industry argument allows infant enterprises to develop, gain economies of scale, raise productivity, and compete favorably in the home market without being pressured by overseas competition.

Suranovic [26] believes that a short increase in domestic pricing helps small businesses to finance their high manufacturing expenses while staying competitive. It also enables businesses to reach a certain degree of efficiency and competency, allowing them to compete more effectively with their international peers. Essentially, young businesses have an opportunity to develop without external influence [27].

On the other hand, the study by Shafaeddin [28] warns that continuing protection of an infant industry might stifle its growth as an efficient manufacturing process that would allow it to compete in the global market.

In order to reduce foreign competition, infant industry protection should be transitory and not excessive, taking into account the conditions of the nation of interest.

The theory of trade recognizes the need for trade limitations, where interferences such as protectionism would be ideal in the event of domestic market failures. Import demand is projected to fall if tariffs are raised, easing competitiveness for domestic enterprises, particularly small ones, as import costs rise. In contrast to a moderate tax, which gives different preferences to imports based on their country of origin or the threshold existing before the application of partial duty reductions via reciprocity measures, Oslington [29] claims that when a tariff is high but constant across all imports regardless of their origin, trade may be diverted from its free flow.

In general, trade theorists believe that tariffs cause economic distortions, resulting in unequal resource allocation. These distortions may result in a loss of income, which the government uses to fund a variety of public programs, especially if appropriate policies are not implemented in tandem with the tax changes. Despite this, the country's revenue is heavily reliant on import duties. Furthermore, they wreak havoc on demand and supply patterns, as well as residents' well-being [30]. Tariff liberalization, on the other hand, provides better resource allocation by causing changes in relative pricing, hence increasing output and consumption.

According to Davids et al. study [31], chicken ranked first in South Africa's meat sector, accounting for 17.9% of agricultural production in 2011. Simulations were performed using a partial equilibrium framework to examine the implications of various import tariff scenarios on this effect. Their findings demonstrated that greater taxes on chicken imports would benefit local producers since their prices would rise, but on the other side, the purchase price would rise as well, affecting consumption, particularly among the poor. As a result, they pushed for a more "balanced" strategy to reduce the impact on consumer costs, such as a "zero VAT rating".

This is a scenario in which protectionism may skew consumer pricing, producing a fall in welfare while the sector thrives, which is contradictory to the assumption that protectionism leads to higher domestic demand for local products as well as increased production.

Blanchard et al. [32], using a competitive model, show that when a country's final-good imports include its local added value, the terms-of-trade motivation for final-good tariffs survives but is reduced. The fact that we model input versus final-good production separately, and that we allow for trade and tariffs on both types of goods, is a fundamental distinction between these previous studies and ours. In conclusion, the literature demonstrates that import duties raise revenue while lowering consumer welfare.

A considerable body of research uses a multiple linear regression technique and a partial equilibrium framework to investigate the impacts of tariff adjustments on trade, revenue, and welfare in developing nations. According to the literature, most LDCs have inadequate data on local manufacturers, particularly in terms of pricing mechanisms, efficiency, rate of entrance and departure, and economic externalities, hence empirical research shows gaps that are still unsolved. We use the World Integrated Trade Solution (WITS) Single Market Partial Equilibrium Simulation Tool (SMART) WITS SMART model.

Our study is distinguished from previous studies by the fact we are looking for competitiveness and the development and revitalization of the local national product through the government's policy of raising the tariff on imports of this product. The footwear and leather sector is one of the most important productive sectors in Palestine that contributes to the gross national product. Therefore, our study focused on this sector in particular, how the state can contribute to its competitiveness, and how the state can contribute, especially since we are considering a developing country that is not independent and faces political and economic challenges. Through our study, we concluded that achieving economic development and economic independence requires strengthening partnership and dialogue between the public and private sectors, and supporting national products is at the heart of the priorities of the work of the Palestinian government. The government should adopt supportive policies for the national industry through a set of programs aimed at developing functioning economic sectors, such as the cluster Block Program, the Innovation Support Project for the private sector, and other projects. Our

study used the standard analysis of the “Difference in Difference” methodology to estimate the extent to which the tariff hike policy has succeeded in limiting importation. This will be achieved by estimating a linear regression model for the period between 2010 and 2021 using data on imports from China to West Bank Markets.

This model was used in our study because it studies two time periods, “pre” and “post”, as well as two groups, “treatment” and “control”, included in the classic difference-in-differences (DD) model. The majority of DD applications, on the other hand, make use of variation across groups of units that are treated at various periods. This study provides an equation for this generic DD estimator, demonstrating that it is a weighted average of all two-group/two-period DD estimators in the data. This result has explicit instructions on how to apply regression DD in practice. We explain how the DD estimated the average treatment effect heterogeneity and how it is skewed when effects fluctuate over time. A new balancing test based on a uniform description of common trends is proposed. We demonstrate how to deconstruct the difference between two specifications in models that remove untreated units, weight, disaggregate time-fixed effects, account for unit-specific temporal trends, or exploit a third difference, and which model is commonly used to examine the causal impact of policy interventions.

Therefore, this model was used in our study because we aimed to study the impact of government interventions represented by the policy of raising import tariffs in order to protect the domestic product and increase its competitiveness.

On the other hand, our study contributes to the search for policies to support the national product and increase its share in the local market by increasing the number of industrial facilities and expanding existing factories, which contributes to reducing the problem of unemployment among unemployed youth, indicating the need to intensify media and advertising campaigns to promote the national industry through audio-visual media as well as social media.

After reviewing the previous literature, the main research structure and core are specifically described in the following four parts: A case study is presented in Section 3, data are described in Section 4, the methodology and evaluation are given in Section 5, Section 6 presents the results of the analysis, and finally, Section 7 presents the conclusion and recommendations.

3. Case Study

3.1. *The Leather and Footwear Sector in Palestine*

The Palestinian leather and footwear sector, which is mostly concentrated in the province of Hebron, has suffered from poor economic conditions and instability. The sector witnessed its golden age from 1975 to 2000, but it has been subjected to a continuous decline since then, and in an accelerated manner, for several reasons, most notably the political and economic reality, in addition to unfair competition with goods imported from East Asia due to the decline in prices despite its lack of quality. These factors have led to a decrease in the number of workshops in this sector from 1000 employing more than 30,000 workers (directly and indirectly) in 2000 to approximately 230, currently employing less than 2500 workers. Table 1 shows the most prominent points of strength and weakness, as well as the opportunities and challenges of this sector in Palestine.

Table 1. The points of strength, weakness, opportunities, and threats of leather and footwear sector in Palestine.

Point of Weakness	Points of Strength
<ul style="list-style-type: none"> • Low level of education for workers in the chain Value. • Limited understanding of quality and inadequate management system Public. • Inadequate and effective marketing and branding. • Lack of adequate know-how in cost estimates and pricing and lack of sound financial management systems in working facilities 	<ul style="list-style-type: none"> • The presence of a sufficient number of targeted facilities in Geographical areas and capital available for operation and expansion. • Most elements of the production value chain are available Locally. Through direct import or through intermediaries. • Power of logistics services for exports. • Provides local tanneries and provides raw material suppliers Local. • The geographical proximity between facilities. • Good reputation for products in the local market. • Provide some skilled designers. • Low turnover of manpower. • Flexibility and ability to produce all kinds of shoes
Threat	Opportunities
<ul style="list-style-type: none"> • The uncontrolled flow of competing products Imported. • General tendency to exit the industry, both Individuals and/or enterprises as a result of the unstable political and economic situation. • Changes in markets and fluctuations in demand and the seasonal nature of products. • Restrictions on the import of certain materials Necessary for the manufacturing process 	<ul style="list-style-type: none"> • Growing indicators of recovery in the industry through Return of workshops and investment in design and technology. • The existence of business support organizations and government agreements to expand to the Arab and regional markets. • Growth in public policy towards supporting national products. • Ability to vertical collaboration between various elements • Value chain and horizontally with complementary sectors.

Source: Compiled by the authors based on interviews with the local community.

Figure 1 shows the annual change in the level of export by destination between 2007 and 2016 measured by current prices. In 2007, the Israeli market took over approximately 94% of the total exports. This percentage declined for a while between 2010 and 2012 due to declining demand. The data show a significant *n* regarding the total exports of the Israeli market. The overall results of these data show a weakening of the leather and shoe sector to reach broad markets as a strategy to compensate for the low demand from Israeli markets. In general, export barriers according to the owners of shoe shops are as follows:

- Failing to reach broad markets because there is no qualified, marketing staff in leather factories, and there is no commercial annexation in the Palestinian embassy that contributes to promoting Palestinian products and providing data of export.
- Fear of customers in foreign markets of the inability of producers to fulfill the production demands because of the political upheavals in the Palestinian territories and their effects on production activities.
- High cost of shipping raw materials because of the restriction of the occupation on goods transport movement.
- Lack of commitment of the Ministry of Finance in paying tax returns.

In addition to that, the leather and shoe industries suffer from other problems represented by a decrease in the level of quality compared to standards and measures adopted in international markets. This failure is centered on small and medium factories, which normally depend on competition to promote their products. Table 1 shows the most prominent points of strength and weakness, as well as the opportunities and threats.

In consideration of the weaknesses and challenges faced by the sector, and in order to make optimal use of the strengths and opportunities available in order to develop and build on the competitive advantage of the value chain in the footwear and leather industry in the province, the general direction of the representatives of the sector is to work towards the establishment of the value chain of a specialized craft village for the footwear and leather industry in the province of Hebron in order to achieve the benefits of industrial and craft sectors that are prominent in the province. That establishes competitive excellence of a high level and a significant increase in market share, which contributes to increasing growth in the sector to increase the number of workers, expand markets, and achieve the targeted

increase in income to contribute to the improvement of economic and social conditions at the level of conservation and at the national level.

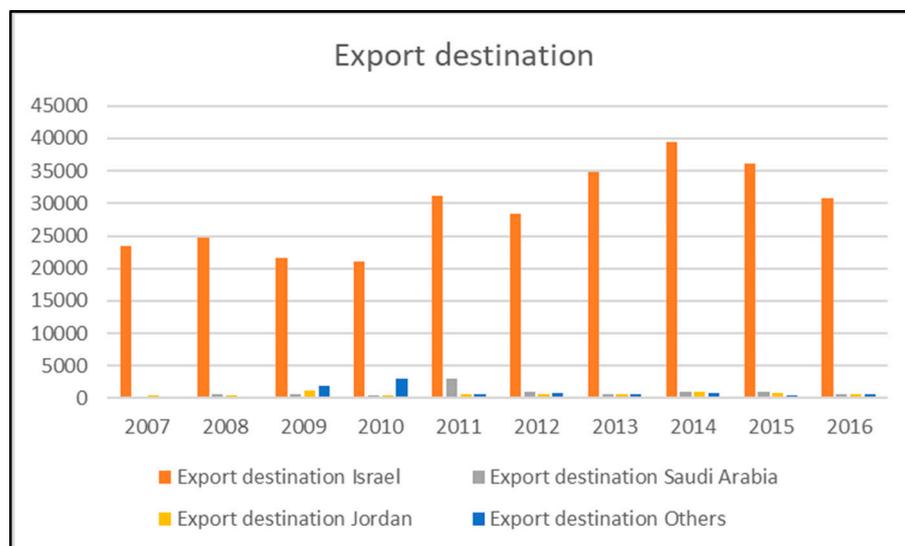


Figure 1. The value of exported shoes to several countries between 2007 and 2016 (thousand Nis). Source: Compiled by the authors based on Palestinian Central Bureau of Statistics.

The work towards the establishment and development of the concept of the craft village specialized in the value chain of shoes and leather in the Gulf by preserving the nature of the craft of the industry is one of the most important features of the leather industries in Palestine and neighboring markets. This is achieved through the collection of all the elements of production products and accessories necessary to achieve the best adherence to the model of national clusters and practical networking to enable networking and a push to improve the competitiveness of this product. This product has the capabilities and skills of crafts distinguished over generations in the province of Hebron as a major title within the directions of the Palestinian government in the establishment and launch of national industrial clusters. The specialized industrial craft village brings together several features as it works to achieve the interconnection between various components of the industry in a specific geographical spot with the necessary infrastructure to ensure the harmony of activities and skills at high quality levels in its various joints. The idea lies in the development of the value chain through networking and close cooperation between the various components of the relationship, in addition to the sector targeted by various elements of the value chain and the chains linked with them in both horizontal and vertical directions. It aims to develop capabilities and achieve cooperation and networking at different levels to ensure quality and effectiveness in achieving the necessary levels of competitiveness to expand in local and regional markets, targeted to maximize the employment and income of all components of the industry as a strategic source of contribution to the socio-economic stability of Palestine. It achieves these goals by providing the following services:

1. Training and skills development center in manufacturing (technology transfer), design (production development), and marketing (market and network development), among other requirements.
2. Center for creative design (continuous exploration of the latest global trends in fashion, research and development of materials and accessories identification, establishment and updating of the database of local and international suppliers).
3. Product development center, which contains the necessary equipment and devices to develop the designs and convert them into products according to the requirements of the markets, including advanced equipment to work with three-dimensional technologies and technological services according to demand.

4. The center and laboratories of testing and quality provide the necessary tests and certificates according to the operational and manufacturing requirements, including the conditions of occupational safety and health.
5. Special services and mass production center equipped with modern production plans support joint projects and the implementation of collective contracts for supplies, locally and abroad.
6. Marketing and investment center with services directed towards the exploration and development of markets and networking, with a special interest in trade and customs systems and investment opportunities to expand the industry nationally.

In the past years, the increase in shoe importing from Turkey, especially men's shoes, led to a duplication of competition challenges according to the local shoe sector. The number of Turkish shoe imports increased from approximately 361,000 in 2015 to approximately 938,000 in 2017. (See Figure 2). Many factors contributed to this increase, among which is the availability of partial shipping from Turkey to the Palestinian market, which led to a significant shortage of shipping costs. This caused many of the retail stores to import men's shoes, which have nearly the same quality as local shoes with competitive prices. Based on that, the lack of technology used in production, skilled administration, and the decrease in the capital led to a decrease in the marketing sector. Figures 2 and 3 show that in 2020 and 2021, the value and quantity of imports declined, and here we point out that the policy of raising customs tariffs had no effect on this decline but was rather due to the COVID-19 epidemic.

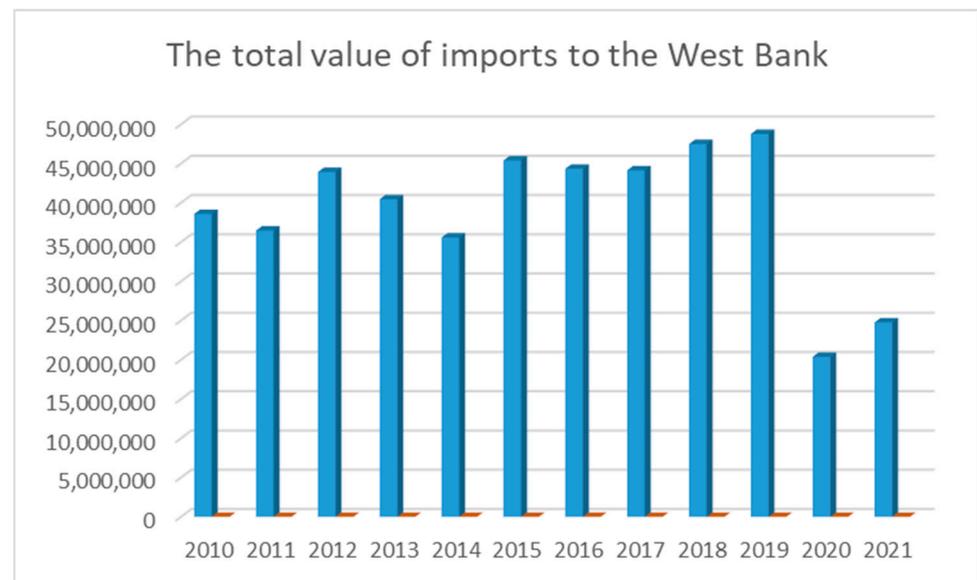


Figure 2. The value of imported shoes between 2010 and 2021 (NIS). Source: Compiled by the authors based on Ministry of Finance and Planning.

For the changes in importing shoes in the West Bank, the data show that the value of importing shoes declined in 2013 to 19% compared to the year before the application of this policy. However, this decline cannot be confirmed to infer the nature and the extent of the impact of this policy. The method of checking outcome differences before and after raising custom tariffs does not consider other factors that affect import flowing. Examples of these factors are price changes of shoes in exported countries, currency exchange rate changes, and changes in consumer income in the Palestinian market. Moreover, consumers change their interests in imported shoes or those that are locally manufactured. This nature of change in the flow of importing shoes can be easily examined during the years preceding and following the raising of customs tariffs. The data show the continuous rise and fall in the value of imports year to year. The decline in 2011 was followed by a noticeable

increase in 2012 before raising customs tariffs. Then it fell in 2013 and 2014. This was followed by another increase in the following years. Therefore, this decline in the value of importing may be attributable to other factors or an extension of others. Without isolating these factors, we cannot determine whether the change in the value of imports after 2012 was a result of the application of the customs tariff policy.

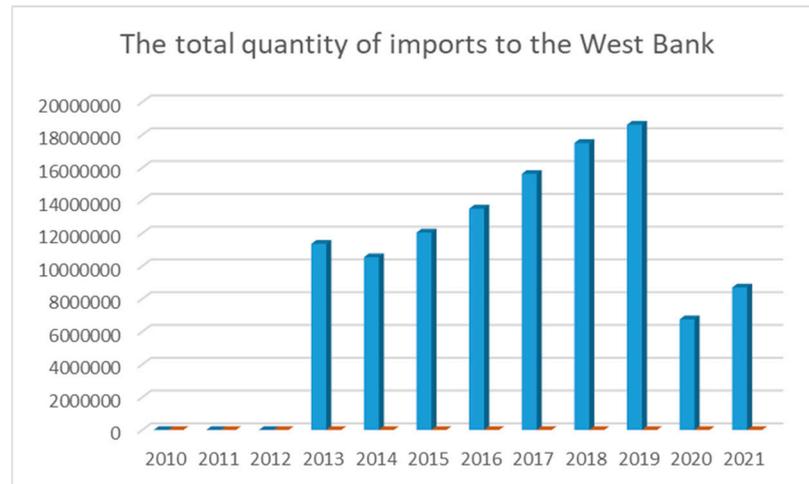


Figure 3. The quantity of imported shoes in the West Bank between 2010 and 2021. Source: Compiled by the authors based on Ministry of Finance and Planning.

The following describes the change of the value of imports by using data on registered quantity, which are more accurate than the value of the import. The number of imported shoes in the West Bank was approximately 13 million (see Figures 3–5) in the following years, and the flow of imported shoes increased to reach 15.6 million pairs in 2017.

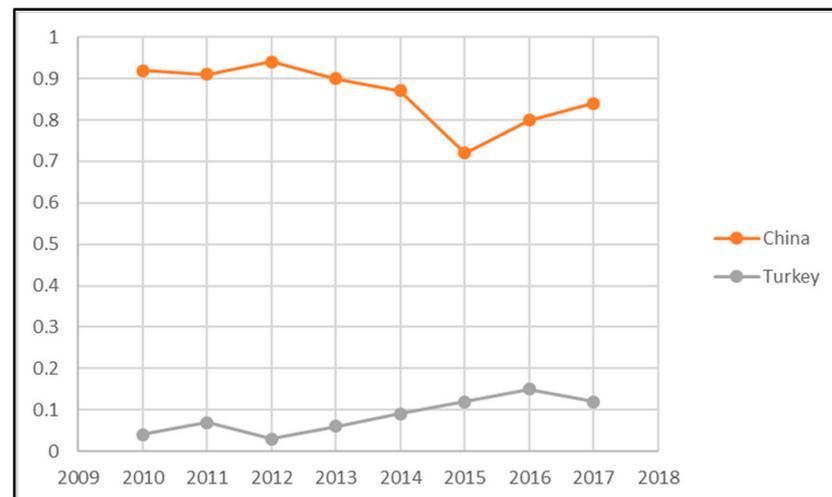


Figure 4. Ratio of imports to the West Bank by exporting country (China, Turkey). Source: Compiled by the authors based on Ministry of Finance.

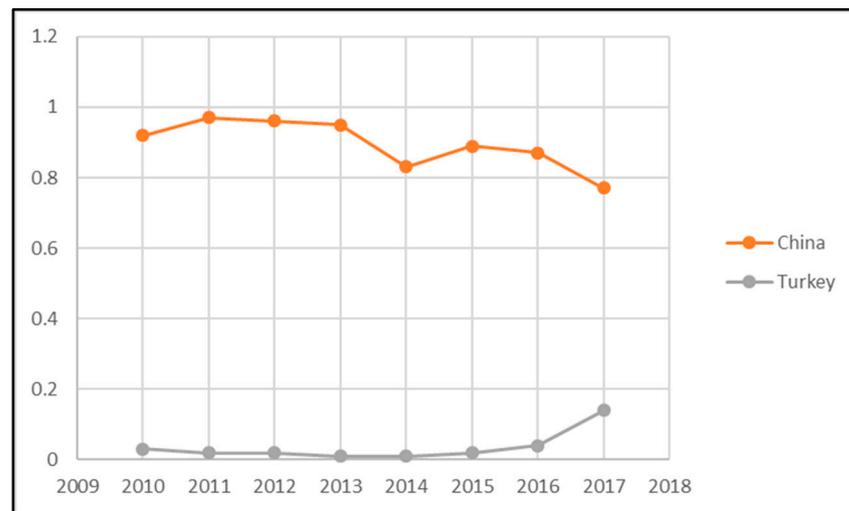


Figure 5. Ratio of imports to Gaza by exporting country (China, Turkey). Source: Compiled by the authors based on Ministry of Finance and Planning.

3.2. Government Interventions

For [33–35], the competitive environment of companies can be affected by government policies established in their country, either directly or indirectly. In addition, they can be conditions that contribute to the reduction of external risk for their economic activities. On the other hand, fortuitous events are not in the control of companies and have little relation to situations in the nation; however, the ability to adapt to and resist such a situation can generate an advantage for the company. The government in the Porter Diamond acts as both a catalyst and a challenger, as it seeks to encourage companies to raise their aspirations and move to higher levels of competitive performance [36]. Because the governments of each nation play a very important role in national competitiveness, Peña, Acedo, and Roldán [37] recommend that the manager of each industry should be responsible for designing new policies so that international activities can be promoted without fear of government activities that are taken in each nation. Previous authors [38] mention that national competitiveness is “... a capacity of the national economy to operate, which guarantees to increase the well-being of its citizens through factors of productivity in sustainable growth ...”.

In order for an industry within the market in which it is located to obtain a competitive advantage, it is necessary that it not only takes into account the economic factors that surround it, but also those natural factors that can influence its daily functions. In the same way, it must be in constant technological innovation that is consistent with the market in which it is located and in permanent vigilance of government decisions that may affect it. Parc [39] and Hanafi et al., [40] mention that Porter offers an approach to four prevailing ideas about national competitiveness, which are detailed below.

First, national competitiveness is not originated from a phenomenon macroeconomic, nor is it driven by certain variables such as exchange rates, interest rates, or government deficits. Yet, despite budget deficits, there have been nations that have enjoyed rapidly rising living standards.

Second, competitiveness is not a function of cheap and abundant labor that is related to the aging of the population. Thus, nations such as Sweden and Germany have prospered despite high wages and long periods of labor shortages.

Third, the traditional economic idea that competitiveness depends on having abundant natural resources has become obsolete, since resource-poor countries are doing better relative to resource-rich countries such as Germany or Italy.

Fourth, Porter emphasizes that competitiveness is not directly influenced by government policies, such as guidance, protection, export promotion, and subsidies. Apart from

the four ideas mentioned, Michael Porter indicates that certain characteristics of a nation are those that give rise to competitive advantage, for example, geographic concentration and rivalry.

Furthermore, one of the fastest ways to generate competitive advantage is through the creation of industrial clusters; that is, to unite various industries into a single group, so that they can fully understand who their competitors are and what strategies they must take to overcome them [41]. Michael Porter, cited by Huggins and Izushi [42], mentions that clusters are understood as “... geographical concentrations of interconnected companies, specialized providers, service providers, companies from related sectors and associated institutions (for example, universities, standardization organizations and trade associations) in particular fields that compete, but also cooperate”.

3.3. Competitiveness

By 1996, a final dimension for competitiveness was born. In 1992, the Organization for Economic Cooperation and Development (OECD) carried out studies to systematize the various approaches to competitiveness, proposing a comprehensive concept of “structural competitiveness”, based on three factors: “innovation as a central constituent element of economic development; the innovation capacity of an industrial organization, situated outside Taylor's theories, to develop its own learning capacities; and the role of collaboration networks oriented towards innovation and supported by various institutions, to promote innovation capacities”. However, this concept has been limited in developing countries, where the implementation of local and regional strategies for economic development is essential, in addition to having a lack of effective companies that are necessary for a structural competitiveness approach [43]. In this way, the concept of competitiveness was born, developed by a research group of the German Development Institute [44], where Esser and other authors, in 1996, stated that competitiveness constitutes a reference framework for countries industrialized and developing, and is born from the need to have an environment to face the challenges of globalization [45].

3.4. *The Role of Cluster Gathering of the Leather Industry in Reducing the Shrinking of the Leather and Shoe Sector*

Cluster

Porter [46] defined the term cluster as the concentration of several companies that belong to the same sector and to the same link in the value chain of an economy, which, with the right conditions and innovation, can become a valuable instrument to enhance the benefits of the environment in which it is located, reducing the risk that the economy does not respond to the needs of society. The original definition of clusters is a good tool to adequately justify an industrial concentration in a specific geographical region; however, in the current context, markets are global, and specialized labor is generally found locally. For this reason, the concept of a cluster must be directed towards geographically extended and multisectoral patterns where a cluster must be integrated into a global value chain, thus taking advantage of the speciality of human talent in a region and facilitating access to markets in different parts of the country or global [47]. At present, the definition of the term cluster has been adopted according to the context or the purpose for which it is used, although this allows its definition to be improved and directed to respond to the needs of society. It produces confusion due to the various interpretations when applying the term by different actors. Previous research [48] listed and described different contributions from authors that allow for linking the driving forces and benefits of clusters, establishing a unified concept adopting the following key aspects:

- Geographic concentration.
- Specialization.
- Multiple actors.
- Competition and cooperation.
- Critical thinking.

- Life cycle.
- Innovation.

The seven key aspects allow for formulating strategies that must be adopted to establish appropriate relationships that allow us to respond assertively to the needs of the market. These strategies must be based on public policies aimed at strengthening entrepreneurship, productivity, competitiveness, and quality of life. In a broad sense, the proximity between companies allows one to reduce transaction costs, with the generation of economies of scale acting as one, and the exchange of knowledge among the members. The latter stimulates mutual learning, experimentation, and innovation due to vertical relationships and horizontal ones created within the cluster [49]. These relationships promote dynamics of competition and cooperation, which depend on the willingness of the members of the cluster to share information according to the degree of trust and the recognition they have of the importance of business collaboration to interpret, evaluate, and act on the information obtained from the environment, allowing a common vision and strategic interaction to materialize between the members.

The cluster gathering, incorporated with the Hebron Chamber of Commerce and Industry, the Ministry of National Economy, and Palestine Polytechnic University, established the Leather Industries Development Center. This aims to enrich the leather and shoe sector with local experiences in the design field. It also includes “information units” that aim to provide the gathering members with the marketing information that is locally and internationally necessary.

4. Data

To achieve the objectives of the study, preliminary data were collected by conducting in-depth interviews with a selected sample. The sample size was 232 owners of shoe factories and tanneries in the city of Hebron, a shoe design expert, the director of the cluster Assembly, a representative of the Ministry of the national economy, as well as the president of the Hebron Chamber of Commerce and industry. The information collected covered a number of topics, the most important of which were changes in the footwear and leather sector during the previous years, links with the Israeli market, the lifting of customs restrictions, government policies and their feasibility from the point of view of workers in the sector, the availability of technical and creative skills among workers, the share of wages in the production bill, the level of technology used in design and production, and exports and competitiveness compared to imports (see Figures 6–9).

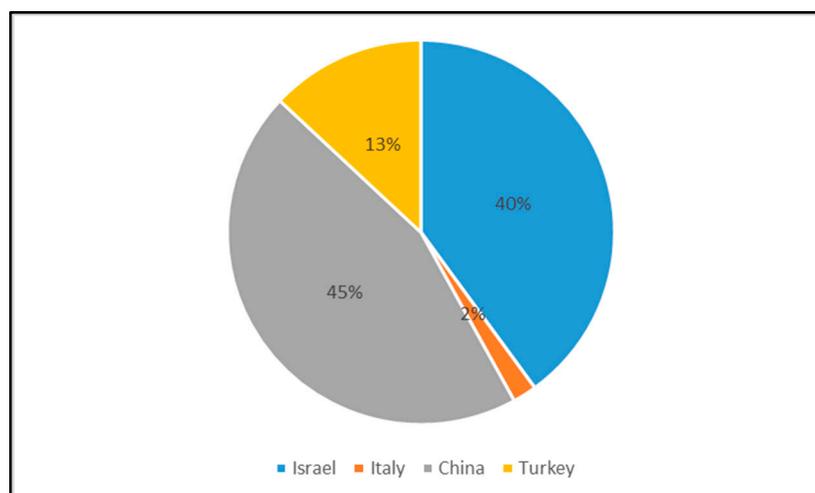


Figure 6. List of countries exporting shoes to the Palestinian market. Source: The International Trade Center.



Figure 7. Performance indicators—footwear and leather Financial Perspective. Source: Compiled by the authors based on interviews with the sample community.

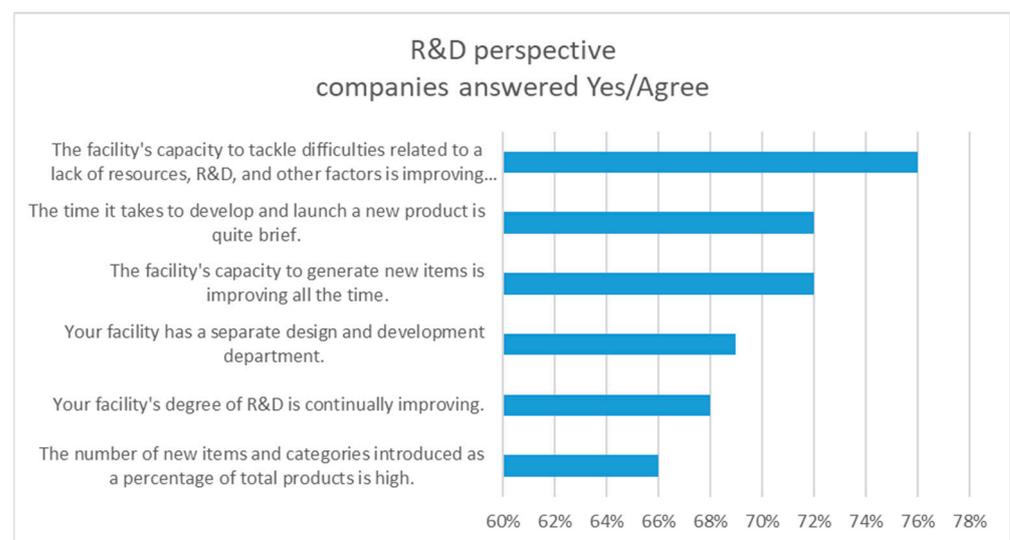


Figure 8. Performance indicators—R&D perspective for footwear and leather. Source: Compiled by the authors based on interviews with the sample community.

Secondary data were also used on the value and quantity of all footwear imported into the Palestinian market during the period 2010–2021 (see Tables 2 and 3), the same period covered by the examination of the effectiveness of the tariff hike policy. These data were obtained by the Ministry of Finance and planning. They were collected from customs data reported by Palestinian importers to the Israeli customs authorities. The import value data were thus used before being subjected to re-guessing by the Palestinian customs services. Table 2 shows the total value of imported shoes between 2010 and 2021. The purpose of using these data is to clarify the developments in the footwear and leather sector as well as to use them in the evaluation of tariff policy through the use of the Difference-in-Difference model. This model is commonly used to examine the causal impact of policy interventions.

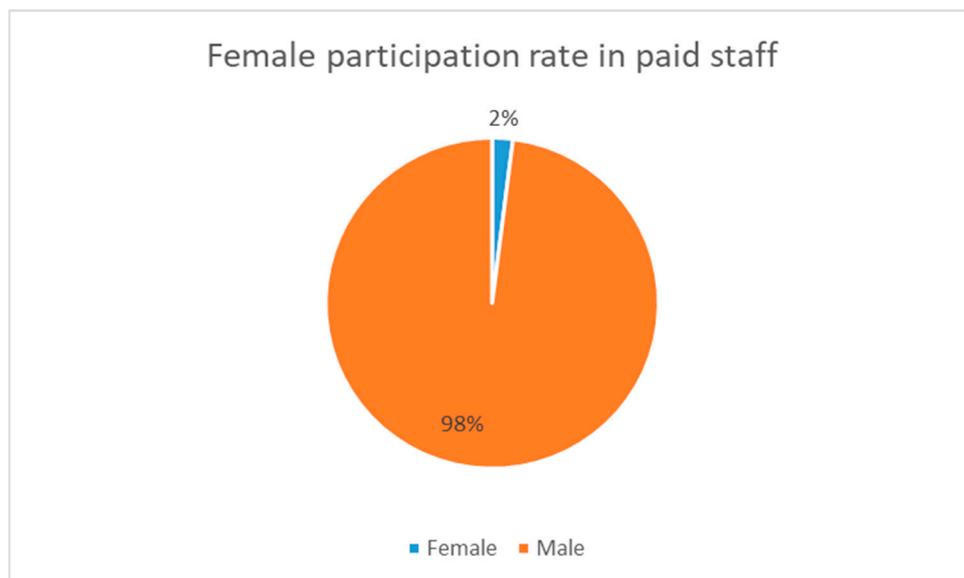


Figure 9. Female participation rate in paid staff. Source: Compiled by the authors based on interviews with the sample community.

Table 2. The total value of imported shoes between 2010 and 2021 (Nis).

Year	The Total Value of Imports to the West Bank
2010	38,591,968
2011	36,480,764
2012	43,947,816
2013	40,466,188
2014	35,603,960
2015	45,418,036
2016	44,358,852
2017	44,141,788
2018	47,500,000
2019	48,783,000
2020	20,391,000
2021	24,783,000

Source: Compiled by the authors based on Ministry of Finance and planning.

Table 3. The total quantity of imported shoes between 2010 and 2021 (Nis).

Year	The Total Quantity Imports to the West Bank
2010	13,022,43
2011	11,386,070
2012	11,134,756
2013	11,363,186
2014	10,546,034
2015	12,048,217
2016	13,511,604
2017	15,627,534
2018	17,511,604
2019	18,627,534
2020	6,755,000
2021	8,700,802

Source: Compiled by the authors based on Ministry of Finance and planning.

Table 3 shows the total quantity of imported shoes between 2010 and 2021. Looking at the table, we note that when the tariff hike policy was implemented in 2013, the imported

quantities were not affected during the years 2014–2019, and we note the change in the years 2020 and 2021 due to the COVID-19 pandemic.

The industrial sector in Palestine witnessed remarkable development following the outbreak of COVID-19, which hit the People’s Republic of China. It is considered one of the trading countries that negatively affected various Palestinian industries by flooding the Palestinian markets with Chinese products with low prices, which are attractive to the citizens. The Gulf shoe industry is considered one of the most important Palestinian industries with international fame and reputation, which recovered again after the cessation of the import of Chinese shoes, opening the field for the Gulf shoe industry to rise again after the depression experienced by the industry, and this affected its growth and continuity for many years.

5. Methodology

The study used the standard analysis of the “Difference in Difference” methodology to estimate the extent to which the tariff hike policy has succeeded in limiting importation. This was conducted by estimating a linear regression model for the period between 2010 and 2021 using data on imports from China to West Bank Markets. To achieve the objectives of the study, primary data were collected by conducting in-depth interviews with a selected sample of shoe factory and tannery owners in the city of Hebron, a shoe design expert, the director of the cluster assembly, and a representative of the Ministry of National Economy. The decision to raise the tariff also limited the import of low-priced Chinese shoes.

Difference in Difference is a statistical technique used in econometrics and quantitative social science research that attempts to mimic the design of experimental research using observational study data by examining the differential effect of treatment on the ‘treatment group’ versus ‘control group’ in a natural experiment [50]. The effect of treatment (i.e., explanatory variable or independent variable) on the outcome is calculated by comparing the average change over time in the outcome variable of the treatment group with the average change over time in the outcome variable of the control group (i.e., response variable or dependent variable).

Although it is meant to limit the impacts of extraneous factors and selection bias, this strategy may still be prone to biases depending on how the treatment group is chosen (e.g., mean regression, reverse causality, and omitted variable bias).

In contrast to a time-series estimate of the treatment effect on subjects (which analyzes differences over time) or a cross-section estimate of the treatment effect (which measures the difference between treatment and control groups), difference in differences uses panel data to measure differences in changes in the outcome variable that occur over time between the treatment and control groups.

- Definition in formal terms:

$$y_{it} = \gamma_s(i) + \lambda_t + \delta I(\dots) + \varepsilon_{it} \quad (1)$$

where y_{it} is the dependent variable for individual i and t time, $s(i)$ is the group to which i belongs (i.e., the treatment or the control group), and $I(\dots)$ is short-hand for the dummy variable equal to 1 when the event described in (\dots) is true, and 0 otherwise. In the plot of time versus Y by group, γ_s is the vertical intercept for the graph for s , and λ_t is the time trend shared by both groups according to the parallel trend assumption; δ is the treatment effect, and ε_{it} is the residual term.

The most popular and oldest quasi-experimental study approach is difference-in-differences (DD), which dates back to Snow’s [51] examination of a London cholera outbreak. The difference in outcomes before and after treatment (difference one) in the treatment group versus the control group (difference two) is referred to as a DD estimate.

In the following regression, that simple quantity also matches the predicted coefficient on the interaction of a treatment group dummy and a post-treatment time dummy:

$$y_{it} = \gamma + \gamma_i \text{TREAT}_i + \gamma_t \text{POST}_t + \beta^2 \times \text{TREAT}_i \times \text{POST}_t + u_{it} \quad (2)$$

The simplicity of DD makes it evident which comparisons provide the estimate, what causes bias, and how to test the design. The formulation in terms of the sample means ties the regression to prospective outcomes, demonstrating that a two-group/two-period (2×2) DD determines the average treatment impact on the treated group under a shared trends assumption. This framework is described in all econometrics textbooks and survey papers, and newer methodological expansions build on it.

Most DD applications, however, do not follow this 2×2 pattern since treatments are frequently given at different times. Variation in temporality is a natural result of the processes that create treatment variables. Local governments alter their policies. Jurisdictions make legal decisions. Natural calamities happen at any time of year. Employees are laid off by businesses. Researchers build a regression using dummies for cross-sectional units (a_i) and time periods (a_t), as well as a treatment dummy (D_{it}) in this case:

$$y_{it} = a_i + a_t + \beta^{\text{DD}} D_{it} + e_{it} \quad (3)$$

We know relatively little about the two-way fixed-effects DD model when treatment time changes, in contrast to our significant grasp of the conventional 2×2 DD model. We do not know how it compares average results between groups [52]. We frequently rely on broad descriptions of the identifying assumption, such as “interventions must be as good as random, conditional on time and group fixed effects” [53], and as a result, we lack well-defined strategies for testing the validity of the DD design with timing. We only have a rudimentary comprehension of the treatment impact parameter identified by regression DD. Finally, we frequently lack the ability to determine when alternate specifications will work or why they cause estimates to shift [54].

- The basic treatment effect model

Comparing the results of units that have undergone policy treatment of varied intensities is a straightforward technique to evaluate the impact of policies. Observations from at least two groups of units with different treatments are required for such a comparison. However, isolating the policy effect requires the assumption that no other variable influences the outcome, which is unrealistic outside of controlled studies. As a result, multiple regression models are frequently used to control for factors other than policy treatment, as seen in the treatment effect model below [55]:

$$y_i = \delta \theta_i + x_i' \beta + \varepsilon_i \quad (4)$$

y_i is the observed outcome variable for a sample of $i = 1 \dots n$ observation units (regions). θ_i is a vector of binary or metric variables that indicate (possibly multiple) policy treatment in the area, i , x_i is a vector of control variables, β is a vector of estimated coefficients, and ε_i is an identically and independently distributed (i.i.d.) error term. δ The population average treatment effects are then included (ATE). In the case of continuous (rather than binary) treatment, δ signifies the policy measures' marginal impact on the result.

A different method of analysis is based on panel data. Because they allow for many observations of the same unit over time, these longitudinal approaches loosen the assumption of selection on observables. (i) Due to latent qualities that do not change over time, they can erase the effects. The following panel data model, which falls into the second important group of treatment effect models, permits the selection of unobservables. It contains a potentially latent, regional fixed effect a_i , which could be linked to items in x [56,57].

$$y_{it} = \delta \theta_{it} + x_{it}' \beta + a_i + \mu_t + \varepsilon_{it} \quad (5)$$

μ_t denotes an unobservable macro or time effect that affects all regions at time t in the same way. Differencing each observation from the group means leads to:

$$y_{it} - \bar{y}_i = \delta(\theta_{it} - \bar{\theta}_i) + (x_{it} - \bar{X}_i)' \beta + (\mu_t - \bar{\mu}) + \varepsilon_{it} - \bar{\varepsilon}_i, \quad (6)$$

This means that the influence of latent properties of areas, in the sense that they are time-invariant, as well as any other linear separable selection bias, is ‘swept out’ of the equation. Because it examines relative differences in the coevolution of variables within one group over time, δ denotes a ‘difference-in-differences’ estimator of the treatment effect in this model. It is also known as a ‘natural experiment’ strategy since it takes advantage of naturally occurring variance in the treatment of observed groups. As a result, it represents a powerful method for dealing with unobserved heterogeneity, as it replaces the much more restrictive assumption (i) that there are no unobserved characteristics or shocks that affect outcomes with the much less restrictive assumption (denoted as (i')) that these unobserved characteristics are not both group-specific and temporary [58]. In other words, θ_{it} is assumed to be exogenous given the inclusion of fixed effects in the equation [59].

- The Search Variables’ Characterization

The linear regression model in our study has been formulated as follows:

$$\text{Log import} = \mu_i + T_t + \sum_{t \neq 2010} \vartheta_i (\text{Treat}_i \times T_t) + \varepsilon_{it} \quad (7)$$

where log import_{it} is the dependent variable that measures the logarithmic value of imports priced in Israeli shekel currency. As for independent variables, the variable μ_i reflects what is described as item-fixed effects, a collection of dummy variables. The T_t Vector also includes a year-by-year dummy variable. The prime variable $\sum (\text{Treat}_i \times T_t)$ is an interaction variable and results from multiplying variable T_t with variable Treat_i over the years of examination (which is a variable dummy variable added to distinguish between the group treatment, which takes a value of 1, and the control group, which takes a value of zero). The estimated value (ϑ) measures the effect of the tariff hike policy on the treated group (footwear) for each year after its application, provided that this function is statistically significant and also provided that the parallelogram hypothesis is achieved. The results of the linear analysis model (1) will be presented in the next section, and the discussion of the results will be limited to the estimated value of the ϑ function.

Methodology of Measuring the Policy of Raising Customs

The methodology of “Difference in Difference” will be applied to isolate the impact of the factors accompanying the application of raising customs tariffs. This methodology is widely used to estimate the (causal effect) of governmental interventions by comparing changes that occurred in the treatment group as a result of the government interventions targeted. It also estimates the changes that occurred in the imported shoes (control group) that the governmental interventions did not target. In this study, several final goods, which were not subject to the increase in the customs tariff, were selected as the control group. They were chosen based on the similarity between the pattern of importing with the pattern of importing shoes, which fulfill the condition of the (parallel trend) hypotheses.

The hypothesis of parallel trend requires that the rate of import growth must be equal before the supplication of raising customs tariffs. Simply, as the condition is achieved, it indicates that both groups had the same effects, both positive and negative, during this period. So, the difference in the method of growth between the two groups in the period that followed the customs tariff increase resulted from the effect of this policy supposing no other accompanying effects of this policy. In general, this methodology (Difference in Difference) simplified the impact of this policy of raising the customs tariff by calculating the change between importing shoes before and after its application, and the corresponding change in the importing control group, as exemplified in Table 4.

Table 4. The mechanism of Difference in Difference.

Control group: Clothes Do Not Belong to Customs Tariff Increase	Control Group: Shoes Belonging to Customs Tariff Increase	Governmental Intervention
Are not targeted from Governmental intervention	Are not targeted from Governmental intervention	Before
Are not targeted by governmental intervention	Targeted by governmental intervention	After
A = calculated average of imports after intervention –calculated average before intervention		Computing the first difference
B = calculated average of imports after intervention–calculated average before intervention		
A – B =		Computing the second difference (Difference in difference) the impact of the governmental intervention on the treatment group

To test how successful the policy of raising the customs tariff was in reducing the import of shoes, the methodology of Difference in Difference was applied by estimating a linear regression model for the period between 2010 and 2021 using import data from China to the West bank markets, as it forms the main source for importing shoes. As mentioned above, the decision to increase the customs tariff aims to reduce the import of Chinese goods of low quality and price.

6. Results

6.1. Regression Model Estimation Results Using Import Values Data

The results of the regression model estimate show that the function signal ϑ is negative for all the years following the lifting of the shoe tariff (Column 1 in Table 5). However, the estimated value of this function is not statistically significant (statistically insignificant). Thus, it can infer the absence of a change in the import of shoes from China after the decision to raise tariffs. The question is, to what extent does this result correlate with the ineffectiveness of this decision versus the influence of other factors that may have coincided with its application and have not been tuned through Model (1)? To answer this question, a γ_{it} variable has been added to form (1), which is the result of multiplying a T_t variable with the μ_i variable. The γ_{it} variable can be understood as the specific time trend item, where it adjusts the effect of linear time-specific commodity changes (those that change by the same amount each year during the examination period as the linear change on the demand for different goods) independently of the effect of the tariff hike policy. The results documented in Columns (1) and (2) for the same table show that the statistical significance of the assessed value of the function λ has not changed. That is, the results, for the most part, do not reflect the influence of chronological factors. Thus, it can be concluded from this examination that there are no indications that the importation of footwear from China is affected by this policy.

Before verifying the accuracy of these results, the parallelism hypothesis must be tested to ensure that the Difference-in-Difference model is appropriate to examine the impact of the application of the tariff hike policy on shoe imports. Show results documented in Table 5. In the supplement to the signal value provided to the ϑ function and private authorities that preceded this policy (2011 and 2012) is negative, but not statistically significant. That is, there are no significant differences in the change (growth) of the import level between the processing group and the control group, which confirms the appropriateness of this model.

Table 5. Results of the linear regression model estimate of the impact of tariff hike policy on shoe import values from China.

Variables	(1)	(2)
The period before the application of the tariff policy		
2011	0.520 (0.696)	−0.284 (0.704)
2012	−0.418 (0.813)	−0.902 (0.946)
The period after the application of the tariff policy		
2013	−0.393 (0.711)	−0.542 (1.310)
2014	−0.569 (0.723)	−0.817 (1.675)
2015	−0.063 (0.746)	−0.209 (2.009)
2016	−1.154 (0.825)	−1.203 (2.307)
2017	−0.019 (0.724)	−0.540 (2.665)
2018	−1.172 (0.627)	−1.108 (2.286)
2019	−0.803 (1.658)	−0.335 (0.685)
2020	−0.913 (3.574)	−1.018 (2.974)
2021	−1.063 (4.013)	−0.996 (3.937)
Year Fixed Effects (μ_i)	Yes	Yes
Item Fixed Effects (T_t)	Yes	Yes
γ_{it}	No	Yes
Observations	835	835
R-squared	0.735	0.759

Robust standard errors in parentheses; $p < 0.01$, $p < 0.05$, $p < 0.1$.

The accuracy of the results from estimating the regression model relies mainly on the quality of data used. In this study, the data on import value are recorded and disclosed to the Israeli customs authorities. This begs the question of how these data are affected by measurement error? Between the body of the study, the values declared in customs data are less than real. Whether this affects the accuracy of the results of the regression model depends, in essence, on the correlation between the reduction in import values and the decision to raise the tariff. If present, the above-documented estimation results may reflect import measurement errors, which adversely affect the validity of the results and lead to biased estimates. Any value provided by the function ϑ may not reflect, in this case, the real impact of the policy of raising tariffs.

To examine this hypothesis, a model similar to Model (1) was estimated with a variation in the dependent variable, which was formulated to measure the rate of prices of goods used in estimating Model (1) at the eighth classification level. The γ_{it} variable has also been added so that linear changes that may affect prices are adjusted. This model aims to examine the change in the prices of authorized shoes that could result from the tariff hike. The estimated model results show that the prices for shoes imported from China have not changed (see Column 1 in Table 6). The results also show that there were no differences in price growth between footwear and the control group in the years leading up to the decision to raise the tariff, demonstrating the validity of the trend parallelism hypothesis. It can thus be concluded that the phenomenon of tax evasion associated with the reduction of authorized import values may not have a tangible effect on the accuracy of the results.

Table 5 presents the results of the linear regression model estimate of the impact of the tariff hike policy on shoe import values.

Table 6. Results of the linear regression model estimate of the impact of tariff hike policy on shoe import quantities from China.

Variables	(1) Price Model	(2) Quantities Model	(3) Quantities Model
The period before the application of the tariff policy			
2011	0.016 (0.256)	0.241 (0.645)	−0.268 (0.748)
2012	−0.298 (0.293)	−0.836 (0.783)	−1.200 (0.992)
The period after the application of the tariff policy			
2013	−0.288 (0.413)	−0.651 (0.611)	−0.831 (1.378)
2014	−0.463 (0.539)	−0.990 (0.691)	−1.280 (1.778)
2015	−0.686 (0.598)	−0.712 (0.661)	−0.895 (2.103)
2016	−0.177 (0.679)	−1.152 (0.734)	−1.380 (2.453)
2017	−0.468 (0.795)	−0.406 (0.670)	−1.008 (2.886)
2018	−0.807 (1.088)	−1.509 (0.937)	−1.019 (1.107)
2019	−1.087 (2.315)	−1.319 (0.913)	−0.875 (0.439)
2020	−0.910 (0.811)	−0.935 (1.028)	−1.873 (0.910)
2021	−0.637 (2.108)	−1.634 (0.557)	−1.011 (0.509)
Year Fixed Effects (μ_i)	Yes	Yes	Yes
Item Fixed Effects (T_t)	Yes	Yes	Yes
γ_{it}	Yes	No	Yes
Observations	835	835	835
R-squared	0.597	0.637	0.692

Robust standard errors in parentheses; $p < 0.01$, $p < 0.05$, $p < 0.1$.

6.2. Checking the Stability of Regression Model Estimation Results Using Import Quantity Data

The effect of raising the tariff on the import of shoes will be re-evaluated below using data on imported quantities. Import quantity data are most likely to be more accurate than import value data, as the precedent is subject to scrutiny by the Israeli customs authorities. Thus, the consequences of using these data may be more accurate results that can be compared with the results of Model (1) to ascertain the extent to which they are affected by measurement error.

To examine the effect of the tariff hike application on the number of imported shoes, we will re-estimate form (1) after adjusting the dependent variable to measure the logarithmic value of the imported quantity rather than its value. The results documented in Column (2) of Table 6 show that the number of imported shoes did not change after the decision to raise the tariff compared to the control group. The provided function ϑ is not statistically significant for the years that followed the decision. These results do not change when the γ_{it} vector is added (see column 3 in the same table). The results also confirm the validity of the parallelism hypothesis. Accordingly, through the analysis of Model (1), whether using data on import quantities or values, it can be concluded that the tariff-raising policy has failed to achieve its goal of reducing the flow of shoe imports. Table 6 presents the

results of the linear regression model estimate of the impact of the tariff hike policy on shoe import quantities.

The results of the analysis of the linear regression model estimation do not show any facts about the impact of importing shoes from China by applying a policy increasing the customs tariff, the accuracy of this result depends mainly on the existence of the used data. As mentioned above, import data values used in estimating the model are registered and approved by Israeli customs officials.

Discriminant validity is the degree to which the items differentiate among constructs or the correlations between the measures of potentially overlapping constructs. Chin (1998) suggested that values of R-squared above 0.67 are considered high, while values ranging from 0.33 to 0.67 are moderate, values between 0.19 to 0.33 are weak, and any R-squared values less than 0.19 are unacceptable. In our study, R-squared values shown in Table 5 (0.735 and 0.759) are high, and R-squared values shown in Table 6 (0.597, 0.637, and 0.692) are moderate.

According to the effects of reducing the value of import deals (imported deal prices) on the accuracy of the aggression model, this depends mainly on a correlation between this reduction and the decision to increase the custom tariff. That means the importers of shoes reduce prices to the lowest available price of the control group as a result of the costs of increased customs tariffs and others. The estimated results mentioned above reflect mistakes in measuring imports, which will negatively affect the quality and leads to biased estimates. On the contrary, the quality of data affects the accuracy in the case this correlation is absent. To check this hypothesis, the linear regression model was reevaluated to check the change in prices of shoes after raising the customs tariff. The results of this model show that the prices of imported shoes from China did not change compared to the prices of the control group. This means prices were not reduced by importers after raising the customs tariff (no correlation between the prices and the increase in the customs tariff). It is concluded that the tax evasion phenomenon combined with reducing the value of imports does not affect the accuracy of the results.

To ensure the stability of the results of the standard analysis of the impact of raising the customs tariff, it is assumed that the data of import quantity are more accurate than the data of import value, sine the former is subject to checks by the Israeli officials.

These results expose an important question about the failure of this policy. Some believe that because Palestinian importers tend to import indirectly through the Israeli agents, unfortunately, no data are available to test the credibility of this claim, and in the same way, the impact of increasing the customs tariff.

Evidence indicates the weakness of the supervisor of the Palestinian Customs Department's control over the flow of imported goods into the Palestinian market as the main reason for the lack of success of the customs tariff raising policy. The Paris Economic Agreement does not allow the Palestinian tariff employees to be on Israeli harbors to control the flow of imported goods to the Palestinian markets. So, the Palestinian Customs Department cannot check if the prices declared in the customs data are easily matched with the real prices. That allows the Palestinian importers to reduce the prices of the imported shoes to decline the customs and taxes owed to them. To prove that, the average price of imported shoes from China to the West Bank and Gaza Strip has been calculated. It has been shown that the average was between 9.2 and 4.4 Nis. according to some interviews with members of the leather and shoe federation, these prices are just a little of the value of manufacturing these shoes. So raising the customs tariff to 27% does not contribute to raising its cost to reduce the costs of importing.

To face the challenges of the Customs Department in controlling import prices, the employees of customs to reevaluate the allowed values. It is clear, according to the study results, that this way did not contribute to lower prices since the impact was only on raising customs and tax returns.

The success of this policy depends on the number of costs that can be avoided through indirect imports.

7. Conclusions

The study sheds light on the impact of imports on the competition of the local products. It also discusses the negative effect of the connection between the Israeli market. Besides the decline of the capital used in production and administration, and the decline of design, it also shows the failed use of modern technology.

The study also aims to evaluate the efficient use of raising customs tariffs the Palestinian government forced in 2013 to reinforce the proportion of the share market of the leather and shoe sector. The study depends on testing the change of importing shoes from China that forms the main income as an indicator to achieve the aim. Some data about the value and the number of imported shoes to the West Bank. The methodology of "Difference in Difference's used to compare the change of its destination for other goods that are chosen under conditions that suit "Difference in Difference".

The following findings have been drawn from the study:

1. Importing shoes from China was not affected by this policy. It also reveals the reasons, which explain this in two ways. One tests the possibility of reducing the prices of shoes that are declared in the customs statement from reports. They tend to use this strategy to avoid the costs of raising customs tariffs, but the results do not show any change in prices. The second issue relates to the level of these prices by computing the average of these prices during the past years (used in this study). It is shown that, according to the local importers, these are much lower than the real cost.
2. Raising customs tariffs does not reduce the demand for them, which prevents the success of this policy. Based on these results, the continuity of application of this policy as a tool for reducing shoe imports from China is useless if there is a flow of imported shoes, and Palestine customs are prevented from checking their prices through Israeli harbors.
3. The Palestinian government seeks to form non-traffic policies to reduce the import of shoes and increase the portion of the leather and shoe sector in the local market.
4. The Ministry of National Economics seeks cooperation with the General Federation of Palestinian Industries, the Ministry of Health and Palestinian Standards, and the Metrology Institution to put in place mandatory technical instructions for shoe products. These instructions aim to offer specific information about the material used in manufacturing this product.
5. To achieve these aims of reviving the leather and shoe sector and extend its portion in the local and international market, several interventions are required. Simply, we cannot only depend on the efforts of the federation and cluster gathering of the leather and shoe sector in reinforcing capital to reach the broad markets without treating the imbalances resulting from flooding the market with imported shoes.
6. On the other hand, it is difficult to depend on the policy of mandatory technical instruction in developing the quality of products without raising the level of human capital and modernizing production methods. To achieve all this, there must be interventions including efficient and relevant people.

The regression model estimation results show that the sign of the function ϑ is negative for all years after the tariff was raised on shoes. However, the estimated value of this function was not statistically significant, and this confirms the validity of the hypothesis and the appropriateness of the model used. However, the success of the policy of raising customs tariffs depends mainly on the correct disclosure of customs data, in addition to creating an entity for the Palestinian customs department. Herein lies the problem of the failure to implement the policy of raising customs tariffs, especially in a country such Palestine that does not have any presence or control through Palestinian customs officials over the flow of imported goods through Israeli ports, which poses a difficult challenge, as there is no port for the State of Palestine for political reasons. It is a country that is not economically independent, which negatively affects the effectiveness of the application of this policy. Therefore, the success of this policy requires state control over the borders and Customs.

In conclusion, the results of this research provide useful guidance for organizations, specifically for their managers, and for the government to pursue non-traffic policies to reduce the import of shoes, increase the proportion of the leather and footwear sector in the local market, and establish mandatory technical instructions for footwear products. On the other hand, supporting the national product and increasing its share in the local market contributes to increasing the number of industrial facilities and expanding existing factories, which contributes to reducing the problem of unemployment among unemployed youth, pointing out the need to intensify media and advertising campaigns to promote the national industry through audio-visual media as well as social media. These instructions aim to provide special information about the materials used in the manufacture of this product, and the results of the research provided useful guidelines for future research, especially in the developing economy and especially the Arab world, where there is little research that specializes in researching the impact of government policy on developing the competitiveness of the local product.

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