

## Logistic plan to exportation of Mexican oregano to Turkey and United States

### Plan logístico de exportación de orégano mexicano a Turquía y Estados Unidos

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#### Abstract

Oregano is one of the most popular aromatic herbs in the world, used in the preparation of a wide variety of dishes, Mexico being one of the main producers worldwide, with an annual production of more than 80 tons. According to article with article 102 of the customs law, it mentions that "the definitive export regime consists of the exit of merchandise from the national territory to remain abroad for an unlimited time" (p. 67). During the execution of the project, opportunities for growth in the United States-Turkey markets were analyzed, from the necessary legal export documentation to implement the project, to the determination of the tariff fraction. The research responds to a quantitative approach, carried out under descriptive researching of 5 phases method the objective of creating a record of exporting oregano in the Durango region to markets in Turkey and the United States, since it is a product of first quality and for which demand has increased in these countries. From the implementation of the export plan, it is looking for stablish to establish strategic alliances with oregano producers that meet quality standards.

#### Resumen

El orégano es una de las hierbas aromáticas más populares en todo el mundo, utilizado en la preparación de una amplia variedad de platillos, siendo México uno de los principales productores a nivel mundial, con una producción anual de más de 80 toneladas. De acuerdo con el artículo 102 de la ley aduanera menciona que "el régimen de exportación definitiva consistente en la salida de mercancías del territorio nacional para permanecer en el extranjero por tiempo ilimitado" (p. 67) Durante la realización del proyecto se analizaron oportunidades de crecimiento en los mercados de Estados Unidos-Turquía, desde la documentación legal de exportación necesaria para la implementación del proyecto, hasta la determinación de la fracción arancelaria. La investigación responde a un enfoque cuantitativo, realizado bajo la modalidad de investigación descriptiva de 5 fases consecutivas, cumpliendo con el objetivo de crear un antecedente de exportación de orégano en la región de Durango a mercados de Turquía y Estados Unidos, ya que es un producto de primera calidad y del cual se ha incrementado la demanda en dichos países. A partir de la implementación del plan de exportación se busca establecer alianzas estratégicas con productores de orégano que cumplan con los estándares de calidad.

#### Exportation, Mexican Oregano

#### Exportación, Orégano Mexicano

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## Introduction

International trade happens because of several factors, one of them is the commercial exchange, according to Long (2017) suggests that "commercial exchange can also be seen at a business level, to explain why a company decides to import or export" (p. 37), the export of regional products abroad represents an opportunity for economic growth at an international level; according to Falconi Jácome (2005) the Free Trade Agreement is an agreement by which two or more nations come together to create standards and rules to have among them free trade and exchange of services, investments and products.(p. 10)

Mexican oregano is a product highly demanded by countries such as the United States and Turkey with gastronomic richness characteristic of each culture. As mentioned by the Secretary of Agriculture and Rural Development (2016), oregano (*Origanum vulgare*), also known as oregana and wild marjoram, is an aromatic plant used in cooking and medicine. It belongs to the Lamiaceae family. Its dark green oval leaves emit a strong fragrance. It can be grown in gardens, orchards and houseplants in warm conditions.

With the implementation of the proposed plan for exporting the product, it is intended to have a significant expansion of the product internationally, creating opportunities for other selected products of the same quality such as aromatic herbs and Mexican seasonings. According to the Ministry of Agriculture and Rural Development (2016) oregano stands out for having a great potential at the international level and above all an important demand due to the variety of uses it has, in Mexico the production of this plant exceeds 80 tons having as a consequence to be a product with greater commercial use compared to others.

This article describes the implementation of the export manual for Mexican oregano, based on the study of a representative population sample for this particular study, the United States and Turkey were selected as the main markets. Martínez Dueñas (2022) and the Observatory of Economic Complexity and the World Bank state that the United States is the largest importer and the second largest exporter in the world, after China.

It also ranks first in the world in terms of Gross Domestic Product per capita and the ninth most complex economy in the economic complexity index.

The reasons for the growing demand for Mexican oregano will be discussed, as well as the determination of the legal requirements necessary for exportation, looking for having an efficient supply chain for the product in question. According to Ballou (2004) both logistics and the supply chain are considered activities that work to carry out in the best way the acquisition of raw materials, their transformation and when they are finished products to reach the customer in time and form, using properly the links such as transportation, communication, inventory control, etc. (p. 7)

Currently, the expansion of Mexican culinary products around the world is being sought, presenting a great opportunity to promote Mexican gastronomy and the quality of these products.

The hypothesis to be tested in this study is whether the implementation of an export manual will increase the demand and sales of the product Mexican oregano will increase in a selected population sample in the state of Durango, Mexico, through the standardization of the export process to the United States and Turkey.

The methodology followed throughout the elaboration of the project will be shown, as well as its implementation and results.

## Methodology to develop

The research approach for the development of the project is quantitative, according to Bernal (2016).

In this sense, for quantitative research the scientificity of the social sciences is given by the ability of these to accommodate the paradigm of the natural sciences; that is, objectivity, the distance between the subjective and the objective, linear causality, neutrality, the formulation of general laws and the specialization of knowledge. (p. 90).

A quantitative, descriptive methodology was used, based on techniques such as closed questionnaires and documentary review.

An analysis and observation was made in the study sample, where the areas of opportunity are identified and from them one in particular is chosen currently the economic situation is in the process of recovery from the Covid 19 pandemic, so growth opportunities are sought to expand the market, the World Bank(2023) states that "global growth is expected to slow in 2023 to 2.1 percent. The difficult global financial conditions as well as a moderate external demand in each country will affect the growth of emerging markets and economies in developing", therefore strategies are required to mitigate the global phenomenon, once the problem of the lack of opportunity to enter the international market is identified, the exportation process and how to carry it out is made known, different solutions are proposed which is to offer training on said process and create a manual of logistic methods of oregano export, according to López (2017) in Mexico gastronomy has been signed as a subject of public interest derived from elements such as the generation of identity, social relationship, and cultural distinction, same that is reflected in the restoration and food industry. (p. 94); Therefore, the effectiveness of taking the Mexican product abroad is an assured success; therefore, it is important to select the most appropriate option according to the following criteria: that it does not generate very high extra costs, that it can be applied by any person and that it does not take too much time to carry out and use it.

For the creation of the logistic plan for exportation Mexican oregano to Turkey and the United States, it is necessary to consider the import requirements, which include import permits, labeling and packaging requirements, quality and food safety requirements, taxes, among others, according to the Foreign Trade Law (2006) art. 12, for the purposes of this Law, tariffs are considered the quotas of the general import and export tax rates.

Quality and food safety certifications are also required: these may include HACCP, ISO 9001, ISO 22000, Phytosanitary and BRC Global Standard certifications, as they guarantee compliance with international quality and food safety standards; it is important to select a supplier of dried oregano that is of high quality and meets the food safety and security standards of the destination countries; shipment preparation is also required: the oregano must be packed and labeled according to the import requirements of the destination countries, it must be resistant and suitable for long distance transportation, and the label must include detailed information such as product name, net weight, country of origin and expiration date; Subsequently for transportation and delivery, there are different means and modes where a reliable and experienced freight forwarder is selected for the handling and delivery of the product, as well as it is important to ensure that the goods are delivered in optimal conditions, in foreign trade working under the Japanese philosophy called Just in Time is essential for the success of the commercial operation. As mentioned by Vidal, Rodriguez (2007) Just in Time in logistics is a philosophy based on the elimination of waste and where a high value service is offered to companies that require efficient and committed suppliers to offer quality, it is about delivering a product in time and form, together with the specifications requested by the customer. (p. 79)

It is of utmost importance to have the necessary documentation for export, which must include the quality and food safety certificate, the import permit and the commercial invoice, in addition to ensuring that all documentation is complete and in order before delivery of the product.

## **Results**

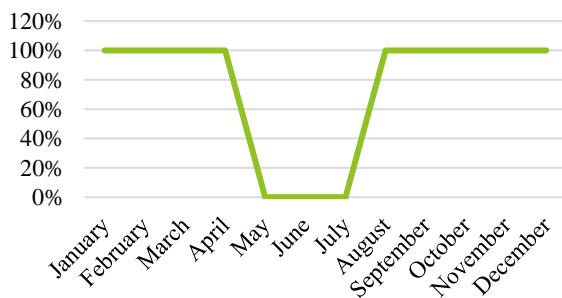
According to Zamora Torres et al. (2013), the opening of markets also brings with it many competitors looking for to capture the consumer's attention, which causes companies to become increasingly competitive. Nevertheless, offering the best product is not synonymous with international competitiveness.

During the commercialization process, it will go through several processes that may become potential obstacles or competitiveness factors, ranging from customs clearance, loading, and unloading processes, transportation services and other logistics services (p 109).

For the interpretation of the project results, the implementation of this was considered in a random sample by convenience, this company dedicated to commercialize and export oregano is located in the city of Durango; according to a survey made to 52.85% of the employees to identify the improvement once the manual was applied, the following graphs are presented:

According to Graph 1, it can be observed that the months of May, June and July where oregano is not being exported is because this aromatic plant is being planted, which is mostly destined for gastronomy. Granados et al. (2013) explains that the first rains at the end of May or the beginning of June initiate the oregano cycle, where sprouts begin in approximately six weeks to give way to flowering. (p. 309).

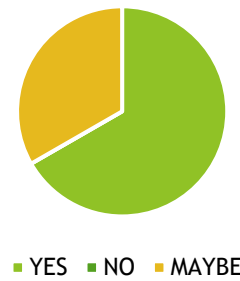
1. What are the months of the year in which oregano is most exported abroad?



**Graphic 1** Percentage of monthly exports of oregano abroad  
Source: Own elaboration

Based on Figure 2, the creation and implementation of a logistic plan based on an export manual was 66.7 percent timely for employees of the oregano trader, while 33.3 percent considered it was only maybe timely.

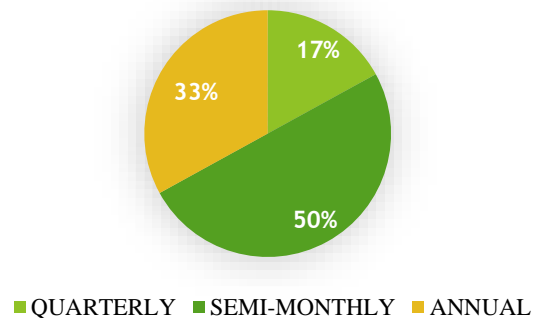
2. Do you consider that the creation and implementation of an export manual was timely?



**Graphic 2** Relevance of the creation and implementation of the export manual  
Source: Own elaboration

As can be seen in Figure 3, 50 percent of the employees working in the oregano trading company agree that the revision and updating of the export manual should be done every six months, being the majority and therefore the most appropriate way to make the corresponding revisions, according to the updates provided for by the Foreign Trade Laws.

3. How often should the export manual be update?



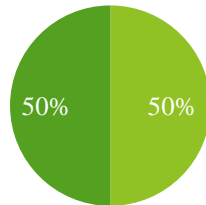
**Graphic 3** Update of the export manual  
Source: Own elaboration.

According to Graph 4, the perception of the personnel regarding the increase in oregano sales once the manual was implemented is that 50 percent stated that they did increase, while the other 50 percent responded maybe, due to lack of knowledge of the financial information provided to them. According to Liu and Covarrubias in the published work "Evolución de la relación comercial de México con Estados Unidos y China, 1993-2022" (2023) exports to the neighboring country had an annual growth of 8 percent on average in recent years, all this after a fall of up to 20.

After the implementation of NAFTA in January 1994, an annual growth rate of 19.3 percent was registered, however, in 2001 the rate varied negatively by 4.6 percent. (p. 159).

Did oregano sales increase once the export manual was implemented?

■ SÍ ■ Tal Vez ■ NO



**Graphic 4** Perception of sales increase  
Source: Own elaboration.

Therefore, the hypothesis that the implementation of an export manual managed to increase the demand and sales of the Mexican oregano product in the company considered as a sample for the application of the export logistics plan is proven.

**Annexes**

Section II	II	Products of the vegetable kingdom.
Chapter	12	Oil seeds and oleaginous fruits; miscellaneous seeds and fruits; industrial or medicinal plants; straw and fodder.
Item	1211	Plants, parts of plants, seeds and fruits of a kind used primarily in perfumery, in pharmacy or for insecticidal, fungicidal or similar purposes, fresh or dried, whether or not cut, crushed or powdered.
Subitem	121190	Other
Fraction	12119099	Other
Import	10	
Export	Ex.	

**Table 1** Tariff Classification of Oregano

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**Conclusions**

Based on the author Ortiz Velázquez (2020) states that the level of microenterprises in Mexico proved that the industries disadvantaged with the current strategy, presents a short-term growth, Mexican industries present considerable margins of idle capacity, so a considerable investment is not necessarily the solution, but instead give priority to selected investments in industries generating employment and chaining. The Congressional Research Service or known as CRS of the United States (2022) indicates that Mexico and the United States have a close trade relationship, with the United States being Mexico's most important commodity export market, with about 80% of Mexican exports going to the United States.

Neverthelss Turkey is a market that is being explored and which proves to be very promising for Mexico and its trade. According to Ayseözge (2022) the commercial connection point between Europe and Asia is Turkey, as it is located in a point of great logistical importance, Turkey requires new clients and markets to be able to carry out effective trade policies. (p. 41).

As shown in the graphs of the results, the export of oregano increases in 9 of the 12 months of the year, being January, February, March, April, August, September, October, November and December the months with the highest percentage of sales, compared to the remaining months of the year; Asencio (2020) states that the lack of knowledge of the steps to export currently in the community and agricultural sector, does not allow them to develop, despite having everything necessary, due to lack of knowledge to export their products to other countries. (p. 297).

Once the manual was implemented, an increase of 66.6% improvement was observed in the processes contemplated in the logistics plan developed; consequently there was a 20% increase in oregano exports; when conducting the satisfaction survey for the employees in the sample.

100% said that the degree of satisfaction is good with respect to the standardization of the export process; 50% of the employees surveyed think that the export plan should be updated based on the updating of the laws governing foreign trade. According to Mulder and Pellandra (2017) export innovation is the activity that the company must do to enter a market outside the country for the first time or improve what is already done. Within these activities are the introduction of a new or improved product, a process, a new method of trade (p. 8).

The months that exports are not made is due to the lack of oregano production in the state, besides the results obtained in the satisfaction part of the project implementation are based on a survey to the employees where previously the logistic plan to work based on an export manual had been designated. However, the logistics plan for marketing oregano was already implemented in order to demonstrate that the standardization of the processes involved in the activities of exporting companies in Mexico are considered competitive advantages, adding to the indicators of the companies in the sector. Romero, Douglas, et al. (2020) indicate that competitive advantage must be built with hard work and perseverance, besides representing a differential between products or services of the same line of business (p. 468).

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