

Entrepreneurship in the Trade of Agricultural and Horticultural Products

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ABSTRACT

Olives, as one of the products with high nutritional and medicinal value, play an important role in human nutrition and health, and their global demand, especially in the form of olive oil, is increasing. The long history of olive cultivation in the Mediterranean area and its nutritional benefits, including being rich in vitamin E and powerful antioxidants, indicate the importance of this product in healthy diets, especially the Mediterranean diet. With suitable climatic conditions and diverse species, Iran has a high potential in the production and export of olives and olive oil, although so far, its share in the world market is limited. Effective factors in export development include product quality, suitable packaging, new technologies, transportation infrastructure, support policies and international marketing. European countries, especially Spain, Italy and Greece, operate as the largest exporters in the world market, and Türkiye ranks first in imports and exports. Economic sanctions and challenges such as lack of raw materials, international standards, transportation costs and lack of strategic planning are some of the obstacles facing Iran in the olive industry. On the other hand, the use of information and communication technologies, organic agriculture, development of mechanization and government support policies can help improve Iran's position in the world market. As a result, considering the potential capacities and existing opportunities, the

development of the olive industry in Iran requires strategic reforms, investment in technology and taking advantage of geographical advantages in order to achieve an effective share in the world markets.

Keywords: olive and olive oil export, global market and international competition, international quality and standards, information and communication technology (ICT), development of organic agriculture and mechanization

I. INTRODUCTION

As one of the oldest and most valuable food sources in the world, olives and their products play a significant role in healthy nutrition and economic development of countries. The history of olive tree planting dates back to more than six thousand years ago in the Mediterranean basin, and this tree has become a symbol of culture, civilization and health in many countries of the region over time. The nutritional and health properties of olives, including the presence of vitamin E, antioxidants and healthy fats, have caused its consumption to increase significantly in modern diets, especially the Mediterranean diet, and play an important role in the prevention of heart diseases, cancer and other chronic diseases.

Due to the unique benefits of this product, the global demand for olives and olive oil has recorded a growing trend in recent years, so that the main producing countries such as Spain, Italy and Greece play a key role in the global market.

Besides this, Iran has a high potential in the production and export of olives with suitable climatic and geographical conditions, but the share of the world market of this country is low compared to regional competitors such as Turkey. Several factors, including new technologies, quality standards, transportation infrastructure, marketing and support policies, play a role in the development and expansion of this industry's exports. Examining the existing challenges and opportunities, especially in the fields of quality, packaging, information technology and e-commerce, can provide suitable solutions to improve Iran's position in the global market. Therefore, paying attention to the development of agricultural technologies, taking advantage of support policies, and investing in marketing and infrastructure are among the key factors in realizing export goals and improving the economic status of the country's olive industry.

Research Background

The olive industry and its products have a long history due to their nutritional and health properties and play a significant role in the economic development of Mediterranean countries and other regions of the world. Research shows that the olive tree, as one of the oldest cultivated trees in the world, has been exploited in the Mediterranean basin for more than 6000 years, and its history goes back to the early centers in Syria, Israel, Lebanon, Cyprus, and Crete. Olives are rich in vitamin E and potent antioxidants, and epidemiological studies have highlighted the role of olive consumption and the Mediterranean diet in reducing the incidence of heart disease, cancer, and degenerative diseases (1-2).

Globally, Mediterranean regions such as Spain, Italy, and Greece are recognized as the largest producers and exporters of olives and olive oil, playing a key role in the global market. In recent years, global demand for olive oil has been growing due to its health benefits and product diversity, and the market share of non-Mediterranean countries is also increasing with increasing consumption. This trend has led to improved consumer awareness and the development of production and packaging technologies, which play an important role in improving the quality and competitiveness of exported products (3).

Research shows that product quality, proper packaging, compliance with international standards and combating fraud are effective factors in the success of olive and olive oil exports. Also,

new technologies, such as information and communication technologies (ICT) and e-commerce, have made it possible to reduce costs, improve supply chain processes and develop new. In addition, the use of new technologies in transportation and logistics management plays an important role in reducing costs and increasing the speed of product delivery and can facilitate the development of exports (4).

Farzpourmachiani M. and Farzpourmachiani A. (2024) present the "Attrition Entrepreneurship Theory" to differentiate it from genuine entrepreneurial endeavors. While genuine entrepreneurship fuels innovation and economic growth, attrition entrepreneurship generates income without creating societal wealth, potentially causing economic decline. Examples like inheritance tax collection illustrate this. The theory emphasizes that not all profitable activities contribute to long-term prosperity; some merely redistribute existing resources, lacking the dynamism of true innovation (5).

In the field of agriculture, mechanization, development of modern gardens, and production of organic products have been introduced as key strategies in improving quality and productivity. Considering the climatic and geographical diversity of our country, Iran has a high potential in producing quality olives and target markets, but limitations such as currency policies, lack of banking facilities, and lack of transportation infrastructure are considered as the main challenges. In this regard, research emphasizes the importance of supportive policies, technology development, and product standardization in order to increase Iran's share in the global market. Overall, previous researches emphasize the importance of genetic diversity, production technologies, quality standards, and effective marketing, and highlight the role of information technology, infrastructure development, and support policies in promoting the export status of olives and its products. Paying attention to these factors, especially in the conditions of sanctions and economic restrictions, can pave the way for the sustainable development of this industry in Iran.

II. FINDINGS

Nutritional and Health Benefits of Olives: The fruit of the olive tree, a significant percentage of which is cultivated for its oil, has numerous nutritional benefits. Olives are rich in vitamin E and other powerful antioxidants. Studies show that they are good for the heart and may protect against osteoporosis and cancer. The healthy fats in olives

are extracted to produce olive oil, a key component of the incredibly healthy Mediterranean diet.

Global Market and Demand: The global olive market is constantly growing with increasing global demand. Olive oil as a commodity has played an important role in the global vegetable oil market. For centuries, Mediterranean countries have accounted for about 98% of the world's olive oil and table olive trade. The agronomic and climatic factors of these regions have provided the necessary conditions for the development of such a trade. Over the past decade, olive oil consumption has experienced a great progress in the world, not only in producing countries but also among non-producing countries. This growth in consumption is undoubtedly the result of the consolidation of a cultural phenomenon that has developed between the main producing countries (Spain, Italy and Greece) due to the Mediterranean diet. A food concept that has important health benefits and olive oil is a key component of it.

Consumer preferences for olive-oil attributes: a review of the empirical literature using a conjoint approach

Exports and position of Iran: Exports of olives and olive oil from Iran to various countries are very prosperous and have recorded significant growth over the past year. According to statistics from the organization, Iraq, Afghanistan, Turkey, Russia, Kazakhstan, Pakistan and the United Arab Emirates are importers of Iranian olives. In 2022, Iran's position in global production with a volume of 114.60M KG was ranked 19th.

According to the latest information provided by the Ministry of Agricultural Jihad, the production and export of olives has resulted in a financial turnover of more than 50 thousand billion Rials by calculating the world prices. The amount of olive production in 2024 was about 150,000 tons and 17,000 tons of olive oil, of which 60,000 to 70,000 tons are produced in Zanjan province.

Influence of climatic and agricultural factors: olives can be cultivated in a wide range of climates in many different countries. The olive soil type grows well in almost any well-drained and aerated soil with pH values between 6.5 and 8.5. Olive trees are tolerant of mildly saline conditions, but highly saline or sodium soils should be avoided. In practice, olives are cultivated in three main production systems according to tree density: traditional, intensive and ultra-intensive. Once established, olive trees are among the most drought-resistant trees in the world.

Types of olive seedlings:

Types of Iranian olive seedlings

- **Dezfuli:** This species is a late-flowering and short-lived tree. Its yield is about 17 tons per hectare.
- **Shenge:** The fruits of this species of olive tree are purple and oval. Its minimum lifespan is 50 years and it is a tree resistant to diseases and pests. Its yield is about 15 tons per hectare.
- **Mari:** It is the most famous and popular olive seedling among gardeners. Because it can be cultivated in different temperature ranges and has a reasonable price. Its yield is approximately 25 tons per hectare.
- **Yellow Olive:** This variety is almost as good as Mari variety; it has good temperature resistance and good fruiting and it is early yielding. Its useful life is 55 years and it is economically fruitful from the fourth year of planting.
- **Oily:** This type of olive is grafted and is cultivated for oil extraction. The yield of this species is about 10 tons per hectare.
- **Fishmi**

Foreign olive seedling varieties:

- **Manzanilla olive tree planting:** This variety is native to Spain and has good resistance to both heat and cold, as well as good fruiting.
- **Arbequina:** This variety is also native to Spain and has good resistance to cold. Its fruits are firm and juicy, and due to its short height, it is suitable for planting in small places.
- **Black olive:** It is native to Italy and has very high resistance to cold. Its fruits are black, juicy, and very tasty.
- **Elek:** This variety is native to Turkey and is very easy to plant and maintain. Its fruits have white spots on their skin.
- **Lecino**
- **Kronaiki**
- **Jelt**

Cultivation and planting methods: Olive orchards are usually found where the rainfall is more than 60 cm per year, although they may also exist in areas with an altitude of 40 cm, if the soil is particularly water-retentive. The olive tree prefers deep, light soils, but may grow successfully in many types of soils, even the driest, stony, infertile, and sloppy soils. In these marginal lands, olive cultivation may be the only viable alternative to abandonment and desertification.

In the following, the important points in the cultivation and planting of olive trees are summarized:

- **Soil:** Alkaline soil is suitable for planting olives. Its salinity should not be more than seven thousand. It should be light and have moderate moisture
- **Water:** Irrigation of olive seedlings should be carried out regularly at regular intervals; these intervals depend on the climate of the region. The drier the region, the more often irrigation should be done.
- **Light:** The planting area should be a place where the tree receives at least 7 hours of sunlight a day.
- **Air and oxygen:** To absorb oxygen and better and more air, the tree crown should be kept open.
- **Olive planting pits:** The olive seedling planting pits are prepared one month before the olive cultivation operation and the pits are irrigated 4 days before.
- **Fertilization:** For planting olive seedlings, fertilizers containing phosphorus, potassium and nitrogen are very suitable for strengthening the roots and growth, as well as the growth of foliage and tree fruits. Magnesium and boron are also other important elements for the olive tree.
- **Pruning:** Proper pruning is very important for olive seedlings. Because it can have a direct impact on regulating production and also shapes the tree for easier harvesting. The olive tree needs a mild winter and a hot, dry summer. The best time to plant olive seedlings is when the weather is mild. Considering that Iran has different climates, it has many suitable areas for planting olive seedlings. Therefore, planting olive trees can be a suitable choice for Iranian farmers and gardeners. There are different types of olive trees. The gardens can be developed according to the climatic conditions of the region and the taste of the market. Most of Iran's olive groves are in the provinces of Gilan, Mazandaran, Zanjan, Fars, Qazvin, Ardabil, Khuzestan, Kermanshah, Ablam, Semnan and Yazd. The most important of them are Rudbar in Gilan province, Tarem in Zanjan province and Tarem Sefali in Qazvin province.

Impact of technology and ICT: Today, the importance of information and communication technology (ICT) has been taken into account in the direction of positive economic changes in

global markets. Companies that use ICT experience significant changes in increasing productivity and economic growth.

The greater the gap between countries in the development levels of information and communication technology, the more obvious the effect of openness of information and communication technology in promoting exports. Governments should actively promote global ICT regulatory cooperation. While ensuring national security, countries should reduce restrictions on foreign ownership, promote connectivity of ICT infrastructure, and ensure fair market competition to expand the globalization of digital services (6).

A country's technology infrastructure plays a critical role in creating a nurturing environment for the evolution and adoption of ICT. Internet technologies create the basis for continuous developments regarding new goods and services, new markets and new business models in the digital economy. In a broad sense, international e-commerce includes cross-border and/or inter-country transactions over the Internet, which significantly saves transaction costs. The most important cost-saving aspect of e-commerce is the reduction of travel, management, communication and market research costs.

In developing countries such as Iran, information and communication technology can play an important role in business, because it allows farmers and traders to communicate, share and receive information in order to learn knowledge and skills in the relevant field, and access to market information at the lowest possible cost.

In recent years, when agricultural companies such as Olive have been forced to make environmental reforms and innovations due to society's pressure, by using information and communication technologies, they can reduce environmental damage, reduce exchange costs and increase the efficiency of their business activities.

Iran's challenges and opportunities

Proper packaging in terms of strength in storage and shape and form that fits the needs of the customer or consumer, lack of raw materials due to sanctions and inflation, non-compliance with international standards so that quality standards can cover global demand, government currency policies in order to regulate and maintain the market such as 1. Importing olives from exporting countries, which leads to saturation of domestic markets and ultimately reducing the income of producers. Import prices can have a very negative

effect on exports, 2. Mandatory pricing that forces exporters to sell goods at a lower price, this leads to an increase in the cost price and a decrease in product innovation, and ultimately the opportunity and ability to compete in the global markets is reduced. Lack of bank facilities and lack of allocation or lack of support budget to encourage producers and exporters of olives and olive oil, lack of modern technology and mechanization which plays an important role in increasing productivity and efficiency in agricultural processes, lack of stability in economic decisions and notification of various currency and customs laws as well as increase in tariffs related to export and import, lack of a strong distribution network, lack of proper planning and proper organization for exporters to participate in international exhibitions to experience in international markets and identify buyers, unwillingness to cooperate Foreign traders with Iranian exporters and the increase in costs of the transportation system due to existing sanctions.

Iran's strategic geographical location and the benefit of free trade zones can be the cause of economic prosperity and attracting foreign investors. One of the most important features of these regions is the simplicity of trade laws (customs activity license and removal of customs duties), which provides uncomplicated supply of products to the world market, and Iran can take advantage of this situation for exporting.

Despite the high capacities of the international markets, Iran's olive and olive oil exports can grow and progress significantly, because it has the ability and capacity to produce quality olives. Iranian farmers have the ability to increase their production by increasing demand and improving export conditions in the country. Therefore, producers must be aware of and apply modern agricultural practices: creating modern and dense orchards, renovating and renovating existing farms (something that Spain, the largest olive producer, has succeeded in doing), measures that enrich soil quality, investing in the production of organic products so that they can compete in the global market, better use of land and natural resources by using mechanization in the agricultural process, using machinery at different stages of land preparation, planting, irrigation, harvesting and finally processing the product not only improves quality and significantly reduces costs, but can also protect agricultural products in times of danger such as floods and droughts and the spread of epidemics.

III. CONCLUSION

The olive and olive oil industry, as one of the strategic industries with high potential at the global level, plays an important role in the economic development of producing countries. Due to the nutritional and health benefits, the growing trend of global demand and the importance of the Mediterranean food culture, the international markets of this product are still expanding. Although Iran has significant potential for the development of the olive industry in terms of production capacity and climatic diversity, there are several obstacles such as technological limitations, standardization, transportation and marketing, which require strategic planning and government support. Taking advantage of new technologies, applying organic processes, strengthening the infrastructure of transportation and international marketing, and developing modern and mechanized agricultural methods, can bring Iran to a competitive position in the world market. Finally, creating supportive policies, quality standardization, and focusing on the quality of packaging and branding will be key factors to increase exports and stabilize the country's position in the global olive and olive oil market.

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