

A Review on Citrus Production and Export Marketing Strategies in Mazandaran Province, Iran

¹Hamidreza Alipour, ²Aliasghar HoseinBeyki, ²Mohabbat Jahed, ²Hasan Rahnama and ²Morteza Sharifnia

¹Department of Management, Rasht branch, Islamic Azad University, Rasht, Iran

²Rasht branch, Islamic Azad University, Rasht, Iran

Abstract: Most single crop, developing countries (including Iran) are highly dependent and focused on oil products export and hence insufficient attention is paid to other profitable economic sections. Citrus is one of the main crops significantly contributing in bringing currency to Iran. Nowadays, citrus production is increasingly becoming important in the world. In addition to the high nutritional value of this crop, its economic importance is a main reason for its wide production in citrus producing countries. The big size of agricultural farms is a main reason of success in agriculture in many developed countries since this leads to parsimony in production scale. One of the main obstacles of citrus production in Iran is the high production costs. Over the time big agricultural farms are divided by inheritors to smaller parts and lose their economic value. Therefore, farmers can not consider citrus production as a profitable job to supply family needs. Accordingly, citrus production is not considered as an economic activity as a result of small number and size of fields under cultivation, high costs and labor wages, lack of sales management, presences of various intermediates who buy crops with a low price and resale it with higher prices, increasing import and other available obstacles. Citrus marketing services in Mazandaran province include harvest, grading, packing and warehousing, transportation and supplying them to the market which are accomplished through traditional methods. Developing a proper and efficient marketing system can act as a powerful tool to help improve production of this crop. As to citrus production Iran is among 10 top countries but, unfortunately, producers' share of the total price is very low and inefficiencies are observed in the marketing section.

Key words: Citrus marketing • Citrus export • Marketing • Efficiency

INTRODUCTION

Respecting the role and importance of agriculture in economic development, increasing agricultural crop production and farmers' income in Iran has always been considered by policy makers. In addition, determining and conducting policies and plans in agriculture section requires having enough knowledge of production conditions in farms and the way of developing needed markets. It is also highly dependent on the level of planners' awareness of farmers' decision-making processes and their reaction to various agricultural policies [1].

Citrus was transferred to Europe from southern coasts of Mediterranean Sea during the Crusades. According to "Theophrastus", a Greek botanist,

Citrus bergamia risso was the first known citrus fruit which has been planted and grown in Susa and Shushtar since 300 B.C. Arab people brought *Citrus aurantium*, lime and *Citrus aurantifolia* to Iran around 1200 to 1300 years ago. Orange tree is eventually brought to Iran (from Europe) by Portuguese people in 16th century. Economic cultivation of citrus in Iran has begun since 300 years ago in northern regions of the country and then moved to southern regions. Nowadays, citrus production is of great importance and is considered as one of the main resources of wealth development, commercial exchanges and employment in about 125 countries of the world. At the present time, citrus production is change to a strong industry and is a highly profitable source of income for many nations. Global trade today involves a range of goods and services

in which agricultural crops are of particular desirability. Many nations produce different agricultural crops as a result of having proper climatic conditions and supply a main part of their import needs by the billion-dollar income of exporting these crops.

Citrus are a member of semi-tropical fruits with significant economic value in countries such as Brazil, the US, China, etc, so that now their relative agricultural, economic and industrial activities are called "citrus industry [2].

Here it seems necessary to investigate citrus marketing because of the crop's high economic importance, its mass production in Iran and the high rate of employment it brings about. Considering available inefficiencies and lack of proper marketing management planning, hidden and obvious hands (dealers), profit-seeking people and lack of comprehensive economic studies, research and investigation in the field of marketing solves many of present problems. Hence, the researcher reviews citrus marketing procedures in Mazandaran, investigates effective factors on its export and finally suggests strategies to remove possible deficiencies.

Economic Importance of Citrus: At the present time, citrus production is of great importance in the world. Its economic species include: orange, tangerine, grapefruit, lemon and lime. Besides using these fruits, some food industries are dependent on them which include factories producing juice, compote, essence, citrus oil, concentrated extracts and scum. In addition to these is the issue of their warehousing which is associated with the marketing industry. Moreover, certain attention is paid to other cases such as farming strategies and packing.

Role of Mazandaran in Country's Citrus Production and Marketing: Citrus gained certain economic and trade significance since 80 years ago through planting modified seedlings and now Mazandaran province is the pioneer of citrus production in Iran having 45% of under cultivation surface and 47% of production share. Investigation on agricultural crops marketing, particularly horticultural crops and fruits, is of great importance. Among all horticultural crops, citrus has the highest production share (31%) and among all citrus species orange has the highest production volume. In this agricultural section, producers' share of the final consumer's price is very small and significant deficiencies are present in its marketing section.

The Size of Farms in Iran: Organizing the size of farms being exploited is one of the main success reasons of agriculture section in many developed countries since this leads to parsimony in production scale. The parsimony originates from the fact that optimized size of the production unit results in a more economical application of some inseparable entities such as agricultural machinery. As the optimized farm size is influenced by production structure, crop type and socioeconomic condition of the region, then the optimized size must be economic in terms of costs, production and sales [1].

One of the main citrus concerning problems is its production costs. Every years farms are also becoming smaller and smaller in size. For example, imagine a father who has 4 ha of farm under citrus cultivation. He has four children and after he dies the farm is divided into four sections (as the heritage) and every inheritor takes average of 1 ha and they will be less tended to produce this crop. In examining the relationship between production rate and production costs to obtain peak income, the more is production rate in unit of area, the more is the income earned by the producer. The small farm size disables farmers to consider citrus production as a profitable job to supply their family needs and the next generation is inevitable to move toward industrial jobs. On the other hand, some build apartments, fishery ponds and other activities in their farms (to gain more profit) and some other abandon the farm and migrate to cities. Therefore, citrus is not economic to cultivate because of small farms, high material and labor costs, lack of sales management, increasing import, etc [3].

Citrus Marketing Services in Mazandaran Province

Harvesting: Citrus crop is harvested through traditional and manual methods and farmers harvest ripe and even raw crops (because of the high price of some crops at the beginning of harvest season). According to data obtained from farmers and producers citrus harvest in Mazandaran has around 20-25% wastes and this figure is the result of traditional and manual harvest methods.

Grading, Packing and Warehousing: Packing citrus and agricultural crops plays an important role in enhancing the added value of this industry. By performing tasks such as sorting, washing, disinfecting, changing the odor and color, freezing and packing items such as fruits will have an added value up to 100% of the value of raw material. 80,000 tons of crops (the same figure as annual wasted amount) can be exported if packing and sorting conditions are improved.

In Mazandaran, citrus grading and sorting is mainly performed by producers and purchasers through manual techniques. Throughout this procedure big and ripe crops are separated from raw, sick and pest-injured ones. Then crops are placed in plastic or wooden boxes and sent to the market.

Because of specific climatic conditions and the region's humidity crops are partly warehoused in this province and a significant volume of crops is sent to the market immediately after harvest. Of course, it is possible to avoid this immediate sale by building industrial frigs. In this way farmers are not obliged to sell their crops with a low price in harvest season.

Transportation and Sending the Crop to Market:

After harvest, sorting and packing in wooden and plastic boxes crops are mainly transported to Tehran's market by trucks. It is noteworthy that normal and primary vehicles are used in this region for crop transportation and no equipment is available for nondurable crops transportation.

Fig. 1 shows paths through which citrus are taken to market in Mazandaran. In the third path less than 1% of crops are consumed by farmers themselves. In the second path (producer, local purchaser, Mazandaran main fruit and vegetable market, retailer and consumer) almost 15% of crops are sold. Through path 3 (producer, local purchaser, wholesaler, consumer) about 4% of the total crops are sold. In path 4 (producer, local purchaser, Tehran's fruit and vegetable market, retailer, consumer) almost 52% of crops are sold. Here, some wholesalers purchase crops directly from producers. In path 5 (producer, wholesaler, Ahwaz's fruit and vegetable market, retailer, consumer) 28% of crops is sold.

The Role of Marketing in Citrus Export Development:

One of the most important tools of export development strategy is to have relative advantage in the cycle of foreign exchanges. A country may be advantageous in terms of production but not in terms of commerce and trade. This deficiency originates from relative inefficiency

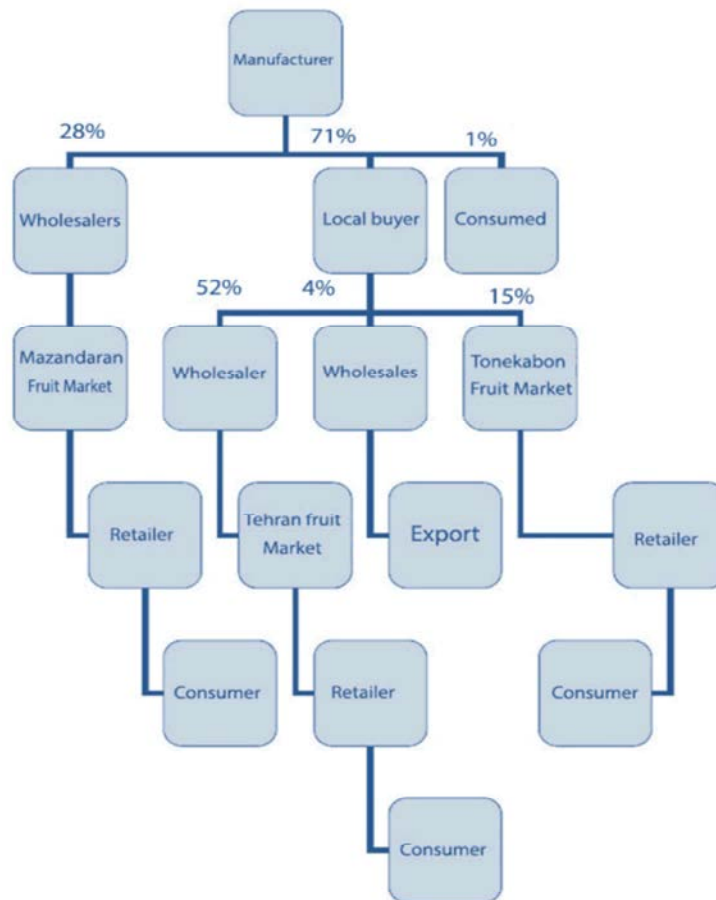


Fig. 1: Paths of sending citrus crops to the market in Mazandaran.

in sending goods to the market in stages such as packing, transportation and quality control, production standards and lack of access to information concerning global trade. Because of absence of a proper and efficient marketing and commercial system citrus export section has not developed well in Iran so that our export oranges are not in the right place in the world (even though their quality is better than products of many other parts of the world) as a result of lack of an appropriate advertising system in foreign exchange section. In most cases traders and businessmen provide for import instead of improving and promoting exports since they do not use scientific methods to advertise Iranian export citrus in target markets but support other countries' products instead. On the other hand, contribution of non-expert individuals and dealers in exports has reduced our exports share in many global markets. This reduction is also because Iranian producers do not have precise information on conditions and status of such markets.

Based on what is mentioned above the following important points can be noticed: the need to modify country's production structure and supporting farmers with competitive advantage in order to realize non-oil exports, initiating business offices or several agencies in various countries, performing foreign marketing research, holding local and foreign exhibitions to introduce this part of Iranian economy, making use of required statistics and data concerning global trade mass, developing research centers in target countries to get more familiar with consumers' preferences in them and becoming aware of conditions in global markets to increase the share of Iran in foreign trade in such markets. Hence, authorities of exports in Iran, especially ministry of trade and commerce, have to consider the fact that focusing on marketing issue can help increase foreign incomes and play an effective role in realizing non-oil exports. Of course, it must be noted that marketing cannot play its role in expanding non-oil exports if production structure is not modified and useless rules blocking healthy and competitive production are not removed.

Citrus Marketing Efficiency: Marketing efficiency is the product of total marketing added value (marketing total margin) divided by total service costs multiplied by 100. Accordingly, the more the product approaches 100, the more efficient is the market so that figure 100 shows maximum efficiency. Moreover, if the product is greater than 100 then it is said that the market has low efficiency.

Citrus Marketing: Investigation on agricultural crops marketing, especially fruits and horticultural crops, is of great importance. Among all horticultural crops, citrus has the highest production share (31%) and orange is the most dominant fruit produced (with the highest production volume). In this agricultural section producers' share of the total consumer price is very small and inefficiencies are evident in the market.

Problems of Citrus Marketing: Citrus marketing faces various problems in Iran the most significant of which are the huge share of intermediates in purchasing products, small share of producers from total price, high marketing costs coefficient, big share and significant growth of wholesaling, high net profit of wholesaler's marketing operations, high ratio of producer's marketing costs to received price, the role of wholesaling market in crop market inefficiency, etc [4].

Citrus Export: Exporting citrus include orange (fresh and dries), tangerine (fresh and dried), Lemon (fresh and dried), lime and grapefruit. Citrus export in Mazandaran has been declining recently so that the reduction was significant in 2008. Instability of currency rate can be considered as one of the main reasons for the reduction in exports rate. Considering the increasing inflation in Iran and the rise in production costs, exports is no more economic for producers.

Exports, in the form of economic growth and development theories, play a significant role in economic growth process. It is accepted nowadays that Iran cannot rely on oil exports anymore and have to supply its required currency (for economic development) by exporting non-oil goods. Hanson says that the instability in incomes of exports originates more from developing countries than developed ones the reason of which is lack of stability in price and amount. Mazandaran's citrus is not very desired in the market since it is sour, has many seeds in it and also local species are very diverse. These resulted in failure of trade and exporting activities and the province exports is crops only to middle Asia republics, Kuwait and the UAE. The solution is to convert orange to concentrate. But the concentrate is not sold well because it is bitter and has high acidity. As a result of demands exceeding supply in recent years, cropping fruits and lightening the tree for next year's germination is no more economic and the plan of constructing concentrate producing factories was proposed. The concentrate produced in northern Iran faces the problem of low ratio of BRICS (dry matter) to

acidity. Stability of this ratio in exported cargos of various months is also another reason destroying trust of foreign purchasers from the region's crops. Emergence of markets in middle Asia and the significant growth in tangerine exports has been the factor of exports prosperity. Main obstacles and problems of citrus exports include [5]:

- Expensive fruits
- Transportation problems
- Existence of certain rules in the UE for concentrate imports from Iran
- Rapid alterations in financial and custom rules
- Long administrative procedures
- Financial weakness of exporters
- Small number of frigs in Mazandaran province

Effective Factors on Exports Enhancement: Since export growth enters currency to the country and leads to an increase in economic incomes, government has employed facilities to encourage exporters and improve exports. Some of these facilities include reduction in custom tariffs, removal of unnecessary intermediates, direct purchase from the producer, awarding export rewards or export subsidies (this is to encourage exports in regions where supplying goods with finished price is not economic for consumers and is harmful to them) to exporters or producers whether in discount or full tax exception, custom repayment or in cash. Below is a summary of other cases.

- Market analysis
- Launching sales board abroad
- Taking part in international fairs or holding specialist exhibitions abroad
- Conducting export documents according to importer needs
- Selecting a sales agent abroad or in a business firm
- Advertising
- Developing sufficient packing and sorting equipments
- Developing export complexes
- Government support and stabilizing prices in local market

Important Problems of Citrus Trade: Some of the most important problems of citrus trade in Mazandaran province include: 25% waste citrus in the province, small size of gardens and farms, farmers' financial problems concerning lack of crop preparation operations, lack of education for farmers, use of E.P bags, not using

lattice bags or other proper packages, lack of sufficient frigs in main production regions, low capacity of citrus converting industries, lack of supporting industrial organizations and lack of marketing operations. Main reasons of crisis in citrus market include [6]:

- Marketing and sending crops to the market
- Supporting policies (citrus insurance, determined price)
- Lack of integrated cooperative organizations for marketing in Mazandaran
- Lack of sufficient converting industries in the region
- Lack of basic plans in the field of citrus export
- Lack of infrastructures such as frigs and warehouses
- Presence of marketing waste factors such as intermediates and self-purchasers

CONCLUSIONS

Citrus production per capita is around 17 kg globally but that of Iran is 56 kg. Irrigation and nutrition status, gardening operations, fertilizing, pests and diseases are factors contributing to wastes before harvest and mechanical injuries, physiological harms and warehouse diseases are reasons of wastes after harvest. Sorting and converting industries are of great importance for citrus production but high production costs, less export, weak quality of fruit processing, high wastes rate, low average performance and fruit quality and structural problems are the factors contributing in low profitability of citrus industry.

According to investigations it is clarified that always a significant share of incomes goes toward intermediates while producers have a small share of crop's final price and this leads to their dissatisfaction. Besides, it is evident that oaths used to send citrus to the market are not efficient enough so that if producer and consumer meet directly market will be more efficient.

Based on results of the present paper, although Mazandaran province benefits from an export advantage compared to the country's average, but no advantage is available in global markets and this, considering the rank of this province among top 10 global producers, can be considered by policy makers. But before respecting potential global markets and citrus exports it is necessary to consider domestic markets, meeting their needs and reduce unconventional margins. In general, in addition to improving domestic markets and meeting their needs, respecting citrus production, reducing production finished prices and declining

marketing costs and wastes rate are associated with a total decline in citrus final price. This, if accompanied with removal of unnecessary exports obstacles, reinforces the province's export advantage.

Considering the following issues can help improve this section of country's exports. An essential transformation is needed in marketing and systems of sending crops to market in main production regions with assistance from government and participation of farmers through local cooperatives and unions. Services of such unions to their members (in province level) include: donating debts and facilities, giving instructions in various fields of production and marketing services, activities in purchasing affairs, crop maintenance and sales, etc, developing central installations and equipments such as frigs and warehouses, establishing marketing service centers equipped with modern technologies such as grading and calibration and packing centers, advanced warehouse and frigs and purchasing calibration and grading machinery through government and relative organizations and abandoning them to wholesalers or horticulture cooperatives, continuous storing plans and

continuous seasonal tariffs (since using seasonal tariffs along with storing plans effectively help market adjustment for this crop).

REFERENCES

1. Alipour, H., 2012. Economic situation and market production of rice in Guilan. *Economic*, 2(1): 325-329.
2. Ardestani Khalid, M., 2010. Internal marketing of oranges north of Iran. *Agricultural Economics and Development*, 7(71).
3. Citrus marketing strategy, 2005. Pakistan Horticulture Development and Export Board, 41(4).
4. Hosseini, S. and H. Rafiee, 2007. Market Behavior of citrus in Mazandaran province. *Agricultural Economics*, 2(4): 92-73.
5. Ehsan, R., S. Solomon and Z. Sadat, 2010. Real doctor Mohammed, of Citrus Marketing Branch, *Agriculture and Development Economics*, 18(72): Winter.
6. Saeed, M., 2012. Comparative advantage in the production of oranges Jiroft. *Business Review* February 51.