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Marketing Efficiency and Price Spread for Saffron in Iran

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ABSTRACT

This study attempts to examine the marketing efficiency and price spread for saffron in Iran and also to identify the major problems thereof. It is based on the primary data collected from 50 traders (10 local traders, 12 wholesalers, 10 retailers, 11 processors and 7 exporters) in the markets of Mashhad, Torbat Heydariyeh and Ghaen were selected randomly. The secondary data were collected from published sources in Iran such as, Ministry of Jihad-Agricultural, Trade Promotion Organisation of Iran, Customs, ITC, European Commission, etc. Apart from using the usual techniques/concepts for analysing the marketing costs, marketing channels, marketing margin and price spread, Shepherd's Index was used for computing marketing efficiency. The study reveals that the maximum marketing margins were usurped by the middlemen followed by wholesalers in Mashhad for bulk export to Spain, UAE and Italy traders. The packaging and processing companies, which usually performed the task of grading, incurred the maximum marketing costs. The gross price spread was highest (96.25%) in the direct marketing channel namely: Producer-domestic consumer and least (17.76%) in the channel: Producer-middlemen-foreign traders-foreign consumer. Altogether, 11 channels were identified in the marketing of Iranian saffron and the average share of producer in the consumer's price in the all the 11 channels was 51.23%. The study revealed that there is considerable scope to increase the producer's share in the consumer's price if the number of intermediaries is reduced and the government intervenes pro-actively in order to organize and streamline the marketing cooperatives unions so that the farmers use these unions as a profitable channel to sell their product. There is no effective control on intermediaries in the saffron market, at present. The problem of irregular supply can be solved by forward contracts to be signed between producers and marketing bodies. The prices of saffron witness frequent fluctuations and even day to day fluctuations-causing concern to the farmers.

Key words: Iran, saffron, marketing, price spread, export

INTRODUCTION

Saffron is the most popular and expensive spice in the world. It is in demand the world over because of its great aroma, coloring capacity and proven medicinal properties and also because it involves heavily labour-intensive production and processing. The history of saffron cultivation dates back to more than 3,000 years. Ancient Persians cultivated Persian saffron in Isfahan and Khorasan provinces by the 10th century BC. Due to long experience of Iran in cultivation and the transfer of methods of growing and harvesting from person to person and or generation to

generation, Iranian saffron has managed to keep its distinctive qualities in comparison with that produced in other regions of the world with exceptional recognition for its fragrance, flavor and color at the international markets (Nikfarjam, 2006).

A typical saffron farm needs daily manual harvesting because every saffron plant produces only three flowers in different heights and days. There are on an average 2,170 flowers in each kilo of harvested fresh flowers and one kilo of dried saffron requires processing 78 kilos of fresh flowers. The final product is actually the stigma part of flower (Emadi, 2009). Saffron cultivation requires scientific cultivation practices which include improved corm varieties, skilled labour and irrigation during critical period of the standing crop.

As saffron does not need great amount of water, its cultivated area and production have increased in recent years substantially so, that many farmers completely depend on saffron. As a large amount of this product is exported. It fetches considerable amount of foreign exchange. So, in view of the economic, historic and social importance and due to the special situation of Iranian saffron in the world it is important to pay attention to the economic aspects of production and exporting of saffron in order to enhance its place in the world market.

MATERIALS AND METHODS

For the purpose of analysis of marketing issues, 50 traders (10 local traders, 12 wholesalers, 10 retailers, 11 processors and 7 exporters) in the markets of Mashhad, Torbat Heydarieh and Ghaen were selected randomly and also elected representatives of cooperatives in the study areas spread all over the markets chosen for the study, randomly. The secondary data regarding the trends in marketing, price (domestic and international market) and export were collected from Iranian Ministry of Agriculture, Department of Commerce, Trade Promotion Organization of Iran, Website-Ministry of Agriculture in saffron producing countries, Website related to saffron Price in international markets, United Nations Commodity Trade, European Commission, Statistics Database and other published reports from the Government as well as from the private agencies and FAO publications.

Analytical tools used

Marketing cost, marketing margins and efficiency models: To analyse the market performance of saffron, different models and indicators were adopted and they are as follows:

Marketing cost: The total marketing cost was determined by the following formula:

$$TC = C_p + \sum Mc_i \quad (1)$$

Where:

$i = 1$

TC = Total cost of marketing

C_p = Producer cost of marketing

Mc_i = Marketing cost by the i th trader

Marketing margin: The absolute margin of the middlemen, wholesaler, processor, trader and retailer was determined as follows:

$$AM = Psa - (Pba + Mc) \quad (2)$$

Mm = Absolute margin
Psa = Selling price
Pba = Buying price
MC = Marketing cost

Producer' share in the consumer price: The producer' share in the consumer price was calculated by the following indicator:

$$Ps = \frac{(Pp)}{(Pr)} \times 100 \quad (3)$$

Ps = Producer' share in the consumer price
Pp = Producer' price
Pr = Retail price or final consumer price

Marketing efficiency: Shepherd Index was used to evaluate the marketing efficiency of different channels involved. In the marketing of saffron, this is given by:

$$\text{Marketing efficiency} = \frac{\text{Retailer's sale price or consumer's purchase price}}{\text{Total costs and margins}} \quad (4)$$

$$\text{Marketing efficiency} = \frac{(\text{Value added by marketing})}{(\text{Cost of marketing services})} \times 100$$

Marketing channels and price spread for saffron in Iran: Saffron stigma is supplied by farmers to buyers after getting it dried. Marketing of saffron has been largely in the hands of private enterprises and there exist many channels of distribution and also a long chain of middlemen between the producer and the ultimate consumer (Ghorbani, 2008). The main agencies involved in the marketing of saffron in the Khorasan provinces are local traders, town wholesalers, wholesalers in Mashhad and Tehran, retailers, co-operative societies and Packaging Companies and exporters. Bulk of the saffron output moves to the Mashhad market from different parts of Torbat Heydarieh, Ghaen and other counties (Khorasan provinces). Marketing channel is shown in Fig. 1.

The marketing functionaries appropriate a substantial proportion of the profit and as a result, the farmers as well as the consumers are exploited. The present study revealed that the farmers sold their produce largely through the local traders and middleman while cooperative societies and processing companies were not involved in the marketing of even the small quantities of saffron. The disposal of saffron through different agencies involved in the marketing of saffron in the study area has been presented in Table 1 (Kheirandish, 2010).

Table 1 indicates the farmers' transaction with different types of marketing agencies. It is interesting to note that 56.57% of the farmers preferred to sell their product through wholesale and local traders in their respective counties. The percentage of farmers selling their produce through middlemen and wholesalers in Mashhad has been estimated at 12.57 and 11.71%, respectively

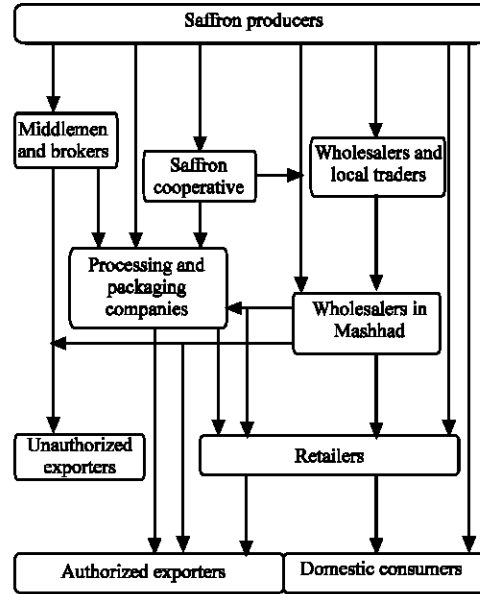


Fig. 1: Marketing channels for saffron in Iran

Table 1: Disposal of saffron produce through different market agencies (2009)

Agency	No. of farmers	Disposal (kg)
Wholesale and local traders	198 (56.57)	813.15 (70.04)
Middlemen and brokers	44 (12.57)	125.68 (10.83)
Wholesale in Mashhad	41 (11.71)	112.33 (10.54)
Processing and packaging company	31(8.86)	81.52 (7.02)
Saffron producers cooperative	15 (4.29)	8.25 (0.71)
Retailers	11 (3.14)	6.51 (0.56)
Consumers (Direct sale)	10 (2.86)	3.55 (0.31)
Total	350 (100)	1161 (100)

Figures in parentheses indicate percentages to total

while 8.86% of the farmers sold their products directly to saffron processing and packaging company. Only 4.29% of the farmers sold their produce through cooperative societies. The wholesalers in the distribution market, popularly known as packaging companies, purchase saffron from middlemen and very rarely directly from farmers and allow brokers to thrive at the cost of farmers.

It is also inferred from the above table that the majority of the farmers (56.57%) disposed off the produce (70.04%) through wholesale and local traders who performed the task of wholesaling/retailing in the counties. The middlemen in the counties who performed the task of broker and money lender were responsible for 10.83% of the disposal of the produce. A total of 12.57% of the farmers preferred them as the source of marketing.

The major portion of dried saffron is sold by saffron farmers to the town wholesalers and local buyers who in turn sell the product to Mashhad wholesalers based on orders. These wholesalers supply saffron to the retailers in the area directly and also to the Mashhad and Tehran companies,

which in turn pack the produce under a standard license and market it in domestic and international markets. The companies buy saffron either directly from the farmers or from middlemen or from Mashhad-Tehran wholesalers or from other towns in bulk form and then pack in standard sizes in ready-to-sell form so that it can be sold locally or exported either through export firms or by themselves directly.

The town of Mashhad, being the only main market of saffron, middlemen here tend to squeeze out the potential marketed surplus in the months of November to January. They stock saffron in their godowns and anticipate orders during certain festival periods. So, the small farmers having no marketing and financial facilities are exploited and the benefit goes to the brokers and middlemen who after storing saffron for some months reap substantial profits from the produce.

The intermediaries own and control all storage and packing facilities. They even lend credit facilities to farmers. In this way, they exploit the farmers who enter into agreements to sell their produce to their lenders at comparatively lower prices. These middlemen not only exploit the farmers by paying less and charging more from the consumers but also spoil the quality of the produce by adulteration which has badly affected the transaction of Iranian saffron in the world market. This happens because the producers are not aware of the marketing methods and practices; therefore more than 20% of the total producers are affected due to this system of marketing.

Many farmers do not have contacts with the saffron processing and packaging company and exporters. Since, they do not have the marketing facilities, they are forced to sell their product to the brokers or local traders to get immediate money. The production of a large percentage of saffron cultivating households is so meager that they cannot operate in the market except of handing it over to the brokers and local traders. The majority of the farmers are not sound economically as well as educationally to understand the market mechanism and contact the right market at right time. The worse situation has been compounded due to negligence and lack of interference by the government in the marketing of saffron and inefficient functioning of the co-operative societies or the voluntary organizations (Saraf, 2006).

As observed by studies, no NGO supports the producers or the consumers or stabilize the market fluctuations. In general, under the present market system, if the saffron producers enjoy enough motivation, they are able to produce superior saffron. However, because the product is moving through too many channels, the producer's share in the consumer's price is very low while the domestic consumers have to buy the product higher prices.

The foreign buyers purchase the Iranian product at about half of the global market price. Because the saffron farmers operate individually and their product quantity is very small. The cost of grading, packaging and advertisement tends to increase while the returns are poor. Unless the saffron farmers make collective effort and form systematic organization for buying and selling, the coordination can not be achieved. When the saffron farmers have little knowledge of the market situation and price fluctuations, their labor becomes futile while the market intermediaries would enjoy higher incomes at the farmers' cost.

In the marketing chain, there are some intermediaries who illegally export saffron to other countries (e.g., to Saudi Arabia and UAE) or, based on some orders, sell it to the wholesalers in Mashhad, Tehran and other towns through whom it is dispatched illegally out of the country.

Marketing channels: There are six major channels in the marketing saffron in Iran. They are domestic market and five major export markets. According to the exporters, the major destinations for Iranian saffron were European Union, Persian Gulf Countries, South East Asian Countries and other countries including India and China in the crop year 2008-09. The main agents active in marketing were wholesalers in Mashhad and Tehran/Processing and Packaging Companies and exporters. The following channels were identified as the main marketing channels for saffron.

- Channel 1:** (Direct Marketing) Producer→domestic consumers
- Channel 2:** Producer→retailer→domestic consumer
- Channel 3:** Producer→wholesaler in Mashhad→retailer→domestic consumer
- Channel 4:** Producer's saffron producers cooperative→wholesalers in Mashhad→retailer→domestic consumer
- Channel 5:** Producer→wholesaler and local trader→wholesaler in Mashhad→retailer→domestic consumer
- Channel 6:** Producer→wholesaler and local trader→wholesalers in Mashhad and Tehran→processing and packaging company→retailer→domestic consumer
- Channel 7:** Producer→processing and packaging company→foreign consumer
- Channel 8:** Producer→wholesaler and local trader→wholesalers in Mashhad→Processing and packaging company→foreign consumer
- Channel 9:** Producer→ middlemen→processing and packaging company→domestic consumer and foreign consumer
- Channel 10:** Producer→wholesaler and local trader→wholesalers in Mashhad→foreign traders→foreign consumer
- Channel 11:** Producer→middlemen→foreign traders→foreign consumer

It is observed from Table 2 and 3 that the maximum marketing margins were usurped by the middlemen followed by wholesalers in Mashhad for bulk export to Spain, UAE and Italy traders. The packaging and processing companies which usually performed the task of grading, incurred the maximum marketing costs. The gross price spread was highest in channel-X and IX because of the foreign traders mostly from Spain, UAE and Italy, buying saffron in bulk from middlemen and wholesaler in Mashhad and re-exporting to foreign consumer after repacking and using their own brand name.

The producer's share in the consumer's price, as depicted in Table 4, was higher in the direct channel (channel-I) followed by channels II, IV, V and VI in the domestic market followed by other channels in the international market. The producer's share was low in the channel X and XI because of the huge margin appropriated by the middlemen and wholesalers in Mashhad with bulk export to the foreign traders who repack and sell in the market using their own brand name. The results thus indicated that the existence of the middlemen was the main factor responsible for the low share of producer in the consumer's price and lack of international marketing by domestic firms in Iran for using direct export opportunity.

It is also observed that as the number of intermediaries declined, the marketing efficiency increased. This also confirmed the findings that the price received by the producer declined with the increase in the number of intermediaries in marketing channels. As the produce moved from the local wholesaler to distant markets, the marketing costs increased and the marketing efficiency decreased.

Table 2: Price spread in different marketing channels of saffron (Amount in Rial)

Particulars	Channels				
	1	2	3	4	5
Producer					
Net price received by the producer	115,500 (96.25)	107,000 (82.31)	88,500 (65.55)	83,500 (55.66)	73,500 (54.44)
Saffron Producers Cooperative					
Purchase price	86,000 (57.33)				
Marketing cost	6,500 (4.33)				
Marketing margin	11,500 (7.67)				
Wholesalers and local Trader					
Purchase price	76,000 (56.30)				
Marketing cost	6,000 (4.44)				
Marketing margin	11,000 (8.15)				
Wholesalers in Mashhad					
Purchase price	91,000 (67.40)	93,000 (68.89)			
Marketing cost	8,600 (6.37)	8,600 (6.37)			
Marketing margin	15,400 (11.41)	13,400 (9.93)			
Packaging companies					
Purchase price	105,000 (70.00)				
Marketing cost	16,500 (11.00)				
Marketing margin	11,500 (7.67)				
Retailer					
Purchase price	112,000 (86.15)	115,000 (85.18)	133,000 (88.67)	115,000 (85.18)	
Marketing cost	4,500.00 (3.46)	4,000 (2.96)	4,000 (2.67)	4,000 (2.96)	
Marketing margin	13,500 (10.38)	16,000 (11.85)	13,000 (8.67)	16,000 (11.85)	
Purchase price of domestic consumer	120,000 (100)	130,000 (100)	135,000 (100)	150,000 (100)	135,000 (100)
Purchase price of external consumer					
Gross price spread	4,500 (3.75)	23,000 (17.69)	46,500 (34.44)	66,500 (44.33)	61,500 (45.55)

NB: Figures in parentheses indicate %age to the totals

Table 3: Price spread in different marketing channels of saffron (Amount in Rial)

Particulars	Channels					
	6	7	8	9	10	11
Producer						
Net price received by the producer	73,500 (49.00)	105,500 (52.75)	3,500 (36.75)	7,500 (33.75)	3,500 (19.34)	67,500 (17.76)
Middlemen						
Purchase Price	70,000 (35)	70,000 (18.42)				
Marketing Cost	15,000 (7.50)	21,000 (5.53)				
Marketing Margin	35,000 (17.50)	49,000 (12.89)				
Wholesalers and local trader						
Purchase Price	76,000 (50.67)	76,000 (38.00)	76,000 (20.00)			
Marketing Cost	6,000 (4.00)	6,000 (3.00)	6,000 (1.58)			
Marketing Margin	10,000 (6.67)	10,000 (5.00)	12,000 (3.16)			
Wholesalers in Mashhad						
Purchase Price	92,000 (61.33)	92,000 (46.00)	94,000 (24.74)			
Marketing Cost	8,600 (5.73)	8,600 (4.30)	9,600 (2.53)			
Marketing Margin	9,400 (6.27)	9,400 (4.70)	46,400 (12.21)			
Packaging companies						
Purchase Price	110,000 (73.33)	108,000 (54.00)	110,000 (55.00)	120,000 (60.00)		

Table 3: Continued

Particulars	Channels					
	6	7	8	9	10	11
Marketing Cost	14,500 (9.67)	56,500 (28.25)	53,000 (26.50)	55,500 (27.75)		
Marketing Margin	10,500 (7.00)	35,500 (17.75)	37,000 (18.50)	24,500 (12.25)		
Retailer						
Purchase Price	135,000 (90.0)					
Marketing Cost	4,000 (2.67)					
Marketing Margin	11,000 (7.33)					
Unauthorized exporter						
Purchase Price					150,000 (39.47)	140,000 (36.84)
Marketing Cost	130,000 (34.21)	135,000 (35.53)				
Marketing Margin	100,000 (26.32)	105,000 (27.63)				
Purchase price of domestic consumer	150,000 (100)					
Purchase price of external consumer	200,000 (100)	200,000 (100)	200,000 (100)	380,000 (100)	380,000 (100)	
Gross price spread	76,500 (51.00)	94,500 (47.25)	126,500 (63.25)	132,500 (66.25)	306,500 (80.66)	312,500 (82.24)

NB: Figures in parentheses indicate % age to the totals

Table 4: Producer's share in consumer's price and marketing efficiency in different marketing channels of saffron in Iran

Particulars	Channels											Average
	1	2	3	4	5	6	7	8	9	10	11	
Producer's share in consumer's price	96.25	82.31	65.56	55.67	54.44	49.00	52.75	36.75	33.75	19.34	17.76	51.23
Index of Marketing efficiency (Shepherd's method)	26.70	5.65	2.90	2.25	2.20	1.96	2.17	1.58	1.50	1.29	1.22	4.51

CONCLUSION

The study revealed that there is considerable scope to increase the producer's share in the consumer's price if the number of intermediaries is reduced and the government intervenes pro-actively in order to organize and streamline the marketing cooperatives unions so that the farmers use these unions as a profitable channel to sell their product. There is no effective control on intermediaries in the saffron market, at%. The problem of irregular supply can be solved by forward contracts to be signed between producers and marketing bodies. The prices of saffron witness frequent fluctuations-and even day to day fluctuations-causing concern to the farmers.

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