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The Survey of Raisin Marketing Process and Structure in North Khorasan Province

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Abstract: This study investigated marketing process and structure of raisin in North Khorasan Province. Survey data were collected from 187 producers, 12 middleman, 2 processing factories and one rural cooperative society in 2003. The results showed that the share of producer, marketing margin and marketing cost in export price in main channel of marketing (producer, middleman, manufactory, export) are 55.3, 44.6 and 26.9%, respectively. Also, the marketing efficiency of main channel (with high market share) is less than the second channel (producer, cooperative, manufactory, export). Regard to results, establishment rural purchasing center with guarantee price, improving efficiency of extension service, training for better processing so as to improve quality of product, constructing marketing data banks as well as undertaking marketing research can increase total profit and social welfare through reducing marketing costs.

Key words: Marketing, marketing margin, marketing efficiency, dry fruit, cooperative

INTRODUCTION

Raisin is one of the most important types of dried fruits that are produced by drying grapes (Ghorbani, 1993). Amount of grape production in Khorasan-Razavi Province during 1997 was 357152 t and increased to 527056 t in 2002. In Iran, total production of grape in 1997 and 2002 was 2134701 and 2703792 t, respectively. According to country and world annual data, Khorasan-Razavi Province is first in amount of production and second in land hectares allocated in Iran while it has seventh rank in amount of production, sixth rank in land hectares allocated in world. Because grape is a spoilable fruit, processing it to products such as raisin is needed. In fact, producing raisin will decrease wastes and help to facilitate exports.

In recent years non-oil export has been considered in Iran seriously. Agricultural products like dry fruits have an important share in non oil export so that in 2002, more than 60% of agricultural exports included the dry fruits. Raisin has the second rank in export of dry fruits and seventh rank in export of all non oil products that its value was 75 million dollars with 1.628% of total non oil exports. Since, agricultural production has been changed from traditional form to modern and commercial form, agricultural marketing process has been attended so that respecting the consumer's preferences, high quality production and safety guaranties are followed by agricultural and food producers.

Agricultural economists' especially marketing experts agreed on importance of supply distribution system and marketing ways on increasing the value of production and having awareness about current marketing problems in order to increase its efficiency and reform to a desired situation in developing countries. Therefore, in agricultural literatures, marketing is more considered than increasing amount of production.

A wide range of researches has been done in field of agricultural marketing. Studies of Zare and Najafi (1999), Najafi (1998), Dehghanian *et al*. (2002), Mousanejad and Mojaverian (1994), Ghorbani and Dehghanian (2003), Ghorbani (1999), Moghaddasi (2007), Sedaghat (2007) and Ashrafi *et al*. (2005) indicated that packing, advertisement and quality of exported dry fruits, agricultural and rural products are not desired in Iran. Total share of retailers and wholesalers is equal to share of producers in retail prices. Wastes and lack of marketing services like credit payments, market information, suitable packing, insurance and etc. are the main problems of domestic marketing and export. Marketing factors such as middlemen, firm owners and retailers works inefficiently in marketing process so that government should mange and directs it. On the other hand, some books and papers written about agricultural marketing in other countries (Muth *et al*., 2008; Ghazalian Furtan, 2007; Stegelin, 2006; Shrivastave and Randhir, 2005; Xia and Sexton, 2004; Ramakumar, 2001; Mroz, 1998; Leitch and Nelson, 1995; Raha and Sultan, 1995; Wollen and Turner, 1970) but the survey on

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agricultural marketing revealed that Lister *et al*. (2004), Keeling and Matt (2004) and Ashrafi *et al*. (2005) studies on some dimensions of raisin such as marketing, trade and welfare. Ashrafi *et al*. (2005) by using time series data 1981-2001 showed that marketing margin of raisin is high. Keeling and Matt (2004) indicated that benefits from combinations of programs are highly sensitive to elasticities of pooled demand. Lister *et al*. (2004) showed that quality of the goods, as well as the structure of marketing, limits both the current export potential and the value returned to different actors in the chain, particularly the producer. Constraints identified by others to greater output of a higher quality product include: outdated production approaches, lack of both knowledge and inputs producing low yields, lack of capacity and facility for on-farm processing, the establishment of farmer marketing associations, lack of investment in factory processing facilities, poor packing and marketing internationally. The study has also shown, when read together with its companion case studies (carpets and construction materials), that the functioning of markets is preventing greater competition in these trading processes, reinforcing existing structures of control and power and increasingly limiting the benefits gained from expanding markets to those who already dominate trading in Afghanistan. Regard to existent problems in marketing process of raisin and unawareness about its nutrient values, wrong drying rules, production surplus, lack of desired industries to transform original products to secondary products, lack of fixed target markets, price fluctuations, in existence of a modern pricing system for this dry fruit, inefficiency of current marketing rules, low share of producer from consumer price and large proportion of wastes in warehouses from one side and importance of raisin in non oil exports and lack of adequate researches in this field in other side, this study attempted shedding light on raisin marketing problems and efficiency of marketing channel to find appropriate strategies for going out from current inefficient situation of this product's market.

MATERIALS AND METHODS

Data: Data of this research collected through sampling survey and by filling questionnaire with 187 producers, 12 middlemen, 2 raisin manufactory (processing factory) and one cooperative of Bojnord in North Khorasan Province. This study is a survey and quality research that carried out in 2003.

Efficiency: In this study efficiency of raisin marketing channels computed using Shepherd *et al*. (1976) formula as following:

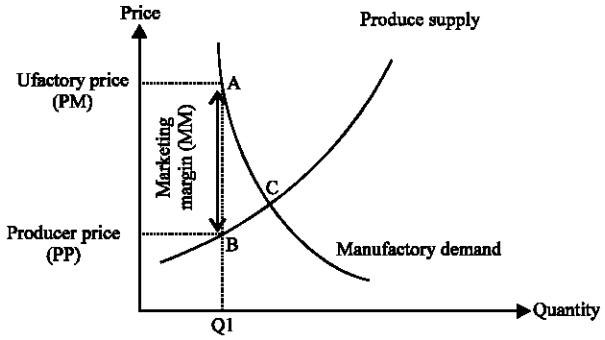

Fig. 1: Manufactory marketing margin of raisin

$$\text{Efficiency} = \frac{\text{Value added}}{\text{Marketing costs}} \times 100 \quad (1)$$

Based on this formula, if efficiency become near to 100, it will show higher efficiency.

Margin: Margin means difference between two prices or values. Wollen and Turner (1970) defined total costs in marketing channels of products- from farm to consumer- as total marketing margin. So, marketing margin is a part of commodity price that producer can not gain it. Figure 1 shows manufactory marketing margin for raisin. Difference prices of raisin in producer and manufactory level-vertical difference AB- show marketing margin. Marketing margin consist of two components: marketing costs and profits. For computing manufactory marketing margin used following formula:

$$MMM = PM - PP$$

where, MMM is manufactory marketing margin, PM is manufactory (export) price and PP is producer price.

RESULTS AND DISCUSSION

Production costs and profit- production costs of one unit (kg) of raisin conclude final costs of grape and then conversion costs of grape to raisin that introduced in Table 1 and 2, respectively. Regard to Table 1, production cost of grape is 512.6 rial kg^{-1}. Also, labor has 56.22% of total production costs that is highest share of it. So, production of grape is one of labor intensive activities that can generate direct employment in farm and indirect employment in processing and marketing stages. After labor, rental cost of farm has 35.47% of total production costs. Therefore, rental and labor costs have 91.69% of total production costs of grape. Total cost of grape production is 5638500 rial ha^{-1}.

Table 1: Production costs of one hectare grape in North Khorasan Province

Type of cost	Number	Unit	Cost (rial)	Share %
To shovel under trees	30	Man-day	105000	18.62
Thinning out	7	Man-day	245000	4.34
Nitrate fertilizer	50	kg	19500	0.34
Fright of manure and to manure	10	t	300000	5.32
Sulfur poison	70	kg	56000	1.00
spraying	1	Man-day	50000	0.89
Pesticide and disease poison	2	L	53000	0.93
Poison machine rent	1	Time	40000	0.72
To poison	2	Man-day	100000	1.78
Winter (ice) water	7	Man-day	245000	4.34
Spring water	7	Man-day	280000	4.97
Summer water	10	Man-day	400000	7.10
Collecting of grape	30	Man-day	800000	14.18
Rent	1	ha	2000000	35.47
Total costs		ha	5638500	
Production costs of one kilogram of grape		kg	512.6	

Table 2: Production costs of one tone raisin in North Khorasan Province

Type of costs	Number	Unit	Cost (rial)	Share (%)
Grape for converting to raisin	5	t	2562955	74.9
Tizabi powder[1]	15	kg	165000	4.9
Tizabi oil	5	kg	60000	1.8
Arranges and processing of raisin	15	Man-day	400000	11.7
Collecting of prepared raisin	5	Man-day	200000	5.9
Transporting of raisin to warehouse	1	Time	30000	0.8
Total production cost		t	3417955	
Production cost of one kilogram raisin		kg	3418	

1: Sulfuric acid

Table 3: Producer's profit and costs for one kilogram of raisin in North Khorasan Province

Variable	Sale to middleman	Sale to cooperative	Sale to consumer
Producer price (rial)	3900	4050	4500
Total production cost (rial)	3418	3418	3418
Producer profit (rial)	482	632	1082
Profitability (%)	14.10	18.49	31.17

Table 2 shows production costs of one and (kg) of raisin. In this study conversion coefficient of grape to raisin considered 5:1. Based on Table 2, grape has highest share (74.9%) in raisin production costs. After it, share of arranges and processing costs of raisin is 11.7%. Also, average production costs of raisin determined about 3418 rial kg^{-1}.

Table 3 shows costs and profit of one tone raisin. This figures show that raisin producers gain respectively 482, 632 and 1082 rial kg^{-1} profit. Regard to this data, it revealed that highest profit get in direct marketing from producer to consumer.

Marketing channel: After production of raisin, it distribute through 3 paths (channels): path 1 that 58% of raisin distribute through it conclude producer-local middleman -raisin manufactory- export. Share of path 2 i.e., producer-rural cooperative-exporter (raisin willow manufactory)-export is 40% of marketed product. Share of Path 3 i.e., Producer- consumer is only 3% of raisin (Fig. 2).

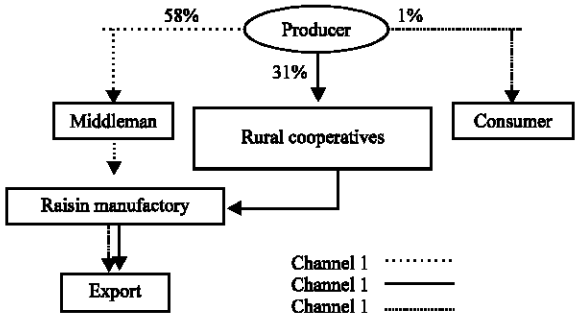

Fig. 2: Raisin marketing channels in North Khorasan Province

Evaluation of marketing channel: Marketing channel is not long. Producer's profit and costs in channel 1 (main path) introduced in Table 4. Results show producer profit share of export price is 6.8%. While production costs share of export price is 48.5%. Producer price share of export price is estimated 55.3%. Regard to raisin production costs, producer profit is 482 rial kg^{-1}.

Table 5 shows costs and profit of middlemen and shares of one kilogram raisin export price in channel 1. Based on Table 5, middlemen cost and profit of raisin is 145 and 155 rial kg^{-1}. Middlemen costs and profit shares of export price are 2.05 and 2.2%, respectively.

Table 6 shows manufactory (exporter) costs and profit and shares of 1 kg first degree export raisin in marketing channel 1. Based on Table 6, export price of manufactory estimated 7050 rial kg^{-1}. Also, total cost and profit for first degree of raisin determined 1751.56 and 1098.44 rial kg^{-1}, respectively. Manufactory cost and profit shares of export price estimated 24.84 and 15.58%, respectively.

Comparison of Table 4, 5 and 6 show that producer, middlemen and manufactory cost share of export price are 48.5, 2.05 and 24.84% whereas producer, middlemen and manufactory profit share of export price are 56.8, 2.2 and 15.58%, respectively. So, producer cost and profit share of export price is max.

Table 7 shows profit and sale price of 1 kg first degree raisin for producer in marketing channel 2. Table 7 indicates that profit of raisin is 582 rial kg^{-1}. Also, producer price and profit share of export price are 57.4 and 8.2%, respectively. Producer profit is low because of production cost is high so that producer cost share of export price in channel 2

Table 4: Producer's profit and price for one kilogram of raisin (degree one) in marketing channel 1

Choice	Size	Unit
Producer price	3900	Rial
Production cost	3418	Rial
Profit	482	Rial
Producer price share of export price	55.3	Percent
Producer cost share of export price	48.5	Percent
Producer profit share of export price	6.8	Percent

Table 5: Middlemen's profit and costs and export price of one kilogram of raisin in marketing channel 1

Choice	Size	Unit
Middlemen gain	4200	Rial
Loading and unloading cost	40	Rial
Transportation cost	105	Rial
Total costs	145	Rial
Profit	155	Rial
Middleman cost share of export price	2.05	Percent
Middleman profit share of export price	2.20	Percent

Table 6: Manufactory (exporter) costs and profit and shares of one kilogram first degree export raisin in marketing channel 1

Choice	Size	Unit
Export price or manufactory gain	7050.00	Rial
Manufactory income of loss	100.00	Rial
Processing cost on raisin in manufactory	800.00	Rial
Transportation cost	200.00	Rial
Water, electricity and telephone cost	10.26	Rial
Wage (labor) cost	41.30	Rial
Loss cost	700.00	Rial
Total costs	1751.56	Rial
Profit	1098.44	Rial
Manufactory cost share of export price	24.84	Percent
Manufactory profit share of export price	15.58	Percent

Table 7: Profit and sale price of one kilogram first degree raisin for producer in marketing channel 2

Choice	Size	Unit
Producer price	4050	Rial
Production cost	3418	Rial
Transportation cost to cooperative	50	Rial
Profit	582	Rial
Producer price share of export price	57.4	Percent
Producer profit share of export price	8.2	Percent

is 48.5%. Producer profit in channel 2 is high because cooperative purchase raisin with higher price that middlemen. Although rural cooperative determine percentage of raisin as loss and farmer pay transportation cost for transferring raisin to cooperative center but profit is higher than channel 1.

Total marketing margin and cost of two channels (1 and 2) introduced in Table 8. Total marketing cost of channel 1 is higher than channel 2. Profit share of marketing agents in channel 1 of export price (17.7%) is higher than channel 2 (16.05%). Regard to Table 8, it revealed that efficiency of channels 1 and 2 are 166.1 and 160.9%, respectively. Although, market share of channel 2 is less than channel 1 but efficiency of channel 2 is higher than channel 1. Regard to efficiencies, it distinguished that two channels have optimum efficiency. Total marketing margin of channel 1 (3150 rial kg^{-1}) is

Table 8: Comparison of marketing margins, costs and efficiency in channel 1 and 2

Choice	Channel 1	Channel 2
Total marketing margin (rial)	3150.0	3000.0
Total marketing cost (rial)	1896.6	1864.6
Total margin share of export price (%)	44.6	42.5
Total cost share of export price (%)	26.9	26.4
Marketing agents profit share of export price (%)	17.7	16.1
Efficiency (%)	166.1	160.9

higher channel 2 (3000 rial kg^{-1}) but difference is not high. A part of this difference derives of difference of costs and otherwise derives of profit. Based on Table 6, it sound that gap of marketing margin between two channels derives of difference in marketing agents' profit. This gap has three reasons: existence of local middlemen in production center, purchasing of raisin in Bojnord at guarantee price not in rural regions and lack of farmer's awareness of guarantee price.

Although results of this study confirm results of other studies on agricultural and rural products, in general, but this results is near to results of Lister *et al.* (2004). Generally, results of this study and type of analysis in unique. So, results of this study can not compare with other studies on raisin.

CONCLUSION

Marketing as invisible hand of production and even as a subject which is more important than production has got significance in economic studies. Marketing of agricultural products as one of the necessities of rural and agricultural production system in the process of production and development occupied a notable importance. Traditional methods of marketing that have been in use in Iran are accompanied with high cost and are not in tune with objectives of sustainable development. Noting to the economic value of Raisin and potentials capacity in qualitative and quantitative improvement of production of this product this research work was undertaken so as to study marketing process of raisin in North Khorasan Province. Survey data were collected from 187 producers, 12 middleman, 2 processing factories and one rural cooperative society. The results showed that the share of producer, marketing margin and marketing cost in export price in main channel of marketing (producer, middleman, manufactory, export) are 55.3, 44.6 and 26.9%, respectively. Also, the marketing efficiency of main channel (with high market share) is less than the second channel (producer, cooperative, manufactory, export). Regard to results, establishment rural purchasing center with guarantee price, improving

efficiency of extension service, training for better processing so as to improve quality of product, constructing marketing data banks as well as undertaking marketing research can increase total profit and social welfare through reducing marketing costs.

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