



IMPLICATIONS AND CHALLENGES OF AGRICULTURAL EXTENSION IN MARKETING OF PISTACHIOS (RAFSANJAN CITY, IRAN)

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ABSTRACT

Agricultural products have a main role in nonoil exportation. Pistachio is one of the most important export products of Iran. This study is aimed at evaluating and identifying suitable extension and educational methods in marketing of Rafsanjan's pistachio. An applied study was carried out in 2011. A questionnaire was developed, preliminary tested and data collected through a survey. The statistical population was 120 persons of agricultural extension experts of Rafsanjan city. SPSS version 16 (a statistical software) was used to analyze the data. The results of the survey showed that around 38.5% of the experts (most frequency), in relation to improvement of pistachio marketing in Rafsanjan stated that pistachio marketing improvement is relatively desirable. In opinion of most of experts, the effect of implications and challenges of agricultural extension on Pistachio marketing improvement is moderate and much, in respectively.

Keywords: pistachios, agricultural extension, implications, challenges, marketing.

INTRODUCTION

Nonoil exports are one of the most important economical issues in Iran which should be highly considered to release the country from oil export (Moghadasi and Alishahi, 2007). Agricultural products have a main role in nonoil exportation and is very important in bringing exchange to the country so, according to the agricultural products' stage in any country's economy, these products' marketing is important, too (Dixie, 1991).

Pistachio is one of the country's most important export products. According to the customs of Iran, at the end of 2010, 123 thousand tons of different pistachio was exported to different countries having a 43 percent weight growth to the 86 thousand tones of the 9 months of last year. Considering the rate of pistachios export during the 2010s, an ascending of export is seen. Kerman province is the first with a 24.4 percent production of garden products; with 31 thousand hectares of pistachio gardens (74 percent of area under cultivation), is the largest forest mass in the world and is the first because of a 46.5 percent of the country's pistachios production. Value added of Kerman's agriculture sector is 29.1 and 65 percent of Iran's economical and agricultural sectors, respectively. 28.4 percent of Kerman's workers and labor are working in the agriculture sector. Rafsanjan city provides 90 percent of the province's pistachio (Iran Pistachios Association, 2010).

Inefficiency of the pistachio marketing in Iran is because of the incorrect harvest, lack of processing amenities, pistachio culturists unawareness of doing marketing services, lack information about the market demands, culturists unawareness of the target market, unneeded brokers and intermediaries, cooperatives inefficiency, low interest of the gardeners in the production system, little and divided lands, low performance per hectare compared with international standards, market's lower-than-standard facilities, weak payment for product and seasonal limitations, weak

storage facilities, problems of suitable and on time accessibility to credits, farmer's inability to sell the product, farmers' weakness in dealing and bargaining, lack of market transparency and lack of coordination between the related sectors (Ghorbani, 2009).

Marketing, in this study, is a set of activities in the stage of pistachio harvest and after it for a better and more profitable distribution including all extensional acts in the area of improving the harvest condition, harvest situation, collection methods, transportation, processing, packing and storage.

The first duty of marketing begins after the product production. Transportation is one of the basic marketing activities causing the market to be widespread. Packing means the protection, or act, granting the safety of the good from production to consumption. Processing is undeniable due to the differences between products' production form and consumption needs form in addition to the necessity of long term maintenance. Calibration means that production is divided into different groups based on their quality and suitable for market demands. Storage is also one of the most important marketing operations during which the product is maintained from the production date to date of consumption need (Feder *et al.*, 2001).

Taheri (2006) showed that creating marketing organizations, reduction of brokers and intermediaries interference and providing facilities affect the improvement of citrus marketing, selling and reinforcement of citrus products marketing, respectively.

Sharifi and Molayed (2005) reported that 30 to 50 percent of agriculture products are wasted because of packing and lack of suitable processing.

Ekanem and Singh (2001) concluded that capital, credit, suitable technology, and marketing information were the small farmers' most important issues. The most important limitations of the development of small farmers were debts, labor and money.



Mojaverian (1996) indicated that failure to meet the national norms and standards and the minimum qualitative standards of the product cause a wastage increase, which is more obvious in storage.

The necessity of the study is undeniable, in one hand, due to the agriculture duty of extension and education in the area of product in-garden preparation, packing, protection, product quality improvement, and put a stop to its wastage and, in the other hand, holding necessary training courses about the product's way of harvest, transportation from garden to maintain centers, conditions of maintaining the product in the store, and the quantitative and qualitative improvement of both agriculture products and gardeners' life. Thus, this study is aimed at evaluating and identifying suitable extension and educational methods in marketing Rafsanjan's pistachio.

MATERIALS AND METHODS

This is an applied study. The analysis used in this study involved a combination of descriptive and quantitative research and the main methodology is descriptive (non-experimental) and correlation. Statistical population was 120 persons of agricultural extension experts of Rafsanjan city were selected by survey. The main research tool is questionnaire. Content and face validity were established by a panel of experts consisting of faculty members and some specialists. Minor wording and structuring of the instrument were made based on the recommendation of the panel of experts. A pilot study was

conducted with 25 persons. Cronbach Alpha score was 0.86 %, which indicated that the questionnaire was highly reliable.

Dependent variable of this study is pistachio marketing, to assess it, 22 statements were used in the form of a five-point Likert scale (from completely undesirable to completely desirable), and the mean score of the answered questions was identified as the respondent's attitude. After computing the statements, they were examined on an interval scale.

For analysis data, central tendency (mean, median, and mode) were used. Statistical analysis was done through SPSS Version 16.

RESULTS AND DISCUSSIONS

Average age of the respondents was 35.5 years, most frequency was 31-35 years; most of them (81 percent) were men and the rest were women. Most of the experts had bachelor (65 percent) and MS (27.5 percent) degrees. Average activity experience of the experts was 8 years, most of them (48.2 percent) had between 1 and 5 years of working experience in the agriculture sector.

About 38.5% of the experts (most frequency), in relation to improvement of pistachio marketing in Rafsanjan, stated that pistachio marketing improvement is relatively desirable in the studied region. Only 11% of experts assessed the marketing situation as undesirable (Table-1).

Table-1. Respondents view in relation to situation of pistachio marketing (n = 116).

Level	Frequency	Percent	Valid percent	Cumulative percent
Completely undesirable	14	12.1	12.8	12.8
Undesirable	12	10.3	11	23.9
Moderate	42	36.2	38.5	62.4
Desirable	26	22.4	23.9	86.2
Completely desirable	15	12.9	13.8	100
Non respond	7	6	-	-

Mode: Moderate Median: Moderate

In relation to prioritizing the pistachio marketing dimensions (Table-2), calibration is in the first priority and

transportation, packing, harvesting, storage, and processing are the next priorities, respectively.

Table-2. Prioritizing respondents view in relation to dimensions of pistachio marketing.

Dimensions	Mean	Sd	Priority	Mode
Calibration	3.28	1.26	1	Desirable
Transportation	3.2	1.22	2	Desirable
Packing	3.17	1.32	3	Desirable
Harvesting	3.16	1.22	4	Desirable
Storage	3.04	1.24	5	Desirable
Processing	2.96	1.20	6	Desirable

1 = Completely undesirable, 2 = Undesirable, 3 = Moderate, 4 = Desirable, 5 = Completely desirable



Most of the experts 32.7% believed that effect of agricultural extension implications on pistachios marketing is moderate (Table-3).

Table-3. Respondents view in relation to effect of agricultural extension implications (n=116).

Level	Frequency	Percent	Valid percent	Cumulative percent
Very Little	17	14.7	15.5	15.5
Little	12	10.3	10.9	26.4
Moderate	17	14.7	15.5	41.8
Much	36	31	32.7	74.5
Very much	28	24.1	25.5	100
Non respond	6	5.2	-	-

Mode: Moderate

Prioritizing the experts view regarding the effect of agricultural extension implications shows that coordination of the organizations' planners and policy makers with the extensional planners is the first priority. Implementation of the content of provided information with local conditions, identification and providing suitable educations of marketing, availability of specialist experts of marketing, sharing the responsibility between clientele and extension agents, level of extenders' awareness of pistachios marketing, reinforcing the addressees' organizations (cooperatives and private companies), applying realistic strategies for using extension in marketing, establishment of local marketing information network, being clientele-oriented in providing plans and information, continuous communication with research sectors and all beneficiaries for information exchange, relevant organizations coordination in planning and target

determination for marketing, motivation for applying marketing, assessment and considering the addresses conditions in providing information and plans, creating websites and educational programs in local language, linking the local marketing networks to the national and global ones, continuous long-term financial supports for marketing projects, need to identify a suitable extension for meeting the beneficiaries' needs of marketing, providing suitable extensional trainings of marketing for improving the life of clientele, need for the private sector's support to invest in marketing, identification of suitable trainings for meeting the needs of beneficiaries, and providing the needed accurate, on time, and update information are the next priorities, respectively.

Most of the experts 45.9 % believed that effect of agricultural extension challenges on pistachios marketing is much (Table-4).

Table-4. Respondents view in relation to effect of agricultural extension challenges (n = 116).

Level	Frequency	Percent	Valid percent	Cumulative percent
Very Little	13	11.2	11.7	11.7
Little	6	5.2	5.4	17.1
Moderate	17	14.7	15.3	32.4
Much	51	44	45.9	78.4
Very much	24	20.7	21.6	100
Non respond	5	4.3	-	-

Mode: Much

Prioritizing the experts view regarding the challenges of agricultural in the pistachios marketing improvement shows that, the existence of brokers and intermediaries is the first priority. Lack of local marketing networks communication with the national and global ones, lack of technical and informational skill among the extension agents, specialists and researchers, gardeners lack of awareness of target markets, existence of preventive laws, clientele lack of awareness about marketing advantages, gardeners lack of awareness of the

correct way of product processing, existence of variation in the market demands, gardeners negative view to the agricultural extension experts, and clientele lack of awareness, clientele poverty, lack of motivation, gardeners lack of awareness of the harvest time, lack of needed organizations and cooperatives, gardeners illiteracy or lack of literacy, gardeners lack of awareness of correct transportation methods, gardeners lack of awareness of mechanized harvesting methods, gardeners lack of awareness of correct harvest methods, lack of



marketing information to draw the clientele's participation, gardeners lack of knowledge about the advantages of selling cooperatives, and the problem of budget providing for the extension-educational activities are the 2nd to 20th priorities, respectively.

Findings showed that about 38.5% of the experts (most frequency), in relation to improvement of pistachio marketing in Rafsanjan stated that pistachio marketing improvement is relatively desirable. In opinion of most of experts, the effect of implications and challenges of agricultural extension on Pistachio marketing improvement is moderate and much, in respectively.

Atefi (2003) and Mohammad *et al.*, (1995) confirmed that the necessities of extension-educational activities affect on improvement of marketing, which is confirmed in this study, too.

Results of the study regarding the effect of extension implications on the improvement of pistachios marketing showed that coordination of the organizations' planners and policy makers with extension planners extremely affects the improvement of pistachios marketing, so it is better that the organizations' planners and policy makers perform the necessary coordination (for pistachios marketing) with the extension experts and planners.

Taheri (2006), Mojaverian (1996), Hasanpoor (2004), Sharifi and Molayed (2005) confirmed that there is a negative relationship between the variables of challenges of extension educations and improvement of pistachios marketing.

To remove the problems and barriers of agricultural extension success in improving the pistachios marketing, it is necessary to delete the brokers and intermediaries, establish local marketing network, reinforce these networks' communication with the national and global ones, and provide the budget needed for extension educational activities. Evaluations showed that lack of extension agents and specialists' technical and informational skills is another problem for extension, so trainings related to the pistachios product marketing for the extension agents and specialists are necessary to make the needed motivation for them.

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