An investigation of effective factors on the educational needs of pistachio growers of rafsanjan using borich model

Mehdi Charmchian Langerodi[*] and Morteza Esmailzadeh

Department of Agricultural Extension and Education, Sari Branch, Islamic Azad University, Sari, Iran
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ABSTRACT

The aim of the study was to identify the effective factors on the educational needs of Pistachio growers using Borich model. The instrument validity was established and its reliability was confirmed. The statistical population was all Pistachio growers in Rafsanjan township, Kerman province, in the farming year of 2011-12 (N=46000). According to Cochran's formula, 289 subjects were chosen as sample using stratified sampling method (n=289). Based on Borich's needs assessment model, a modified version of 43 competencies from previous researches was developed to assess educational needs of Pistachio growers. Overall competencies were analyzed and ranked using mean weighted discrepancy scores (MWDS). Findings in the study indicated that the main educational needs of Pistachio growers were at area of Pistachio nutrition management. The results of correlation test showed there were statistical relationships between some Pistachio growers' personal, social and economic characteristics with their educational needs The results of means comparison also indicated that there were statistical differences among the amount of Pistachio growers' educational needs regarding the type of species used for planting. The results of the bivariate regression revealed that 33.40 % of variation on the amount of Pistachio growers' educational needs stemmed from these variables namely social characteristics, the type of species used for planting, distance between garden with the town, economic characteristics, and educational level.

Keywords: Educational Need, Borich's Model, Pistachio Grower, Rafsanjan.
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INTRODUCTION

Enjoying a special place in agricultural production and exports and also being a strategic product, pistachio is considered as the green gold. On the other hand, pistachio is cultivated in the most severe environmental conditions and brings profit and a good income to farmers [1]. The production value of such unique and exclusive product occupies 10% of the country's non-oil revenue. Around 152,000 families in rural and urban areas comprising over one million people are involved and employed in pistachio related professions [2]. In general, it can be said that pistachio among other agricultural products is one of the most valuable products and other agricultural products cannot provide such unparalleled income [3]. Pistachio exports gained half a billion dollars annually income for the country which is of considerable importance for a country like Iran having limited financial exchange resources [4]. Iran is the world's first producer of pistachios and Kerman province ranked the first in the country with 80 percent fertile land to grow and cultivate pistachio. Rafsanjan serves as the main region to produce pistachio in Iran and in the world; hence, from 446oooo acres of pistachio orchards in Iran, 80 percent of farms are located in Kerman Province and 120,000 acres with over 46,000 pistachio growers live and work in the city of Rafsanjan [5].

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Several educational-extension activities have been carried out on pistachio farming and growing but it is important to testify that educational-extension programs can be successful if the they are based on the needs and interests of the people, otherwise, besides wasting extension agents' money, time and energy the farmers' desire, motivation and willingness to participate in educational-extension activities will diminish. So, it seems quite acceptable and logical to run needs assessment before implementing educational-extension programs [6].

Saburi and Omani [7] stated that in order to maintain the efficiency and effectiveness of all educational programs, needs assessment must be conducted. Before conducting the actual educational courses, the instructor must determine who, what, when, where, why and how to teach. Evaluating the educational needs is a systematic processes for determining objectives and priorities in order to plan and designate the needed the appropriate program [8]. The main objective of assessment studies is providing information to the planners. Assessment process may result in the identification of objectives, targets and their realization; moreover, it may improve programs or increase the length of the program. Therefore, need assessment can provide important data for decision-making for planners by identifying educational needs in advance [9]. Experts recapitulated and considered the following advantages to assess the educational needs:

1) It gives an accurate understanding of the needs that must be met, 2) it provides an effective planning for the programs, 3) it would be useful for those who want to invest in new programs, and 4) they effective in needs assessment, and 5) it provides evidence for advocating the programs [10]. Regarding the above-given points, evaluating the educational needs of pistachio growers in Rafsanjan and identifying the influential factors seems mandatory because of the fact that this area is an important region for pistachio production in Iran and in the world and enjoys a high impact on farmers' income and foreign exchange revenue for the country. Also, holding courses in various fields for pistachio growers, introducing innovations associated with pistachio production followed by overcoming the various problems facing farmers and determining the pistachio growers' real needs, increasing the farmers and extension agents' participation of to improve the quantity and quality pistachio and also the income level necessitates the educational needs assessment of pistachio growers in Rafsanjan.

It should be noted that reviewing the theoretical basis to extract the components of the theoretical model suggests that personal characteristics such as age and education level of farmers and gardeners [11]; [12]; [13]; [14]; [15]; [16], occupational [8]; [17]; [18]; [19]; [20] and educational-extension programs such as the number of attendance in extension classes [21]; [22]; [14]; [23], economic factors such as farm size and product yield [24] and information such as the use of mass media [25] serve as effective factors on educational needs level. There exists a variety of models to assess the educational needs and undoubtedly Borich's model the most comprehensive model to assess the educational needs. He defines the educational needs as the distance between the educational objectives and their related performance. Borich's model is a self-assessment model based on the farmers' judgment on their professional ability regarding both the importance and ability. He also asserts that educational programs can use this model in two ways.

1). What is existed (the current situation)
2). What should be existed (the ideal situation)
The distance (need) between these two conditions can be used as an important index to evaluate the effectiveness of educational programs to be used. Borich's assessment model comprises four phases.
A. Preparing a list of individuals' capabilities.
B. Evaluating vocational (professional) abilities by people.
C. Ranking the professional ability.
D. Comparing the content of educational programs with professional abilities that have been identified as the need [26].

Borich's assessment model assumes that those being assessed for needs are better able to judge their performance which is based on the difference between the importance of educational content and individuals' skills and expertise in the field. Borich's assessment model is superior to all common needs assessment model due to the fact that participants besides determining the educational issues importance, they shed light on their ability level. Thus, people estimate the gap between what they are able to do and what they should be able to perform. Based on the need definition in Borich's model, the gap between current condition and desired status is determined by the difference in the skills and importance scores and thus the respondents'' needs will be recognized. The highest priority will be given to the needs which have high importance and people's skills are low. In the current assessment

methods, only the important educational issues are evaluated and prioritized based on their importance mean; however, despite the importance of educational issues, people's skills may be high and no educational requirements are needed. Therefore, the assessment based on the importance mean score may not be accurate estimation of needs [27].

MATERIALS AND METHODS

Depending on the purpose of the study, the study adopted an applied approach and based on the methodology, the study is a quantitative and descriptive (non-experimental) survey. The statistical population was all pistachio growers in Rafsanjan, Kerman province, in the farming year of 2011-12 (N=46000). According to Cochran's formula, 289 subjects were chosen as sample using proportional stratified sampling method (n=289) including different districts of the city as the sample). In order to gather the required data, a questionnaire with four parts was developed based on literature review and the experts' opinions using Borich's model. Thus, the first part contains a list of 43 professional competencies including pistachio trees planting (6 items), pistachio preservation and nutrition (10 items), fighting pests, diseases and chemical spraying principles of pistachio trees (12 items), pistachio harvest (5 items), and pistachios marketing (14 items) and pistachio growers were asked to rank these abilities based on the importance and abilities on a five-option Likert scale (1 = very low to very high = 5). To rank these abilities and also to determine the educational needs, the mean weighted discrepancy score (MWDS) will be calculated. For this purpose, the "discrepancy score" for each individual's ability (Equation 1) and then "weighed discrepancy score" are calculated for each individual job skills (Equation 2). Finally, the sum of the weighed discrepancy score divided by the number of people determines the mean weighted discrepancy score (MWDS) (Equation 3) and 43 MWDS are ranked on the basis of professional ability [26].

1) Discrepancy Scores = I - C

(2) The weighted discrepancy scores = I (I - C)

(3) The mean weighted discrepancy score (MWDS) = Σ I (I - C)/n

It is noteworthy that in the above equations, I is equal to significance (importance), K=the ability and n= number of Pistachio Growers. The second section evaluates the respondents' social characteristics (5 items), economic features (3 items), and communication factors (3 items). To measure the first and second part of the questionnaire, a five-option Likert scale (1 = very low to very high = 5) was used. The fourth section examines the personal and professional characteristics of the respondents. To determine its validity, several copies of the questionnaire were given to the professors at Department of Agricultural Extension and Education and some agricultural experts in Rafsanjan and based on their suggestions, the required modifications were made. To determine the reliability coefficient, a total of 30 questionnaires were distributed among the respondents outside the sample population (in the city of Anar). After collecting the questionnaires, the data was entered into the computer and the validity of the questionnaire using Cronbach's alpha was assessed between 0/71 and 0/78, respectively.

In this study, the data were analyzed by the statistical software for social sciences (SPSS V. 17). To access the data, the descriptive statistics of (frequency, percentage, minimum, maximum, mean, standard deviation and coefficient of variation) and inferential statistics including correlation coefficient, Kruskal-Wallis and Mann-Whitney test and multiple regression analysis were used.

RESULTS AND DISCUSSION

Respondents' Individual and professional characteristics
The majority of respondents were male (280 or %96/90). The average age was 52 years with a standard deviation of 12 years, the most of whom (84 persons or 29/10%) were in the age range of 41-50. The average respondents' pistachio production experience was 30 years with a standard deviation of 14 years, the majority of whom (77 or %26/6) had 11-20 years of experience. The average respondents' garden size was 6 acres with standard deviation of 11 acres ranging from 1 acre to 100 acres. The respondents' garden distance to the nearest agricultural service center was 3 kilometers ranging from 1kilometer to 30 kilometers. The respondents' garden distance to the city center had an average of 39 kilometers with a standard deviation of 8 km.

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The respondents' education level ranged from illiteracy (92 subjects or 31/8), primary level (72 subjects or %24/90) to university degree (63 subjects or %21/80). Regarding the ownership of pistachio orchards, the majority of respondents (279 subjects or %96/50) expressed that they owned their pistachio gardens. Finally, nearly all respondents (285 subjects or %98/30) have announced that pistachio production was their main occupation (Table 1).

Table 1. Respondents' Individual and professional characteristics

variables	Variation level	frequency	percentage	mean	SD	Minimum	Maximum
Age (years)	-	-	-	51/86	12/23	24	85
Experience (years)	-	-	-	29/86	14/24	3	70
Garden size (acres)	-	-	-	5/81	11/13	1	100
The distance of the garden to the nearest agricultural service center (Km)	-	-	-	2/93	7/96	1	30
The distance of the garden to the city center (kM)	-	-	-	38/54	7/96	1	70
Education level	Illiterate	92	31/80	-	-	-	-
	Primary level	72	24/90				
	Junior	15	5/20				
	High school	42	14/50				
	Diploma	5	1/70				
	University degree	63	21/80				
Gender	Male	280	96/90	-	-	-	-
	female	9	3/10				
Ownership	Personal	279	96/50	-	-	-	-
	Rental	5	1/70				
	Joint	1	0/30				
	Appropriative	4	1/40				
Primary job	Gardener	284	98/30	-	-	-	-
	Others	5	1/70				

Respondents' social characteristics

The results in Table 2 show that the respondents' social characteristics average was relatively high (M=3/96). Also, the results show that "the active participation of experts in the areas and their cooperation with pistachio growers in various matters related to the pistachio" had the first priority (CV=5/32), " creating appropriate and equal opportunities for supporting the pistachios growers in the preservation of the gardens by researchers" has the second priority (CV= 10/14) and "identifying the barriers in producing pistachio by actively participating practitioners and experts, researchers and advocates" had the third priority (CV=11/18 in the respondents' social characteristics.

Table 2. Ranking the respondents' social characteristics (n=289)

Items	M[1]	SD[2]	C.V[3]	R[4]
The active participation of experts in the areas and their cooperation with pistachio growers in various matters related to the pistachio	4/88	0/26	5/32	1
Creating appropriate and equal opportunities for supporting the pistachios growers in the preservation of the gardens by researchers	4/04	0/41	10/14	2
Identifying the barriers in producing pistachio by actively participating practitioners and experts, researchers and advocates	4/83	0/54	11/18	3
Visiting the typical pistachio gardens and the mechanized cultivation with experts, extension agents and researchers	3/98	0/50	12/56	4
Establishing constant relation between people and officials in conducting different assessment methods	4/82	0/65	13/48	5
Sum	3/96	0/49	-	-

1- Mean   2- Standard Deviation   3- Coefficient of Variation   4- Rank
Likert scale: Very Low (1), low (2), medium (3), much (4), very much (5)

Respondents' Economic characteristics

The results in Table 3 show that the respondents' economic characteristics average was relatively high (M=3/91). Also, the results show that the "product yield in acres" (CV=5/35) and "the annual production of pistachio growers" (CV=5/35) had the first priority and "access to credit and banking facilities" (CV=9/91 had the second priority among the respondents' economic characteristics.

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Table 3. Ranking the respondents' economic characteristics

Items	M[1]	SD[2]	C.V[3]	R[4]
Product yield in acres	2/99	0/16	5/35	1
the annual production of pistachio growers	2/99	0/16	5/35	1
access to credit and banking facilities	4/84	0/48	9/91	2
Total	3/91	0/39	-	-

1- Mean   2- Standard Deviation   3- Coefficient of Variation   4- Rank
Likert scale: Very Low (1), low (2), medium (3), much (4), very much (5)

The respondents' communicative characteristics
The results in Table 4 show that the respondents' communicative characteristics was rather low level (M=1/97). Also, the results show that the relation with "management and agricultural service centers" (CV=16/27) had the first priority, "pistachio growers' cooperatives" (CV=21/92) had the second priority and "Pistachio growers of neighboring towns" (CV=30/97) had the third priority among the respondents' communicative characteristics.

Table 4. Ranking the respondents' communicative characteristics

Items	Ranking mean	SD	Coefficient variation %	Rank
management and agricultural service centers	2/87	0/47	16/27	1
pistachio growers' cooperatives	1/87	0/41	21/92	2
Pistachio growers of neighboring towns	1/13	0/35	30/97	3
Total	1/97	0/42	-	-

1=very low, 2=low, 3=average, 4= high, 5=very high

Respondents' educational needs based on Borich's model
The results in Table 5 show that the " the necessity to know frequent use of micro-nutrients" with a weighted mean discrepancy score of 11/45 had the first priority , " the necessity to apply the micro-nutrients " with a weighted mean discrepancy score of 11/13 had the second priority , " the need to recognize the value and application of micronutrients " with a weighted mean discrepancy score of 11/12 had the third priority and "the need to be familiar with a variety of micronutrients " with a weighted mean discrepancy score of 11/02 had the fourth priority among the respondents' educational needs. It is noteworthy that these needs are prioritized in pistachio trees management and nutrition.

Comparing the respondents' educational needs mean in relation to gender, ownership and the pistachio variety
Results of Kruskal-Wallis and Mann-Whitney test showed that there is no significant difference between men and women (P>0/05 and U=965/50) and personal, rentals, joint and appropriative ownership (P>0/05 and χ2=1/45) associated with the level of educational needs. Therefore, there is no significant relationship between respondents' educational needs and the given the variables (Table 6). The research by Mirgohar and Movahed Mohammadi [28]; Charmchian Langroodi and Chizari [12] also show that ownership has an effect on the individuals' educational needs which was not confirmed in the present study. The results of the Kruskal-Wallis test showed there are significant differences between the respondents' educational needs and the product variety (P<0/01 and χ2=23/70) (Table 6). The research by Mousavi and Chizari [11]; Mirsardo, [29] show that the product variety has an effect on the respondents' educational needs which is confirmed in this study.

Table 5. Ranking the respondents' educational needs based on Borich's model (n=289)

Items	Importance mean	Ability mean	weighted mean discrepancy score	Ranks
Pistachio trees planting				
The necessity to recognize the adaptable varieties in the region	4/94	4/59	1/74	10
The necessity to know the different varieties of pistachio trees	4/94	4/70	1/21	19
The need to know how to protect planted trees	4/27	4/09	0/95	24
The necessity to be familiar with a variety of trees and seeds	4/90	4/72	0/86	25
The need to identify appropriate places to plant trees	4/17	0/04	0/84	26
The need to be aware of the proper system of planting distance	4/17	4/01	0/83	27
Nutrition and preservation of pistachio trees				
The need to know the number of times nutrients are used	4/06	1/27	11/45	1
The need to know how to use the micronutrient	0/04	1/24	11/13	2
The need to recognize the value and application of nutrients	0/04	1/25	11/12	3
The need to be familiar with a variety of micronutrients	0/04	1/27	11/02	4
The need to recognize the reformation and renovation of pistachio orchards	4/26	4/06	1/61	12
The need to be aware of the soil management (tillage, furrow)	3/98	3/75	1/06	23
The need to be familiar with the proper methods of fighting and controlling weeds	4/97	4/79	0/95	24
The need to know the correct time for pruning	4/13	4/02	0/59	31
The need to know the proper irrigation system and time	4/88	4/78	0/51	35
The need to know the nutritional requirements of pistachio	4/84	4/92	-0/21	44
Fighting pests , diseases and chemical spraing principles of pistachio trees				
The need to identify pistachio trees diseases	4/97	4/60	1/88	8
The need to identify pistachio trees pests	4/99	4/63	1/80	9
The need to recognize the pistachio pathogens symptoms	4/79	4/43	1/67	11
The need to identify contaminated pistachio trees	4/88	4/58	1/53	13
The need to fight the pistachio trees pests	4/95	4/65	1/52	14
The need to fight pistachio trees diseases	4/91	4/63	1/39	16
The need to identify the factors in the spread of disease	4/70	4/40	1/38	17
The need to conduct spraying to prevent pests and diseases	4/72	4/51	1/16	21
The need to know the spraying appropriate time	4/14	4/02	0/62	28
the need to be aware of proper application of chemical pesticides	4/11	3/99	0/60	30
The need to use chemical pesticides	4/10	3/99	0/53	33
recognize the technical aspects necessary for spraying	4/11	4/01	0/52	34
Pistachio harvest				
The need to know the appropriate time for pistachio harvest	4/95	4/70	1/28	18
The need to be familiar with the pistachio ripening factor	4/81	4/70	0/57	32
The need to identify the main methods for harvesting pistachio	4/08	4/01	0/34	37
The need to know the pistachio harvest operations	4/07	4/04	0/20	39
The need to be famiiar with the harvesting tools and equipments	4/06	4/05	0/12	40
Pistachio marketing				
The need for product advertisement	4/69	3/15	4/41	5
The need for proper product transport	4/02	3/30	2/92	6
The need to be familiar with essential tips on storage	4/57	4/07	2/51	7
The need to recognize storage pests and diseases	4/97	4/69	1/41	15
The need to understand the factors affecting the price and product pricing	4/03	3/74	1/20	20
The need to identify appropriate product packaging methods	4/09	3/84	1/12	22
The need to know the storage proper principles	4/90	4/69	1/06	23
The need to be familiar with ways to stop product wasting	4/05	3/92	0/61	29
The need to be familiar with the product sales methods	4/06	3/97	0/60	30
The need to know the pistachio cleaning and grading	4/97	4/90	0/45	36
The need for pistachio standardization and grading	4/90	4/90	0/26	38
The need to be familiar with product market	4/03	4/01	0/09	41
The need to know the appropriate time to deliver the product	4/02	4/02	0/08	42
The need to identify the product collection centers	4/05	4/08	-0/06	43

1=very low, 2=low, 3=average, 4= high, 5=very high

Correlation between variables and the educational needs

The Pearson's correlation coefficient analysis shows the relationship between age (P>0/05 and r = 0/009) and the size of pistachio orchards (P>0/05 and r =0/003), the distance to the agricultural center (P>0/05 and r = - 0/017) and the respondents' communication (P>0/05 and r= 0/083) is not significant. Therefore, there is no significant relationship between educational needs and the variables (Table 7).

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Table6. Comparing the respondents' educational needs mean in relation to gender, ownership and the pistachio variety

Variable	Variation level	Frequency	Mean	Test	Sig.
Gender	Male	280	146/05	965/50	0/231
	female	9	112/28		
Ownership	Private	279	144/38	1/45	0/693
	Rental	5	171/40		
	Joint	1	83		
	Appropriative	4	170		
Varieties	Kalleh Ghouchi (Jumbo), Fandoghi, Ahmad Aghaei	258	150/02	23/70**	0/000
	،Akbari, Ohadi, Badami	19	114/23		
	Ghermez feizabad, Khanjari	4	213/25		
	Sefid Peste, Momtaz, Shahpasand	8	22		

The results in Table 7 show that there is a significant positive relationship between the social characteristics (P<0/01 and r= 0/440), gardening work experience (P<0/05 and r= 0/138), the respondents' garden distance to the city (P<0/01 and r= 0/180) and the educational needs. Several studies by Saburi and Minaie [8]; Ammani & Khadem [22]; Motamed et al., [25]; Suvedi et al., [14]; show that there are significant positive relationship between social characteristics and the educational needs; while studies by and Charmchian Langroodi and Chizari [12] and Sheikhi Ghaiur [13] show that there is a significant negative relationship between the social characteristics of individuals and their educational needs. However, the studies by Khorrami [17]; Maddox et al., [19] and Ekanem et al., [20] show that there is a significant positive relationship between educational needs and respondents' distance from the city center which is in line with the results of the present study. Moreover, the results in Table 7 show that a significant negative relationship exists between the respondents' economic characteristics (P<0/01 and r= - 0/144) and their educational needs, that is, the more their economic activities and economic support, the less the educational needs that they require and vice versa. Numerous studies Salahi Esfahani [21]; Saburi and Minaie [8]; Brassier et al., [23]; Ariza & Suvedi, [18]; Muhammad and Lsikhuemhen [24]; Ekanem et al., [20] show that there is a significant negative relationship between the economic characteristics of individuals and their educational needs while the study by Andre et al., [15] show that there is a significant positive relationship between the individuals' economic characteristics and their educational needs.

Table 7. Correlation between variables and the educational needs

Variables	Correlation coefficient (r)	Sig.
Social characteristics	0/440**	0/000
Economic characteristics	-0/144*	0/015
Communication	0/083	0/15
Age	0/009	0/875
Gardening work experience	0/138*	0/019
Pistachio garden size	0/003	0/957
The distance to the nearest agricultural center	-0/017	0/779
The garden distance to the city center	0/180**	0/00 2

P≤0/05, P≤0/01**

The respondents' educational needs Predictive model

In order to predict the respondents' educational needs in this study, the multiple regressions with stepwise regression analysis through using SPSS software was used. It is important to note that multiple regression through using linear combinations of independent variables predict the dependent variable. The stepwise approach is a technique in which most powerful variables are included in the equation and the process continues until the significance level hits P>0/05. After including all the independent variables in the correlation, only the "social characteristics level, the variety type, the distance from the garden to the city center, economic characteristics and education level" remained in the equation. These variables could explain %33/40 of educational needs. However, by evaluating the standardized coefficients (β), it becomes evident that the social characteristics have greater role in explaining the educational needs of the respondents compared with other factors, that is the more social activities, social interaction, communication and support from executives at agricultural Jahad, researchers, extension agents, and agricultural experts to farmers, the better the identification and meeting the needs of the farmers. (Table 8)

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Table 8. The stepwise multiple regression coefficients of the research dependent variable: educational need

Independent variables	B	β	t	P
Fixed values	3/361	-	19/463	0/000
The social characteristics (X_1)	0/221	0/408	6/695	0/000
Variety type (X_2))	-0/074	-0/220	-4/203	0/000
the distance from the garden to the city center(X_3)	0/068	0/172	3/424	0/001
economic characteristics (X_4)	-0/107	-0/129	-2/308	0/022
Education level (X_5)	-0/012	-0/100	-1/994	0/047

R=0/578 R^2=0/334
F= 11/180 P=0/000

CONCLUSION

• The pistachio growers' educational needs overall ranking, based on the " mean weighted discrepancy score (MWDS) " show that the necessity to recognize the adaptable varieties in the region had the first priority and the need to identify pistachio trees diseases, the need to know how to use the micronutrient, the need to be familiar with a variety of micronutrients, the need for proper product transport, the need for product advertisement, the need to be familiar with essential tips on storage and the need to know the number of times nutrients are used were the other priorities among the educational needs factors. Given these findings, it is recommended that educational-extension programs to be planned to resolve these issues.

• The results of the tests comparison show that there is a significant difference between men and women and private, rental, joint and appropriative ownership and their educational needs level. The results show significant differences for the pistachio variety and respondents' educational needs.

• The correlation coefficient results show that the relationship between age, pistachio orchards size and the relationship between the distances to the center of with educational needs were not significant. Other results show that there is a significant positive relationship between the social characteristics, gardening work experience ad respondents' garden distance from the city and the respondents' educational needs and a significant negative relationship exists between educational needs and economic characteristics of the respondents.

• The results of multiple regression analysis indicated that the variables of social characteristics, the variety, and the garden distance from city, economic characteristics and educational level could explain %33/40 of the educational needs variable. However, regarding the standardized coefficients it becomes evident that the pistachio growers' social characteristics had a greater role in defining the educational needs compared with other factors. Considering the role of social characteristics in the educational needs level, it is recommended that experts' active participation in areas under pistachio cultivation and their cooperation with pistachio growers, establishing equal opportunity for supporting the pistachio growers in renovation pistachio gardens by the researchers, identifying the obstacles in producing pistachio by active cooperation of experts, researchers and extension agents, visiting the typical and mechanized pistachio orchards with researchers and experts and creating an ongoing relationship between pistachio growers and officials in various matters regarding the implementation of the project .

Also , the effects of the pistachio growers' economic characteristics on their educational needs require special attention to the production and the annual yield per hectare , access to credit and banking facilities, providing necessary inputs and ensuring the government preparation to provide the inputs, government obligations to provide loans and credit, evaluating the financial problems and providing appropriate solutions by government agencies are among the measures that can be taken for this purpose .

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