

The Role of Agricultural Extension on Incidence of Farmer's Entrepreneurial characteristics Case study of Kermanshah Province, Iran

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Abstract:

The main purpose of this descriptive correlative research is to consider the effects of agricultural extension system on promoting the entrepreneurial characters of farmers in rural areas.

Statistical society of research was 1800 persons of Kermanshah province farmers who attended extension classes at least once. By using Cochran's formula, sample size is determined and it is concluded of 125 individuals that by stratified sampling method proportional to township size, attributed. Research instrument was questioner with cronbach alpha = 0.85 as reliability. Independent variable is "extension education" and dependent variable is "incidence of client's entrepreneurial characters". Result of compare mean between amount of "entrepreneurial characters" of client before and after taking part in classes' shows that there is significant difference between them.

According to Pearson's correlation result there is positive correlation between 4 elements of "agricultural extension system" including: educational content; methods; organization and education tools as independent variable and "incidence of client's entrepreneurial characters" ($p = 0.1$). Multivariable regression results show that two variables – educational content and methods- cause 44 percent of dependent variable changes.

Key Words: Rural Entrepreneurship; Extension Trainings; Incidence of Entrepreneurial characteristics

Introduction:

Entrepreneurship as a process of presenting new ideas and using opportunities (Ahmad poor dariani, 2002) is a concept that caused added value in So many countries in the world by focusing on this concept, take effective steps toward maximum exploitation of different kind of resources , so they have transformed their economies.

More than half of Iran's population live in rural areas therefore the agricultural sector plays important role in Iran's economy and because of that paying attention to this sector and providing training system that lead to promoting entrepreneurship mentality among clients in rural communities to reach optimum use of production facilities is necessary.

In these days the "Rural Entrepreneurship" is a popular subject among experts and many researchers. There is not enough statistical data about number of rural entrepreneurs neither in Iran nor in most of third world countries (developing countries). The entrepreneurial activities so far found in these countries, is in a very scattered atmosphere.

Rural entrepreneurship is not only creating job opportunities for large segment of villagers but it can be a step toward rural development, and according to experts, it has the same value as of economic development. Experience of so many poor and overcrowded countries proved that entrepreneurship and rural development can reduce rate of immigration to cities and provide rural employment opportunities for rural population (Zarnegar, 2002). This study is going to deliberate Kermanshah Province's extension education system in term of its effect on client's entrepreneurial characteristics (leadership; internal control; successfulness; independence; risk tacking; creativity; innovation and self-dependence). Today in industrialized world, access to information is one of the most important and also basic factors to achieve success (Safavi, 1992) and because of huge percentage of job opportunities that agricultural sector provides, (23.4 %

according to Iran's Statistical Center) it is necessary to pay more attention to this subject. But we should not forget that because of huge amount of information, knowing how to use them is much more important than access them! So change agents should try to use strategies that lead to change in attitude and also practical and professional skills of clients.

Hagh juo (1992) declaring that education is a necessary part in rural development process and must be targeted to eliminate cultural shortness in the community and also to promote general knowledge and also professional information of society (Hagh juo, 1992)

Shojaii sefat (2007) knows training and educational system as two important factors to encourage the trained to innovation among people (Shojaii sefat, 2007).

Azizi (2006) In her Msc thesis, evaluate the quality of agricultural higher education system and concluded that educational skills of clients are effected by: methods of education; monthly income; family condition; age; spirit of entrepreneurship; parents educational level and also educational content (Azizi, 2006).

Mahmoud zadeh (2001) by studding the efficiency of agriculture practical trainings which have done by governmental sector in Shirvan village, has found that "appropriate time and place" for education and providing useful content that could be matched by client's need, will cause effectiveness of trainings (Mohammad zade, 2001).

Foruoghi nia (2000) In her Msc thesis: "Studding the Opinions of Fishermen and Change Agents about Effectiveness of Extension Courses in Abadan" had found that trained fishermen in compare with their co-workers who didn't trained, used more modern methods in fishing (Foruoghi nia, 2000).

Yadollahi farsi (2005) believes that, to move toward entrepreneurship, it is necessary for higher education institute to change their attitude toward problem solving methods and also pay more attention to entrepreneurship training and try to design and implement a reward system based on the results to encouraging entrepreneurship (Yadollahi farsi, 2005).

Zamani pour (2005) suggests some solutions for reforming agricultural education in various levels such as establishing job counseling offices in agricultural education sector; putting emphasis on practical training and providing balance between theories and practical courses; reviewing educational content and guiding the system toward self-employment (Zamani pour, 2005).

Pyssianen et.al. (2002) as a main question of their study ask: "Could we train farmers to be entrepreneurs?" and they conclude that entrepreneurship in agriculture, classified in two different categories: first, former management skills that is necessary to start the business and second, having tendency toward entrepreneurship. They also state that the second one is more difficult to reach and requires much effort.

Fridman (1987) suggests forestalling rural development's need depend on giving priority to investigation in an education sector and one of the most important parts of it; is educating entrepreneurship.

Rasheed (2000) in his study emphasizes on role of education in changing the attitude toward entrepreneurship.

Scorson (2003) in his study "Encouraging Entrepreneurship in Rural Societies ", introduces entrepreneurship as a suitable instrument in rural economic development and asks: "What kind of public programs can be suitable for this purpose?" He continued that protecting rural development is some thing more than traditional supports such as providing funds. He emphases that providing an entrepreneurial atmosphere is depend on education. He defines different roles for extension in promoting local entrepreneurship. One of the most important roles of extension are acting as facilitators; supporting programs and provide connection with sponsors; local programming and implementing interactive trainings for local workforce.

Phipps & Osborn (1990) considered agricultural educations as a pragmatic philosophy.

Zamani pour (1993) says that if we don't adopt educational content with special rural needs, we do not have agricultural development. So education programs and educational content should have strongly scientific and practical oriented.

Materials and Methods:

The research method in this on field study, was descriptive; that has being done by using questioner, which its reliability is confirmed by numbers of experts and university's facilities . Cronbach alpha = 0.88 shows good validity of instrument.

Statistical society of this study were 1800 farmers in Kermanshah province that took part in extension trainings implemented by governmental sector at least once a time. By calculating variation of dependent variable for similar society include of 30 farmers, sample size determined that by using Cochran formula sample size became 125 people. By stratified sampling method proportional to township size(PPS) the questioner distributed and answered by the members of sample.

Table (1) shows the statistical society and sample size in each township.

Table (1): Statistical Society and Sample Size in each Township

Township	society	Sample Size
Pave	258	27
Javanrood	169	12
Ravansar	113	14
Songhor	171	12
Sahne	97	7
GHasr shirin	160	13
Kangavar	201	9
Kermanshah	168	12
Harsin	375	27
Eslam abad	88	5

Dependent variable of the study is "Incidence of Entrepreneurial Characteristics" and independent variable is "Educational System" that according to Indiana's Model consists of seven elements: Goals; Client; content; Organization; Tools; Methods and Evaluation.

Data analyses by using Spss software in two separate parts have been done: descriptive statistics (frequency; mean; median; mode and standard division) and analytical statistics (compare mean; paired - sample t- test; Pearson correlation and multivariate regression with stepwise method).

Results and Discussion:

Base on finding results, women composing 63% of respondents. Average age of the respondents is 28.38 years and Diploma with 35.2% (Table 2) is most common level of education, so it can be considered as a positive factor toward developing entrepreneurship.

Table (2) Frequency Distribution of Population based on Education Level

Choice	Frequency	percentage
Literate	5	4
Elementary	34	19.2
Guidance Schoool	39	31.2
aDiplom	44	35.2
others	13	10.4
Total	125	

Mode = 4(Diploma)

In term of activities, employment in agricultural sector with 43.2% is the most common job of respondents and other jobs include: livestock sector and other related activities such as apiculture and handicrafts.

The average of land ownership of respondents was 4.32 hec. and more than 80% of them choosing “personal ownership” or “family ownership” for their lands.

82.6% of respondents take part in extension trainings for 1 to 4 times in year. Minimum repeat count for 1 time and maximum was 16 times. (Table 3)

Table (3) Frequency Distribution on Respondent base on Taking Part in Extension Trainings

Choice	Frequency	Percentage	Cumulative percentage	Mode = 1 (1-4 times) By reviewing this
1-times 4	103	82.6	82.6	
5-times 8	16	12.8	94.4	
9-12 times	4	3.2	97.6	
13-times 16	3	2.4	100	
Total	125			

statistics we can conclude that extension trainings were welcomed by rural clients and by improving the quality of this trainings, theirs life will be affected.

Research results shows that 43.2% of respondents estimate their familiarity with the concept of “Rural Entrepreneurship” as scattered and brief, but about “Need to Acquaintance with Entrepreneurship” the mean of answers is 3.62 in Lycret Range, that shows tendency to educating this subject, more than mean.

By comparing mean of respondents “Entrepreneurial Characters’ marks” before and after attending the extension trainings, we recognize that, there is significant difference between those two marks ($p = 0.1$) and respondents’ mark after attending extension trainings is higher than their marks before it.(Table 4).

Table (4) Result of sample t- test: Compare Mean of Respondent's Entrepreneurial marks, Before and After Attending to Extension Trainings

According to these findings we can conclude that extension trainings can be effective on incidence of entrepreneurial characters of clients.

Reviewing Pearson correlation (Table 5) for independent variables (Goals; Client; content; Organization; Tools; Methods and Evaluation) in extension training system with dependent variable (Incidence of Entrepreneurial Characters) shows positive correlation for four variables (Educational Content; Methods; Organization and Educational tools) ($p = 0.1$) but in case of other independent variables of this study including Goals; Clients and Evaluation Method, no correlation between them and dependent variable have been seen($p = 0.5$).

Grade	Entrepreneurial Charactores	t	Fredom Degree	Sig.	Differensiation Mean
1	Innovation	17.88	123	0.000	1.18
2	Creativity	18.34	123	0.000	1.18
3	Independency	22.33	124	0.000	1.13
4	Leadership	21.64	124	0.000	1.11
5	Risk taking	19.35	124	0.000	1.09
6	Self Confidence	10.03	124	0.000	1.08
7	Successfulness	20.06	124	0.000	1.07
8	Internal Control	18.41	124	0.000	1.00

Table (5): Result of Calculating Pearson Correlation Coefficient

Existence of positive correlation between “Educational Content” and “Incidence of Entrepreneurial Characters” has been proved in Azizi(2005); Hagh juo(1992); Mahmood

Independent Variable	Dependent Variable	r	Sig.
Educational Goals	Incidence of Entrepreneurial Characters	0.081	0.372
Clients	Incidence of Entrepreneurial Characters	0.039	0.666
Educational Content	Incidence of Entrepreneurial Characters	0.341**	0.000
Educational Organization	Incidence of Entrepreneurial Characters	0.283**	0.002
Educational Tools	Incidence of Entrepreneurial Characters	0.271**	0.003
Educational Methods	Incidence of Entrepreneurial Characters	0.299**	0.001
Educational Evaluation	Entrepreneurial Characters Incidence of	0.167	0.067

zade(2001); Kakulaki(2002); Shafi (2002) and Lagulo(2000) studies. Also existence of positive correlation between “Methods of Education” and “Incidence of Entrepreneurial Characters” has been emphasized in Hagh juo(1992); Mahmoud zadeh(2001); Yadolahi Farsi(2005); Zamani pour(2005) and Pezeshki rad& Hematti(2004). Also Vesper(1999) Proved that paying attention to methods of education will be effective in increasing “Incidence of Entrepreneurial Characters” between clients.

The positive correlation between “Educational Tools” and “Incidence of Entrepreneurial Characters” has been proved in Rasuoli azaar’s study (Rasuoli azaar, 2006).

In order to study the effect of independent variables on “Incidence of Entrepreneurial Characters” as dependent variable, multivariate regression with stepwise method has been used.

Based on findings of regression technique in the first step, “Educational Content” variable entered and predicted 27% of dependent variable’s variations.

(R2 adjust= 0.27; F= 27.18; Sig = 0.001).

In the second step -last step- “Educational Content” and “Educational Methods” entered the regression equation and predicted 44% of dependent variable’s variations.

(R2 adjust= 0.44; F= 29.87; Sig = 0.000).

Base on findings we can conclude that that two variables, “Educational Content” and “Educational Methods” have the most effects on dependent variable’s variation, so by paying more attention to them, we can cause positive results on guiding rural potentials toward entrepreneurship and creativity. As Fridman (1987) in his study speaks about necessitate of governmental investigation on entrepreneurship and also Scorson (2003) defines different roles for extension to develop local entrepreneurship such as being facilitator; execution of supportive programs or educational programs...

Study findings also show that focusing on components such as educational content and methods of teaching- consist of instructor ability in teaching and also using the tools and method- can

work as a catalyst in “Incidence of Entrepreneurial Characters” among extension training’s clients and also lead to promote people towards maximum use of available facilities.

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