The Effective Factors on the Rural Women's Motivation for Participating in Extension - Education Programs, Mazandaran, Iran

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Abstract: The purpose of the present study is to identify the effective factors on rural women's motivation from Mazandaran Province for participating in extension-education programs. To do so, the study made a use of multi-stage random sampling method in which 300 the rural women from Mazandaran Province were selected to participate in the research process (n=300). The instrument of the study was a semi-structured questionnaire the validity and reliability of which, on the base of experts' views and Alpha Cronbach Test (α=0.82) were confirmed. The findings of the study showed that less than half of the respondents (45% or 136) have participated in extension-education programs with motivations such as learning knowledge and skill for saving money, children's growth and learning, and prove qualifications to the family members. So the majority of the respondents (82 or 60.29%) for participating in extension-education programs have a "high" level of motivation. The analytical findings showed that there is a significant correlation between professional and individual characteristics of rural women with their motivation for participating in extension- education programs. Also the result of multivariate linear regression analysis indicated that experience of animal husbandry variable explained 17% of variance of motivation for participating in extension-education programs.
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Introduction

Agricultural extension system is one and the most important tools for distributing modern technology in agriculture, and that has significant role in development process especially the rural development. Rivera and Sulaiman (2009) stated that is as a means of knowledge's transfer, innovation and development. The purpose of agricultural extension system is informal education to the farmers for improving agriculture methods, so that they can utilize efficient and useful technologies in their own farming activities (Tecer Atsan *et al.,* 2009). Rivera and Qamar (2003) believed that agricultural extension system by extension, technical and attitudinal trainings results in removing farmers' technical, skilling and informational needs and provide them with empowering and increasing quality of life and the efficient management of product resources. Investigating the extension services presented farmers shows that around 5% of total agricultural extension sources across the world has been devoted to farmers' programs; 9% in Near East, 7% in Africa, 5% in Latin America, 3% in Asia and Europe and 19% in the North America (Shabanali Fami, 2010). On the other hand, the rural women are majority of the producer of the agricultural crops, and they have important roles in agricultural sections, fisher, animal husbandry, and gardening (especially greenhouse) (Butt *et al.,* 2010). Shabanali Fami (2010) stated that many extension politicians and managers think that men are real farmers and women play the supportive role. Although in present politics, it has paid great attention to women's empowerment and issues of sexuality in rural and agricultural development, the results of some studies show that if the extension organizations provide extension-education programs, the rural women will not warmly welcome (Folasade, 1991; Chizari *et al.*, 1997).

Faham *et al* (2008) believed that to remove this problem, motivations of the rural women's participation from should be sought and enriched. Mirak Zadeh *et al*'s (2010) study findings emphasize that, as well. Their research showed that the rural women's non-participation in extension-education programs has many reasons one important reason of which is demotivation

Guay *et al* (2010) stated that "the reasons underlying behavior" is as an explanation of motivation (p: 712). Deci *et al* (1999) expressed that "intrinsic motivation energizes and sustains activities through the spontaneous satisfactions inherent in effective

volitional action. It is manifest in behaviors such as play, exploration, and challenge seeking that people often do for external rewards" (p: 658). Malek Mohammadi (2007) stated that motivations are reasons of behaviors which result in beginning and keeping the behaviors and that determines the general trend of individual's behavior. He believed that the effect of encouraging and avoidance's factors, often considered as positive and negative motivations, is as a point in education issues, especially adults education, and that is an effective factor on learning. Bakhshi Jahromi and Zamani (2007) believed that motivation is something as a stimulus, controllable, and covering a wide rang of human behavior. They believe that motivation is as a process which consists of three stages as arousing motivation, directing motivation for specified goals, and sustaining behavior (maintaining motivation in long-term). They go on to say that there is no difficulty in stages one and two, but stage three needs much attention. Shabanali Fami (2010) believed that motivations are in two levels as intrinsic and extrinsic. He believed that the intrinsic motivations are come out of individual self like satisfaction from doing a successful operation, and the extrinsic motivations are that external incentives like reward and certification.

Considering in account the importance of motivations identification, using and enriching them for encouraging the rural women in participating the extension-education, some researchers in their studies have studied those motivations and the effective factors on them. One of those researchers is Hosseininiya (2001). He got following motivations in his study as income and production increase, gaining new information, obtaining required inputs and facilities, and interest in agricultural activities.

Morid-Sadat *et al* (2010) expressed that the proper content of extension-education programs as most important motivation for the rural women in participating in the programs. Alibeigi and Bani Ameriyan (2010) stated that production increase, satisfaction from past extension programs, interest in agricultural activities, obtaining inputs and having a wish for being active in society are most important motivations. Shabanali Fami (2010) cited from Wilson and Gallup, stated that the villagers are more excited by the following incentives as desire for security, willingness to new experiences, desire for social life and group activities, and desire for being known by others for participating in extension-education programs. Malek Mohammadi and Hosseininiya (2001), in a similar study, found 28 the rural women motivations for participating in extension-education programs most important of which can be as learning because of interest, efficient use of time, children's growth and learning. Yet finding showed that the number of children, individual income, use of radio and T.V., attitude towards the extension programs, and experience of the rural women in voluntary activities have significant relationship with the rural women motivation for participating in extension-education programs. Hosseini *et al* (2009) stated that the rural women motivations for entrepreneurship are income increase, improvement the life conditions, creating job, helping to improving society and social status. While in another similar study, the following motivations gained as gaining new information, gaining new experiences and skills, personal interests, relations with other farmers, and extension agent requests (Karbasioun *et al.*, 2006)

Goal and Objectives

The purpose of the present study is to identify the effective factors on the motivation of the rural women's participation from Mazandaran Province in extension-education programs. To attain the goal the following objectives should be regarded:

- Describing professional and individual characteristics of the respondents
- Investigating the state of the respondents' participation in extension-education programs
- Investigating the impact of professional and individual characteristics of the respondents on their level of motivation for participating in extension-education programs
- Investigating the correlation between professional and individual characteristics of the respondents and their level of motivation for participating in extension-education programs
- Identifying the predication equation of respondents' motivation for participating in extension-education programs.

Material and Method

This study is quantitative study from a philosophy point, an applied study in terms of goal, and correlation-descriptive in terms of method. Statistical population of the present study consists of all rural women growing rice of Mazandaran in 2012-2013. The sampling of the statistical population was done on the basis of Zamani *et al*'s (2009) multi-stage sampling.

5 towns of Mazandaran Province out of 19 were randomly selected. Then, 2 county from each town, 3 villages from each county, 10 people from each village were selected by simple random; collectively, 300 rural women were studied (n=300).

The instrument for gathering data and information was questionnaire whose questions were designed into 2 parts based on the review of literature. The first part was devoted to identifying the motivation of respondents' participation in extension-education programs including 22 items in a six-parts Likert scale any (0), very little (1), little (2), average (3), very (4) and very much (5). The second part was devoted to information gathering about the professional and

individual characteristics of the respondents. To determine the validity of questionnaire, several copies of that questionnaire were in front of a group of experts like the professors of agricultural extension and education, and a number of experts of Agriculture Jihad, Mazandaran Province, and some necessary modifications based on, the expert suggestions were done. To determine the reliability coefficient, pilot test was done; in this test 30 questionnaires were distributed among rural women growing rice of Mazandaran (out of sample size). After gathering the questionnaire mentioned, the data were to be analyzed by a computer. The variables reliability gained by Alpha Cronbach as 0.82. For qualitative description of attitude variable interval of standard deviation from the mean was used (Sadighi and Ahmadpour Kakhak, 2005). In this case, four following categories were determined by gained scores.

A= *weak*: A< Mean-SD
B= *medium*: Mean-SD< B< Mean
C=*good*: Mean < C < Mean + SD
D=*excellent*: Mean + SD < D

The statistical methods in the present study were descriptive statistics (Mean, Standard Deviation, Coefficient of Variation, Minimum, Maximum, Frequency, and Frequency Percentage) and analytical statistics (Kruskal- Wallis Test, Spearman Correlation Coefficient and Multiple Regression). In order to analyze data the statistical software SPSS version 14 used.

Result

Descriptive Findings

Professional and individual characteristics of the respondents

The average age of the rural women is 41 years with the standard deviation 9. Majority of them (115 or 38.30%) are in the age group of 36-47 years. The average of the respondents' experience of rice cultivation is 19 years with the standard deviation 12. Majority of respondents (149 or 49.70%) ranging from 21 to 30 years are busy cultivating rice. The rice cultivated area for the respondents varies from 0.2 to 4 hectares, while the majority of which (219 or %73) devoted less than one hectare of agriculture land to rice cultivation. The average of the respondents' experience of animal husbandry is 24 years with the standard deviation 20. Majority of rural women (149 or 49.70%) from 31 to 45 years are busy in this activity. The average of the respondents' experience of gardening is 8 years with the standard deviation 4. Majority of rural women (163 or 54.30%) from 1 to 7 years are busy in this activity. The size of rural women's garden varies from 0.5 to 5 hectares with the mean 1. The family of rural women consist of 6 persons an average which they vary from 2 to 11 persons. Finally the education level of majority of rural women is guidance school (85 or 21.97%), primary school (62 or 20.70%) and illiterate (53 or 17.70%) (Table 1).

Table 1. Professional and individual characteristics of the respondents (n=300)

Variables	Variable levels	Frequency percentage	SD
Age (Year)	24-35	35	9.45
	36-47	38.30	
	48-59	26.70	
Experience of rice cultivation (Year)	1-10	37.70	11.58
	11-20	12.70	
	21-30	49.70	
The rice cultivated area (Ha)	1>	73	0.85
	1-2	16.70	
	2<	10.30	
Experience of animal husbandry (Year)	1-15	40	20.46
	16-30	10.30	
	31-45	49.70	
Experience of gardening (Year)	1-7	54.30	3.86
	8-14	38	
	15-20	7.70	
The size of garden (Ha)	1>	90.30	0.85
	1-3	5	
	3<	4.70	
The numbers of family (Person)	----	----	1.25
The level of education	Illiterate	17.70	-
	Primary school	20.70	
	Guidance school	21.97	
	Secondary school	13.33	
	Diploma	7.70	
	University education	12.30	

The state of the respondents' participation in extension-education programs

Investigating respondents' participation in extension-education programs such as educational classes, field day, and technical visits to farms shows less than half of the respondents (136 or 45.33%) are involved in these programs (Table 2).

Table 2. The state of the respondents' participation in extension-education programs (n=300)

participation in extension-education programs	Frequency	Frequency percentage
Yes	136	45.33
No	164	54.66

Investigating the motivation level of respondents for participating in extension-education programs

Table No 3 shows Mean, Standard Deviation, Coefficient of Variation, and the rank of respondents' motivations for participating in extension-education programs. Table No 3 shows that the most important respondents' motivation for participating in extension-education programs is to be extrinsic motivation- economic such as learning knowledge and skill for saving money (CV= 0.132). Intrinsic motivation- social such as children's growth and learning (CV= 0.537), prove qualifications to the family members (CV= 0.147), and satisfaction from past extension programs (CV= 0.198) are in the next ranks. While least significant of respondents' motivations for participating in extension-education programs is to be good use of time (CV= 0.537), electing as a best woman in village (CV= 0.552) and gaining certificate (CV= 0.656). Hosseininiya (2001), Ali Beigi and Bani Ameriyan (2010), Hosseini *et al* (2009) stated that economical motivations such as income and production increase; Malek Mohammadi and Hosseininiya (2001) believed that social motivations such as influence on children's growth and learning; and Morid-Sadat (2010) said that extension-education motivations are as the most important motivations of rural women for participating in extension-education programs

Table 3. Ranking the respondents' motivation for participating in extension- education programs (n=136)

Item	Mean*	SD	CV
- learning knowledge and skill for saving money	3.91	0.52	0.132
- influence on growth and learning of children	4.35	0.59	0.135
- prove qualifications to the family members	4.33	0.64	0.147
- production increase	4.33	0.68	0.157
- satisfaction from past extension-education programs	3.93	0.78	0.198
- gaining experience and skill for doing better of activity	4.06	0.93	0.229
- satisfaction from village environment	3.60	0.84	0.233
- being with the other rural women	3.56	0.86	0.241
- finding a way to improve rural community	3.71	0.90	0.242
- Finding an opportunity to meet others	3.79	0.98	0.258
- Increasing the social status	3.53	0.92	0.260
- learning knowledge and skill because of interest	3.42	0.92	0.269
- Serving the village	2.94	0.87	0.295
- Awareness of the benefits of programs before implementation	2.86	0.96	0.335
- Competition	3.63	1.27	0.349
- getting familiar with new people	3.06	1.09	0.356
- having positive attitude towards own social base	3.06	1.11	0.362
- making an opportunity to talk freely with other women	3.30	1.21	0.366
- having interest in agricultural	2.53	1.10	0.434
- receiving credits (loan, reward and etc.)	3.29	1.44	0.437
- good use of time	2.01	1.08	0.537
- electing as a best woman in village	3.04	1.68	0.552
- gaining certificate	2.01	1.32	0.656

*Any= 0, Very Little= 1, Little= 2, Average= 3, Very= 4, Very Much= 5

The results of Table 4 show that the majority of the respondents (82 or 60.29%) for participating in extension-education programs have a "high" level of motivation. About 17% (n=23), 12% (n=16) and 11% (n=15) of respondents have "low", "average" and "very high" level of motivation for participating in extension-education programs in turn.

Table 4. Classifying the respondents based on their level of motivations for participating in extension-education programs (n=136)

Levels of motivation	Frequency	Frequency percentage
Low	23	16.92
Average	16	11.76
High	82	60.29
Very high	15	11.03

Analytical Finding

Investigating the impact of professional and individual characteristics of the respondents on their level of motivation for participating in extension-education programs (n=136)

The result of Table 5 shows that impact of the respondents' owner of rice cultivated area and garden on level of participation in extension-education programs. The type of respondents' owner of rice cultivated area has significant effect on level of participation in extension-education programs ($P \leq 0.001$, $\chi^2=17.757$). So the rural women who are owner of rice cultivated area have more motivation for participating in extension-education programs than respondents who cultivate rice on hired land. Shabanali Fami (2010) believes that limited access to production sources cause rural women can not supply necessary sources for applying extension and education recommendations; as a result they lost their motivation in this case. Also, this result shows that type of respondents' owner of garden don't have significant effect on women's motivation for participating in extension-education programs.

Table 5. The impact of professional and individual characteristics of the respondents on their level of motivation for participating in extension-education programs (n=136)

Variable	Variable levels	Frequency	Mean rank	Kruskal- Wallis Test	Sig
The owner of rice cultivated area	Family man	75	150.55	17.757**	0.000
	Rural woman	24	272.86		
	Sharing with husband	12	153.73		
	Rent	25	199.90		
The owner of garden	Family man	56	149.04	6.843	0.077
	Rural woman	24	162.46		
	Sharing with husband	36	137.69		
	Rent	20	73.56		

**P<0.001

Investigating the correlation between professional and individual characteristics of the respondents and their level of motivation for participating in extension-education programs

The investigation of Pearson Correlation Coefficients shows that there isn't any significant relationship among the rice cultivated area, distance between residence villages and nearest town, experience of gardening, size of garden, and numbers of respondents' family with level of motivation for participating in extension-education programs. It is noteworthy that a Hinkle *et al*'s (1988) model for describing the level of correlation has been used. 0-0.30: negligible association, 0.30-0.50: low association, 0.50-0.70: moderate association, 0.70-0.90: substantial association and 0.90-1: very strong association.

The calculated Spearman Correlation Coefficient shows that there is a positive and significant relationship among age ($r=0.156$, $P<0.001$) as a "negligible association", experience of rice cultivation as a "negligible association" ($r=0.210$, $P<0.001$), and experience of animal husbandry ($r=0.316$, $P<0.001$) as a "low association" with rural women's level of motivation for participating in extension-education programs. So the respondents' level of motivation for participating in extension-education programs increase with increasing age, experience of rice cultivation and animal husbandry and on the contrary. Similarly, the calculated Spearman Correlation Coefficient shows that there is negative and significant relationship between respondents' level of education as a "negligible association" ($r=0.190$, $P<0.001$) and their motivation for participating in extension-education programs. So their motivation for participating in extension-education programs decrease with increasing level of education and on the contrary.

Identifying the predication equation of respondents' motivation for participating in extension-education programs

In Regression Analysis, stepwise method has been used. Feature of the aforementioned method is that, at the first, the most important variable comparing with all other independent variables is there to be inserted in

equation, and that is as the most important variable which has much more power to explain the dependent variable. This trend will be repeated in other steps until no independent variable has the ability for being inserted in the Regression Linear equation. The results from Table (7) show the experience of gardening variable explain %17 of the variance of the respondents' motivation for participating in extension-education programs.

Table 6. The correlation between professional and individual characteristics of the respondents and their level of motivation for participating in extension-education programs (n=136)

Variables	Significant level and correlation coefficient		Correlation description
	r	P	
Age	0.156**	0.007	Negligible association
Level of education	-0.190**	0.001	Negligible association
Experience of rice cultivation	0.210**	0.000	Negligible association
Rice cultivated area	-0.112	0.055	Negligible association
Experience of animal husbandry	0.316**	0.000	Low association
Distance between residence village and nearest town	0.064	0.272	Negligible association
Experience of gardening	0.060	0.299	Negligible association
Size of garden	-0.028	0.635	Negligible association
The numbers of family	0.098	0.090	Negligible association

**P<0.001

Table 7. Multivariate linear regression analysis (the motivation for participating as dependent variable) (n=136)

Independent variables	Unstandardized coefficient	Standardized coefficient	Sig
Constant	3.216	---	0.000
Experience of animal husbandry	0.007	0.319	0.000

R=0.412 R^2=0.169 F=33.684

Conclusion

Less than half of the respondents (136 or 45.33%) participated in extension-education programs held in Mazanadran with various motivations. Investigating their motivations for participating in extension-education programs shows that the following motivations are most important ones as economical motivations such production and income increase; social motivations such the children's growth and learning, prove qualifications to the family members; and educational motivations such satisfaction from past extension-education programs. Classifying the respondents on base of their motivations rate for participating in extension-education programs shows that majority of the respondents are much motivated (82 or 60.29%) and very much motivated (15 or 11.03%), while only 17% of the respondents are not much motivated for participating in extension-education programs.

The analytical findings show the rural women's having access to production sources such ownership of farming land is a motivation for participating in extension-education programs. The rural women who themselves are the owners of farming land have much desire for participating in extension-education programs compared with the rural women who are planting and harvesting rice in the hired land.

The results gained from the Spearman Correlation Coefficient show that the rural women who have motivation for participating in extension-education programs, they have much age, experience of rice cultivation and animal husbandry, and low education level; and the rural women who don't have motivation for participating in extension-education programs they have low age, experience of rice cultivation and animal husbandry and more education level. The results of Regression analysis show that experience of animal husbandry is the only variable having inserted in Regression equation, and that variable has the ability to explain 17% of variance of the participants' motivation variable for participating in extension-education programs. Therefore, the organizations in charge of agricultural extension services as governmental and non-governmental is suggested that they consider contents of extension-education programs based on experience of the rural women's animal husbandry.

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