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## **FACTORS INFLUENCING ON RISK MANAGEMENT FROM VIEWS OF EXTENSION EXPERTS IN IRAN**

**\*Gholamreza Dinpanah and Neda Eslami**

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

*\*Author for Correspondence*

### **ABSTRACT**

The aim of this study was to determine influencing factors on risk management. The methodological approach of this study was descriptive- correlative. The research population consisted of 177 extension experts, which was selected using randomizing sampling method (n=112). Validity of the instrument was established by a panel of experts consisting of senior faculty members and research committee advisors. Reliability analysis was conducted by using and Cronbach alpha formula and result was 0.85. The results showed that factors of economic, social, management, and educational with risk management had been relationship of positive and significant. The results of the multiple regression analysis (stepwise method) revealed that the factors of economic and educational in two steps explained a variation of 37.5% of the risk management.

**Keywords:** *Risk Management, Extension Experts, Iran*

### **INTRODUCTION**

The ability to anticipate opportunities and effectively respond to threats is critical for organizations to grapple with new challenges. The Institute is exposed to various risks, which are either insured or uninsured, depending on the specific objectives being performed while fulfilling the Institute's Mission. Our goal is to identify the risks and determine if they may be avoided, reduced, spread, transferred or prevented. Having recognized the need, and taken the responsibility to preserve the Institute's resources (OECD, 2011). Risk management is the process of identification, analysis and either acceptance or mitigation of uncertainty in investment decision-making. Essentially, risk management occurs anytime an investor or fund manager analyzes and attempts to quantify the potential for losses in an investment and then takes the appropriate action (or inaction) given their investment objectives and risk tolerance. Inadequate risk management can result in severe consequences for companies as well as individuals. Risk management also faces difficulties in allocating resources. This is the idea of opportunity cost. Resources spent on risk management could have been spent on more profitable activities. Again, ideal risk management minimizes spending (or manpower or other resources) and also minimizes the negative effects of risks. Risk management in agriculture is now an essential tool for farmers to anticipate, avoid and react to shocks. An efficient risk management system for agriculture will preserve the standard of living of those who depend on farming, strengthen the viability of farm businesses, and provide an environment which supports investment in the farming sector (Anton *et al.*, 2011). Effective risk management strategies allow you to identify your project's strengths, weaknesses, opportunities and threats. By planning for unexpected events, you can be ready to respond if they arise. To ensure your project's success, define how you will handle potential risks so you can identify, mitigate or avoid problems when you need to do. Successful project managers recognize that risk management is important, because achieving a project's goals depends on planning, preparation, results and evaluation that contribute to achieving strategic goals (Kostov and Lingard, 2004).

Meuwissen *et al.*, (2001) showed that production and cost factors are the most important sources of risk. Farmers must be recognized and management them. Also insurance the most appropriate risk management strategy.

Result of research of Akcaoz and Ozkan (2005) showed that farmers into three categories: risk-averse, risk neutral and risk-taking are divided. Most important sources of risk from viewpoint of risk-averse farmers were changes in agricultural policy and the least important source of risk. The most important

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strategy of was financial and security. Farmers neutralize the most important sources of risk were changes in prices of inputs and products. Among risk-taking farmers price volatility in agricultural products and inputs are the most important sources of risk.

Nelson and Loehman (2005) examine the relationship between agronomic characteristics and the amount of risk. The findings indicate that farmers in drought seasons relish and more willing to accept their insurance to compensate for possible damage.

Bakker (2007) study the social and sociological factors contributing to the risk of Wheat Farmers in India. The results showed that social welfare and social participation of wheat farmers great effects on risk their. So that, the wheat that the level of social welfare, social status and social participation, higher, more likely to have risk. Valeeva *et al.*, (2011) showed that Strategies that benefit the most powerful predictor of compliance risk management. Also Farmers in their decision to accept the risks inherent characteristics influence their behavior and knowledge production and farmers directly helps certain strategies of risk.

Gicheha *et al.*, (2014) conducted a study on risk management alternative livestock systems and concluded that risk management strategies for economic reasons and provides physical benefits as well as increase the quality of pastures. Wu and Wu (2014) study on integrated risk management and innovation in China did. In this study, we examined the company in 1178 and came to the result that positive relationship between risk management and innovation are combined. In other words, through the implementation of integrated risk management can enhance innovation in companies.

This study was aimed at investigation of effective factors on risk management in Iran viewpoint of experts. In order to achieve this objective, specific objectives are presented as below:

- Study of Status of risk management
- Study of relation of factors of social, economic, ,management and educational with risk management
- Role of factors of social, economic, ,management and educational on risk management

## **MATERIALS AND METHODS**

### **Research Method**

In relation to objective, this research is functional, since the results can be employed by programmer and policy makers. In order to reach precise and reliable data we used quantitative method. Because this research simply investigates existed conditions and defines them and there is no possibility to control or manipulate the variables, it is descriptive. Because the gathering of information about the views, beliefs, thoughts and behaviors or group characteristics of a society is statistical and also it is under recognition, so it is measuring. Furthermore, because it investigates and analyzes the relations between independent and dependent variables, it is correctional.

### **Statistical Population**

The research population consisted of 177 experts, which was selected using stratified randomizing sampling method (n=112). Finally, 105 questionnaires were analyzed.

### **Validity and Reliability**

Validity of the instrument was established by a panel of experts consisting of senior faculty members and research committee advisors. Also a pilot test was conducted to determine the reliability of the survey instrument. In this test, the mentioned questionnaires were given to 20 experts who were similar to statistical society in regional, economical, cultural and social conditions. After gaining the data concluded the Cronbach alpha coefficient for all the variables with degree scale of 85%.

### **Variables**

The independent variables included social factors, economic factors, management factors and educational factors. The dependent variables was risk management

## **RESULTS AND DISCUSSION**

### **Status of Risk Management**

Status of risk management was measured by 16 questions with a range of Likerts 6 items. The scoring of the mentioned range was 0=nothing, 1=very little, 2=little, 3=average, 4=high, 5=very high. Thus, the

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maximum score of risk management was 80 and the minimum score is 0. Table 1 shows mean, standard deviation, the coefficient of variation associated with the status of each questions related to the situation of risk management among the respondents. Based on the mentioned table, the ability to perform tasks simultaneously, select of hard targets for their activities and tasks with the possibility 50-50. Priorities of other items can be seen in Table 1.

**Table 1: Prioritizing the items related with risk management**

item	Mean	Standard deviation	Coefficient of variation	rank
The ability to perform tasks simultaneously	4.32	0.69	0.159	1
Select of hard targets for their activities	4.43	0.74	0.168	2
Tasks with the possibility 50-50	4.11	0.74	0.179	3
Promote insurance products	4.27	0.79	0.185	4
Believe the risk to change their status	4.23	0.80	0.189	5
Integration of indigenous knowledge and modern science	4.27	0.81	0.190	6
Believe the risk for achieving the aspirations and goals	4.21	0.80	0.191	7
Promoting various activities (agro industry, aquaculture, etc.)	4.15	0.87	0.211	8
Interacting with other professionals and agencies	4.18	0.93	0.222	9
Structural changes in physical conditions and activities in order to do their best	4.00	0.98	0.245	10
Team and group tasks	3.79	0.97	0.255	11
Belief and acceptance of risk	3.88	1.01	0.260	12
Division of tasks and collaboration between the partners in proportion to their ability	3.64	0.99	0.273	13
Analysis of the risks and consequences	3.88	1.06	0.274	14
Risk taking to achieve better	3.47	1.04	0.299	15
According to effort rather than luck	3.29	1.02	0.309	16

*The range of Likerts 6 items: 0=nothing, 1=very little, 2=little, 3=average, 4=high, 5=very high*

The status of risk management viewpoint of the respondents showed in Table 2. According to the mentioned table, 61 and 39 percent of experts expressed situation of risk management were good and very good respectively.

**Table 2: Status of risk management viewpoint of the respondents**

Status	Frequency	Percent of frequency	Cumulative percentage
Very bad(0-16)	0	0	0
Bad(17-32)	0	0	0
Moderate (33-48)	0	0	0
Good(49-64)	64	61	61
Very good(65-80)	41	39	100
Total	105	100	-

*M = 64.1                      SD = 4.1*

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**The role of social factors, economic factors, management factors and educational factors on risk management**

Table 3 showed intensity, relation orientation and a meaningful level of social factors, economic factors, management factors and educational factors with risk management. As the table shows all factors with risk management had been relationship of positive and significant.

**Table 3: The relation of horticulture’s personal, farming, social, economical, communicational-educational and innovation characteristics with risk management**

Variables	Pearson correlation coefficient	Significant level
Social factors	0.399**	0.000
Economic factors	0.576**	0.000
Management factors	0.392**	0.000
Educational factors	0.508**	0.000

\* $p < 0.05$

\*\* $p < 0.01$

In order to predict the role of research variables on risk management, we used step by step regression. Analyzing the regression enables the researcher to predict the variance of dependent variable through independent variables and determine the role of every independent variable in explanation of dependent variable. In step by step method, the strongest variables enter the equation one after another. This process goes on until the errors of meaning exam reaches to 0.05 errors. Results showed economic factors and educational factors enter the equation in two of steps, respectively. This means that economic factors have the highest influence on risk management. This variable alone explained 33.2 percent of variance in dependent variable. Economic factors and educational factors communally explained 37.5 percent of variance in dependent variables, in step two.

**Table 4: Analyzing the regression of risk management**

Step	R	R Square	Adjusted R Square	F	sig
1	0.576	0.332	0.325	51.2	0.000
2	0.612	0.375	0.363	30.6	0.000

**Table 5: The standardized and non- standardized coefficients of risk management**

Variables	B	Beta	t	Sig
Economic factors	0.69	0.43	4.37	0.000
Educational factors	0.33	0.26	2.65	0.009
Constant	26.91	-	5.48	0.000

According to the amount of beta in table 5, we can write the regression equation as follows:

$$Y = 0.43X_1 + 0.26X_2$$

X<sub>1</sub> = Economic factors

X<sub>2</sub> = Educational factors

**Conclusions and Suggestions**

This study aimed at studying the risk management, indicated that all of the respondents (100 percent) believed that risk management was good and very good. According of results the ability to perform tasks simultaneously, select of hard targets for their activities and tasks with the possibility 50-50 had been important related to risk management. Results from analyzing the Pearson correlation showed that social factors, economic factors, management factors and educational factors with risk management had been relationship of positive and significant. This means that with the improvement of economic factors, social factors, management factors and educational factors can also improve risk management in agriculture. Intensity correlation in relate social factors and management factors were moderate and in relate economic factors and educational factors the Intensity correlation is high. These results conform to the

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researches of Campbell and Kracaw (1993); Meuwissen *et al.*, (2001); Teweldemedhin and Kafiddi, (2009); Bakker, (2007); Valeeva *et al.*, (2011); Gicheha *et al.*, (2014); Wu and Wu (2014). Furthermore, the results of step- by- step regression illustrated that economic factors and educational factors enter the equation in two of steps, respectively.

This means that economic factors have the highest influence on risk management. This variable alone explained 33.2 percent of variance in dependent variable. Economic factors and educational factors communally explained 37.5 percent of variance in dependent variables, in step two.

These results conform to the researches of Campbell and Kracaw (1993); Meuwissen *et al.*, (2001); Teweldemedhin and Kafiddi, (2009); Bakker, (2007); Valeeva *et al.*, (2011); Gicheha *et al.*, (2014); Wu and Wu (2014).

- For improve of risk management recommended experts constructive effort to be given and conditions necessary to analyze the risks and consequences in the agricultural sector among experts is necessary. Also collaboration and team work between them also increase.
- For improve of risk management recommended farm subsidies to be targeted and guaranteed purchase of agricultural products and to their insurance provide. Also, investment, incentives and credits to be more practical and operational and ensure job security experts.
- For improve of risk management recommended the desire to progress and motivation increased among experts and networks of friendship between our institutionalized. Also has been special attention to activities of the ICT in agricultural sector.
- For improve of risk management recommended cooperation with experts inside and outside of the organization to be more and continuous monitoring and evaluation of activities to implement. Also the activities are divided according to their personality and ability.
- For improve of risk management recommended specialized training courses offered and the group discussion among experts on various topics provided.

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