

Assessment of Farmers Knowledge Regarding Innovation Management in Farming Cooperatives in Shoushtar Township, Iran

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Abstract: The purpose of research is assessment of farmer's knowledge regarding innovation management in farming cooperatives in Shoushtar township of Khouzestan province, Iran. The method of research was correlative descriptive and causal relation. A random sample of Shoushtar township farmers of Khouzestan province, (n=105) were selected for participation in the study. According to results knowledge of farmers regarding management of innovation was moderate. Also regression showed that accessing to communication channel, level of education, income, crop yield, size of farm, social participation, level of participation in extension classes may well explain for 53% ($R^2=0.534$) changes in knowledge of farmers regarding management of innovation.

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1. Introduction

A cooperative is a group of individuals who take interactive profit from the coordination of production decision, mutual access to inputs, including seed, improved market power, and more effective lobbying capacity. The cooperative can acquire information about seeds and crops acquire the seed, process the crop, or market the product in order to create profit and to scatter the gains to members. (Falco, Smale & Perrings, 2007).

Fundamentally, agricultural cooperatives are user-owned and user-monitored movement, they return extra income, they are stimulated members by supplying a service to satisfy members' requirement for affordable and degree of excellence goods and they are self-reliance, self-responsibility, self-assistance and autonomous. (Doyer, 2005)

Not only agricultural cooperatives have several advantages such as open membership, democratic control and continuous education, But also this individually owned business has some disadvantages such as any losses borne by the owner be shared and capital limits the size of the business. (Birchall, 2005)

Innovation in business has been studied by multiple researchers (Kleefl, 2007., Kotelinkov, 2008., Kwamena, 2008).

Innovation allowing companies and economies to stay competitive in ever changing world markets. For all of the talk about the importance of innovation, innovation management and creativity in business, the topics are hardly generally well understood (Riederer et al, 2005).

Innovations management uses the systems and business to make the organization more innovative. The aim of innovations management is to

maintain and improve the competitive position of the business by usage of innovation. The purpose of this research is assessment of farmer's knowledge regarding innovation management in farming cooperatives in Shoushtar township of Khouzestan province, Iran. Also at this research used one framework with subsystems of innovations management and analyzed linkage to other variables (Figure 1).

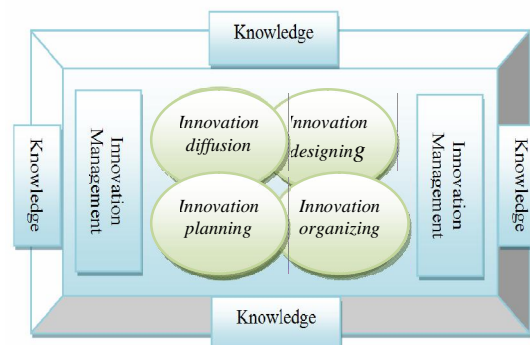


Figure 1: Theoretical Framework of Research

2. Material and Methods

The method of research was correlative descriptive and causal relation. A random sample of Shoushtar township farmers of Khouzestan province, Iran (n=105) were selected for participation in the study. A questionnaire was developed to gather farmer's knowledge regarding innovation management in farming cooperatives.

The questionnaire was pilot tested in Dezful township. Questionnaire reliability was estimated by

calculating Cronbach's alpha. Reliability was (Cronbach's alpha=0.87). Data collected were analyzed using the Statistical Package for the Social Sciences (SPSS). Appropriate statistical procedures for description (frequencies, per cent, means, and standard deviations) were used.

3. Results

For assessment of farmer's knowledge regarding innovation management in farming cooperatives were used 4 subsystems of innovation management and farmer's knowledge regarding each item in Likert domain analyzed.

KIDe= Knowledge Regarding Innovation designing

KIP= Knowledge Regarding Innovation planning

KIO= Knowledge Regarding Innovation organizing

KIDi= Knowledge Regarding Innovation diffusion

According to results, 51% of farmers had moderate knowledge regarding innovation

management (Table 1). Also mean rank and standard deviation of farmer's knowledge include:

M1=2.653, sd1=1.08, M2=2.091, sd2=1.01, M3=2.761, sd3=0.93, M4=3.112, sd4=1.04 (Table 2).

Also to identify the correlation between selected independent variables with the dependent variable (farmer's knowledge regarding innovation management). In this study, there was a significant relationship between the farmer's knowledge regarding innovation management with accessing to communications channels, level of education, income, crop yield, size of farm, social participation, and level of participation in extension classes (Table 3). Level of education, income, crop yield, size of farm, social participation, level of participation in extension classes may well explain for 53% ($R^2=0.534$) changes in farmer's knowledge regarding innovation management (Table 4).

Table 1: Farmer's knowledge regarding innovation management in farming cooperatives

Level of Knowledge	f	%	Cum%
Very Low	12	11.4	11.4
Low	14	13.3	24.8
Moderate	54	41.4	76.2
High	13	12.4	88.6
Very High	12	11.4	100
Sum	105	100	

Table 2: Farmer's knowledge regarding each item of innovation management

Factors	Number of items	Mean*	sd
Innovation designing	9	2.653	1.08
Innovation planning	11	2.091	1.01
Innovation organizing	10	2.761	0.93
Innovation diffusion	8	3.112	1.04

*: 1=very low, 2=low, 3=moderate, 4=high, 5= very high

Table 3: Correlation between selected variables

Variable	r	p
Accessing to Communication channels	0.712	0.000***
Crop yield	0.632	0.000***
Size of farm	0.411	0.000***
Social participation	0.649	0.000***
Income	0.517	0.000***
Participation in extension	0.340	0.000***
Level of education	0.381	0.000***

Note. *: p<0.05; **: p<0.01; ***: p<0.001

Table 4: Liner regression results for predicting changes in knowledge of farmers

Variables	B	SE B	Beta	T	Tsig
Crop yield	0.423	0.452	0.543	3.543	0.000
Size of farm	0.165	0.354	0.443	2.432	0.000
Social participation	0.622	0.454	0.214	3.343	0.000
Income	0.411	0.543	0.812	3.981	0.000
Extension classes	0.391	0.344	0.091	2.813	0.000
Level of education	0.409	0.432	0.410	4.877	0.000
Accessing to Communication channels	0.232	0.612	0.523	3.213	0.000
Constant	4.651	1.005	-	4.678	0.000
F= 12.340		Signif F= 0.000	R ² =0.534		

This relationship is described in the following formula:

$$Y = A + b_1X_1 + b_2X_2 + \dots$$

$$Y = 4.651 + 0.423x_1 + 0.165x_2 + 0.622x_3 + 0.411x_4 + 0.391x_5 + 0.409x_6 + 0.232x_7$$

Discussion

Innovation is associated with the introduction of new activities on the market (Kwamena, 2008). Innovation management is the economic implementation of new ideas and discoveries, and the implementation of an innovation culture in an organization, to promote and make possible the

development of new ideas and business opportunities. Innovation management consists of innovation strategy, culture, idea management and implementation of innovation processes (Riederer et al, 2005, p. 4).

According to results the people with high education level, accessing to communication channels, income, training and social status had higher knowledge to innovation management in their business. The some of this finding was supported by Bylin et al (2004), Fulton et al (2003) Kwamena (2008), Quinn (1999), Riederer et al (2005) and Coash et al (2003), Reeve and Black (1998) .

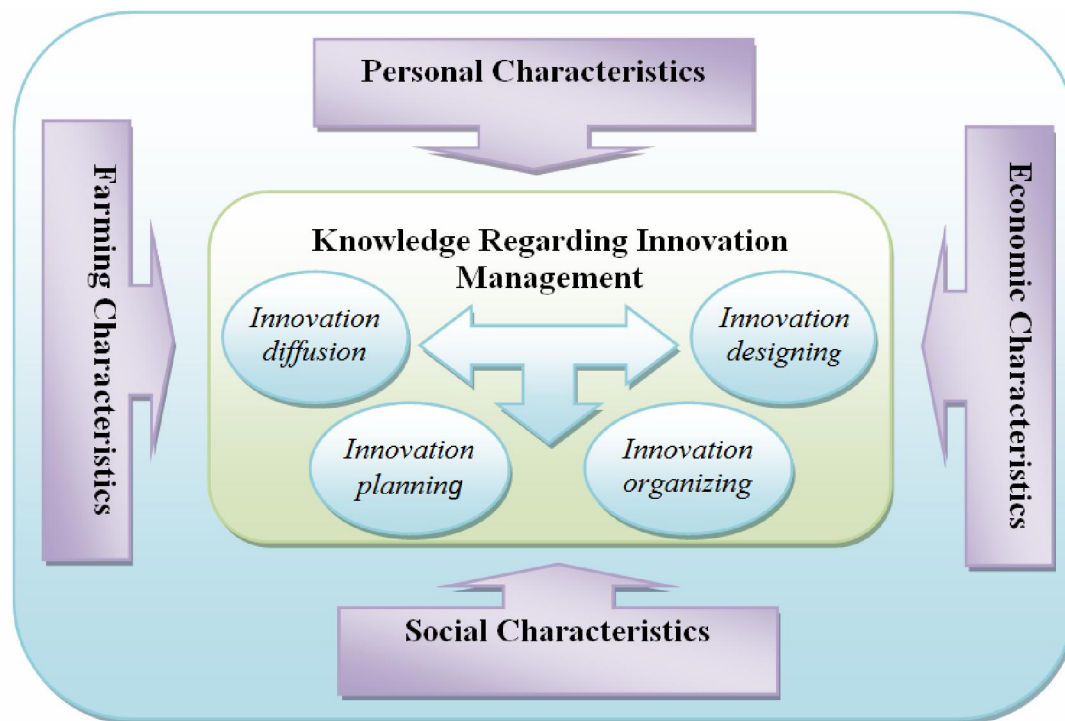


Figure 2: Filed Framework of Research

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