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Research Article

ANALYSIS OF KEY FACTORS INFLUENCING PEOPLE'S WILLINGNESS TO JOIN THE SOCIAL INSURANCE FUND FOR FARMERS, VILLAGERS AND NOMADS

Mehdi Zarei[1] and *Abdolnaser Shojaei[2]
[1]*Department of Management, Sanandaj Branch, Islamic Azad University, Sanandaj, Iran*
[2]*Department of Economics, Sanandaj Branch, Islamic Azad University, Sanandaj, Iran*
**Author for Corresponding*

ABSTRACT
This study was conducted aiming to analyze the key factors influencing people's willingness to join the social insurance fund for farmers, villagers and nomads using descriptive-correlation method. The study population consists of residents aged 18 years and more in Balu, Asgar Abad, and Nazloo villages in Urmia city which their number is unlimited. To determine the sample size, available simple random sampling method was used and according to Cochran's table, 331 people were selected and studied. To collect the data, the questionnaire was used. Data was analyzed through spss software and using Pearson correlation test. Results showed that dependency burden, income, size, life expectancy, social security, premium rate, religious beliefs and education have effects on people's willingness to join the social insurance fund for farmers, villagers and nomads.

Keywords: *Insurance Fund, Social Insurance Fund for Farmers, Villagers and Nomads, Urmia City*

INTRODUCTION
Social security which is considered as a combination of economic security and social insurance is a comprehensive system that supports the sections of society against natural, economic and social expected and unexpected events. By this definition, Article 29 of the Constitution provides that the right to achieve social security for the public is a religious and national duty and an undeniable necessity for sections of society. In every society, whether developed or developing, development and expansion of the social security system and overcoming natural and abnormal disasters of life is always considered as a strategic and long-term goal and finally as a tool for the establishment of security, stability and social justice. Accordingly, over the past half century, in many countries of the world, social insurance has been increasingly expanding in the form of the main program social security system and as one the infrastructures of society's economic life. But development and extension of social insurance to all people working in different economic sectors especially in developing countries has always been faced with difficulties and obstacles and in some cases has failed. Also, in our country, in spite of decades of work in different areas of social security, a significant portion of the population are still deprived of the coverage of this safety network and access to its services among which we can refer to the people living and working in rural areas. Although, nowadays, social insurance is considered as one of the inseparable components of employment system and acts as a safety net in response to natural and unnatural events as well as economic and social damages but so far this system has not been able to provide a successful long-term mechanism to cover rural and tribal society in our country. However, despite the lack of attention to the development of productive capacities in rural areas of the country over the past decades, this section still has a very effective role in gross domestic product GDP (23%) and accounts for nearly 25% of the employment rate. In fact, rural areas of the country consider as natural resources' concentration places, providers of food security and also the support of sustainable development capacities (Irvani, 2006).
Due to the changing and uninhibited conditions in the agricultural sector and rural areas, this section is facing with natural and unnatural hazards more than other sectors. In this regard, human factor as the most important production factor in this section is always faced with risky conditions and vulnerability. Farmers as providers of food security are always involved with hazards such as illness, disability, a

variety of physical disabilities and premature aging during the years of activity; and meeting their livelihood needs especially in old age and disability time will be difficult and impossible. However, attempts by the government and institutions to insure the products and even animals is growing, but farmers producing one hundred million tones of agricultural products are not still covered by social security (Nobakht and Haqiqi, 2009).

Research Background

Hazel showed that the expected value of insurance for farmers exposed to decision-making and selection is almost certainly negative unless their own estimation is fulfilled. In such circumstances, insurance companies face increased insurance risk level.

According to Hazel's inference, farmers' insurance is accompanied by a kind of moral hazard (Hazel, 1992).

Research done by Angelini and Hirose (2004) in Indonesia showed that weakness of production resources is the main factor of lack of insurance acceptance in the informal economy and it's because of this factor and the low level of literacy and non-agricultural job skills that the context of insurance development among landless and farmers with insufficient land, fishermen, marginal beneficiaries and women in the former sector of rural areas is so limited.

According to the results obtained in this research, distrust between public and private insurance institutions and farmers has been mutual and it has led to the unwillingness of both parties to engage in this area. The reluctance between two parties as a norm has a negative effect on adoption of social insurance by farmers.

Jablonska (2005) conducted a study on rural areas of Poland and concluded that the type of agricultural activity, manufacturing productivity and farmers' income are considered as three factors that have significant effects on the adoption of social insurance and that the share of insurance premium is significantly correlated with their net income. In other words, in large-scale ownership, farmers' insurance share is less than their overall income (11%) and for small-scale farmers, this share is much higher (45%); and that's why the government's assistance to farmers varies in accordance with their income.

During studies conducted in rural areas of China, Jiangue (2006) revealed that acceptance of social security by villagers is affected by traditional assumptions and requires a gradual recognition process in the field of innovations and promotion of human resources. Accordingly, in deciding to accept insurance, an individual is strongly influenced by others' opinions. Also, in this study, the level of rural development in various communication, services, infrastructural and market sectors is known as a factor affecting the adoption of social insurance by villagers.

In a research done by an economic institution in the rural areas of Ukraine, individual factors and socio-economic status of the rural environments were recognized as two major factors influencing the adoption of social insurance for villagers (GAG, 2006).

Some of the findings in the field of crops and livestock insurance can be used in the context of the adoption of social insurance as well. Although, it seems that farmers have different attitudes and behavior towards various kinds of insurance. Irvani *et al.*, (2006), Rastgou and Rezvanfar (2007), and DarbanAstane and Irvani (2007) in their field studies found that agricultural insurance was an innovation affected by individual, developmental (socio-economic) and attitudinal-behavioral variables. Torkmani and Qorbani (1999) concluded that risk-aversion and insurance cost-benefit analysis by farmers are considered as two factors with significant impact on the adoption of insurance.

In a review on the acceptance of insurance, Torkmani (1998) concluded that attracting farmer's trust, receiving loan, following others, and premiums are considered as the most important effective factors. Also, estimating Logit model, Darijani and Qorbani (1998) suggest that credit variables, ownership and assets, type of farming and a history of risking are the most important factors affecting the adoption of insurance by beneficiaries. Through logistic regression, Irvani (2006) showed that variables including literacy, awareness of insurance, land ownership, receiving compensation and loan are considered as factors with significant effect on the adoption of insurance.

Research Conceptual Model

Theoretical framework of the research is a conceptual model based on theoretical relationships among a number of factors that have been identified to be important in relation to the research's statement of the problem. This framework is a regional, descriptive and cultured network consisting of relations between variables identified during implementation of the process of interview, observation and literature review. After identifying the appropriate variables, the network of relationships between variables should be developed in order to propose the relevant hypotheses (Kiwi and Kampenhood, 2009). Brown and Kim's model (1993) was used as the base model.

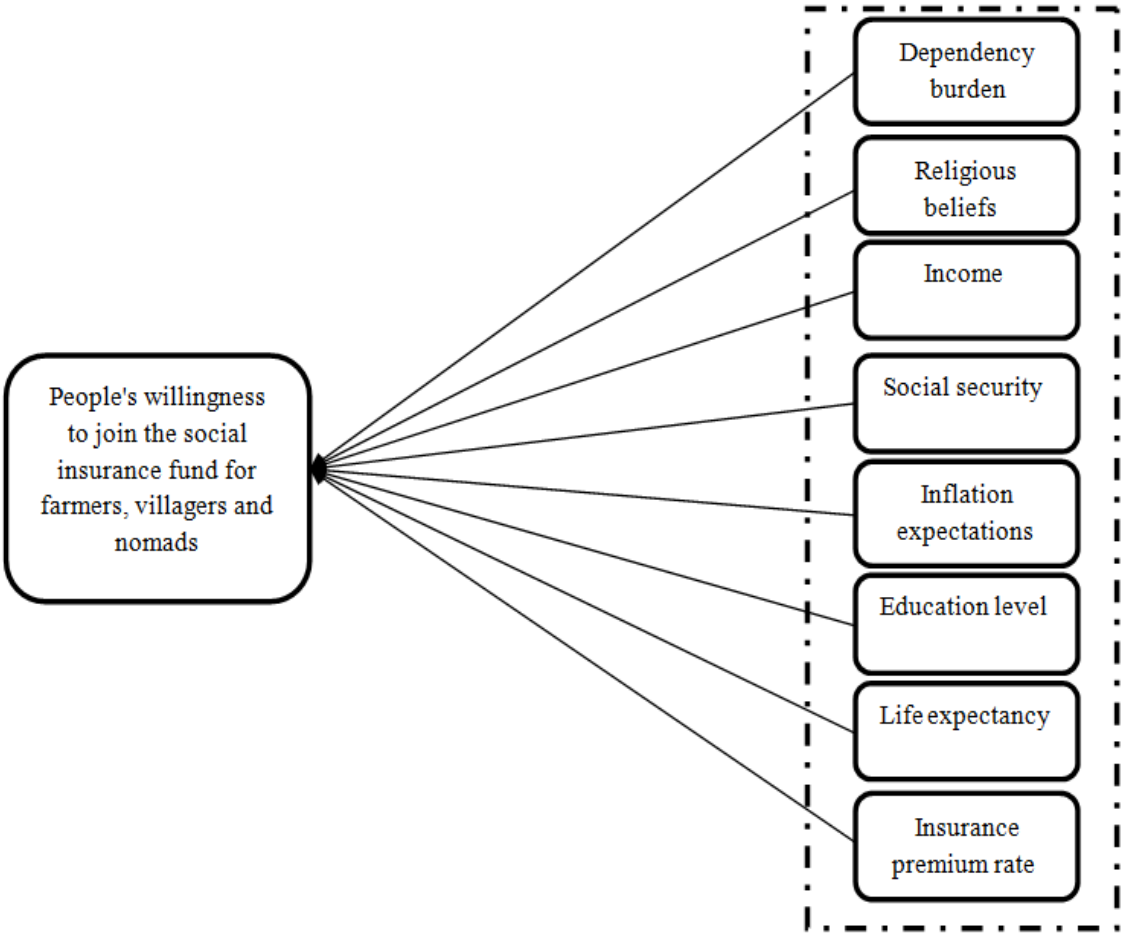

Figure 1: Source: Brown and Kim (1993)

The present research is an applied study objectively and a correlation research in terms of methodology. Also, this paper is considered as a descriptive research in terms of data collection method (research project) which has described the characteristics of the sample and then generalized these features to the population.

The first step in this regard is to determine the research objectives. To clarify these purposes, first we should define the statisyical population from which the sample is selected (Delavar, 2008). In present paper, residents aged 18 years and more in Balu, Asgar Abad, and Nazloo villages in Urmia city were studied which their number was unlimited. To determine the sample size, available simple random sampling method was used. Sample selection is so important and the larger the sample, the closer to the community features and generalization of the results will be more logical. A good sample is the one that is economically effective and also represents the entire population. The statistical sample of this study is a

part of the population. To select the sample, available random sampling method was used. since the statistical population in this study includes residents aged 18 years and more in Balu, Asgar Abad, and Nazloo villages in Urmia city that are unlimited in number, thus, Cochran formula (unlimited population) was used for sampling:

$$n = \frac{Z_{\alpha/2}{}^2 \times p \times q}{d^2}$$

$$n = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} \cong 384$$

According to the sampling formula above, 384 residents aged 18 years and more in Balu, Asgar Abad, and Nazloo villages in Urmia city were selected as the sample size. But to remove the effects of incomplete and missing questionnaires, 10% was added to the sample sized which accordingly, 442 questionnaires were distributed among the population which 356 questionnaires were returned and finally, 331 questionnaires were used for suitable statistical analysis of data.

The main tool for data collection in this study was questionnaire. Sharifi-Hosseini's inventory (2009) was used to measure both dependent and independent variables.

RESULTS AND DISCUSSION

Reliability of the questionnaire

In this research, Cronbach's alpha coefficient was used as pre-test to obtain the reliability of questionnaire of key factors and the tendency of people to join the social insurance fund for farmers, villagers and nomads.

Table 1: Cronbach's alpha of effective key factors questionnaire

Row	Variables	Number of questions	Cronbach's alpha
1	Dependency burden	3	0.801
2	Income	3	0.885
3	Inflation	3	0.866
4	Life expectancy	1	0.798
5	Social security	3	0.742
6	Insurance premium rate	2	0.755
7	Religious beliefs	2	0.837

According to the table above, the alpha value of this questionnaire for each dimension and total coefficient is higher than 0.70 which indicates the high reliability of the questionnaire.

Table 2: Cronbach's alpha of people's willingness to join the social insurance fund for farmers, villagers and nomads

Variable title	Number of questions	Cronbach's alpha
People's willingness to join the social insurance fund for farmers, villagers and nomads	6	0.864

According to the table above, the alpha value of this questionnaire for consumer behavior dimension is higher than 0.7 which indicates the high reliability of the questionnaire.

Investigation of Data Normality Assumption Using Kolmogorov-Smirnov Test (K-S)

In order to use statistical techniques, first it must be determined that whether data collected is normally distributed or not. Because in case that data collected is normally distributed, parametric tests can be used to test the hypotheses and if the data is non-normally distributed, non-parametric tests can be used. To this

end, in this stage, the results obtained from Kolmogorov-Smirnov test for each of the independent and dependent variables are discussed and then, appropriate tests to verify the hypotheses will be selected based on the results.

H_0: Data of variable i is normally distributed.

H_1: Data of variable i is not normally distributed.

According to the following table, if the value of significance level is larger than error value, the null hypothesis is confirmed and if significance level value is less than error value, then alternative hypothesis is confirmed.

Table 3: The result of independent variable normality test

	Dependency burden	**Income**	**Inflation**	**Life expectancy**	**Social security**	**Insurance premium rate**	**Religious beliefs**
N	331	331	331	331	331	331	331
Mean	3.6254	3.6224	3.1863	3.6526	3.5619	2.9819	2.9637
Standard deviation	.56435	.70690	.70582	.87567	.78995	.92178	.88517
Statistics Z	2.317	2.739	2.201	5.747	2.416	2.589	2.04
Significance level	.000	.000	.000	.000	.000	.000	.000
Error value	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Confirmation of hypothesis	H_1	H_1	H_1	H_1	H_1	H_1	H_1
Conclusion	Not normal	Not normal	Not normal	Not normal	Not normal	Not normal	Not normal

Table 4: The result of normality test of intermediate and dependent variables

	People's willingness to join the social insurance fund for farmers, villagers and nomads
N	331
Mean	3.3384
Standard deviation	.52590
Statistics Z	1.729
Significance level	.005
Error value	0.05
Confirmation of hypothesis	H_1
Conclusion	Not normal

(Source: research data)

According to the results represented in tables above, since the significance level of all components is smaller than error value of 0.05, thus, these variables are non-normally distributed and nonparametric tests will be used to test the hypotheses.

Testing Research Hypotheses

First Hypothesis: Dependency burden has effects on people's willingness to join the social insurance fund for farmers, villagers and nomads.

Table 5: Results of Spearman correlation coefficient test between people's willingness to join the social insurance fund for farmers, villagers and nomads and dependency burden

		Dependency burden
people's willingness to join the social insurance fund for farmers, villagers and nomads	Spearman correlation	0.545
	Sig	0.000
	N	331

p <0.01**
(Source: research data)

According to the results represented in table above, the significance level is smaller than 0.01, which means that the null hypothesis H_0 is rejected and alternative hypothesis H_1 (research hypothesis) indicating that there is a relationship between people's willingness to join the social insurance fund for farmers, villagers and nomads and dependency burden is confirmed.

The Second Hypothesis: Income has effects on people's willingness to join the social insurance fund for farmers, villagers and nomads.

Table 6: Results of Spearman correlation coefficient test between people's willingness to join the social insurance fund for farmers, villagers and nomads and income

		Income
People's willingness to join the social insurance fund for farmers, villagers and nomads	Spearman correlation	0.679
	Sig	0.000
	N	331

p <0.01**
(Source: research data)

According to the results represented in table above, the significance level is smaller than 0.01, which means that the null hypothesis H_0 is rejected and alternative hypothesis H_1 (research hypothesis) indicating that there is a relationship between people's willingness to join the social insurance fund for farmers, villagers and nomads and income is confirmed.

The Third Hypothesis: Inflation has effects on people's willingness to join the social insurance fund for farmers, villagers and nomads.

Table 7: Results of Spearman correlation coefficient test between people's willingness to join the social insurance fund for farmers, villagers and nomads and inflation

		Inflation
People's willingness to join the social insurance fund for farmers, villagers and nomads	Spearman correlation	0.583
	Sig	0.000
	N	331

p <0.01**
(Source: research data)

According to the results represented in table above, the significance level is smaller than 0.01, which means that the null hypothesis H_0 is rejected and alternative hypothesis H_1 (research hypothesis) indicating that there is a relationship between people's willingness to join the social insurance fund for farmers, villagers and nomads and inflation is confirmed.

The Forth Hypothesis: Life expectancy has effects on people's willingness to join the social insurance fund for farmers, villagers and nomads.

Table 8: Results of Spearman correlation coefficient test between people's willingness to join the social insurance fund for farmers, villagers and nomads and life expectancy

		Life expectancy
people's willingness to join the social insurance fund for farmers, villagers and nomads	Spearman correlation	0.483
	Sig	0.000
	N	331

p <0.01**

(Source: research data)

According to the results represented in table above, the significance level is smaller than 0.01, which means that the null hypothesis H_0 is rejected and alternative hypothesis H_1 (research hypothesis) indicating that there is a relationship between people's willingness to join the social insurance fund for farmers, villagers and nomads and life expectancy is confirmed.

The Fifth Hypothesis: Social security has effects on people's willingness to join the social insurance fund for farmers, villagers and nomads.

Table 9: Results of Spearman correlation coefficient test between people's willingness to join the social insurance fund for farmers, villagers and nomads and social security

		Social security
people's willingness to join the social insurance fund for farmers, villagers and nomads	Spearman correlation	**ρ** = 0.713
	Sig	0.000
	N	331

As it can be seen, there is a significant relationship between social security and people's willingness to join the social insurance fund for farmers, villagers and nomads at 99% confidence level and the coefficient is equal to 0.713, thus, H_0 is rejected and H_1 indicating that there is a relationship between social security and people's willingness to join the social insurance fund for farmers, villagers and nomads is confirmed.

The Sixth Hypothesis: Insurance premium rate has effects on people's willingness to join the social insurance fund for farmers, villagers and nomads.

Table 10: Results of Spearman correlation coefficient test between people's willingness to join the social insurance fund for farmers, villagers and nomads and insurance premium rate

		Insurance premium rate
people's willingness to join the social insurance fund for farmers, villagers and nomads	Spearman correlation	ρ = - 0.668
	Sig	0.000
	N	331

As it can be seen, there is a significant relationship between insurance premium rate and people's willingness to join the social insurance fund for farmers, villagers and nomads at 99% confidence level and the coefficient is equal to -0.668, thus, H_0 is rejected and H_1 indicating that there is a relationship between insurance premium rate and people's willingness to join the social insurance fund for farmers, villagers and nomads is confirmed.

The Seventh Hypothesis: Religious beliefs have effects on people's willingness to join the social insurance fund for farmers, villagers and nomads.

Table 11: Results of Spearman correlation coefficient test between people's willingness to join the social insurance fund for farmers, villagers and nomads and religious beliefs

		Religious beliefs
people's willingness to join the social insurance fund for farmers, villagers and nomads	Spearman correlation	$\rho = 0.652$
	Sig	0.000
	N	331

As it can be seen, there is a significant relationship between religious beliefs and people's willingness to join the social insurance fund for farmers, villagers and nomads at 99% confidence level and the coefficient is equal to 0.652, thus, H_0 is rejected and H_1 indicating that there is a relationship between religious beliefs and people's willingness to join the social insurance fund for farmers, villagers and nomads is confirmed.

The Eighth Hypothesis: Education has effects on people's willingness to join the social insurance fund for farmers, villagers and nomads.

The results of one way ANOVA test for the variable of people's willingness to join the social insurance fund for farmers, villagers and nomads and considering the categorical variable of education level are provided as follows.

As it is shown in table 24-4, since the significance coefficient is greater than 0.05 (error coefficient) so it can be inferred that there is no difference between the mean values of people's willingness to join the social insurance fund for farmers, villagers and nomads in different levels of education. In other words, the eighth hypothesis of research indicating that "education affects people's willingness to join the social insurance fund for farmers, villagers and nomads" is not confirmed.

Table 12: Results of one-way ANOVA test to assess the effects of education on people's willingness to join the social insurance fund for farmers, villagers and nomads

Changes	**Sum of squares**	**Degree of freedom**	**Mean squares**	**Statistics F**	**Significance level**
Between groups	1.796	4	.449	1.636	.165
Within groups	89.473	326	.274		
Total	91.269	330			

Recommendations Based on Research Findings

- It is recommended that Agricultural Planning and Economic Research Institution study and explain farmers' financial needs related to agricultural activities in details in terms of volume and nature;
- Due to the constant presence of the Rural Cooperative Organization in rural areas, it is recommended that this organization with the participation of the private sector (the villagers joined in the rural cooperatives) establish a financial and credit system named Rural Cooperative Fund in Villages;
- The government can help to execute any rural development through granting credits to these fund;
- Given to the importance of expanding the role of NGOs in the agricultural economics all around the world, these organizations can play a significant role in attracting financial aids and credits of other organizations and international rural development institutions;
- Rural Cooperative Organization in cooperation with relevant international organizations, agricultural bank of Iran and the extensive network of promotion assistance can help to build a culture regarding the necessity of establishing rural financial institutions in the villages of the country;
- Rural Cooperative Organization can provide specialist human resources required for country's rural financial and credit system through holding applied science associate courses by Agricultural Jihad's Applied Science Learning Centers;
- With regard to the positive effect of farmer's economic strength in adoption of insurance, so in order to increase the adoption rate of farmers, it is suggested that payment of their insurance premium vary in

accordance with their income amount and ownership. Moreover, it is appropriate to adopt the policies in such a way that farmers with less economic strength can benefit from state financial aids. Besides, some farmers have introduced inadequate benefits of insurance as the reason of refusal to accept it; thus, concurrent with the implementation of the proposal above, it is essential to perform basic measures for the utility of pension value and as a result, per capita premium to create sufficient incentives to participate in farmers;

- Rural Cooperative Organization can use valuable experiences of Agriculture Bank in creating rural financial and credit system;
- Rural Cooperative Organization can play a significant role in reducing the risk of agricultural activities and attracting investments in the agriculture sector.

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