Factors Influencing the Policyholders' Satisfaction with the Performance of Insurance Fund in the Field of Agricultural Products: the Case of Wheat Growers in Ilam

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Abstract

Since insuring agricultural products is one of the effective instruments for risk management in agricultural sector, it can reduce risk avoidance among farmers and increase their competence in using production factors and, consequently, increases their inclination towards investment in agricultural sectors. The purpose of the current study was to investigate the factors influencing policyholders' satisfaction with the performance of insurance funds in the field of agricultural products. Statistical population consisted of all farmers (wheat growers) living in Ilam Province who had insured their products in 2014. The population for this search was policyholders of agricultural insurance fund in Ilam Township that amounted to 250 out of which 158 ones were sampled by Morgan's sampling table and simple random method of sampling. A questionnaire was utilized as a data collection instrument. The reliability and validity of this instrument was verified by the judgments of the experts of Islamic Azad University of Ilam and Cronbach alpha coefficients (estimated to be 0.80). The data were analyzed by descriptive and inferential statistics using SPSSwin19 Software Package. It was found out that 68% of variations in policyholders' satisfaction with the performance of insurance fund in the field of agricultural products were influenced by variables such as orientations towards insuring products, the performance of insurance fund, providing services and facilities by the insurance fund, and the promptness and skill of insurance fund employees.

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INTRODUCTION

As one of the main activities of human beings, agriculture has faced with many challenges in recent years. The occurrence of natural and unexpected events, plant diseases, abrupt changes in temperature, and even unexpected rainfall may cause severe damages to agriculture. Agriculture exploiters are always worried about providing the costs of living and paying back loans and other costs because their annual income is unstable. In addition, these risks have led to the anxiety of agricultural credit institutions. In such situations, insuring agricultural products plays an important role as a suitable leverage and supporting means for compensating damages sustained by farmers. Insuring agricultural products can provide more security for producers in agricultural sector, and increase farmers' motivation to maximize benefits and their attempts to use and introduce new innovations (Ghavidel, 2011).

Insuring agricultural products is one of the effective ways for the management of agricultural risk and is a good substitution and sometimes a complement to traditional methods such as Tvam cultivation, production diversity in the farm, guaranteed price, etc. Essentially, agricultural insurance is a method developed to reduce risk aversion among farmers , and consequently increase their effectiveness in utilizing production agents and their willingness to invest in agricultural activities. Therefore, one of the methods to reduce negative effects of the mentioned situation is to develop the insurance of products in rural societies and to compensate for damages of natural disasters by insuring products (the same source). In fact, insurance is a risk management method which reduces the destructive effects. Therefore, insuring products in agricultural sector is a mechanism for the co-operation of farmers in risk taking which, in practice, transfers risks from policyholders to state and private insurance institutions. As a result, agricultural insurance increases security in rural societies and provides mental health for farmers, which, in turn, is a necessary condition for increasing productivity in agricultural sector (Rasool, 2001). Satisfaction constitutes the basis of clients' independence (Choi *et al*., 2004). In other words, it is a type of experience evaluation (Auh and Johnson, 2005). One of the main factors which encourages farmers to insure their agricultural products and increases the farmers' cooperation in insurance programs is current policyholders' satisfaction with insurance services because they play an important role in encouraging other farmers to insure their products.

Since insurance is maintained for agricultural products to enhance the production level, reduce the risks of natural disasters, ensure the farmers' basic income and so on, the factor that should be taken into account in future planning is to increase the number of insured people and to gain and maintain current policyholders' satisfaction. What is important at present seems to be keeping the previously insured people because it not only promotes major pioneering objectives but also provides the necessary conditions for developing these services. One of the factors that may assist planners is evaluating and measuring the level of satisfaction among the policyholders. One of the methods that can be effective in the distribution and development of agricultural products insurance is coordinating these programs with farmers' desires, needs, and expectations for which awareness of farmers' satisfaction is an important issue. In such evaluations, farmers can present their first-hand data obtained from their experiences as to the performance of insurance funds in the field of agricultural products. Through giving reliable data, farmers specify the responsibilities that fall on organizations and their employees. Agents and employees of the organizations can receive the best suggestions from their clients to reinforce their behaviors and activities. The results of such surveys reveal the clients' needs and expectations to the organizations so that they can satisfy them by addressing these needs. Thereby the sustainability and productivity of the organization is ensured because clients' dissatisfaction may entail heavy and costly consequences for the organization. Thus, having information about the clients' satisfaction is fully justified for all state, private, and nonprofit organizations. It is not desirable for any organization to be inactive just because of clients' dissatisfaction and lack

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of client (Yazdanpanah *et al.*, 2010).

Considering the importance of agricultural sector, especially wheat cultivation in Ilam Province, and due to the occurrence of natural and unnatural disasters which have led to uncertainty as to the amount of annual agricultural productions, it is highly important to investigate the factors affecting the farmers' satisfaction with the insurance of insuring agricultural products because the rejection of insurance by farmers may increase the problems caused by sustained damages day by day, and severely endanger the stability of village environment, agricultural sector, and even urban areas. Hence, the overall purpose of the current research was to explore the factors influencing policyholders' satisfaction with the performance of insurance funds in the field of agricultural products in Ilam Province. In the next paragraphs, some of the studies carried out in Iran and other countries are reviewed.

Misra (1999) investigated admission of the development of agricultural insurance system in Gujarat state of Georgia and found that the most important factors in the development of agricultural insurance system were the increase in the level of agricultural insurance coverage, the identification of the target group, the provision of the necessary budgets for offsetting the damages and the establishment of suitable relations with farmers. Muze and Vevere (2006) investigated the satisfaction of 1650 policyholders in Europe and concluded that factors affecting policyholders' satisfaction in their own viewpoint included certainty as to the quality of given services, clarity and understandability of presented data, paying enough attention to their needs, existing problems in the units giving services to clients, protecting personal information, individual approach, trusting the insurance company, enough time for solving the problem, and the quality and usefulness of consultation.

Similarly, Shahnooshi *et al.* (2012) examined the structural and functional factors influencing policyholders' satisfaction with agricultural products insurance in Khorasan Razavi. The findings indicated that among functional factors, variables such as giving on-time services and information (with positive effect), and among structural factors variables like rules and disciplines (with negative effect) influenced the level of satisfaction. Raheli and Ghahremanzadeh (2015) investigated the factors influencing farmers' willingness particularly beet growers to participate in a recommendatory insurance project in Khouy county. They revealed that 82% of beet growers inclined to participate in the insurance project of regional performance. The results of the evaluation of the legit model showed that variables such as loss:income ratio, holding extension classes, and the age of beet growers had positive significant effects on the level of participation in the insurance project of regional performance (collective). Furthermore, variables like the rate of insurance premium, and farmers experience negatively affected the level of participation. As a result, holding consistent extension classes, reasonable insurance premium, and appropriate coverage of damages would lead to higher level of participation in the new insurance project of regional performance (collective).

Yazdanpanah *et al.* (2010) used the American model of satisfaction to examine the level of satisfaction among the farmers of Fars province. Results of their study showed that the value and the quality of services respectively had significant effect and that orientations towards insurance had an indirect significant effect on participants' satisfaction with the insurance of agricultural products. Results of a study conducted by Naeemi Nezam Abadi (1999) indicated that farmers' awareness of agricultural products insurance, its advantages, and proper performance of duties by agricultural insurance fund and providing clients with better services are effective on clients' satisfaction of insurance. Along this line of thought, it is necessary to achieve following principle objectives:

- Describing policyholders' personal and professional characteristics in agricultural sector,

- Investigating the status of policyholders' satisfaction with the performance of insurance funds in the field of agricultural products in Ilam Province, and

- Identifying the variables that may affect policyholders' satisfaction with the performance of agricultural insurance funds in Ilam Province.
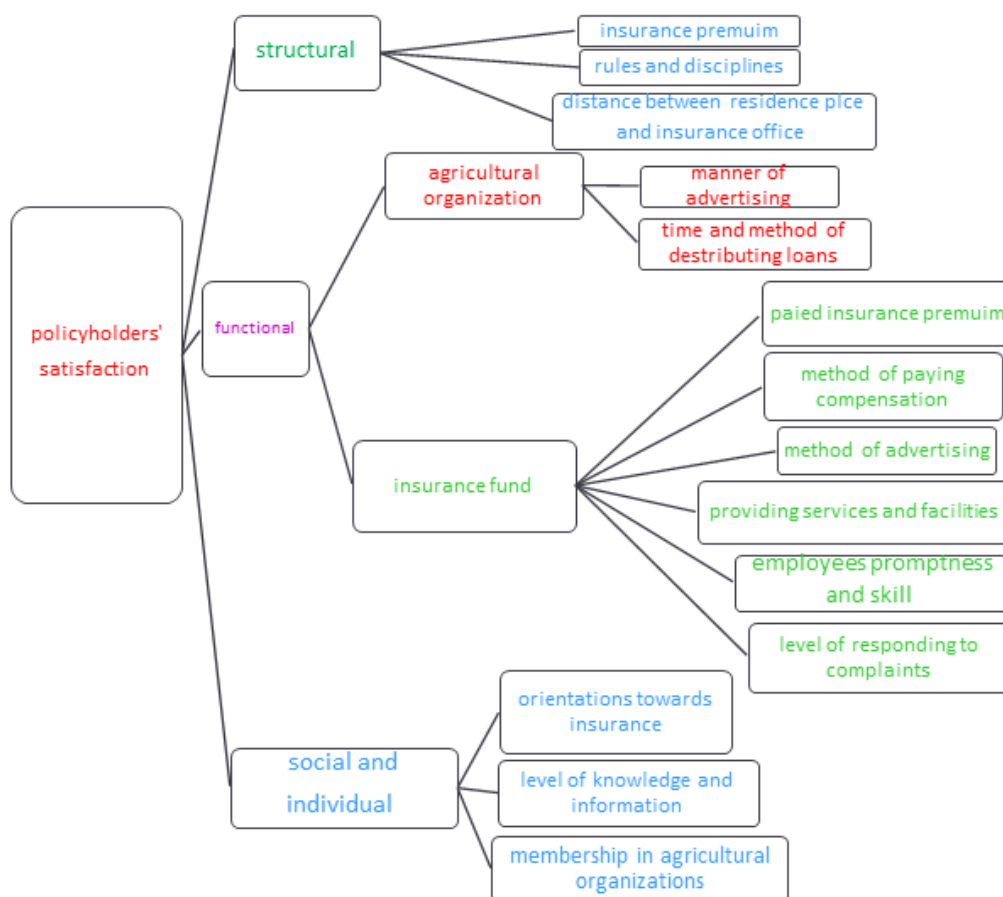
Figure 1: Conceptual model of research

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Finally, according to the studies reviewed here, the conceptual model of the study is presented below as Figure 1.

MATERIALS AND METHODS

The present study is a quantitative research, an applied research in terms of its objective, a field study in terms of the extent of controlling variables and finally a descriptive-correlation study in terms of data collection method. Statistical population of the research consisted of all farmers (wheat growers) living in Ilam Province who insured their products in 2014 (N=58). Considering the limited number of farmers, they were all studied through census method. Data collection instrument was a questionnaire including four sections: demographic characteristics (23 items); structural factors (four items, in a five-point Likert-type scale); efficiency factors (23 items, in a five-point Likert-type scale); and satisfaction with the performance of insurance funds in the field of agricultural products (24 items, in a five-point Likert-type scale).

The validity of the questionnaire was verified by the judgments of the experts working in Islamic Azad University of Ilam and the reliability was verified by computing Cronbach alpha coefficient (0.80). Data analysis was carried out through descriptive (frequencies, percentages, mean, and standard deviations) and inferential statistics (correlation coefficient, comparing means and multiple regression) using SPSS$_{win19}$ Software Package.

RESULTS AND DISCUSSIONS

According to findings, participants' mean age was 43.7 years with the highest percentage (46.8%) being in the age range of 40-59 years. Most studied farmers (92%) were male. Most of them were under diploma and high graduates and about 18.4% were uneducated. In addition, 67.7% lived in cities. The majority of participants (76.5%) stated farming as their main job but 23.7% stated it as to be their second job. Most participants (74%) had agricultural lands with personal ownership and 42percent) had 1to 5

Table 1: Participants' demographical characteristics

variable	Group	Frequency	Percent
Age	20-39	32	20.3
	40-59	74	46.8
	60-79	43	27.2
	80 and more	9	5.7
Gender	Male	145	92
	Female	13	8
	Uneducated	29	18.4
Education	Under diploma	59	37.3
	Diploma	52	32.9
	Collegiate	18	11.4
Living place	City	107	67.7
	Village	51	32.2
Main job	Agriculture	121	76.5
	Non-agriculture	37	23.5
Type of land	Personal	117	74.1
Ownership	Rental	36	22.8
	Condominium	5	3.1

years of previous experience (Table 1).

The status of policyholders' satisfaction with the performance of agricultural products insurance funds

Results presented in Table 2 show that the majority of studied people (53.66%) were relatively satisfied with the performance of insurance funds, whilst 35.3% of policyholders ranked their satisfaction to be low and very low; that is, they were lowly satisfied with the performance of insurance funds in the field of agricultural products.

Farmers' reasons for using insurance of agricultural products

Results indicated that farmers mentioned "security and preventing possible dangers", "working and living in a dangerous environment", and "poor quality of agricultural lands" as their most important reasons for the use of insurance of agricultural products. Besides, from their viewpoint, other reasons such as "obligation in receiving loans" and "conformity

Table 2: Frequency distribution of respondents with respect to their level of satisfaction with insurance fund performance

Satisfaction level	Frequency	Percent	Cumulative percent
Very high			
High	33	0.209	11
Moderate	67	0.223	0.432
Low	45	0.150	66.95
Very low	13	0.043	100
Total	158	100	

Table 3: Farmers' reasons for using insurance of agricultural products

Items	M	SD	Rank
Security and prevention of probable dangers	3.68	1.003	1
Due to working and living in dangerous environment	2.83	.987	3
Low-quality lands	3.1	1.092	2
Financial problems and receiving government's financial help	2.56	.998	5
Obligation in receiving loans	2.81	1.91	4
Due to conformity with other farmers	2.046	1.023	7
Obligation in buying products	2.64	1.99	6

with other farmers" had little significance (Table 3).
Policyholders' perceptions as to the insurance of agricultural products

The results of investigating farmers' orientations towards insuring agricultural products (Table 4) indicated that policyholders tend to believe that "insurance fund is a commercial organization and hardly compensates for losses" and that they viewed "agricultural insurance as a kind of foresight" that is considered as "a kind of governmental support for farmers ".

Spearman coefficient of correlation was used to investigate the relationship between the vari-

ables and policyholders' satisfaction. Results (Table 5) indicated that out of the studied social and individual factors, the area of cultivated lands, the area of mechanized lands, and farmers' orientations towards insuring agricultural products had a positive significant relation with the level of satisfaction among policyholders in Ilam Province. Moreover, among studied functional factors, the level of providing services and facilities by insurance fund and among structural factors, the performance of insurance fund and its rules and disciplines positively affected the dependent variable (i.e., policyholders'

Table 4: Describing the perceptions of policyholders as to the insurance of agricultural products

Items	Mean	SD	Rank
Insurance fund is a nonprofit organization that hardly compensates for loss	3.52	.976	3
Agricultural insurance is a kind of foresight	3.63	1.05	1
The main purpose of insurance fund is coping with dangers	3.53	1.032	2
Agricultural insuranceis a kind of support from government	3.46	1.045	4
Agricultural products insurance is a way of sharing the dangers in front of agriculture between farmers and insurance organization	2.816	0.886	6
Agricultural insurance is a kind of collecting tax from farmers	3.24	1.092	5
In current situation, insurance is considered to be an important factor in the stability of agriculture	2.78	0.977	8
Agriculture insurance is an excessive cost for farmers	2.73	0.975	9
Insurance is not a good mechanism for encountering natural disasters	2.88	1.062	7
Agricultural insurance helps farmers maintain their calmness during cultivation	2.62	1.076	10
Agricultural products insurance is a way of reducing natural losses	2.606	1.271	11

Table 5: Results of correlation between the variables of the study based on spearman correlation coefficient

Dependent variable	Independent variable		Correlation coefficient	p-value
Policyholders' satisfaction of the performance of agricultural insurance fund	Social and individual factors	Farmers' age	0.063	0.275
		Farmers' work experience	.	0.295
		Farmers' annual income	0.021	0.719
		Area of cultivated lands	0.055*	0.034
		Area of mechanized lands	0.25*	0.0468
		Records of using products insurance	-0.4	0.492
		Cooperation with organizations and institutions	0.105	0.069
		Policyholders' perceptions of products insurance	0.137*	0.017
	Functional factors	The amount of facilities and services provided by insurance fund	0.209*	0.000
		The level of promptness and skill among insurance staff	0.166*	0.025
	Structural factors	The performance of insurance funds	0.147*	0.0417
		Distance between place of residence and insurance office	0.012	0.841
		Rules and disciplines of insurance fund	0.132*	0.023

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Table 6: Multiple regressions of the effects of independent variables on satisfaction with agricultural insurance fund performance

Vif	Tolerance	p-value	t	Standardized Coefficient	Un Standardized Coefficient		Variable
				Beta	Std. Error	B	
-	-	0.000**	5.380	-	0.261	1.404	Constant
1.09	0.91	0.009**	2.621	0.153	0.048	0.126	Orientation towards products insurance
1.23	0.81	0.004**	2.940	0.183	0.050	0.148	Performance of insurance fund
1.10	0.92	0.018*	2.380	0.140	0.043	0.102	Services and facilities provided by insurance fund
1.30	0.77	0.033*	1.964	0.0161	0.042	0.141	Employees' promptness and skill
1.03	0.96	0.712	0.370	0.021	0.013	0.005	Policyholders perceptions of products insurance
1.11	0.72	0.300	1.390	0.082	0.002	0.002	Area of cultivated lands
1.09	0.74	0.640	-0.463	-0.035	0.002	-0.001	Area of mechanized lands

R = 0. 891 R^2 = 0.731   ADJASTED R = 0.68   F= 3.287 (sig=0.000)
*p<0.01, **p<0.05

satisfaction).

Variables influencing the level of satisfaction with the performance of agricultural insurance fund

Simultaneous regression analysis was carried out to identify the factors influencing the policyholders' satisfaction with the performance of agricultural insurance funds Therefore; all variables correlated with the dependent variable were put into the regression equation. Afterwards, the effect of each independent variable on the dependent variable was investigated (Table 5). Multiple regressions indicated which factor had the highest effect on policyholders' satisfaction with the performance of agricultural insurance fund. Therefore, in the present research according to the model of multiple regressions, independent variables like cultivated area, the area of mechanized lands, orientations towards insuring agricultural products, the performance of insurance fund, the level of providing services and facilities by insurance fund, rules and disciplines of insurance fund, as effective factors in clarifying policyholders' satisfaction with the performance of agricultural insurance fund were put into the model. In addition, in order to conduct regression analysis, Gujarati (2013) has recommended that tolerance level (tolerance value) of data should be determined to measure the linearity between independent variables. The value obtained from tolerance level (tolerance value) determination for the outputs of this study was calculated to be 0.1 showing nonlinearity between independent variables. Furthermore, the value of VIF is, to a large degree, <2 again showing nonlinearity between independent variables (Table 6).

Results of analysis indicated that regression equation with P = 0.000 and F = 3.278 at p < 0.01 level and 99% confidence was statically significant. It was revealed that orientation towards insuring products with a slope value of B = 0.148 and t = 2.94 at p < 0.01 level and 99% confidence was statically significant. On the other hand, it was shown that the variables of services and facilities provided by insurance funds with a regression line slope of B = 0.102 and t = 2.38 and promptness and skill of insurance employees with a regression line slope of 0.141 and t=1.964 at p<0.05 level and 95% confidence were statically significant. It means that these variables had significant influence on participants' satisfaction with the performance of insurance funds. In addition, simultaneous regression showed that the value of adjusted R2 was 0.683; in other words, 68% of changes in the dependent variable (satisfaction level) can be determined by independent variables investigated in the present study. Generally, the regression equation

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obtained from this research is as follows:

$Y'=1.404+ 0.126x_1+ 0.148 x_2 + 0.102x_3+ 0.141x_4$
where,

Y' = Policyholders' satisfaction with the performance of insurance fund,

X_1 = Orientation towards products insurance,

X_2 = Performance of insurance funds,

X_3 = Services and facilities provided by insurance funds, and

X_4 = Employees' promptness and skill.

CONCLUSIONS

Insuring agricultural products is good substitution and sometimes a complement to traditional methods such as concurrent cultivation, production diversity in the farm, guaranteed price, etc. It is one of the effective ways for managing agricultural risk. One of the most important factors that increase farmers' cooperation in insurance programs is the level of satisfaction. Hence, the most important factor for drawing farmers' attention towards insuring agricultural products is proper and satisfactory performance of agricultural insurance fund. In this sense, the current research was conducted to investigate the factors influencing policyholders' satisfaction with agricultural insurance funds. Results indicated a positive significant relationship between the area of cultivated lands and the level of satisfaction. Therefore, it can be said that farmers who had larger areas of cultivated lands were more satisfied with the performance of agricultural insurance fund. These findings concur with the finding of previous research conducted by Yazdanpanah et al. (2010). Furthermore, a positive, significant relationship was found between the level of mechanized lands and farmers' satisfaction with the performance of agricultural insurance fund.

In addition, no significant relationship was found between previous experience of using product insurance and satisfaction with the performance of insurance funds; that is, insurance record didn't affect the level of satisfaction. This finding doesn't support the findings of Yazdanpanah et al. (2010). They came to the conclusion that there was a significant relationship between previous experience and the level of

satisfaction with the performance of insurance funds. However, a significant relationship was observed between farmers' orientation towards agricultural insurance and level of satisfaction. Findings of pervious research conducted by Shahnooshi et al. (2012) and Yazdanpanah et al. (2010) support this finding. Moreover, data showed a significant relationship between the amount of facilities and services provided by insurance funds and the level of satisfaction with the performance of agricultural insurance fund. In other words, the more the facilities and services insurance fund could provide, the higher the level of satisfaction would be. Muze and Vevere (2006) and Yazdapanah et al. (2010) have supported these findings in their studies.

The amount of promptness and skill on the part of insurance fund staff had also significant relationship with the level of satisfaction among farmers. Putting another way, when employees try to be more quick and skillful, the level of satisfaction among policyholders increases. Moreover, a positive, significant relationship was found between the quality of insurance fund performance and policyholders' satisfaction with it. This finding is supported by the findings of Muze and Vevere (2006) and Shahnooshi et al. (2012). Simplicity of insurance rules and disciplines had a positive, significant relationship with the level of satisfaction with the performance of agricultural insurance funds. That is, simpler rules and disciplines lead to higher levels of satisfaction among farmers. This finding is in agreement with the findings of Shahnooshi et al. (2012).

Then, simultaneous regression is applied to identify factors influencing the level of policyholders' satisfaction with the performance of agricultural insurance fund. The value of adjusted R^2 was 0.683. That is, 68% of variations in the dependent variable (satisfaction level) can be determined by independent variables investigated in the present study. It was found that orientations towards product insurance, performance of insurance funds, services and facilities provided by insurance funds, and staff's promptness and skill significantly influenced the level of satisfaction among policyholders. Furthermore, the performance of insurance funds had the highest

effect and providing services and facilities had the lowest effect on the policyholders' satisfaction. Finally, according to the findings of the research some suggestions are given in order to increase the level of satisfaction with the performance of insurance fund:

- Due to the fact that there was a significant relationship between farmers' orientation towards insuring agricultural products and their satisfaction with the performance of agricultural insurance funds, it is suggested to continue developing agriculture insurance activities for farmers and take better relationship with farmer and conduct instructional courses and classes in order to introduce advantages of insuring agricultural products to farmers and create a positive perception in their mind thereby attaining their satisfaction.

According to the correlation coefficient between two variables of staff' promptness and skill and the level of satisfaction, it is clear that there is significant relationship between them.

- Since the speed and skills of employees of insurance funds has effect on farmer's satisfaction, one of the most functional items that need attention is the correct estimation and timely offset of compensation to farmers. Therefore, it is suggested to pay on time and in good condition to avoid their dissatisfaction. Insurance offices should also employ skillful and qualified people for insurance by conducting exams and interviews and on-the-job training for employees to do their responsibilities quickly and skillfully.

- Since there is a significant relationship between the simplicity of insurance rules and policyholders' satisfaction with the performance of insurance funds, it is suggested to insurance funds to reduce the bureaucracy and adopt laws and rules that help farmers to do their jobs better and also to make the current rules as simple as possible to do their best for farmer.

REFERENCES

1- Auh, S., & Johnson, M. (2005). Compatibility effects in evaluations of satisfaction of loyalty. *Journal of Economic Psychology*, 26(1), 35-57.

2- Choi, K., Cho, W., Lee, S., Lee, H., & Kim, C. (2004). The relationships among quality, value, satisfaction and behavioral intention in health care provider choice. *Journal of Business Research,* 57(8), 913-921.

3- Gujarati, D, (2013), the foundations of econometrics, translated by Hamid Abrishami, Tehran University Publication, Tehran.

4- Ghavidel, Z. (2011). *Investigating the factors affecting the development of Kolza insurance in Kermanshah Province.* Unpublished thesis, Razi University of Kermanshah,Agriculture Department.

5- Misra, P. K. (1999). *Planing for the development and operation of Agricultural Insurance Schemes, in Asia.* Report of the APO seminar on agricultural insurance Held in Manila Philippines.

6- Muze, M., & Vevere, M. (2006). *Measuring Customer Satisfaction in the State Social Insurance Agency.* paper presented 27-29 September 4th Quality Conference for Public Administrations in the EU

7- Naeemi Nezam Abadi, M. (1999). *Investigating and determining the factors influencing the development of agricultural product insurance.* Unpublished thesis. Management faculty. Tehran University.

8- Raheli, M., & Ghahremanzadeh, M. (2015). Factors influencing the amount of cooperation on the part of beet cultivators in the suggested insurance project of regional performance: the case of Khoy County. *The Knowledge of Agriculture and Stable Production*, 6(17), 23-32.

9- Rasool, F. (2001). The position of village in the process of social welfare. *Agricultural Economics and Development,* 8(31), 153-161.

10- Shahnooshi, N., Rafiee Daraee, H., & Edalatian, A. (2012). Investigation structural and functional factors influencing the policyholders' satisfaction of the performance agricultural products insurance (the case of Khorasan Razavi). *Quarterly of agricultural Economics*, 5 (1), 103-121.

11- Yazdanpanah, M., Zamani, GH. M., & Rezaee Moghadam, k. (2010). Farmers' satisfaction of the performance of agricultural products insurance: the application of rout analysis. *Agricultural and Development Economics,* 2 (66), 139-164.

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