

A Study and Classification of Risk Origins in Different Types of Insurance Issued by Iran Insurance Company in Isfahan City in 2014

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Abstract

The present research has been done with the purpose of investigating and classifying the origins of risk in different types of insurance issued by Iran Insurance Company in Isfahan city in 2014. This is an applied research in terms of purpose, because its results will be used in future decision-makings and planning. It is a descriptive survey in terms of nature and method. It is descriptive because it seeks to describe the conditions and phenomena in an organization and tries to describe and interpret the nature, status and existing conditions. It is a survey because the researchers seek to investigate the customers' views and ideas. The population includes all insured people in Isfahan city. The sampling method used in this research is simple random sampling method. The data have been collected using a questionnaire taken from Insurance Research Institute (affiliated to the Central Insurance of the Islamic Republic of Iran), which was modified due to the research subject. In addition, since the information contained in the policies lacked variables such as insured people's level of education, jobs and so on, we thus made use of phone survey after the selection of the sample using systematic sampling in order to complete the sample's information (education, job etc.). Moreover, the cases of loss claims and factors such as the loss type, the gender and age of the insured people as well as the loss extent received were closely examined. The sample was selected from each and every insurance field in this research. For the sake of the more parallel distribution of the sample, the questionnaire was distributed in different days of the week and at different working hours and the sample size was ultimately determined and selected.

1. Introduction

Environmental insecurity and the existence of intense competition among organizations and managers have created various challenges for them. New approaches to management have been recommended for more effective management of these challenges. Risk identification and management is one of the new approaches used to improve and promote organizations' effectiveness (Babaei & Vazir, 2006). Like all other fields of management science, risk management makes use of certain knowledge, rules, principles and regulations in order to achieve its predicted and pre-determined goals. Risk management provides rules and methods whereby people, economic (industrial and commercial) and non-profit firms and governments can have the foresight in the assessment, control and financing of

losses. Thus, risk management organizes a systematized treatment with risks and keeps trying to answer two basic questions about the possible accidents of the future: the first question is: "what will happen?", and the second question is "what should be done?". Moreover, risk management keeps planning to face possible accidents in future. When a potential risk turns into an actual risk, a crisis is created and the advent of crisis indicates the failure of risk management process (Mazloomi, 2007). On the other hand, one of the manifestations of the progress of human societies owes an industry called the insurance industry, which is the realization of the soul of cooperation and collaboration among people in a society.

Obviously, as one of the financial institutions affecting the economy of the society, insurance

companies are required to have access to a powerful risk analysis tool so that they can manage possible risks properly and risk management may be used in insurance companies like other organizations regarding activities, products, processes, properties, investments, legal conditions and market conditions. Moreover, risk is the very reason for the existence of insurance so that insurance will be nonsense without risk. Insurance deals with risk, risk-taking, risk reduction and risk calculation. Risks of insurance companies are risks that they take from the insured and it is exactly here that the use of risk management becomes more and more significant. The process of risk management in insurance is followed by perception, understanding, identification and measurement of risk in order to prevent delays in debts payment and make predictions and planning for achievement of future income. Furthermore, the optimization and use of capital and assets is another reason for the use of risk management in insurance companies (Joharpas, 2013). Risk identification is aimed at getting a complete and perfect picture of the loss-creating factors and the loss-receiving resources of any firm (Mazloomi, 2007).

Accordingly, risk management has no concept but prevention and reduction of danger and people and firms manage risks by transferring possible dangers to insurance companies. On the other hand, lack of certainty with the results of an action and the fear of being placed in an unknown status is one of the most important reasons for insurance; risk and insecurity are indeed the main reason for the existence of insurance, so that insurance will lose its concept without risk. Since the insurance industry has a very wide scope of activity and its coverage is speedily extending to different economic and social sectors, different groups of the society including producers and consumers have been turning to this industry. Moreover, studies have shown that improving the economic status of a country, increasing the exchanges, improving the level of life and developing investment have a direct and significant relation with development of insurance industry. Furthermore, the progress and development of the insurance industry will also help improve people's life, keep the national wealth and form great savings. Therefore, this study is conducted in order to make it possible to provide answers to the research questions by investigating different types of insurance and to get a perfect image

of the loss-creating factors and the loss-receiving resources. It also tries to rank the insurance companies based on the information available in the companies.

On the other hand, the development of the insurance industry is significant in today's world, not as an economical and profitable activity, but as a necessity of increasing social welfare. Directing attention to this important point will pave the way for economic facilities by releasing a considerable sum of the demand for money in the form of cash. Therefore, the development of this industry in the present conditions will provide multilateral benefits for the society. Lack of development of the insurance industry in developing countries justifies the need for a study in this field. This research seeks to find an answer to the main question of the research, which is: Which factor(s) can lead to an increase in the possibility of risk? In addition to the above-mentioned points, the researchers' personal interest in the research subject led to the selection of the present subject for research.

2. The Research Hypotheses

The Main Hypothesis

Which factor(s) can lead to an increase in the possibility of risk and what ways can help minimize its possibility of occurrence, so that it can ensure social welfare in an appropriate economic activity?

The Sub-hypotheses

1. There is a significant relationship between personal characteristics (age, gender, education, level of income, job etc.) and tendency to different types of insurance.
2. There is a significant relationship between personal characteristics (age, gender, education, level of income, job etc.) and loss.
3. There is a significant relationship between insurance prices and the risk degree of activities.

3. Previous Studies

3.1 Studies done in the country

- **Fathnejad and Izadparast conducted a study in 2011 called " Providing a Framework for Prediction of the Loss level of the Customers of Car Body**

Insurance Using Data Analysis Strategy, and came to the following conclusions:

Today, customers have turned to an important and critical factor in directing investors, producers and even researchers and innovators. This is why organizations need to recognize their customers and make planning for them. So far, methods have been used for identification of customers and their behavior, including the statistical methods which have their own limitations and problems. Making use of data analysis methods, this research provided a framework for identification of customers (with a focus on the customers of car body insurance). The two methods of decision tree and clustering were complementarily used in order to reduce errors and limitations. According to the results of analysis of the data of car body insurance, in addition to the superficial characteristics of cars, the demographic characteristics of customers have a great effect in predicting the loss level of customers.

- **Teimoori et al. did a research in 2011, called " Strategies of Risk Management in Inter-organizational Relations (Investigation of the Role of the Variables of Imbalanced Power, Mutual Dependence and Trust)", and came to the following conclusions:**

Since organizations commonly use the mechanisms of control (such as contracts) for risk management of inter-organizational relations, the main goal of the research was to investigate other strategies for risk management in inter-organizational relations. These strategies include the creation of balanced relations, the creation of mutual dependence and trust building. For this purpose, several hypotheses and one model were suggested. The hypotheses were analyzed with a statistical sample including the top managers of 112 companies, using a designed questionnaire. The data analysis was done using Regression analysis and separation of the sample. The results of the

regression analysis showed that the imbalance of power is considered a positive predictor for relational risk perception. On the other hand, through the separation of the sample into two classes with high and low values for the variables of trust and dependence, the moderating role of these variables in the imbalanced power relation and perception of relational risk was confirmed. The research findings revealed that besides the mechanisms of control, the creation of mutual dependence, trust building and creation of balanced relations should be paid attention to in risk management.

- **Shirkhodaei et al. did a research in 2013, called " Classification of the International Risks Affecting The Mode of Entry to Foreign Markets: Iranian Automotive Industry", and came to the following conclusions:**

The main purpose of this research was to classify the international risks facing the Iranian car industries active in international markets and to investigate the relation of these risks with how these companies select their entry modes to different countries. The population of this research included the active producing companies in automotive industry, which had in recent 5 years (2006-2011) entered the foreign markets. The data analysis unit was chosen the pair "company-project" and exploratory factor analysis test was used to classify the risks. The international risks were thus classified into four types of specific-host country risks, the specific- industry risks, the specific-company risks and the specific-home country risks. The relation between international risks and the entry mode selection was investigated using correlation test, whose result confirmed the relation of the specific-host country risk and the specific-industry risk with selection of the entry mode. In other words, the results obtained showed that an increase in risks leads to the turning of selection of the entry

mode to exports and a decrease in them will turn it to shared cooperation and direct foreign investment. On the other hand, it was shown that the relation between entry mode and the specific- industry risk and the specific-home country risk was not significant.

- **Mirzakhani & Noori (2013) also conducted a research called "Identifying the most Important Factors Increasing Investment Risk in Iranian Industry Sector and Presenting Strategies to Reduce their Negative Effects" and came to the following conclusions:**

In order for the research results to be documentary, the research was done as a fieldwork and through distribution of questionnaires among the custodians of industry and the experts of the executive administrations related to industrial investment in the country, and identified the most important factors increasing the scope of investment risks. It was shown that instability in execution and frequent changes in the rules and regulations related to the industry, the problems related to payments of the industry sector for taxes, premium, custom tariffs and charges, the consequences of the fluctuation of macro economy indexes such as inflation and the exchange rate and so on have had the greatest impact on the fluctuation of investment risk in the industry sector of the country.

3-2- Foreign Studies

- **Romano et al. (2008) investigated risk with regard to drivers' gender and came to the following conclusions:**

According to the studies previously done in this regard, men have more accidents of motor vehicles than women. However, the research showed that the females' number of accidents had been decreasing. The increased rate of females' accidents has been due to and parallel with the increased number of women drivers. The risk taking of young female drivers was shown in the

research to be higher than that of other groups of females.

In a research called "Risks in Islamic Banking", Arifin et al. (2008) came to the following conclusions:

They investigated the nature of risks, measurement and different ways of managing them in Islamic Banking in 14 countries. The research showed that different types of risks in Islamic Banking are the same as traditional banking.

- **Santori (2009) did a research called "Risk Identification and assessment", and came to the following conclusions:**

The best way to identify and assess strong and secure risk includes a multi-part system. Depending on the special position of the company, the types of risks and the resources available, this system can provide a comprehensive picture of the risks that the company faces and different ways of dealing with the risks. Simultaneously, this process can act as an important part of the risk culture of the company.

- **Hatfield & Fernandes (2009) did a research called "The role of risk-propensity in the risky driving of younger drivers" and investigated the role of drivers' age in risks and came to the following conclusions:**

Younger drivers show a riskier driving behavior than older ones. They have more propensity for risk-taking and avoid dangers less than older drivers. This group have more motivations for risky driving. Among these factors are getting experience, excitement, achievement of fame and reputation, self-confidence, recklessness, inattention to danger, energy depletion and hurrying up to reach the destination.

- **Daniel et al. (2014) also did a research called "Anticipating New Sources of Systemic Risk in Insurance", and came to the following conclusions:**

The results of this article show that the insurance laws and regulations should be coordinated with the prospect of systemic risk in insurance. Moreover, legislators and regulators should avoid control structures that are based on limited understanding of this danger, whether this is related to "non-traditional insurance", which has been defined merely to include CDs and assure financial guarantee, or it is based exclusively on insurances "for very major failure". However, the increased complexity and insurance communication and financial

affairs effectively create a unique and integrated system, and it is likely that the systemic risk will be created in new and different forms. The nature of the rules and regulations of insurance needs adaptation with these changes.

4. The Research Findings

Using descriptive statistics, we analyzed first the demographic data of the questionnaire and then the data related to the questionnaire items.

Table 2: The Demographic Findings of the Research

Demographic variable	Explanations	Frequency	Percentage	Demographic variable	Explanations	Frequency	Percentage
Gender	Male	65	17.5	Job	Free	123	33.2
	Female	306	82.5		Worker	156	42
Age	Below 25 years	13	3.5		Employee	33	8.9
	Between 25 and 35	132	35.6		Farmer	6	1.6
	Between 35 and 45	177	47.7		Driver	53	14.3
	Over 55 years	17	4.6	Between 700 and 900 thousand Toman	64	17.2	
Education	Below diploma (high school degree)	25	6.7	Between 900 thousand Tomans and one million and one hundred thousand Tomans	188	50.7	
	Diploma	143	38.5	Between one million and one hundred thousand and one million and three hundred thousand	77	20.8	

					Tomans		
	Associate degree	78	21		More than one million and three hundred thousand Tomans	42	11.3
Insurance	Between 1 and 3 years	64	17.3	Loss history	Yes	163	43.9
	Between 4 and 5 years	148	39.9		No	208	56.1
	Between 5 and 10 years	62	16.7	The loss type received	Car (body)	127	34.2
	Over 10 years	97	26.1		Cargo insurance	11	3
History in other insurance companies	Between 1 and 2 years	228	61.4		Health insurance	156	42
	Between 3 And 4 Years	30	16.2	Third party and excess insurance	77	20.8	
	Between 5 And 6 Years	73	19.7	The place of regulating the policies	Representatives	84	22.6
	Over 6 Years	10	2.7		The central branch of Isfahan	287	77.4
Policies issued	Fire Insurance	12	3.2	The factors of company selection	Advertising Media	15	4
	Car (Body)	163	43.9		Recommendation by others	107	28.8
	Accidents	2	0.5		Via the agencies' offices	217	58.5
	Health insurance	132	35.6		Through consultation with the staff of the central branches	32	8.6
	Life	16	4.3				
	Third party and excess insurance	35	9.4				
	Liability	11	3				

5. Conclusion

The first hypothesis: There is a significant relationship between personal characteristics (age, gender, education, level of income, job etc.) and tendency to different types of insurance. In order to test this hypothesis, we examined the correlation of the variables of the type, rate and history of loss, and the job, level of education, gender and age of the insured people of the sample and as shown in the table:

There is a significant relationship between personal characteristics (age, gender, education, level of income, job etc.) and tendency to different types of insurance.

The second hypothesis: There is a significant relationship between personal characteristics (age, gender, education, level of income, job etc.) and loss.

In order to test this hypothesis, we examined the correlation of the variables of the type, rate and history of loss, and the job, level of education, gender and age of the insured people of the sample and as shown in the table:

There is a significant relationship between personal characteristics (age, gender, education, level of income, job etc.) and loss

The third hypothesis: There is a significant relationship between insurance prices and the risk degree of activities.

In order to test this hypothesis, we examined the correlation between the number of insurances, capita insurance, capita loss and coefficient of loss (degree of risk) concerning different types of insurance and the research findings show that:

- There is no significant relation between no two of the variables regarding the fire insurance.
- There is no significant relation between no two of the variables regarding the car body insurance.

- There is no significant relation between no two of the variables regarding the cargo insurance.
- There is a significant relation between the variables of the policies number and insurance capita regarding the insurance of money, but the relation among the other variables is not significant.
- There is a significant relation between the variables of the policies number and insurance capita regarding the insurance of accidents, but the relation among the other variables is not significant.
- There is a significant relation between the variables of the insurance capita and loss capita regarding the health insurance, but the relation among the other variables is not significant.
- The relation between no two of the variables regarding the life insurance is not significant.
- There is a significant relation between the variables of the policies number and loss capita regarding the third party and excess insurance, but the relation among the other variables is not significant.
- The relation between no two of the variables regarding the ship (body) insurance is not significant.
- The relation between no two of the variables regarding engineering insurance is not significant.
- There is a significant relation between the variables of the insurance capita and loss capita regarding the liability insurance, but the relation among the other variables regarding liability insurance is not significant.

6. The other goals of the research

1. The position of Iran Insurance Industry in the insurance industry of the country

According to the statistical yearbook of 2013, the insurance industry of the country has had the following performance during the last five years:

Iran Insurance Company (the public sector) has in sum had 70488/6 billion Rials and 18 percent of rise

in comparison with the previous year, allocating 43.49 percent of the market share to itself, after which stands Asia Insurance with 9.73 percent of the market share. The non-public sectors have had 56.51 percent of the market share. The paid loss of Iran Insurance has been 51530/6 billion Rials, allocating 49.03 percent of the market share with 31.82 percent rise in comparison with the previous year. The loss coefficient of Day Insurance Company has been 159.9 percent, Melat Insurance has been 124 percent, Tousee (Development) Insurance has been 116.9 percent, Iran Insurance Company has been 95.26 and Saman Insurance has been 92.1 percent. Among the insurance companies, the highest loss coefficient

belonged to Day Insurance Company with 159.92 percent, and the lowest loss coefficient belonged to Taavon (Cooperation) Insurance Company with 6.80 percent. The largest number of the issued policies belonged to Iran Insurance Company with 42.48 percent, whereas the smallest number belonged to Parsian Insurance Company with 3.08 percent. In terms of the number of paid loss, the highest number of loss paid belonged to Iran Insurance Company with 68.65 percent. The rate of turning to Iran Insurance Company in three last years The number of policies issued between 2011 and 2013 shows the rate of turning to Iran Insurance Company in Isfahan Province.

Table 3: The rate of turning to Iran Insurance Company in three last years

Insurance companies	Year	Asia	Alborz	Iran	Dana	Razi	Saman	Karafarin
	90	464924	146526	512004	58975	74039	24091	83595
The number of policies issued	91	502620	152879	540736	78569	53045	20200	79181
	92	676522	171410	568453	75195	76199	21143	80283

7. Suggestions for Future Studies

While doing the present research, we noticed new gaps regarding the research subject that can be filled by future researchers interested in doing research in this field and other related areas. For this purpose, the following suggestions are expressed:

- Doing the present research in some different cities and comparing the results,
- Because of largeness of the present subject due to coverage of different variables such as age, gender and so on, it is recommended that each research be focused on only one variable so that the results obtained from the fieldwork can be more precise and the subject can be less complicated.
- Future research can study the effect of each one of the identified risks on temporal goals.

- It is recommended to design models to predict systematic and non-systematic risks in insurance companies,
- It is recommended to research on the methods of assessment and reduction of risks in insurance industry for different types of insurance,
- It is recommended to investigate the factors affecting the improvement of risk management in the Insurance Industry,
- It is recommended to investigate the methods of analyzing and assessing the loss arising from risks in the insurance industry for different insurance types, and
- It is recommended that the risk resources be compared between several insurance companies, for instance between Iran Insurance Company and Asia Insurance Company.

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