



# Risk Identification and Classification of Different Types of Insurance Companies (Case Study of Insurance Companies in Iran)

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<p><b>Abstract</b></p> <p>Consideration of risks insured the probability of that event. Risk is an event happening and the possible origin of the problem may be damaged. The goal is to identify and classify the different types of insurance risk Persian Insurance Company is investigating. In this research techniques using analytic hierarchy (AHP) is proposed with respect to the factors influencing the papers have been collected, prepared in cooperation with experts and have been put to the test. The results showed that the coefficient of the variable importance of disaster risk: 0.336, Chain Risk: 0.204, there are potential disasters: 0.214, rare risk of: 0.108 and Long-Term Risk: was 0.136.</p>	<p><b>Original Article</b></p> <p>Received 15 Dec. 2013 Accepted 20 Dec. 2013</p> <p><b>Keywords:</b> Risk, Insurance Industry, Risks, Risk Management, Persian Insurance Company</p>
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## INTRODUCTION

This leads to the possibility that the desired outcome is not reached, the call risk. This new situation can be a damaging event, or an inhibitory factor or any danger or disorder or instability pathway activity. Briefly, the uncertainty and unpredictability of the occurrence of damage occurring to the circumstances call risk.

In terms of risk for different resources, different definitions have been proposed, but all of the receivers have the same meaning. Some of these definitions are mentioned below:

In other categories, risk is divided into three types:

1. One. Risky business: cost or loss of income and asset failures and weaknesses of the business, there is a routine operation. Example of a device failure.
2. Organizational risks: damage caused directly or indirectly by one or more of the following:
  - ✓ Incomplete or failed internal processes
  - ✓ People
  - ✓ Systems
  - ✓ External events
3. Risk IT: is the lack of automation systems, network or other IT resources on core business processes negatively affected.

## Literature

**Risk:** Risk is the probability that an event will occur. There are very few conditions that constitute a sufficient cause in chronic and infectious disease (a sufficient cause being one where a specific exposure will always result in a particular outcome). If there were, it would not be necessary to deal with risk, which often deals with varying degrees of necessary cause (a necessary cause being an exposure which must always precede a particular outcome), though it can also deal with exposures that are neither necessary nor sufficient causes[1].

## Type of the risk

**1. Financial Risks:** A financial risk is related to a project's failure due to a financial or economic cause. A cause of this nature is related to the funding of the project and the commercial, competition, loan, and demand issues, etc. (e.g. cost overruns, taxation, imposition of restrictions, etc.).

**2. Technical Risks:** A technical risk is related to a project's failure due to a technical cause. Failure is considered as a shortfall in succeeding to meet the project's requirements. Technical cause is anything

associated with the process of the project's development and operation.

**3. Legal Risks:** A legal risk is related to a project's failure due to deficiencies in the legal and institutional framework. The institutional framework comprises: (a) organizational issues of both the country where the project is established and the concessionaire and (b) political issues. Organizational and political issues are introduced as different categories in other risk classification approaches. However, in terms of context, there is a significant overlap between legal, organizational, and political issues.

**4. State-rooted Risks:** The entity of the state is a very critical parameter in the development of a BOT project and a significant source of risks. A state-rooted risk is related to a project's failure due to actions or omissions by governmental and public agencies.

**5. Concessionaire-rooted Risks:** The entity of the concessionaire is the most important factor for the development of a BOT project and a significant source of risks. A concessionaire-rooted risk is related to a project's failure due to issues that are in control of the concessionaire and the rest entities involved in the project excluding the state.

**6. Miscellaneous Risks:** There are some risks that may originate from a context that either involves more than one of the abovementioned sources of origin (e.g. prolonged negotiation period) or none of them (e.g. force majeure). Therefore a miscellaneous risk is related to a project's failure for reasons, which are beyond the context of all the above groups [2].

### Insurance and risk management

Two different safety management principles are possible: consequence based safety management will claim that the worst conceivable events at an installation should not have consequences outside certain boundaries, and will thus design safety systems to assure this. Risk based safety management (usually called risk management) maintains that the residual risk should be analysed both with respect to the probabilistic and the nature of hazard, and hence give information for further risk mitigation. This implies that very unlikely events might, but not necessarily will, be tolerated [3].

Risk management is not new tool and a lot of standards and guidance documents are available [4, 5, 6, 7, 8, 9, 10].

Risk management is a relatively recent corporate function. Historical milestones are helpful to illustrate its evolution. Modern risk management started after 1955. Since the early 1970s, the concept of financial risk management evolved considerably. Notably, risk management has become less limited to market insurance coverage, which is now considered a competing protection tool that complements several other risk management activities. After World War II, large companies with diversified portfolios of physical assets began to develop self-insurance against risks, which they covered as effectively as insurers for many small risks. Self-

insurance covers the financial consequences of an adverse event or losses from an accident [11, 12, and 13].

### Tables

Present study is a descriptive survey research study. Also, since the results of this study would be more practical to be used, a research case study is applied. The population of managers and insurance experts Corp is in the criteria used to prioritize their ideas. And cluster random sampling method has been determined.

Assay reliability research or inconsistency rate models AHP by Mr. hour was presented as the maximum eigenvalue ( $\lambda_{max}$ ) of the matrix A couple of final calculated and then for the matrix, a constant value as index values incompatible random matrix is proposed . ( $1.49 = RI$ ). Reads the same value, reliability inconsistency rate is the quotient of the random matrix incompatibility inconsistency index is obtained. If the result was less than 0.1, we say that there has been no consistency and reliability is required (Table 1).

**Table 1.** Conflict rate

$\lambda_{max}$	10.05
$CI = \frac{\lambda_{max} - n}{n - 1}$	0.005
$CR = \frac{CI}{RI}$	0.003
Since CR is smaller than 1.0, compatibility is accepted	

After gathering the required data were extracted, analyzed and tested. At this stage, using the techniques of AHP, the weights of criteria and indicators are calculated after determining the coefficient of each factor, the variables are ranked using AHP technique. Assessment criteria of this study are shown in the table below:

**Table 2.** Criteria for evaluating research

Name	Alter	Options
Q1	Catastrophic risks	Risk of flood insurance
Q2		Earthquake Insurance Risks
Q3		Insurance risk weather conditions (storms)
Q4	Chain Risks	Risk insurance
Q5		Risk of fire insurance
Q6		Aboard Insurance Risk
Q7		Risk of third party insurance
Q8	High potential incidents	Auto Body Insurance Risk
Q9		Risk insurance industry
Q10		Insurance Risk Ship
Q11		Insurance Risk plane
Q12	Rare risks	Industrial fire insurance risk
Q13		Risk of civil liability insurance
Q14		Export credit insurance risk
Q15	Risks of long-term	Life Insurance Risk
Q16		Risk Insurance Money
Q17		Insurance Risk Engineering

### Analyzing the Data:

Table 3 matrix of paired comparisons of key indicators to identify and classify the different types of Insurance

Corp in Iran is a risk that the data are normalized matrix is placed on the table.

**Table 3.** Analyzing Data

Key factors to identify and classify the different types of insurance risk	Catastrophic risks	Chain Risks	High potential incidents	Rare risks	Risks of long-term	Total	Weight
Catastrophic risks	0.346	0.463	0.389	0.248	0.236	1.682	0.336
Chain risks	0.142	0.189	0.290	0.198	0.203	1.022	0.204
High potential incidents	0.159	0.116	0.179	0.285	0.333	1.072	0.214
Rare risks	0.157	0.107	0.070	0.112	0.095	0.541	0.108
Risks of long-term	0.196	0.124	0.071	0.157	0.133	0.681	0.136

## CONCLUSION

Among the different measures of the five main components of disaster risk, the risk chain, there are potential accident risks are rare and long-term risks have been determined. According to the responses of experts and the hierarchical analysis, weight each of the criteria for catastrophic risks, the risk chain, there are potential accident risk as rare and long-term risks include: risks catastrophic: 0.336 , chain Risk: 0.204, despite the high potential incidents are: 0.214, rare risk of : 0.108 and long-Term Risks: 0.136 Therefore, the criteria for catastrophic risks maximum weight is determined as the most important component in the fields of property and liability insurance premiums and risks have been acknowledged .

But each of its components has been divided into the importance of each of them is obtained as follows:

- Risk factors in scoring and prioritizing options for catastrophic risks, flood insurance , earthquake insurance risk and insurance risk, weather conditions (hurricanes) rank first and third respectively were acquired importance.

- Risk factors in scoring and prioritization options chain, third party insurance risks, insurance risks aboard, fire insurance risk and insurance risk rank first and fourth, respectively, were acquired importance.

- In scoring and prioritization component options there are potential accident risk hull insurance, car insurance industry risk, insurance risk, insurance risk, aircraft and ships ranked first and fourth, respectively, were acquired importance.

- Scoring and prioritize the risks to the long-term component choices , money , insurance risk , insurance risk, insurance risk engineering and engineering rank first and third respectively were acquired importance .

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