

Investigation of Insurer Companies' Risk in Transportation-Marine Insurance under Sanction (Case Study: Dana Insurance Company)

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ABSTRACT

The present research aims to investigate risk in insurance companies in transport-marine insurances under heavy sanctions (case study: Dana Insurance Company). The research is an applied study in terms of goal and it is a descriptive survey in terms of data collection methodology. Statistical population of the research included managers and experts of insurance industry. A census was conducted to select respondents. 35 individuals were surveyed. A researcher-made questionnaire was used for data collection. The questionnaire evaluated insurers' risks in five dimensions: marketing-related factors, distribution-related factors, financial factors, factors related to organizational abilities and factors related to individual skills. The validity of the questionnaire was verified by content validity analysis and reliability of the questionnaire was verified by Cronbach's alpha. Friedman Variance analysis test and one-sample t test were used for data analysis. Results of Friedman test showed that marketing-related factors are in the first rank and factors related to individual skills are in the fifth rank. Furthermore, results of the factors analysis showed that all factors had average scores above 3 and t value was reported to be significant in (0.05) level.

KEYWORDS: Risk, Insurance, Transportation-marine, Sanction

INTRODUCTION

The first modern insurance was designed in 14th century and it applied to marine insurances. At that time, marine commerce was developed by virtue of "adventurous loans". An applicant would borrow an amount of money equal to the value of the commodity he/she wanted to transport by sea. If the ship and cargo would arrive at destination safe and sound, the borrowed amount would be returned to the lender by addition of a large interest. The interest concerned marine transportation risks because if the cargo would go missing, neither the primary amount nor the interest would be returned. In fact, this was not "insurance" but it was a kind of credit transaction in which the lender was always in risk of losing his or her capital. The interest calculated in this way was unstable as well as unreal with respect to its main value. Therefore, it caused abuses (David, 1974). Therefore, Catholic Church banned adventurous loans in 1234. However, another way should have been found for investment in transportation in order to be able to develop this part of commerce economically. "Insurance agreement" was developed in a new form. Banks received a constant amount of money to guarantee the value of the ship plus the value of its cargo (risk of total capital) against drowning risk (Arthur et al, 1989). In Iran, the present form of insurance was introduced in 1890 when the concession of establishment of insurance was given to a Russian citizen until 1935 when Iranian National Insurance Company was established (Karimi, 2007). In 1978, totally 17 insurance companies were active in Iran and Insurance industry was nationalized by an act passed by Revolution Council just like banking and other great industries in 1979 (Barhaman, 2007). 1988 was announced as day of insurance. In this date, four insurance companies i.e. Asia, Dana, Alborz and Iran started their activities (Karimiyan, 1992). The results of interviews conducted by managers of Dana Insurance Company revealed that the number of the insured is reducing and liquidity and profit of the company is reducing heavily. In this competitive space, many organizations and individuals enter and exit (kamal Khani and Amin, 2010). It is interesting to hear that some exporters try to use plane instead of ship because it is more cost-effective and cheaper and contains a 20% discount and customers try to find an opportunity which has lower risk and cost (Mark et al, 1988). The present research also provides a model for identification of insurance companies' risks in transportation-marine insurance policies and eliminating or minimizing the insurers' loss under international sanctions. It must be noted that whether higher efficiencies and returns involve higher risks or not. However, as it was mentioned, the present research tries to provide a solution for reducing insurance companies' risks under sanctions.

Research Background

- Dashtakipour (2010) conducted a research titled "insurer and the insured commitments in marine insurance laws" and introduced and compared insurance terms and emphasized on the importance of civil law. For instance, article 153 of civil law states that the insured is sentenced to pay for complimentary compensation in addition to delay damage when he/she is spiteful and causes damage and may be sentenced to pay above the insured capital. He found that the roles of the insurer and the insured are effective in insurance contract.
- Zamiri (2009) in a book titled "the importance of risk management and insurance for managers" paid special attention to relationship between management and risk identification.
- Karimi (2003), in a book titled "insurance generalities", defined marine insurance as follows: "marine insurance is an action in which one side of contract (insurer) receives a premium from the other side (the insured) and accepts an obligation to the insured's benefit or a third party. This obligation is abided by only when the aforementioned risk takes place as a result of marine transport of shipping. Since risk means absence of certainty about damage, many opinions exist around this subject. he classified the characteristics of marine transport risk in four categories: 1) it takes place enough, 2) it is not concentrated, 3) it is congruent, and 4) it is supplied adequately. He stated that risk reduction techniques are called risk management techniques and defined them as: all attempts made for changing or reducing risk which reduces damage potential are called risk management techniques. He also believes that commercial ships are the cheapest means for transportation and can be under insurance coverage.
- Sharl de Martinet also found that insurance services cover capitals of commerce owners which are directly exposed to risk and also provide coverage for ship owners and transport officials. Furthermore, he found that marine policies are based upon statistics and information just like other areas of business. Therefore, insurers do calculations so that they gain profit at the end of fiscal years and they usually share risks and heavy obligations (Tirovantha Poram, 2006).
- Jean Fransva Otrovil (1998), in his book titled "theoretical and practical fundamentals of insurance", investigated relationship between risk and insurance and tried to estimate total costs of risk management. His studies showed that principles of risk management are the same regardless of the size of companies' activities. Further, he studied relationship between risk and insurance and tried to estimate total costs of risk management.
- French insurance research group conducted studies and published a paper on marine transportation insurance and found that shipping cargos means rapid transport with modern organizing and at the shortest time. Therefore, when we talk about cargo transport by sea, this means exposure to unpredictable risk either in voyage or when cargo is settled in temporary storages. Both insurer and the insured should use a kind of insurance that covers all risks. Of course, it must be noted that by all risks, we do not mean guarantees for all damages because some damages may not be included or mentioned in policies (Zovill et al, 2007).

RESEARCH METHODOLOGY

The present research tries to provide a model for identification of transportation insurance risk under sanctions. Therefore, it is considered as an applied study and is conducted to identify and create helpful and successful processes. In quantitative analysis, a descriptive survey methodology was used for evaluation. The present research tries to provide a model for identification of risks in insurer companies in transport-marine insurance under sanctions for Dana insurance company. Dana Insurance Company faced sales and income reduction. The questionnaires were distributed among high-rank and middle-rank managers of Dana Company after consulting with experts and professors. A census was conducted in the present research to collect data and sample was the same as population. 35 questionnaires were distributed among sample members. Library study, interview and questionnaire were used for data collection. Identification of the insurer companies' risks (distribution-related factors, marketing-related factors, financial factors, organizational ability and individual skills) were independent variables and insurer companies' risks in marine-transportation insurance was dependent variable. The questionnaire contained 25 questions all of which were based on five-point Likert scale from very much (5) to very low (1). Then, the questions were investigated by experts and some adjustments were made on the questions in order to verify content validity of the questionnaire. Cronbach's alpha-which is used for calculation of internal consistency of measurement tool-was used for testing reliability of the questionnaire. Since Cronbach's alpha was greater than 0.7 for all constructs, it can be concluded that the questionnaire has an acceptable reliability. Kolmogorov-Smirnov test was conducted to investigate the distribution of variables. In the next stages, Friedman test was used for ranking variables and one-sample t test was used for investigation of risk-related factors (all in SPSS software).

Main Research Questions

- How are risk-related factors?
- Do all risks existing in sanction conditions have the same importance?

Findings

We developed research hypotheses (all risk-related factors mentioned below have significant impacts on the company's risk under sanctions in marine-transportation insurance) and investigated causal relationships between research variables. we used structural equations modeling technique. Results showed that the conceptual model was appropriate.

Furthermore, we used Kolmogorov-Smearnov test for investigation of normality of research variables. H0 indicated normal distribution of data and H1 shows the reverse. Results of table 1 show that significance values of all variables were above 0.05. Therefore, normal distribution hypothesis is supported and H1 is rejected.

Table 1. One-sample Kolmogorov-Smearnov test for determination of normality of data distribution

individual skills	organizational abilities	financial factors	distribution	marketing	dimension	
35	35	35	35	35	N	
1.086	.796	.688	1.223	.794	K-S values	
3.5286	3.8914	3.1600	3.8743	3.2400	mean	normal parameters
.54155	.49311	.61892	.81902	.69756	SD	
.189	.551	.731	.100	.553	significance level	

- How are risk-related factors?

Table 2: results of one-sample t test for investigation of risk factors

Sig	df	t	Std. Deviation	Mean	N	
.000	34	27.479	.69756	3.2400	35	marketing-related factors
.000	34	27.985	.81902	3.8743	35	distribution-related factors
.000	34	30.206	.61892	3.1600	35	financial factors
.000	34	46.687	.49311	3.8914	35	factors related to organizational ability
.000	34	31.054	.68402	3.5905	35	factors related to individual skills

One-sample t test was used for investigation of the hypothesis. In the above table, results show that average values of all factors in all dimensions were above 3. T value was significant in (0.05) significance level. Therefore, it can be concluded that the empirical mean value is significantly different from theoretical average. Furthermore, since the empirical mean value was above theoretical average, it can be concluded that the research hypothesis is supported and risk is high in all dimensions.

- All risks which exist under sanctions have the same importance.

Table 3: results of Friedman variance analysis test

Sig	Kai-squared	Df	Mean Rank	dimensions
0.000	66.217	5	2.64	marketing-related factors
			4.86	distribution-related factors
			2.51	financial factors
			4.76	factors related to organizational ability
			3.74	factors related to individual skills

Friedman test was used for investigation of the second hypothesis. Results of this test show that there is a significant difference between risks existing under sanctions in (0.01) error level. Therefore, H0 is rejected and H1 is supported. As it can be seen, "financial factors" has the lowest and "distribution-related factors" has the highest mean value. Other dimensions like marketing-related factors, individual skills and organizational ability are in middle ranks.

Conclusion

Results showed that the aforementioned factors play important roles in insurer companies' risks. Distribution-related factors and factors related to organizational abilities are the most effective and other factors were also effective and were in the subsequent ranks. Technology advancements have resulted in reduction of commercial obstacles ahead of global commerce. Therefore, companies and organizations do commerce with abroad and are therefore confronted with losses and risks like terrorism, abduction, currency-related risks, export and import restrictions, communicational and technological problems and financial markets weaknesses. On the other hand, risk management in a globally-active company is confronted with challenges like failure to precisely evaluate risk in some developing countries, absence of advanced insurance industry in some countries, limitations ahead of insurance coverage and restrictions ahead of buying insurance due to religious reasons.

Therefore, globally-active companies try to find solutions for globalization of risk management and organization of international insurance and planned for different methods the most popular of which is that a global insurer cooperates with local insurers in the insured's country so that a coordinated global coverage is obtained.

The following recommendations are presented considering the results:

- Presentation of more appropriate advertisements by Dana Company in order to acquire a better image
- Identification of customers' tastes and acquisition of knowledge about market needs changes
- Commitment to customers in order to attract their trust and satisfaction
- Increase in financial power of the company by virtue of developing markets and attraction of more customers
- Attention to accuracy of customers' insurance activities
- Proper management of transportation-marine insurance services costs for preventing from possible insolvency under sanctions
- Implementation of programs specifically designed to resist sanctions for reduction of costs like workforce redundancy, improvement of working hours, reduction in payments
- Foreign investment in countries which are not banned by sanctions to cooperate in order to develop market
- Improvement of company's managers' capabilities under sanctions
- Application of competitive prices with lowest profit margin
- On-time and proper information use for identification of situations and new information
- Ability to make rapid decisions in market
- Better application of IT and other aspects of e-commerce
- Absorption and employment of individuals which have crisis management skills and improvement of the present managers to this end
- Employees' encouragement to help the company with solving difficulties by encouragement mechanisms
- Use of environmental analysis techniques and more familiarity with opportunities and threats and organizational strengths/weak points

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