

An Empirical Study on the Elements of Commercial Marine Insurance Claim Acceptance

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Abstract: Commercial marine insurance is an important part of commercial insurance and an important guarantee for ocean shipping. However, claims disputes on commercial marine insurance have been increasing this year. Due to the particularity of this type of insurance, there are often a large number of complex evidence submission and evidence identification processes in the claims disputes. It is therefore important to summarize the evidence in current claims of this type. Herein, we have selected 100 current judgment cases of relevant cases, made statistics on the evidence identification part in the judgment documents, and carried out statistical analysis.

1. Introduction

With the process of my country's reform and opening up, my country's insurance industry and shipping industry have shown a trend of vigorous development. However, the development has also brought more and more disputes over maritime insurance claims. Taking the relevant retrieval cases on the Judgment Document Network as an example, the number of related cases has nearly doubled in the past five years.

At the same time, disputes in many cases have arisen in the submission and identification of evidence. This is due to the particularity of this type of insurance, such as various types of evidence and large disputes over evidence recognition. Similar phenomena have also been widely reported by scholars, and similar phenomena have appeared in the fields of compulsory traffic insurance personal injury, motor vehicle insurance, and medical insurance. And because the marine insurance evidence is often more professional and more complex, this problem is special compared to other insurance claims. Therefore, we draw on the methods of other insurance empirical research at home and abroad, investigates the relevant data of my country's current maritime insurance claims, and conducts an empirical study on the characteristics of claims settlement evidence.

2. Theoretical Analysis

The data we use here comes from the Wolters Kluwer Advanced Legal Information Database, using the keywords "marine insurance" and "all risks" as keywords to search for cases to download judgment documents, get multiple judgment documents, check each judgment document, filter out the required data. We manually identified the following seven key influencing factors based on the literature.

Captain's Certificate: According to the "Administrative Measures for Fishery Crew of the People's Republic of China", fishery crew members must hold the corresponding employment certificate, otherwise they cannot carry out the corresponding fishery and transportation work. The vast majority of ship fishing insurance claims need to ensure that the accident is an accident, and there is no serious human fault, otherwise the claim will not be paid. Obviously, there is a lack of employment certificates required by laws and regulations, and it is a human fault to carry out the corresponding fishing

industry in violation of regulations. Accidents that occur under the above circumstances often do not meet the conditions for settlement of claims. Therefore, in this study, whether to hold the "Master's Certificate" is used as an independent variable to study its correlation with the success of the claim.

Crew manning certificate: "Ship Minimum Safe Manning Certificate", according to the "Maritime Traffic Safety Law of the People's Republic of China" and "The People's Republic of China Minimum Safe Manning Rules for Ships", the owner of a marine fishery vessel should be equipped with a standard quota sufficient to ensure the ship safe and qualified crew, otherwise prohibited from leaving the port. The vast majority of ship fishing insurance claims need to ensure that the accident is an accident, and there is no serious human fault, otherwise the claim will not be paid. Obviously, the lack of the safe manning certificate required by laws and regulations, and the violation of the corresponding ship and fishery are human faults. Such accidents generally do not meet the conditions for compensation. Therefore, in this study, whether to hold the "Minimum Safe Manning Certificate of Ships" is used as an independent variable to study its correlation with the success of the claim.

Vessel registration certificate: "Ship Registration Certificate", "Marine Vessel Inspection Certificate Book", according to the "Regulations of the People's Republic of China on the Registration of Fishing Vessels" and the "Regulations of the People's Republic of China on the Inspection of Fishing Vessels", marine fishing vessels should hold the corresponding ownership registration certificate and The certificate issued by the survey agency after the technical inspection of the ship, otherwise the corresponding fishery and transportation work cannot be carried out. The vast majority of ship fishing insurance claims need to ensure that the accident is an accident, and there is no serious human fault, otherwise the claim will not be paid. Obviously, there is a lack of employment certificates required by laws and regulations, and it is human fault to carry out corresponding fishing and fishing in violation of regulations, and accidents under such circumstances often do not meet the conditions for compensation. Therefore, in this study, whether to hold the "Ship Registration Certificate" and "Marine Vessel Survey Certificate Book" are used as independent variables to study the correlation between them and the success of the claim.

Accident investigation report: It is usually the documents

issued by the Maritime Safety Administration and other government departments, such as "Accident Maritime Investigation Report", "Sinking Ship Exploration Report", "Water Traffic Accident Conclusion" and "Reply Letter". The Guiding Opinions on Trial Work and the Minutes of the Second National Work Conference on Foreign-related Commercial Maritime Trials, and the Maritime Investigation Report, the maritime investigation materials confirmed by the parties to the maritime accident, can be used as evidence of the facts of the case and litigation evidence. According to the provisions of the "Administrative Measures of the People's Republic of China on Salvage of Shipwrecks", the marine investigation material "Surrounding and Mapping Report" confirmed by the parties to the marine accident can be used as evidence of the facts of the case and litigation evidence. According to the "Guiding Opinions on Regulating the Investigation of Maritime Traffic Accidents and the Trial of Maritime Cases", if there are sufficient factual evidence and reasons to overturn the maritime investigation report and its concluding opinions, the conclusions of the maritime traffic accident investigation cannot be used as litigation evidence. During the trial of the case, in addition to accepting the cross-examination and debate of both parties, the water traffic accident investigation conclusion must be comprehensively judged by the court in conjunction with other evidence of the case when handling the case. The qualification and level, professional ethics, and whether the materials based on it are sufficient and reliable, etc., make a decision to accept or not to accept it, and cannot blindly trust the probative force of the conclusion of the water traffic accident investigation: in terms of the validity of evidence, in administrative litigation, civil litigation. In the case, it is only a kind of circumstantial evidence, and it needs the support of other objective evidence. Therefore, the "Water Traffic Accident Conclusion" can only be used as indirect evidence. The evidence needed to judge whether a fishery insurance claim is established must be accompanied by the occurrence and development of the case, and left over to confirm whether the accident was an accident or serious human error, so these reports are needed as evidence.

Insurance documents: including accident insurance policy, liability insurance policy, risk notification. Marine insurance is a kind of insurance specially established for maritime transportation, which involves the property loss of the goods carried during the transportation of goods. Marine insurance is generally purchased by the carrier, and can also be purchased separately by the consignor as needed. According to the "China Insurance Clauses", marine insurance is divided into two categories: basic insurance and additional insurance. Basic insurance is further divided into three types: safety insurance, water damage insurance and all risks. In the event of loss of the insured goods, the insurer will be liable in accordance with the terms and conditions of the insurance category specified in the policy. The insured must provide the following documents when making a claim to the insurer: original insurance policy, bill of lading, invoice, packing list,

packing list, proof of cargo loss and price difference, inspection report and claim list. If third-party liability is involved, the relevant correspondence and other necessary documents or documents must also be provided for the recovery of the responsible party. If the interests of the insurer are affected by the failure to perform the stipulated obligations, the company has the right to refuse to compensate for the loss. Therefore, in this study, whether to hold an insurance policy, including accident insurance policy, liability insurance policy, and risk notification, is used as an independent variable to study its correlation with the success of a claim.

Proof of ship loss: The extent of ship loss needs to be certified by an authoritative institution. Based on the objectivity of the evidence, we need some reports from a legal authority, otherwise the claim will not be paid. Obviously, the lack of proof of ship loss required by laws and regulations generally does not meet the conditions for claim settlement. The certificate of ship loss includes the "Report on Clearance and Completion", "Notarization of Clearing Expenses", "Description of Ship Scrap", "Survey/Appraisal Report", "Price Inquiry Report", "Execution Notice", etc. The "Warrior Clearing Completion Report" and "Clearing Expenses Notarization" are the reports issued after the site is cleared. The "Ship Scrap Statement" is a statement used to certify the scrapping of the ship. The Survey/Appraisal Report is used to prove what parts of the ship have been lost and the cost of the loss. The "Price Inquiry Report" is a part of the original market price used to prove the loss. Therefore, in this study, whether to hold a certificate of ship loss is used as an independent variable to study its correlation with the success of the claim.

Proof of loss of goods: The degree of loss of goods needs to be certified by an authoritative institution. Based on the objectivity of the evidence, we need some reports from legal authorities, otherwise the claim will not be paid. Obviously, the lack of proof of ship loss required by laws and regulations generally does not meet the conditions for claim settlement. Proof of loss of goods includes commercial invoice for goods, packing list, customs declaration form for export goods, "Terms and Conditions of Purchase Order for Goods", "Description of Goods Scrap", "Letter of Claim", etc. Commercial invoices, packing lists, and customs declarations for export goods are used to prove the price of goods at market prices. "Goods Purchase Order Terms and Conditions" etc. are used to prove the price of the goods in this transaction. The "Description of Goods Scrap" describes the extent of damage to the goods. Therefore, in this study, whether to hold a certificate of loss of goods is used as an independent variable to study its correlation with the success of the claim.

3. Empirical Analysis

According to the results of theoretical analysis, we define the independent and dependent variables of the article, as shown in Table 1.

Table 1. Variable Definition

Variable classification	Variable symbol	Variable name	Variable definition
independent variable	X1	Master's certificate	Represented by virtual variable 1, 0
	X2	Crew manning certificate	Represented by virtual variable 1, 0
	X3	Ship registration certificate, marine ship inspection certificate book	Represented by virtual variable 1, 0
	X4	Accident investigation documents issued by Maritime Safety Administration and other government departments	Represented by virtual variable 1, 0
	X5	Application Form	Represented by virtual variable 1, 0
	X6	Certificate of Vessel Loss	Represented by virtual variable 1, 0
	X7	Certificate of loss of goods	Represented by virtual variable 1, 0
dependent variable	Y1	Claim succeeded	Represented by virtual variable 1, 0
	Y2	Proportion of compensation amount	The amount of compensation that the judgment takes effect/ claimed by the plaintiff

We first observed the variables we collected through some basic statistical characteristics, as shown in table 2.

Table 2. Descriptive statistics

variable	sample size	average value	Maximum	minimum
X1	103	0.9462	1	0
X2	103	0.9273	1	0
X3	103	1.0000	1	1
X4	103	0.9485	1	0
X5	103	0.9245	1	0
X6	103	0.7896	1	0
X7	103	0.8452	1	0
Y1	103	0.9125	1	0
Y2	103	0.7832	1	0

The multiple linear regression model is used as the verification model, and the regression models for the two dependent variables are established respectively. The models are as follows:

$$\hat{y} = \alpha_1 x_1 + \alpha_2 x_2 + \alpha_3 x_3 + \alpha_4 x_4 + \alpha_5 x_5 + \alpha_6 x_6 + \alpha_7 x_7 + c$$

Table 3. y1 linear regression

variable	coefficient	t
X1	0.419	2.378 (***)
X2	1.196	4.172 (***)
X3	0.036	1.762 (**)
X4	0.892	1.485 (*)
X5	0.128	1.925 (***)
X6	0.672	2.146 (***)
X7	0.265	1.437 (*)

Through empirical analysis, we found that in the cases we investigated, after multiple linear regression, X1, X2, X5, and X6 were significant at the level of 1%. X3 is significant at the 5 percent level. X4 and X7 are significant at the 10 percent level. It can be seen from this regression result that in the selected seven groups of independent variables, there is a significant relationship with the dependent variable claim

success. This illustrates that the seven key factors summarized in our theoretical analysis play an important role in claims disputes. Further, we take the ratio of the claim amount and the judgment amount as the dependent variable, and conduct regression analysis again, and the results are as follows:

Table 4. y2 linear regression

variable	coefficient	t
X1	1.529	0.214
X2	0.843	0.443
X3	-1.115	0.062
X4	0.425	0.035
X5	0.965	1.117
X6	0.483	1.779 (**)
X7	0.002	0.103

Through the results of empirical analysis, it is found that in the cases we investigated, after multiple linear regression, X1-X5, X7 have no significant relationship with the success of claims, which may be due to endogenous factors in the research model, or may be due to claims. There are a lot of subjective factors in the amount, and if the fair compensation price can be used instead of the claim amount as a variable research, this problem can be solved, but this is difficult to

obtain data, and further research is needed.

At the same time, in order to ensure the accuracy of the above conclusions and exclude the influence of the collinearity of variables on the conclusion, we conducted a multicollinearity test through the variance inflation factor, and the results are shown in Table 5. The results show that there is no multicollinearity effect in the model.

Table 5. VIF Result

variable	VIF
X1	4.118
X2	3.768
X3	0
X4	1.318
X5	1.942
X6	2.717
X7	1.71

4. Conclusion

In conclusion, we have screened and empirically analyzed seven types of evidence that may play a key and decisive role in the claims settlement process through theoretical analysis. The analysis results show that these seven factors have a significant relationship with the success of claims settlement, which can play a positive role in the dispute resolution of relevant insurance companies and policyholders in the future. However, we found that these factors were not significantly related to the proportion of claims claimed, which is consistent with the findings of some current studies. This is because the claimed amount is not equal to the fair compensation amount, and there are subjective factors of the policyholder, which needs to be studied in the future.

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