

INVESTIGATION OF THE ECONOMIC RISKS REASONS IN THE MARINE TRANSPORTATION

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In the current economy the factor of transport services volumes is one of the most powerful indicators of the actual situation in the general economic state of business. Marine transport services for cargo transportation are the most interesting and relatively underexplored of all types of transport services. It is this kind of transport that delivers heavy loads to long distances: to foreign countries and between the domestic ports situated on the sea fringes. Marine transportation is most frequently used where transport routes are shorter than the land ones and where other kinds of transport can't be used.

Russian Federation is a demonstrative example of the necessity to use marine transport as many kinds of the products can be delivered to the hard-to-reach areas of Siberia and Far East only by the Northern Sea Route. The obvious advantage of the marine transport is its low cost and due to this higher efficiency of the cargo delivery by sea. In addition, the cost of the transportation becomes lower with the distance increase. However while organizing the transportation you shouldn't forget about different risks which may occur during the marine transportation of cargo and due to this fact the probability of considerable losses by all the participants of this transportation process.

This circumstance defines the timeliness of the topic and trends of the scientific research. We will consider the risk kinds in the marine transportation, set up the algorithm of studying the reasons of their occurrence and analyze the environment factors influencing positively or negatively on the marine cargo transportation.

Risk is a predictive appraisal of the developing situation probable consequences. Since the middle of the nineteenth century many economists have been considering the risks types, reasons for their occurrence and the factors characterizing them. Neo-classicists of the economic theory such as Alfred Marshall, Arthur Cecil Pigou, Frank Knight, and later John Maynard Keynes postulated the risks essential basis and classification criteria. These authors paid much attention to the risk

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quantitative and qualitative assessment, to the analysis of “risk costs” to cover the possible failure of the expectations.

John Maynard Keynes, considering economic risks, stated that entrepreneurs and any business structures operate in the conditions of constant uncertainty and their profit is virtually a random variable value. There are various points of view at the nature and features of economic risks occurrence in the current theory. Many opinions are argued about the factors which are the reasons for their occurrence. Summing up the conclusions of the foreign and domestic economists the following reasons for economic risks can be indicated:

- insufficiency of information;
- random character of some economic events;
- conflict of divergent interests in the framework of the performed activity unity both between the competitors and partners;
- possible character of scientific-technical and technological development;
- spontaneous natural processes and events affecting the economic activity.

The following kinds of risks are usually related to the marine transportation:

- risk of cargo delivery dates violation;
- ecological risks;
- wreckage risk;
- catastrophes and disasters risks.

Oil transportation by a tanker fleet is the most interesting and dynamically developing segment of the marine transportation. Positive dynamics of oil transportation by tankers can be explained by two main reasons: on the one hand, stable demand for oil and oil products; on the other hand, aggressive efforts of the international oil producing companies to join the marine transportation activity.

Increasing volume of crude oil mass marine transportations – new and dangerous cargo for the environment- activated the economists’ attention to the risk management processes in this area. The primary mechanism of the risk management for the marine transport is marine transportation insurance. There are three main groups of these transportation insurances:

1. ship owners liability insurance;
2. vessels insurance;
3. cargo insurance.

Ship owners liability insurance for the environment pollution is the most important of the above mentioned.

There are special Protection and Indemnity Clubs for the insured ship owners who have the liability risk insurance coverage. Those clubs settle the variety of tasks and problems. The primary and the most important task is localization and neutralization of any polluting substance which outflow from a tanker. The clubs insure the reasonable amount of expenditures for carrying out such operations.

In addition to insurance another instrument of marine transportations risks management is the International juridical service engaging qualified specialists having high competencies in marine transportation and experienced in the international jurisdiction. Upon the occurrence of an insured event (for instance, oil outflow in the offshore zone) the juridical service representatives are able to act fast and without fail, optimizing the ship owners occurring losses and preventing a negative situation development.

However both insurance and the International juridical services are applied for protecting marine transport mainly from such kinds of risks as ecological, catastrophes and disasters risks. To identify other kinds of risks special analysis of global macro-setting should be applied. The most appropriate method of such analysis, to our opinion, is the T.E.M.P.L.E.S. methodology, in the framework of which the analysts study the external factors effecting on the oil marine transportation by the tanker fleet: T-technological, E-economic, M-marketing, P-political, L-legislative, E- ecological, S-social.

To collect the necessary information the following Russian companies were surveyed: Far Eastern Shipping Company (FESCO), Primorsk Shipping Corporation (PRISCO), Northern Shipping Company, Novorossiysk Shipping Company (NOVOSHIP), Rosneft, "MorskayaVolna", LUCOIL. The representatives of these companies (sailors, staff, specialists) were interrogated. Questions for interrogation and in the questionnaire were prepared in such a way that they could comprise all the factors relating to the T.E.M.P.L.E.S. method. The questions grouped according to the factors are demonstrated in table 1:

Table 1
The list of questions for interrogation and questionnaire

<i>Factors</i>	<i>Questions</i>
T-technological	<ol style="list-style-type: none">1. What new technologies contribute to the marine transportation risk reduction?2. Have you attended International conferences on the technologies of marine transportation development?

E-economic	<ol style="list-style-type: none"> 1. What economic factors negatively/positively influence on the marine transport development? 2. Does the rouble exchange rate influence on the cargo transportation by the marine transport?
M-marketing	<ol style="list-style-type: none"> 1. What is the investors' position towards the marine transportation? 2. Do the oil prices changes influence on its marine transportations?
P-political	<ol style="list-style-type: none"> 1. Does the sanction policy influence on the marine transportations? 2. What routes, other than Ukraine, are used for the marine transportations?
L-legislative1.	<ol style="list-style-type: none"> 1. What normative documents do you follow for marine transportations? 2. Do they influence on the marine transportation risks?
E-ecological	<ol style="list-style-type: none"> 1. Name ecological factors influencing on the oil marine transportation? 2. What consequences may occur when oil outflows in the offshore zone?
S-social	<ol style="list-style-type: none"> 1. What do you relate to social factors?

General question: Which of the factors above is the most dangerous in the marine transportations?

Final result of the qualitative analysis of the macro-setting in accordance with the T.E.M.P.L.E.S. method was the basic information for obtaining qualitative estimations of risks in the marine transportation area. For this purpose two criteria of estimates were defined. The first criteria "danger" was estimated in the range from 1—"low level of danger" up to 3 "high level of danger". The second criteria "possibilities" was also estimated in the range from 1—"low possibilities" up to 3 "high possibilities". Neutral estimation of both dangers and possibilities was zero. Estimations of all the analyzed macro-setting factors influencing on the risks in the oil transportation by the marine transport are demonstrated in table 2:

Table 2
Estimations of the marine transportation risk factors according to the interrogation and questionnaire outcomes

<i>Factors</i>	<i>Danger (D) or possibility (P)</i>	<i>Score (D/P)</i>
Technological (mean score)	P	1,6
Pipeline construction.	P	3,0
Communication technologies development, navigation systems application.	P	2,0

Logistical projects development.	P	3,0
Deficiency of oil production and oil refining technologies development.	D	-1,0
Training grounds setting up to develop technologies.	P	1,0
Economic (mean score)	P	1,0
Investments into the marine transportation.	P	2,0
Oil production volumes.	P	2,0
Variations of investments inflow into the oil industry.	D	-1,0
Marketing (mean score)	D	-0,3
Oil price changing.	P	1,0
Exchange rates variability.	D	-3,0
Irregularity of oil consumption.	P	1,0
Political (mean score)	D	-2,3
Global geopolitical situation.	D	-2,0
Instability of political relations with some countries.	D	-3,0
EU energy program.	D	-2,0
Legislative (mean score)		1,6
Licensing of hard-to-extract and non-conventional oil reserves deposits.	P	1,0
Agreements with different countries on oil transportation.	P	3,0
Penalty hardening for oil outflow.	P	1,0
Ecological (mean score)	D	-1,7
Availability of a warm deep water sea port in the country.	P	3,0
Ice navigation period durability; wind and wave conditions; tides and currents; meteorological restrictions; fogs frequency.	P	2,0
Convenient geographical location.	P	2,0
Weather conditions and seasonal variations.	D	-3,0
Oil products harmfulness. Corrosiveness.	D	-2,0
Danger of oil products outflow.	D	-3,0
Social (mean score)	P	1,8
Plenty of holidays.	D	1,0
Single educational system for sailors.	P	1,0
Mutual information exchange about available new technical tools.	P	2,0
Traditions of work in the marine area.	P	3,0
International scientific and practical conferences on the marine transport development and oil transportation.	P	2,0
New educational programs in "marine transport management".	P	2,0

The investigation outcomes demonstrated in table 2 show that the most significant for the oil marine transportation are technological and social factors. They are the basis which should be paid special attention to while risk management arranging in the investigated area. Political factors connected with the geopolitical force-major and economic factors specified by high volatility of the currency rates and unstable dynamics of oil prices are also the important factors.

In conclusion we should note that while studying the risks of the global macro-settings in the marine transportation and while arranging the access to the practical field by the specialists' interrogation and questionnaire we applied actual principles of situational, transverse, cause-and-effect, and other kinds of analysis, ethnography strategy and case study. There were no hard standards during the investigation and flexible transition from one method to another was welcomed.

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