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# A SYSTEMATIC APPROACH TO SOLVING THE PROBLEM OF LACK OF COMPETITIVENESS OF THE RUSSIAN MANUFACTURERS IN THE SHIPBUILDING INDUSTRY

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**Abstract.** The reasons of non-competitiveness of domestic shipbuilders, as well as related problems are considered and the ways of their solution are proposed by means of system mechanisms of interaction of participants with the help of a single information space of investment project selection.

**Keywords:** shipbuilding industry, non-competitiveness, information space of choice, system mechanisms of interaction.

## INTRODUCTION

In recent years, Russia has seen a constant decline in shipbuilding production, an increase in the import of ships and a decrease in their exports, which is reflected in table 1. Considering the competitiveness at the industry level, it is necessary to take into account the known approaches to its assessment [1].

The non-competitiveness of civil products of the shipbuilding industry is caused by the influence of a number of negative factors.

## METHODS

The system analysis showed that these factors are manifested in the process of interaction of the parties involved in the construction of new vessels [2, 3, 4] (see Fig. 1).

1. The traditional practice of concentration of the domestic shipbuilding industry on military orders does not allow the industry to sufficiently develop the civil segment of shipbuilding.

Table 1

Indicators of the shipbuilding industry for 2014-2017

Indicators	2014	2015	2016	2017
The number of ships built in total, units	252	200	168	150
including civil fleet	132	113	103	86
Import of shipbuilding products, billion dollars	1,42	1,25	2,00	2,37
Export of shipbuilding products, billion dollars	0,73	0,62	0,63	0,55

Source: on the basis [3]

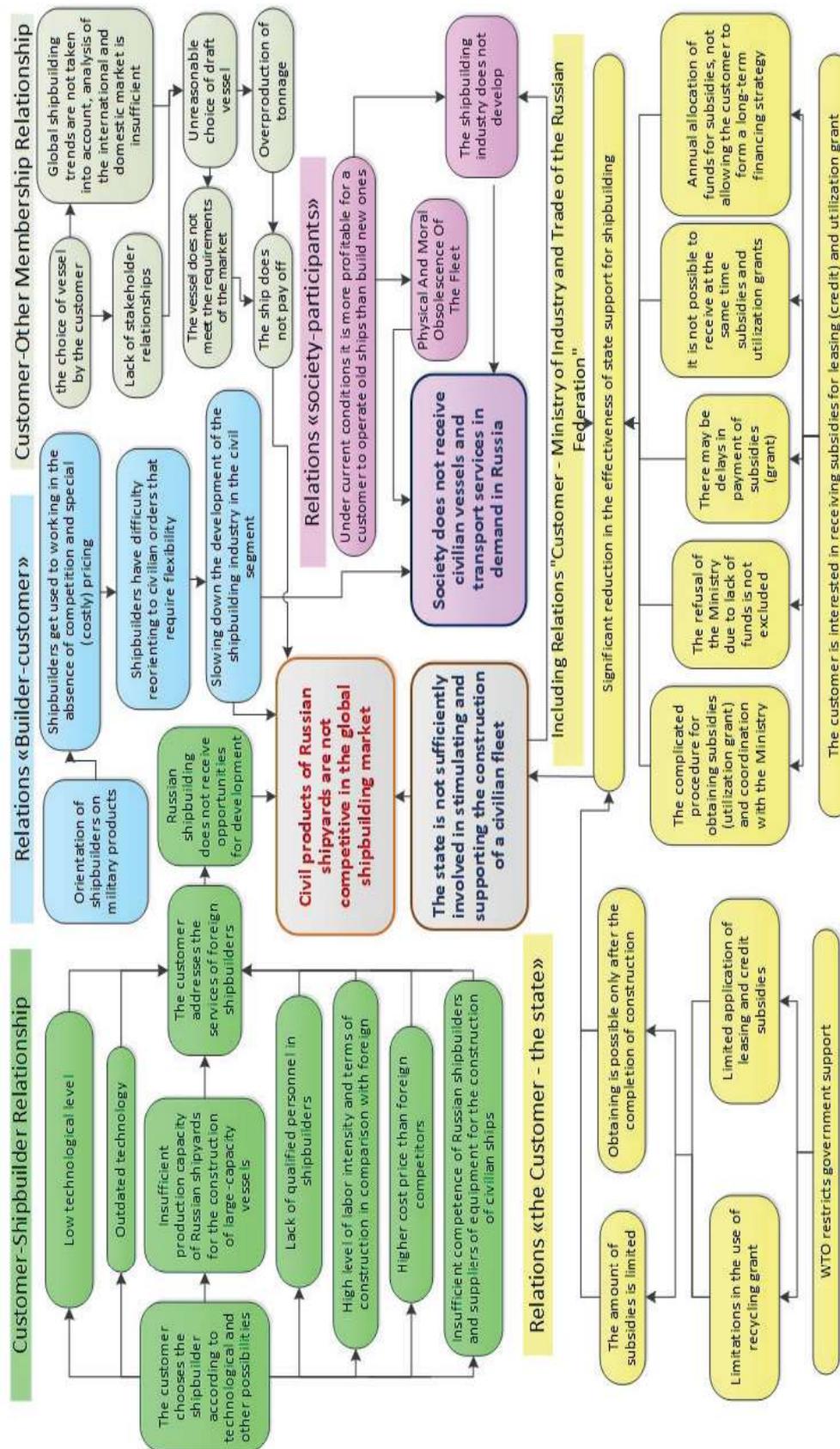


Fig. 1 Factors leading to non-competitiveness of Russian civil shipbuilding on the international market  
Source: compiled by the autho

2. Russian customers make orders for new vessels mainly in South Korea and China (90%), and much less at domestic shipyards (10%) [6].

3. Outdated technologies and high deterioration of equipment (according to experts, 70% [7]) multiply increase the complexity of shipbuilding production, its cost and production time.

4. The existing production facilities do not allow the construction of large-capacity cargo ships.

5. The industry is experiencing a shortage of qualified production and engineering personnel, there is an obsolescence of competencies due to backward technologies and equipment. The age of the staff is above average (not enough young professionals).

6. Investment in the development of production facilities is carried out mainly by the state, mainly in the military segment of shipbuilding, other sources of investment are involved in small.

7. Innovation is slow and insufficient.

8. Dependence on imported components and weak development of import substitution.

9. Fragmentation previously established in the Soviet Union relationships, failure of new information linkages between economic actors in shipbuilding.

10. Government involvement in the management and support of the industry does not bring the expected efficiency.

These and other factors are presented in Fig1 indicate the need for systemic changes in stakeholder relationships in the shipbuilding industry. They are expressed in the construction of systemic mechanisms that determine the interaction of stakeholders. Studying the nature and frequency of problems at the stages of the life cycle of an investment project, it should be recognized as the most effective application of system mechanisms at the pre-investment stage of the investment project [8].

To select an investment project, it is advisable to form a single information space in which the interaction of the customer, the project organization, the shipbuilding enterprise and other parties interested in the project would take place.

Currently, there is a unified information system (hereinafter-UIS) of procurement on the official website [www.zakupki.gov.ru](http://www.zakupki.gov.ru) ahhh! EIS can serve as an information space for selecting an investment project in the shipbuilding industry. On this site provides information about procurement, which the is a separate unit for the research, the experience-but development work "evaluation Criteria of bidders".

When forming criteria in EIS the rules established by the Federal law of 05.04.2013 N 44-FZ "about the contract system in the sphere of purchases of goods, works, services for ensuring the state and municipal needs" shall be observed [9]: 1) the quantity used for determination of the supplier (contractor, contractor) criteria of an assessment shall be not less than two; 2) at least one non-cost criterion of an assessment of applications of participants shall be established; 3) at least one cost criterion should be established for the evaluation of applications of participants [9].

## RESULTS

The customer shall establish selection criteria taking into account the interests of all parties involved in the project. For this purpose, it is proposed to use the generalized selection criteria "satisfaction", "efficiency", "effectiveness", established by the international quality standards ISO 9000 [10], the structure of which includes indicators of multi-criteria selection, deciphering each generalized criterion.

Provides information that is passed between participants in the EIS, with-holds the following information: 1) description of the situation of investment; 2) determining the approach of the customer in accordance with the type of situation, multiobjective choice; 3) determine preferences of the customer in terms of satisfactoriness, efficiency, effectiveness; 4) the preferences of customer in a list and ranking of indicators; 5) alternatives [11].

The practical application of these requirements will ensure the transparency of the investment project selection and coordinate the actions of all stakeholders.

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