

**INDUSTRIAL ENTERPRISES UNDER CONDITIONS OF UNCERTAINTY AND RISK:  
EMPIRICAL INVESTIGATION IN RUSSIA AT 2005-2007**

**РОССИЙСКИЕ ПРОИЗВОДСТВЕННЫЕ ПРЕДПРИЯТИЯ В УСЛОВИЯХ РИСКА И  
НЕОПРЕДЕЛЕННОСТИ: ЭМПИРИЧЕСКОЕ ИССЛЕДОВАНИЕ В 2005-2007 ГГ.**

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**Abstract:** Results of correspondence interrogation of a representative sample of the Russian industrial enterprises by the uniform questionnaire are considered. Revealing of the relation of heads of the Russian enterprises to an economic risk management problem was the purpose of this empirical research. The formulation of questions of the questionnaire was based on the operational theory of the economical risk management.

**Key words:** industrial enterprises, economical risk management, operational theory of the economical risk management.

**Аннотация:** Приведены результаты заочного опроса представительного массива российских производственных предприятий по единой анкете. Целью эмпирического исследования было выявление отношения руководителей российских предприятий к проблеме управления экономическим риском. Формулирование вопросов анкеты базировалось на операциональной теории экономического риска.

**Ключевые слова:** производственное предприятие, управление экономическим риском, операциональная теория управления экономическим риском.

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The majority of known definitions of risk recognize that the source of a risk is uncertainty. In contrast to F. Night [1], we consider that the economic risk is a characteristic of purposeful activities in the conditions of uncertainty. That is, the economic risk is a specific general economic category which, taken in its entirety, reflects the measure of reality of an undesirable deviation from the purpose of the economic activities and the size of losses caused by such a deviation.

Recently there appeared methodical materials and economic risk management standards for the achievement of the purposes of an organization in the conditions of uncertainty [2]. However, we did not find any works in which the real attitude of managers from a sufficient representative set of domestic industry enterprises towards the economic risk is adequately presented.

Possibilities to reveal by objective methods how managers in Russia treat the economic risk phenomenon are extremely limited. No quantitative information reflecting the influence of risk on economic behavior of enterprises is included into forms of obligatory statistical or tax reporting used by economic entities.

At the same time, the absence of information on the real attitude of managers towards the economic risk makes it very difficult to develop comprehensive methodical recommendations for risk management.

In fact, there is only one technique for the analysis and description of the above mentioned processes now. It is the empirical inspection: a special procedure for gathering information at the enterprises. Such a procedure has been developed and realized in the course of a questionnaire survey conducted in 2005-2008 [3].

As a methodical basis for empirical studying the real attitude of managers to risk in the Russian business environment a management economic risk concept was used, based on the methodology of system-integration theory of enterprise [4] and the operational approach to risk analysis [5, 6], which was developed in the Central Economics and Mathematics Institute of the Russian Academy of Sciences. When we speak about the methodology of the system-integration theory of enterprise or firm, we mean that risks may be found in any sphere of enterprise activity, not only in finance. And we analyze the consequences incurred by risks in any sphere of enterprise economical activity.

The final version of the questionnaire includes 24 questions in four sections: «Estimation by respondents of the current risk level», «Estimation of the level of organizational and methodological support of works on risk analysis at the responding enterprise», «Estimation of importance of works on risk analysis and risk management for the responding enterprise» and «General information about the responding enterprise».

The questionnaire was dispatched annually to approximately 900 domestic industrial enterprises found in a database of the Russian Economic Barometer. The survey was based on the «one enterprise – one respondent» principle. The sectoral and regional distribution of the sample of enterprises surveyed and also the respective pattern of ownership distribution correspond approximately to the All-Russia indices of entire ensemble average over the sizes of industrial enterprises.

About two thirds of the sample refer, according to Russian standards, to the group of middle-size enterprises, with the number of employees from 100 to 1000, 80 percent of the enterprises operating in the market more than 10 years. The sectoral structure of the sample (according to the Russian statistical classification) has not changed for three years. The sample was characterized by steady dominance (about one third) of machine-building and metal cutting branches of industry.

The results of the survey were processed using standard statistical methods.

For lack of time, only most interesting examples and most important conclusions will be presented. The examples are as follows.

Estimation by respondents of the current risk level. Most respondents (more than 80 percent) consider the activities of their enterprises risky. As can be seen on fig. 1, the total estimation of the level of risk of the economic activities tends to monotonously increase with the decrease of proportion of the extreme judgment, that is «All economic decisions of our enterprise are risky». Though, in comparison with an earlier period of 5 years ago the respondents (about 60 percent) have not noticed any essential changes in the economic activities risk level.

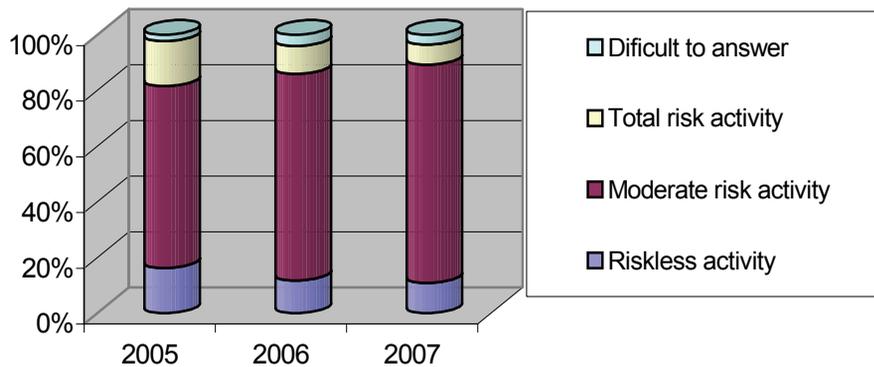


Fig.1. Distribution by risk level activity (%)

It is paradoxical that while recognizing that their economical activities are somewhat risky, about two thirds of the enterprises surveyed (63.1, 75.5, and 72.0 percent) have no risk management function (the blue column), and most of them (the dark blue column), as can be seen on fig. 2, are not planning to perform risk management. At the same time, fig. 2 shows that the proportion of those who completely rejects the need in such a function (the

yellow column) is insignificant and decreased considerably over the years of the survey.

It is reasonable to suppose that such a tendency will maintain in the nearest future and the growth of the proportion of the enterprises that start introducing and using the function of risk management will grow.

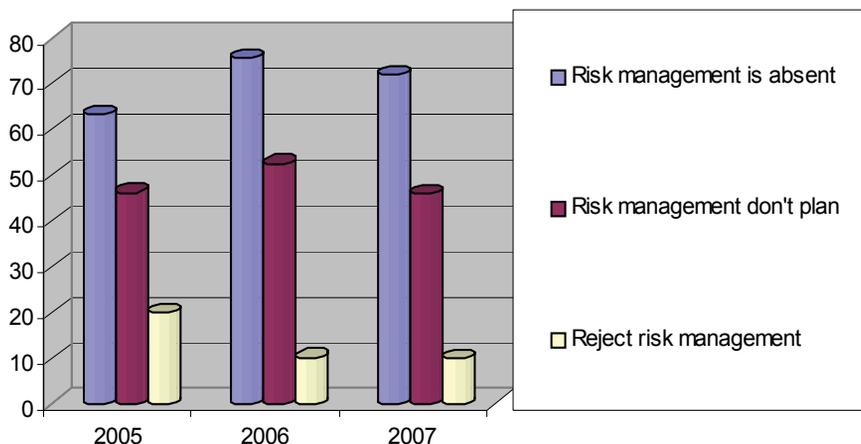


Fig. 2. Attitude toward risk management

Why is there such an indifferent or even negative attitude to risk management? The respondents see the main reason in the absence of traditions, appropriate training of domestic managers (43.8, 60.0 and 57.7 percent) and that efficient methodical recommendations are lacking or unavailable (on the average about 60 percent of the respondents). Besides, there is a sufficiently steady group of respondents (30.8, 22.5 and 27.9 percent, that is, about a quarter) who specified that they are unaware of any evidence of positive results of risk management at other enterprises. Besides, some respondents believe that the reasons can root in the existing practices of depending mainly on noneconomic methods of business subjects, or in unwillingness of top managers of the enterprises to bear extra costs and take measures (organizational and others) aimed at preventing more serious losses.

The statements of respondents concerning the reasons of riskiness of economic activities show that a considerable part of the interviewees (from 54 percent in 2005 to 39 percent in 2007) consider external risk factors (RF) most dangerous. Such an opinion has a tendency to stabilization over the last two years. The proportion of those who is inclined to see a greater danger in internal problems of the enterprise is by 3 to 4 times less. At the same time, the proportion of the enterprises for which threats from external and internal RF are equally significant is increasing appreciably. It is worth mentioning a worrisome tendency of increasing (from 6.2 to 22.5 percent) the proportion of those who finds it difficult to an-

swer the question on the relative importance of the external and internal RF. Unfortunately, insufficient duration of the survey does not allow to draw any certain conclusion.

While the respondents were working on their answer choices, they can select several answer choice. As a result, the internal RF in 2006-2007 has the following distribution by the degree of decrease of the importance: RF in the sphere of realization of production, RF in the supply sphere, RF due to errors of the personnel and infringement of industrial discipline, and RF in the system of management of the enterprise.

Among the external risk factors in 2005 the respondents specified the RF caused by legislative actions of the Federal and regional authorities in the economic sphere. The survey in 2006-2007 showed that actions of Federal bodies made comparatively less trouble to businessmen, while threats from local authorities, according to the respondents, did not become less significant. Apparently, the risk factors caused by activities of the Federal authorities became more predictable over the three years.

The RF of introducing technological, product, etc. innovations by competitors was put forward on the first place in 2007. Such an opinion is likely to be caused by production growth, toughening of the competition and connected with the increase of innovative activities of enterprises.

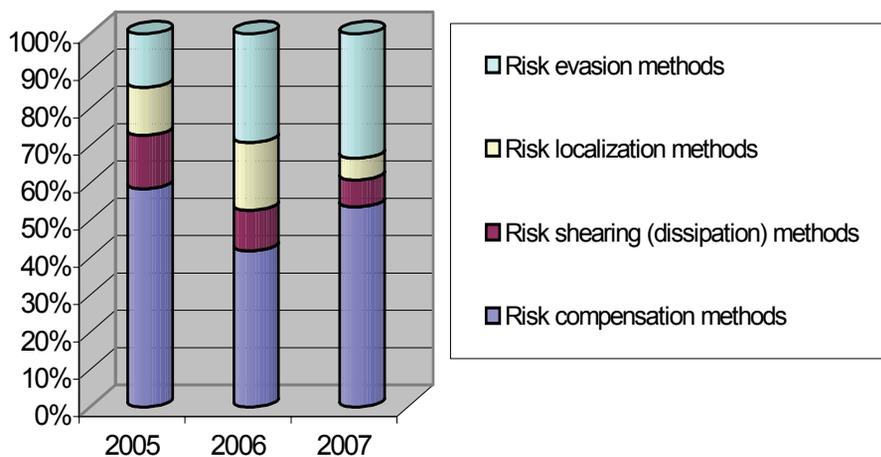


Fig. 3. Risk Management Methods

We tried to find out, what ways of overcoming of negative effects of economic risk are used by heads of the enterprises. What risk management methods do the domestic enterprises prefer? The surveys have shown that compensation methods of risk management (dark blue) are increasingly used (Fig. 3). Typical examples of such methods are strategic planning, creation of system of reserves, etc. Eventually, Russian enterprises are increasingly use methods of evasion from risk (avoidance of risky de-

isions or insurance of business risks – green column), which were used by about a half of responding enterprises by 2007. Another methods, for example, risk localization – yellow and risk sharing (risk dissipation) – violet column, – used seldom.

The empirical information received allows one to formulate the attitude of the domestic industry management to economic risk management as follows:

1. Most respondents make risky decisions in their economic activities and perceive adequately the terminology of the operational theory of economic risk. The opinion that managers should pay greater attention to risk management does not dominate, but the number of supporters of this point of view is increasing. The answers received evidence the understanding by managers of the Russian enterprises of major problems of risk management and adequate perception by them of the conceptual instruments of the operational theory of economic risk management. However, the institutional environment of risk management has not been formed so far in Russia.

2. For the three years, the attitude of Russian managers to risk management has not undergone essential changes.

3. The respondents seem to be more anxious about external risk factors in contrast to internal ones. Apparently, for a small and medium enterprise the internal risk factors are easier to identify as well as provide adequate preventive measures than to monitor the external economic environment with a view of revealing actual external risk factors (threats).

4. A wide application of methods of analysis and management of economic risk in practices of Russian enterprises is hindered mainly by the absence of traditions as well as lack of efficient, available and proven methodological recommendations. It is shown that soft forms of institutional construction are more preferable for rooting prospective economic risk management institutes in Russia.

5. The enterprises that have introduced the function of risk management seek to institutionally establish it: they set up a special division, work to specific schedule, make the one of top managers responsible for realization of the risk management function, etc.

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