

The Mechanism of Formation of the Resource Potential of a Functioning Enterprise Taking into Account the Risk

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Abstract—The article presents a comprehensive study of the mechanisms for the formation, implementation and effectiveness evaluation of the resource potential use. The evaluation is based on a multilevel system of indicators taking into account the specified characteristics of the corresponding resources. While working out this evaluation system it required developing the terminology for the theory of the resource potential formation and realization as a determined system. Potential components according to the organization levels and risk types were emphasized. Methodical bases of the enterprise resource potential evaluation were improved. The quantitative significance of investment risk subtypes was defined. Main potential directions of the enterprise development were determined taking into account all available opportunities and limitations. Potential control indicators system was worked out taking into account the influence of the internal and external environmental factors. The use effectiveness of the company's resource potential was evaluated on the basis of an unambiguous quantitative assessment using the taxonomic method with the help of a composite index based on the additive functional dependence. Final evaluation of the resource potential management system was made taking into account the impact of investment risk. Factors which are the basis of dividing enterprises into four groups were determined and systematized. Mechanism for estimation of the resource potential use efficiency as well as recommendations for its further development were proposed.

Keywords—resource potential, investment risk, effectiveness of the use, composite index.

I. PROBLEM STATEMENT

The main condition of the current stage of development is not the quantitative increase in the potential, but the rational use of the one that exists and its increase in the directions where it is possible to obtain socio-economic returns. The development and competitiveness of any enterprise depends on the assessment of the use of all available resources. In this regard, a quantitative assessment of the degree of the enterprise resource potential use will allow to make timely decisions in order to optimize the components of the resource potential and to search for internal reserves of development. The analysis of the publications devoted to the estimation of the efficiency of the enterprise resource potential use showed that the approaches based on the matrix model, SWOT analysis, competitive environment analysis, integrated resource-market approach and others, have their limitations and application difficulties. In most cases, they do not take into account the risk factors that

influence the formation and return of the resource potential [1-13, 17-19].

II. PROBLEM SOLUTION

The resource potential of the enterprise is the aggregate of the resources of the economic entity at its disposal, the resources that characterize the possibility of a given socioeconomic system to implement a purposeful activity taking into account the influence of the internal and external environment factors [14]. Based on the analysis of the internal environment of the aggregate of a number of functioning enterprises, the composition of the resource potential was revealed. It is an ordered set of the enterprise's possibilities, with the use of which the realization of its basic functions is ensured (Table 1). At a time when the market is not ideal, the impact of environmental factors limits the use of each type of potential. These restrictions can be represented by the appropriate type of risk.

TABLE I. COMPOSITION OF THE RESOURCE POTENTIAL BY SUBSYSTEMS

| Components | The enterprise potential by organization levels | Components |
|----------------------------------------|-------------------------------------------------|-----------------------------------|
| Property potential | Financial and economic level | Financial and economic risk |
| Sales potential | | |
| Logistic potential | | |
| Financial potential | | |
| Investment potential | | |
| Innovation potential | | |
| Scientific and technological potential | | |
| Intellectual potential | Organizational and economic level | Social risk |
| Potential of enterprise life cycle | | |
| Human resources potential | | |
| Market potential | Organizational and business level | Criminal risk |
| Competitive potential | | |
| Productive-progressive potential | Technical and technological level | Industrial and technological risk |

potential was tested using the data of a hundred enterprises of the Khabarovsk Territory and it is presented in Table 3. The enterprises are divided into four groups based on the factors restraining their overall economic growth: the high cost of materials, structures and products; insolvency of customers; high level of taxes; shortage and deterioration of construction machines, insufficient machinery and equipment leasing.

TABLE III. THE POTENTIAL OF AN ENTERPRISE ACCORDING TO ORGANIZATION LEVELS

| The potential of an enterprise according to organization levels | Enterprise | | | |
|--------------------------------------------------------------------------------------------|------------|------|------|------|
| | 1 | 2 | 3 | 4 |
| Financial and economic level | 0.88 | 0.80 | 0.94 | 0.74 |
| Organizational and economic level | 0.45 | 0.49 | 0.51 | 0.76 |
| Organizational and business level | 0.61 | 0.81 | 0.95 | 0.69 |
| Technical and technological level | 0.91 | 1.0 | 0.91 | 0.95 |
| Comprehensive assessment of the enterprise resource potential taking the risk into account | 1.896 | 2.18 | 2.27 | 2.25 |

According to the classical definition, efficiency is the relationship between the results obtained and the resources involved, reasoning from this, the condition of the effectiveness of the enterprise resource potential use is determined by the following inequality:

$$E = \frac{\Delta\Pi}{\Delta P} \geq 1 \tag{3}$$

where E - effectiveness; $\Delta\Pi$ - change in financial results of the enterprise activities; ΔP – change in the level of the enterprise resource potential.

If $E > 1$, then the enterprise resource potential is used quite effectively and the enterprise has the opportunity to increase its value. If $E < 1$ the enterprise resource potential is used inefficiently and it is necessary to revise the enterprise development strategy taking into account external and internal factors. If $E = 1$ the resource potential is used quite effectively but there are no grounds for its further increase.

To evaluate the effectiveness of the potential use a "conditional standard model" should be created. The standard in this case will be the best value of the indicator for each type of potential among the enterprises in question. The results of the calculation and the effectiveness evaluation of the resource potential use are presented in Table 4.

Based on the evaluation of the efficiency of the enterprise resource potential use, it is possible to adjust its value and form a set of measures for its further development.

TABLE IV. CALCULATION OF THE EFFECTIVENESS OF THE RESOURCE POTENTIAL USE

| The potential of an enterprise according to organization levels | Enterprise | | | |
|-----------------------------------------------------------------|------------|---------|---------|---------|
| | 1 | 2 | 3 | 4 |
| Financial results change | 0.88 | 0.34 | 0.26 | 0.31 |
| Change in the level of the resource potential | 0.87 | 0.42 | 0.32 | 0.34 |
| Efficiency of the resource potential use | 1.01 | 0.81 | 0.81 | 0.91 |
| Checking the condition of effectiveness | $E > 1$ | $E < 1$ | $E < 1$ | $E < 1$ |

III. CONCLUSION

In the economic practice of functioning enterprises, incomplete use of resources and opportunities for their processing is observed. Real consumption of resources is always less than the existing possibilities of use. In this regard, options for the possible use of available resources are presented. Absolute opportunity, when the size of resources to the full allows you to realize the activity. Real - additional growth of resources does not affect the increase in performance; unit costs per unit of production sharply increase. Effective - the results of activities are achieved by minimum resource costs. In order to effectively use the potential, it is necessary not only to know its composition and species, but also the conditions for using resources in which it is possible to achieve the desired result.

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