Development of Mechanisms of Value Creation and Risk Management Organization in the Conditions of Transformation of the Economy of Russia

Mikhail V. Khachaturyan, Inga A. Koryagina, Eugenia V. Klicheva

Abstract—In modern conditions, scientific judgment of problems in developing mechanisms of value creation and risk management acquires special relevance. Formation of economic knowledge has resulted in the constant analysis of consumer behavior for all players from national and world markets. Effective mechanisms development of the demand analysis, crucial for consumer's characteristics of future production, and the risks connected with the development of this production are the main objectives of control systems in modern conditions. The modern period of economic development is characterized by a high level of globalization of business and rigidity of competition. At the same time, the considerable share of new products and services costs has a non-material intellectual nature. The most successful in Russia is the contemporary development of small innovative firms. Such firms, through their unique technologies and new approaches to process management, which form the basis of their intellectual capital, can show flexibility and succeed in the market. As a rule, such enterprises should have very variable structure excluding the tough scheme of submission and demanding essentially new incentives for inclusion of personnel in innovative activity. Realization of similar structures, as well as a new approach to management, can be constructed based on value-oriented management which is directed to gradual change of consciousness of personnel and formation from groups of adherents included in the solution of the general innovative tasks. At the same time, valuable changes can gradually capture not only innovative firm staff, but also the structure of its corporate partners. Introduction of new technologies is the significant factor contributing to the development of new valuable imperatives and acceleration of the changing values systems of the organization. It relates to the fact that new technologies change the internal environment of the organization in a way that the old system of values becomes inefficient in new conditions. Introduction of new technologies often demands change in the structure of employee’s interaction and training in their new conditions. During the introduction of new technologies and the accompanying change in the value system, the structure of the management of the values of the organization is changing. This is due to the need to attract more staff to justify and consolidate the new value system and bring their view into the motivational potential of the new value system of the organization.

Keywords—Value, risk, creation, problems, organization.

I. INTRODUCTION

In a world economy that is characterized by growing competition, even market leaders are fighting to achieve growth targets at the expense of innovations. As costs increase, companies begin to spend less on incremental innovations (associated with making minimum changes to existing products and services) and allocate more funds from their shrinking budgets to research and development for breakthrough innovations (solutions related to the development of radically new products and services). However, breakthrough innovations bear essential risks. Thus, it is also obvious that on the basis of these breakthrough innovations, owners and managers have an opportunity to create a new model of organization value management, and a risk management system that in the long-term will allow to stimulate the profit markup of the organization.

In modern conditions, it is obvious that the management of values based on the commercial and design instruments of management become a key element of development by owners and managers of innovative methods and the methodologies necessary for the formation of a risk measures package of risk management at developing new production. Introduction of the management values mechanism allows owners to integrate valuable components into the management of the organization by means of use of two aspects on which the processes of management values are based: design of cost and design of expenses. Modeling of values assumes the analysis of what is necessary for clients from the point of view of features, efficiency or other attributes (i.e. the cost offer of a concrete product, including pricing). Modeling of expenses, on the contrary, involves the analysis of all expenses of a concrete product and development of strict models for a decrease in these expenses at each production phase and realization of finished goods [1].

It is important to note that the specified instruments of value creation and risk management are used by many organizations both in Russia, and in the world; however, often these methods are applied separately, which reduces the efficiency of control systems and complicates the process of value creation added of the organization for the owners. In this regard, the authors believe that to implement the tasks to reduce costs, stimulate sales growth, increase profits and improve the effectiveness of risk management, it is necessary to use the methods described above at the beginning of the product development process. Besides, these methods need to be applied repeatedly at each iteration of design — not only
during initial development, but also throughout all life cycle of a product — to increase efficiency of values modeling and pricing of finished goods.

II. CONCEPT DEVELOPMENT

In modern conditions, organizations that function in all sectors of the economy tend to grow through innovation. However, it is important to note that in most cases, administrative decisions in the field are implemented with rather low efficiency. Within the preparation of the present article, the authors have surveyed managers of 100 Russian companies. The main conclusion of this research says that in most of the largest Russian organizations which are declaring the status of innovative companies, there is practically an absence of communication between expenses on research and the processes development of the organization and the final financial performance.

Within this research, all organizations objects have been divided into three groups:

- First group of organizations can be named "Finders of requirements". This group is including organizations which use the information about the clients was collected during operating activities for creation of the new ideas of a product.
- The second group of organizations can be named "Readers of the market". This group is including organizations that create value by means of the additional innovations introduced in products which have already proved the value in the market. It is a more careful approach that includes meticulous monitoring of the markets, client segments and competitors.
- The third group of organizations can be named "Technological drivers". This group is including the organizations which substantially depend on the internal technological capabilities on development of new products and services to other organizations, which includes this group. They apply the approach named "inside out" which consists in developing production of the supreme technological value and expecting that opening will satisfy the known and unknown needs of existing and potential clients.

It is important to note that in modern conditions, all three models are equally effective and reliable instruments of both the creation of the organization values and risk management. At the same time, in modern conditions it is obvious that the business model "the finder of requirement" which is inherent in the first group of innovative organizations is the most consistently successful. During the research, it has been established that Russian organizations realizing this business model could achieve much steadier financial performance than their competitors adhering to other above-mentioned business models.

According to the authors, use of the business model, "seeker of requirement", will allow for the easier adaption of organizations to the conditions of implementation import substitution programs that are realized in Russia.

In modern conditions, a key problem in the creation of values systems and risk management is the engineering of the most effective ways of creation and deployment of innovative approaches, both in the management processes and production. However, in view of the limitations of the structure in the Russian market, successful implementation of innovations and development of new products is becoming an increasingly multifaceted problem [2]. In the process of transition to a new economy, the important task of value creation and risk management systems of an organization is to reduce the cost of incremental innovation as a percentage of total revenue and transfer most of the investment costs of the organization to breakthrough innovations. Obviously, in this case, leading Russian companies are trying to get new competitive advantages. At the same time, it is also important to note that although such decisions in most cases create conditions for the creation of new values of the organization. And, consequently, can be used for increasing the value added of the organization for the owners. On the hand implementation, this decision is associated with a significant amount of new types of possessory risks [3]. Thus, it is possible to draw a conclusion that in the conditions of transition to new technological way of processes of values creation, developments of innovations and risk management, acquire the status of key tasks which the owner needs to decide to coordinate during formation and development of organization management models. The logic of economic knowledge formation means that development and deployment of both administrative, and production innovations becomes the urgent need for the realization of any business model and as organizations are increasingly focusing attention within these business models given to the creation of values based on breakthrough innovations, the risks, which relate to implementation of such administrative decisions only, will increase. It is obvious that for the minimization of these types of risks, modern organizations need to increase the efficiency of management mechanisms, introducing tools of possessory risk management at the earliest stages of the development process of products and services.

At first sight, realization of management processes of risks can seem to be contradicting the idea of breakthrough innovations because the processes of development and deployment of innovations in theory must be exempted from any restrictions and should be characterized by full freedom. However, in modern conditions, on the contrary, the ability of a control system of an organization to operate risks effectively is directly connected with realization of its innovative potential. Existence in the model of possessory management of an accurately structured system of identification and assessment, analysis and risk management focuses the attention of the owners, managers and personnel of the organization to need for coordination of processes development and deployment of any new product or service with the true needs of the client [4], [5].

It is possible to draw a conclusion that in modern conditions, risk management is tools in the hands of owners and managers which establishes true borders of innovations and guarantees that the received products or services will be
coordinated to the general strategy of the organization and will allow the organization to create both new values in the organization, and value for clients.

III. RESEARCH METHODS

In the condition of changing technological structures, risk management requires the creation and implementation of a complex mix of measures and mechanisms that allow the processes of value creation to be combined with the processes of identification, assessment, and risk management. One of the aspects of such methodology, according to the authors, can be integration into mechanisms of classical risk management, analysis and value creation, which are based on price and cost modeling. This integration is based on a comprehensive means of building a relationship between the company's portfolio strategy and the processes of risk management and value creation. Companies that implement this methodology use commercial and project levers to determine the ideal portfolio of the product, develop detailed cost models for these products, and rigorously track the levels of these costs at all stages of the value chain. Thus, the use of such an integration model of the owner’s management system of the organization provides the most appropriate set of measures and methodologies that are necessary for organizations to manage risks during the development of innovative products. It is important to note that this model of the owner’s management system is most significant and necessary at the initial stages of creating innovations. It is common that at this initial stage, many companies face difficulties and make mistakes in formatting the innovation strategy, thus they inefficiently spend considerable amounts of time and capital on new products without a clear understanding of the specific features that the client wants to receive. The main difficulty is that these features can be developed, but if the management system is not efficient enough, they may not be formulated or registered. Another circumstance that may occur is that the owner and managers may not have the complete information that customers will be willing to pay for innovative product features.

To solve the problems, described above, in the opinion of the authors, the mentioned methods can already be applied: projecting values and designing costs. The methodology of value creation involves analyzing what customers demand in terms of features, efficiency or other attributes (that is, proposing the value of a product, including pricing). On the other hand, cost design requires analyzing all costs for a product and developing rigorous models to reduce these costs at each point of the value or cost chain creation. At the same time, it is obvious that in modern conditions to achieve the effectiveness of value creation and risk management systems, it is necessary to use these solutions together instead of implementing them individually, as it has been happening in many Russian companies in recent years. Simultaneous use of these methods will allow organizations to accurately determine which design features of innovative products will create new real values for customers, and which will not, and how these features will affect pricing [6]. By using these tools at the beginning of the process of the new products development and carrying on implementing them iteratively during the process of bringing products to the market, as well as in the framework of its modernization, companies can avoid irreparable mistakes from the very beginning and refine their analysis of the values and risks of products over time.

IV. RESULTS OF THE RESEARCH

Implementation of both these methods and value and cost modeling requires the development of three specific groups of changes in the organization:

- formation of a new model of the organizational structure that ensures the most effective application of the integration of value management and risk management throughout the organization. This structure should balance formal and informal elements (including culture) through the application of a functional method that implies a clear definition of the roles and responsibilities of all levels and elements of the organization's management system in the process of identifying, evaluating, analyzing and creating values;

- implementation of an integrated approach to the development and conduction of consumer and market analysis that allows the company to understand the level of demand for its products and the level of availability of the organization's products for new client groups and also to describe the main cost factors for products. Application of this approach will allow the organization to accurately determine the target costs for the development of a new and the modernization of the existing product range;

- development and implementation of an integrated process of cost management, which includes reliable design and production capabilities. This process involves the following changes in the creation of products: development and maintenance of stable, consistent cost requirements that would allow to avoid the so-called "creeping elegance" (the trend associated with the introduction of more advanced features in the design process, which makes the product more expensive, than is necessary);

- introduction of the analysis’ principles of the technological features of production, which can significantly reduce costs by considering the state of production and the need for its modernization at the stage of designing the product;

- possibility of researching and evaluating the products of competitors to analyze the cost and functional components;

- applying the principles of continuous improvement to increase the value of the product in the long run. It is important to note that both analyzed methods for the development of value creation and risk management systems are approved and well-known both in Russian and foreign management practices. These methods are widely used now in a highly competitive environment in such process-oriented industries as automotive, consumer
goods, and others, which require significant investment in product design. However, most of both Russian and foreign organizations still believe that the application of these processes is possible only sequentially and that they are of little overlap [8], [9]. It is important to note, however, that the sharp increase in global competition, coupled with a change in technological structures, requires organizations to use these tools more effectively. As noted above, the most effective way of reducing costs and managing risks by using the analyzed methods is to apply both approaches in parallel at the beginning of the product development process. In addition, they must be reused at each iteration of the design throughout the product’s life cycle, so that the values created by the product, the value added to the owner and the pricing model are improved over time. In modern conditions, there are many reasons that encourage organizations to implement the analyzed methods of developing mechanisms for creating values and managing risks. Among the most common are the need to update the functionality of the organizational structure and the need to enter new highly competitive markets [7]. In the context of this article, the authors consider it necessary to highlight the main features of the ineffective use of the analyzed methods for the development of value creation and risk management mechanisms. Among examples of ineffective application of these methods, one can distinguish a situation in which many companies use cost modeling methods during the product development stage, but they do not support this analysis with value modeling methods, which makes it difficult for them to identify critical product functions that reduce the level of value added to the owners of such organizations. It should be noted that some organizations at certain stages of their life cycles prefer not to sink independently into the process of analyzing the needs of customers, but to purchase ready-made studies from specialized organizations.

It is also important to note that the key problem in the process of implementing the analyzed methods for developing the value creation and risk management mechanisms is the absence of the organization of the rigor and discipline in the financial flow management system. This happens since the basic assumptions that many companies make initially on the cost of product development and production costs are often not entirely accurate, as the analysis underestimates the changes in environmental factors that may not manifest at the initial stage of product development. However, the potential benefits of applying a systematic approach to risk management increase at the start of the implementation of plans [10]. It is important to note that the level of reduction of cost, which was achieved from the implementation of the analyzed methods to develop the process of value creation and risk management, depends on the volume of production, type of industry and the regulatory framework in which the organization operates. For example, in the automotive industry, the savings indicator ranges from 15% to 20% [10]. Organizations in the real sector that use a significant amount of outdated mechanical equipment during the process of moving to integrated electronic systems can usually achieve greater cost savings. It is important to understand that the development of value creation and risk management mechanisms is a continuous process that takes place throughout the life cycle of the product and does not stop until the product is obsolete.

V. CONCLUSION

Although the analyzed methods of developing value creation and risk management mechanisms are the main ones for solving functional problems in technical or scientific research and development of departments, in modern conditions they are of considerable interest for the development of management systems of the organization. In a changing technological environment, large organizations involve representatives of supply, sales, marketing and finance departments in the early stages of supply, sales, marketing and finance to ensure better consistency, they use analytical capabilities to simulate supplier savings, consider supply sources (or realistic alternatives) and simply more effectively implement new types of products. At the present stage, the use of cross-functional groups in the process of developing new products is a way of developing and taking preventive measures at early stages that will avoid costly failures and shortcomings in the supply chain at later stages. In addition, an effective model of cross-functional interaction is an important criterion and quality of the entire management system; it guarantees the owner the development of the most promising innovative solutions, and, consequently, an increase in the value of the organization. Thus, it can be concluded that the main condition for the innovative development of any organization is the ability of its owner, in cooperation with the management system, to identify, analyze and systematically manage risks. The introduction of value modeling and cost modeling provides a reliable basis for risk management throughout the entire innovation process and throughout the product life cycle. The effectiveness of the implementation of these methods is based on three conditions:

- existence of an organizational structure that allows to implement the analyzed methods;
- existence of a reliable system for analyzing and assessing customer’s demand and price sensitivity, as well as cost drivers for products;
- introduction of a cross-functional approach into the management system of the organization in the interaction of management levels.

It is important to note that the described methods do not limit creativity of managers and owners in the process of forming and developing management systems, but create a structure that helps them focus on development and implementation of innovations that will create additional value of an organization.

REFERENCES