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CHOICE FORMATION AT THE CONSUMER MARKET OF INNOVATIVE PRODUCTS

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ABSTRACT

The article presents the interpretation of innovative products as an object of consumer demand, which attributive signs include the initiation and (or) meeting the new needs by them, enabling to implement the individual interests of consumers; the use of "subversive" or "supportive" factors of production and their combinations; the presence of external effect in the form of exceedence of public benefits over the private ones, enabling to implement the public (collective) interest. The author has formulated the features of market of innovative products as a consumer market segment, and a classification of consumers of innovative products is presented based on the segmentation model of potential innovation consumers on the basis of individual predisposition to the innovation perception (modelofE. Rogers). The methods of state regulation of the market of innovative products are determined for the today conditions.

Key Words: *Innovative Products, Consumer Demand, Classification of Product Innovation Consumers, Innovation External Effect, Innovation Cycle, Methods of Consumer Demand Stimulation, Consumer Behavior, and Consumer Choice Management.*

INTRODUCTION

To solve the problem of increasing the costs of economic agents for the innovative products in the Russian Federation (RF), it has been developed a system of measures, encouraging the purchase of high-tech goods and services by the entrepreneurship subjects, it has been created the Registry of Innovative Products, Technologies and Services that are recommended for use, it is incorporated the institutions that ensure risk reduction of introduction of new products and enable to coordinate the developers' efforts, it is transformed the principles of functioning of educational institutions, aimed at forming a qualitatively new structure of professional competences and participating in the promotion of innovative projects, etc. Such measures are aimed at increasing the supply volume of innovative products, which is one of the key factors of their competitiveness at the national and international markets. This, in turn, causes an increase of the basic macroeconomic indicators, level indicators and quality of life of the population. According to the expert estimates of McKinsey Global Institute (MGI) - an independent research unit of McKinsey Company, the total direct benefit of mankind from the introduction of 12 advanced technologies in 2015 was comparable with the GDP volume of the USA and the states of the European Union (in the aggregate). However, a prerequisite for the effectiveness of this strategy is the availability of consumer demand for the innovative products, characterized by a number of specific features, without which it cannot be formed a closed innovation cycle and it cannot be successfully made the innovations commercialization. In the presence of the general laws of functioning of the market of innovative products, it should be recognized the existence of a number of specific features, which are determined by the subjective and objective structure of economic relations arising in the consumer market of innovative products. This makes it necessary to study the choice management tools of households,

entrepreneurship and state subjects in favor of innovative products. This has determined the choice of research topic, its theoretical and practical significance.

The ideas about the nature and forms of innovation have passed several stages in their development. At the end of XIX - the first third of the XX century it was the beginning of the formation of innovation theory in the framework of the concepts of economic growth and cyclical development of society. In the second half of the XX century it was presented different approaches to the innovation classification, it was conducted the analysis of the relationship of cyclical economy with the innovation cyclic nature through the S-shaped logistic curve that formed the basis of dynamic modeling of innovative business. Further development of the innovation theory and innovative development is associated with the papers of A. Klyaynknekht (the theory of innovation clusters on the long-term economic cycle phases), J. Van Dyne (the development of the theory of "long waves" in the economy, taking into account the infrastructure role), A.I. Anchishkin (position on the role of scientific and technological progress in the planned economy), Yu.V. Yakovets (study of the relationship of radical innovations in different sectors of society), S.Yu. Glazev (the concept of technological structures) D. Kolb (the "learning loop" model), J. Tid (the innovation process model), G. Chesbro (the model of "open innovations"), A.J. Berkkhout (the cyclic innovation model), L. Hayn (the integrated product development model), E. Rojers (the segmentation model of potential innovation customers on the basis of individual predisposition to the innovation perception) et al. The current stage of development of the innovation theory is associated with the formation of the concept of national innovation systems, the study of innovation activity management functions.

The beginning of development of the theory of consumer behavior was laid in the papers of the representatives of the classical school of political economy (the idea of commodity fetishism of K. Marx, the luxury concept of W. Sombart, etc.). Further development of the ideas about the laws and regularities of consumer choice is due to the marginalist concept, under which the cardinal and ordinal approaches have been formed. Certain aspects of consumer behavior have been investigated in the framework of the marketing theory.

METODOLOGY

The methodological basis of the study is the provisions of alternative schools of economic theory, which determine the current approaches to the interpretation of the regularities of consumer behavior, innovations and innovative development, state regulation of the economy, social welfare theory, evolution and change of technological structures. The multidimensional nature of the object of study has predetermined the need for the use of provisions set forth in the related fields of scientific knowledge - economic sociology and psychology, game theory, etc.

RESULTS

The assumption that the formation of effective consumer demand for innovative products is a necessary condition for the implementation of closed innovative cycle, restoration of sustainable economic development serves as a working hypothesis of the study.

The author proceeds from the assumption that the innovative products are the result of the value creation process (life cycle of innovation), in the framework of which the incubation and market (coinciding with the life cycle of innovative products) periods are identified with the respectively negative and positive values of net present value, discreteness and continuousness; at the same time it has been revealed that the attributive features of innovative products are the

initiation and (or) meeting the new needs by them, enabling to implement the individual interests of consumers; the use of "subversive" or "supportive" factors of production and their combinations (according to K. Kristensen), enabling to reduce the time lag between the incubation period and the point of return on investment within a market period of innovation for the manufacturers; the presence of external effect in the form of exceedence of public benefits over the private ones, enabling to implement the public (collective) interest (Badrtdinov, 2015).

The market of innovative products is treated in this paper as a segment of consumer goods (services) market, characterized by the presence of regional or sectoral boundaries, which are caused by the placement area or type of economic activity carried out by the participants of innovation cycle (Badrtdinov, 2015). This enables to use the provisions of industrial market theory in its analysis. The presence of a time lag between the market and incubation periods of the innovation cycle, as well as the time frames of its implementation determine the functioning period of the market of innovative products. The inefficiency of such market is manifested in the presence of external effects of innovative products consumption, the amount of which varies depending on the recipient composition and the nature of institutional environment that encourages (limits) the receipt of total utility, exceeding the volume of individual utility. If the supply of innovative products corresponds to the demand formed or stimulates its creation, and the institutions of such market contribute to the innovation diffusion, then the amount of total utility greatly exceeds the amount of individual utility for a consumer.

A necessary condition for the functioning of this market is the existence of a competitive environment (competition of manufacturers and competition of consumers). The market, which is characterized by the monopsonic or oligopsonic structure, determines the lack of demand for innovative products, since it leads to the formation of price, which does not provide an inflow of economic profit. Thus, the competition stimulation between the buyers serves as one of the areas of market regulation. The bilateral monopoly and bilateral oligopoly, arising from the monopoly on the objects of intellectual property, are characterized by the formation of the equilibrium price, which provides receipt of a minimum volume of consumer surplus and manufacturer surplus, which results in the absence of the stimulus to the innovation commercialization. For the development of this market it is necessary to stimulate the supply with the use of targeted subsidies, instruments of competition stimulation in the other sectoral markets that enhance excess of manufacturer surplus ofinnovative products. (Blackwell et al., 2007)

In contrast to the market of traditional products, the market of innovative products is characterized by a high volume of transactional costs for the information search about the potential manufacturers (sellers) and the buyers, the content and degree of requirements satisfaction of the latter, the availability and properties of complement goods, as well as the costs for negotiating and concluding contracts, the costs for protecting the intellectual property rights and their transfer, the cost for monitoring the market capacity and the quality of products related to the number of confidential or experimental products, the costs for functioning of the contract enforcement mechanism.

The volume of supply of innovative products is directly dependent on the amount of innovative potential of the consumer, which in turn is determined by the presence of consumption experience of innovative products, the degree of compatibility with the complement goods, the volume of the costs for replacement of traditional products, and the cross-cultural characteristics of demand subjects. At that the demand for innovative products is relatively inelastic, which is due to the limited impact of price on the demand volume. (Dorogina, 2016)

In the implementation phase of innovative products, which can be defined as the prototyping phase, it is mostly used the expensive pricing method, enabling to set the lower price limit based on incurred and estimated costs, as well as the income method based on the potential investments in the production process. In the growth phase of innovative products (phase of market entry by a small volume of products), which is characterized by a high risk of rejection of the new product, it is implemented such price strategies as "skimming" or "market penetration", as well as the parametric method, which takes into account the information on consumer properties of the goods received by the consumer. It enables to make an adjustment of the price lower limit set by the cost method. In the stabilization phase (phase of mass production) and the life cycle decay phase of innovative products, the transaction costs for the information search and monitoring are reduced, enabling to use different pricing models focused on the maximization of sales volume, taking into account the elasticity of demand and the psychological characteristics of the consumer. The study has shown that the achievement of Pareto-optimal state of this market segment is possible in the case of application of price discrimination, which is based on the implementation of improving innovations and pseudo innovations in order to improve the production, as well as to account the system of value concepts and status roles of the consumer, to introduce the transfer system of formalized knowledge and to support the processes of its commercialization (technical support), providing the appropriate quality level. Thus, the feature of the pricing mechanism on the market of innovative products is its dependence on the life cycle phase, along with dependence on the market type, consumer preferences, and government regulatory instruments.

During the study we have offered the classification of consumers of innovative products, which is based on the segmentation model of potential innovation customers on the basis of individual predisposition to the innovation perception (model of E. Rojers) (Aleshyna, 2006; Solomon, 2003), which has made it possible to justify the dominance thesis in the number of non-price factors of consumer demand of "innovators" of status or hedonic needs, "development pioneers" - individual, group, generational, striation needs to demonstrate the economic, social, moral, psychological factors, "early majority"- cognitive needs," late majority" - income, prices for the complement goods, and "sluggish" - prices for the substitute products, institutional traps.

The analysis of factors, determining the household behavior on the markets of innovative products, has enabled to determine that currently the most important criteria, having impact on the decision-making in this area by the consumers, are: type of consumer, share of income remaining at the household disposal after the acquisition of essential goods and services, usefulness of innovative product with the household point of view, presence of the recommendations of the members of household social network concerning the product purchase. To test the significance of these factors were surveyed 108 household representatives of the Volga Federal District, who purchased the innovative products (including products of conspicuous consumption, 12.04% of the sample), using the 5-point Likert scale. At that, the consumer type has been estimated at the level of propensity to purchase of innovative products (1 - "buyer-innovator", 5 - "user-late follower"), the share of income remaining at the household disposal after the acquisition of essential goods and services - in the percentage ratio of expenses (1 - "after payment of the essential goods and services more than 40% of income remains at the disposal of the household", 5 - "after payment of the essential goods and services less than 10% of income remains at the disposal of the household"); the usefulness of innovative product with the household point of view (1 - "completely useless" and 5 - "very useful"), the presence of recommendations of the members of household social network concerning the product purchase

(1 - "nobody recommended the product", 5 - "all friends recommended the product"). The results of correlation analysis carried out using the SPSS Statistics software are shown in Table 1 (** - correlation is significant at the level of 0.01, * - correlation is significant at the level of 0.05).

Table 1
THE CORRELATION ANALYSIS OF DEPENDENCE ON THE DECISION-MAKING BY THE HOUSEHOLD TO BUY THE INNOVATIVE PRODUCT FROM THE CHARACTERISTICS OF HOUSEHOLD CONSUMER BEHAVIOR

		CT	SFHI	PU	RSNM	DPIP
Customer type (CT)	Pearson correlation	1	,842**	,895**	,848**	-,853**
	Val. (2-sided)		,009	,003	,008	,007
	N	108	108	108	108	108
Share of free household income (SFHI)	Pearson correlation	,842**	1	,716*	,684	,697
	Val. (2-sided)	,009		,046	,061	,055
	N	108	108	108	108	108
Product usefulness (PU)	Pearson correlation	,895**	,716*	1	,994**	,984**
	Val. (2-sided)	,003	,046		,000	,000
	N	108	108	108	108	108
Recommendations of social network members (RSNM)	Pearson correlation	,848**	,684	,994**	1	,989**
	Val. (2-sided)	,008	,061	,000		,000
	N	108	108	108	108	108
Decision to purchase an innovative product (DPIP)	Pearson correlation	-,853**	,697	,984**	,989**	1
	Val. (2-sided)	,007	,055	,000	,000	
	N	108	108	108	108	108

Selection of the Pearson correlation is due to the normal distribution of the responses in the frameworks of the sample provided. As it follows from the above data, the least significant factor is the share of household income, remaining available after payment of essential goods and services. This indicator of household behavior largely determines the customer type and its subjective assessment of the product usefulness, but the decision to purchase or not to purchase an innovative product does not depend on this factor. This result is explained, on the one hand, by the irrational behavior of the low-income consumers, and, on the other hand, by more rational behavior of high-income consumers, which make a purchase decision based on the usefulness of an innovative product and the presence of recommendations of the key members of the social buyer network - the household representative. Other factors that determine the consumer behavior of households in the market of innovative products have the expected impact on the purchase decision. (Kotler, 2001)

Thus, the household decision to purchase an innovative product is influenced by the customer type (the buyers-innovators are more prone to such purchases), the level of product usefulness from the household point of view, as well as by the presence of recommendations relevant for the social network members, which make decisions, while the household cost structure is an insignificant factor, primarily, with the conspicuous consumption. In addition, based on the decomposition of the respondents' answers on the costs structure, it has been determined that the households, which possess of a large share of funds after payment of essential goods and services, are more prone to make rational decisions about the purchase of innovative products.

The features of the market of innovative products and the specificity of its functioning in the conditions of development and implementation of the neoindustrialization strategy of the

Russian economy determine the need to clarify the composition of its regulation methods by the state (Shmitleyn, 2000). Along with the traditional tools used by the state to fulfill its functions in accordance with the provisions of social welfare theory, the revealed features of this market segment necessitate the use of additional corrective actions. The content of the latter is determined by many factors, among which the dominant type of the innovation cycle and the subjective part of market agents are of particular importance.

If the innovative products act as a result of implementation of the interactive model of innovation cycle and are initiated equally by consumers or research organizations (units as part of business organizations), then the government should use the measures aimed at stimulating the consumer expenses (for example, on the environmentally friendly products produced as part of the implementation of import substitution strategy). In turn, they include the distinguished measures oriented to the implantation of the representations, corresponding to the neoindustrialization strategies of the Russian economy, which implies the need to use the capacity of education and self-learning organizations, in the consumer normative values ("innovators" and "development pioneers"). With respect to "early majority", "late majority" and "sluggish" individual consumers, it is appropriate to apply measures aimed at increasing the demand with the use of income effect and substitution effect (social tax deductions, state regulation of prices for the innovative products and substitute products, compensations on the vehicle recycling program, etc.). (Statt, 2003)

If the innovative products are the result of implementation of innovation cycle network model using the consumer-oriented strategy, the government should use the institutional design tools aimed at overcoming the institutional traps. This, in turn, involves the development of normative legal acts determining the criteria for assigning the products to a number of innovative products; the measures aimed at networking the economic space and activating of cooperation of entrepreneurship subjects within the integrated structures (clusters, etc.) and at the level of national economy as a whole; reduction of transaction costs for the intellectual property protection and monitoring the results of innovative projects, etc. (for example, labeling of nanoproducts in order to improve the quality of consumer informing, development of science cities, innovation centers, technology parks, etc.). (Felser, 2009)

If the innovative products act as a result of the implementation of the innovation cycle information model, aimed at gathering and transfer of explicit (codified) knowledge, then the government should use the tools aimed at accumulation and effective implementation of human capital, as well as reduction of information asymmetries (for example, e-government services, etc.).

SUMMARY

The implementation of approach offered to the content of the methods of state regulation of innovative products ensures the implementation of systemic reforms aimed at creating the value chains, increasing the profitability of domestic production, reducing the costs, optimizing and diversifying the national economy structure within the neoindustrialization strategy.

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USING ABC TO ENHANCE THROUGHPUT ACCOUNTING: AN INTEGRATED MANAGEMENT APPROACH

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ABSTRACT

The relevance of the article is in studying the problems of the use of modern methods in the enterprise management accounting under TA method (Throughput accounting) and ABC method (activity based costing). The authors carried out a comparative analysis of these methods, considered possible options for their integration and interaction for effective decision making by managers.

Reports on the financial results with a breakdown to products using TA method can be drawn up weekly, monthly, quarterly, etc. For the purposes of determining the profitability of each product, improvement of the control function, TA method can be supplemented by the elements of ABC method. In this case, the operating costs are accumulated by the activities of the enterprise, so that the process of costing and cost control becomes more transparent. It is recommended not to increase the work labor input, and to accumulate costs by type of activity of the enterprise, as appropriate: at predetermined stages and phases of the product life cycle, to calculate the price of the product, by changing the company's strategy or annually, to control the costs and benefits in the future by comparison with the planned figures, and historical data.

It is expedient to draw up a Profit and Loss Statement according to TA method with ABC elements with a breakdown to customer once a year. During a year, it will be gathered all the information about incomes and costs for each customer that usually cannot be obtained quickly due to the chosen pricing policy and complicated discount policy.

Key Words: *Throughput Accounting, Activity-Based Costing, Management, Costs, Enterprises, Enterprise.*

INTRODUCTION

Given the instability in world markets, and rapidly changing external environment, management of manufacturing companies is in need of high-quality and targeted information to make operational and strategic decisions. Supplier of such information is a management accounting. The researchers suggest that currently the most common are the traditional methods of cost and benefits accounting such as standard costing, absorption costing, and direct costing. However, the traditional methods are now changed by more modern ones. Thus, an alternative to traditional approaches to the calculation of costs and benefits is TA method (throughput accounting). Its main objective is the increase of throughput by eliminating the constraints that hinder the growth of production and sales, cash inflow of a company, obtaining greater profit margins. In many of the studies devoted to this method it is proved inexpedient to generate information about the full cost of production for management decision-making purposes (Hilmola, 2016).

The emergence of this trend in management accounting is directly connected with the study and development of the theory of constraints, which was widespread throughout the world since the end of the XX century and has proven to be effective in the management of companies in various industries (Goldratt, 1992). In our previous works this methodology was examined in retrospect, as well as the problem of the joint use of TA (Throughput accounting) and VSC (Value Stream Costing) methods was investigated (Elsukova, 2015, Sokolov, 2007).

Through TA method, contribution of each product (works, services) in generation of the total throughput value for the entire company is estimated. However, TA method is constantly evolving. Its basic principles, functions and tasks require understanding. For example, the composition of TVC (total variable costs), the classification of OE (operational costs), the timing of definition of the actual indicator T (throughput) (on the one hand, it can be the date of shipment to the buyer i.e. the transfer of risk to the goods, or on the other hand, the date of receipt of funds from the buyer). It is also of interest the indicator "cost per factory hour" in the denominator of TPAR (Throughput Accounting Ratio) formula. It is known that the priority should be given to the products generating the best TPAR. As a rule, the rate of "cost per factory hour" is calculated by dividing the fixed production costs (the sum of labor costs and production overheads) to a total bottleneck resource time available. The question arises, whether it is possible to include a part of the administrative costs in the cost per factory hour if the relationship of these costs with the production will be proved, for example, by using the ABC (activity-based costing) method tools? Deadlines for submission of internal reports under TA method are important. In particular, prof. S. Jackman (Jackman, 2008) and E. Noreen (Noreen, 1995), in their research of firms which have put into practice the theory of constraints, noted the need for daily planning and calculation of throughput indicator. Transfer to a weekly or even a daily compilation of statements is one of the reasons why the TA method is often referred to as instrument of operational management. However, the actual problem is the use of the TA method for strategic decision-making, too.

Another problem is the nature of operating costs. It is assumed that they are constant, i.e. do not depend on the volume of core activities. Fluctuations of overhead costs are not so visible in companies with constant maximum capacity utilization. However, in conditions of abrupt changes in capacity utilization, there are often observed significant changes in the value of transaction costs (with regard to production overhead costs) incurred by a company for the transformation of raw materials purchased in the inflow of money from products sold (Kulikova, 2015).

Currently, there is a shift of interest to the joint use of several methods for company management purposes. The use of several methods at the same time also allows you to achieve both operational and strategic objectives. In particular, there is a discussion about the question of the joint use of TA and ABC. The basic principles of the ABC method were systematically formulated in the 1980s in the US by R.S. Kaplan and R. Cooper (Kaplan, 1997). The objectives of implementation of the method were: cost optimization, pricing, effective budgeting, more accurate calculation of the profitability of products, calculation of incomes and costs with a breakdown to buyers. Application of the ABC method is suitable for companies which have significant overhead. It is believed that this method allows for obtaining reliable long-term performance indicators.

We can make the assumption that the interest in joint use of the cost and benefits management methods will continue to grow. It is necessary to find the most effective

combination of management methods for a particular company depending on market, industry, enterprise, and its life cycle.

METHODS

The results of the analysis of the most used approaches in management accounting that has been conducted by CIMA (Chartered Institute of Management Accountants) in 2010 (Jackman, 2008) show that TA method is used by 5% of the companies surveyed. However, depending on the scale of business, it is mostly used by large companies. However, the ABC method is applied more widely. UK scientists have conducted researches (Innes, 2000) among 352 largest companies. Results of the first survey showed that 21% of respondent companies use the ABC system, 29.6% considered the feasibility of its implementation, 13.3% refused from its application, and 31.6% did not consider the feasibility of its implementation. Five years later, they found the following results: 17.5% of companies use the ABC system, 20.3% - consider the feasibility of its implementation, 15.3% has refused from it after its application, 46.96% of companies did not consider its use in general. Professors summed up the research results which show a sequential decrease of interest in the cost accounting method.

Today, the issues of the ABC and the TA joint use are relevant as ever. Some scientists oppose the ABC method to the TA method highlighting in the system of management accounting the approaches focused on distribution of costs, and the approaches which exclude wide use of cost allocation methods (Hutalung, 2003). Other experts having explored options for integration of the two methods believe that the ABC method can create an "inertia" of the system development (Sungatullina, 2015). If the TA method focuses on the results of the company (indicator "throughput"), the ABC method pays more attention to overhead costs. The ABC method involves determining the effectiveness of certain types of activities, the TA method reorienting managers to identify the factors which hinder the process of raw material transfer into money from buyers.

Thus, there are two ways:

1. The use of the TA method instead of the ABC;
2. Joint use of the ABC and the TA methods.

Proponents of the first approach deny the joint use of classical methods of management accounting and ABC. These include: N. Hutalung (Hutalung, 2003), T. Corbett (Corbett, 1998). Critics N. Gary and B. Ronen (Geri, 2005) argue about ABC obsolescence, about complexity of the system that hinders prediction of profit and therefore, little suitability for making management decisions.

Supporters of the second approach believe that achieving optimal efficiency by units is the primary managerial task. Lack of analysis of constraints, as well as coordination of company target with objectives of its subsidiaries lead to errors in the planning and utilization of production capacities as well as making decisions on production.

The views of experts in management accounting to the problem of the relationship of TA and ABC are presented in Table 1.

Table 1
THE VIEWS OF EXPERTS IN MANAGEMENT ACCOUNTING TO THE PROBLEM OF THE RELATIONSHIP OF TA AND ABC

Author	Points of view
Demmy S., Talbott J., (Demmy.1998)	First, it is necessary to determine TVC with breakdown to products (calculating the main indicators of the TA method), and accumulate the remaining costs which are both direct and indirect. Direct costs relate directly to the products, and the indirect are distributed later with the use of cost drivers determining the full cost of production
Campbell R., Brewer P., (Campbell.1997)	Using the ABC method in the units of a company with a large number of employees, and the TA method in the departments with a large number of machines and equipment
MacArthur J.B. (MacArthur. 1993)	The ABC method is more important for long-term solutions in the company; the TA method is for short-term solutions. When using the ABC method, actions should be identified that do not bring added value, and their costs are to be reduced; in the TA method it is necessary to identify operating costs which are not intended to transform stocks into cash
Holmen J.S. (Holmen.1995)	The main difference is in the time horizon of use
Baxendale S.J., Raju P.S (Baxendale.2004)	If a company has an internal constraint, the TA method is used for making management decisions, if there is an external constraint then strategic decisions are based on the ABC method. Both methods allow us to identify unused capacities of the company
Huang L (Huang.1999)	Information of the TA method is used for short-term solutions, and of the ABC method for the long term solutions. The TA method reduces production time, increasing productivity and indicator "Throughput", reducing fixed costs in a short period of time; ABC facilitates the "cost - benefit" analysis determining what action is necessary to get rid of
Coate C.J., Frey J. (Coat. 1999)	Identification of constraining or non- constraining actions of a company, and designing budgets of expenditures on that basis. Integrating ABC and TA leads to a combination of variance analysis with the three key factors from the theory of constraints: identification of constraints, the use of constraints at a maximum power, the interdependence of resources.
Kee, R.. (Kee.1998)	Considers the use of the ABC and TA methods for decision-making about outsourcing: using a TA solution for the analysis of a short period of time, while ABC solutions for the long-time periods
Kaplan R.S., Cooper R.(Kaplan.1997)	Methods complement each other: the TA method provides a short-term optimization to maximize short-term profits (operating in a limited production environment), and the ABC method provides tools for dynamic optimization of resources, assessment of customer relationships in order to achieve long-term profitability.
IMA «Theory of Constraints (TOC) Management System Fundamentals» (IMA)	One of the objectives of the ABC method is development and support of the management accounts drawn up under the TA method
Joyce I. Warnacut (Warnacut, 2016)	Monitoring the level of operating expenses of an enterprise can be carried out with use of ABC method. Planned costs are compared with the actual figures for each type of activity. Responsibility for deviation is carried out by responsibility centers.

Thus, we can conclude that the majority of authors having noted the interaction between these methods of management accounting hold the opinion on the use of the TA method in managerial decision-making to achieve short-term objectives of a company, and the ABC method for the long-term objectives. Both methods have the same objective: to maximize profit of an organization. The TA method is used in order to improve the yield of products and

customers within existing resources and constraints. The ABC method helps to optimize costs, and gives signals to managers which products and customers generate profit.

RESULTS

Let's consider the integration of TA and ABC methods on the example of the Profit and Loss Statement of a company for production of detergent (Table 2). Statements according to the TA can be drawn up weekly, monthly, quarterly, etc. In this case, cells outlined in the Statement are not filled, i.e., labor costs and overhead expenses are not allocated between products. Responsible executives shall be appointed for indicators "TI" for each product, summary indicators "TII", "TIII" and "operating profit". TI of the first product is highest, 127 500 monetary units. However, knowing the production and sales volume: P1 250 tons, P2 30 tons, P3 30 tons, and P4 - 50 tons, it can be concluded that TI per 1 ton is the largest for P4 - 536 monetary units.

At this stage, ABC elements may be used to distribute some costs. For example, machine power consumption per 1 ton of the detergent powder can be determined by the formula:

$$c = (C/E \times e)/Q \qquad (1)$$

where c - electricity cost per one ton, monetary units;

C - general electricity costs for the operation of equipment for the production of all types of powder, monetary units;

E - the total power consumption of all machinery and equipment in kW.

e - energy consumption for production of a specific type of product (as determined on the basis of such cost-driver as a particular equipment operation time in the production process of a particular type of product), kW

Q - production volume of a particular type of product, tons.

To enhance cost control, the TA method can be further strengthened by the ABC method. In this case, all the selected cells in the statement should be filled up (table 2). Labor costs are distributed proportionally between the products of the basic work-time workers. A production overhead is filled in proportion to the machine hours, production runs, and other cost-drivers. If there are production overheads from which it is difficult to determine the cost drivers according to the ABC method, they can be distributed using conventional bases (costs related to the products).

Table 2
AN INTERNAL REPORT FORM (TA AND ABC METHODS), MONETARY UNITS

Indicators	Washing powders				
	P1	P2	P3	P4	Total
Revenue (R)	275 000	37 500	36 000	55 000	403 500
Total Variable Costs (TVC):					
- Raw Material costs	100 000	17 400	14 100	18 500	150 000
- Energy costs (electricity, water, steam)	20 000	2 550	2 700	4 200	29 450
- Subcontractcosts	27 500	3 600	3 900	5 500	40 500
Throughput I (TI)	127 500	13 950	15 300	26 800	183 550
Throughput I/Revenue	0.46	0.37	0.43	0.49	0.45
Labor costs	33 791	5 069	6 082	6 758	51 700
Throughput II (TII)	93 709	8 881	9 218	20 042	131 850
Throughput II/Revenue	0.34	0.24	0.26	0.36	0.33
Production overheads (method ABC)	30 611	2 550	10 097	8 609	51 867
Production overheads (traditional cost accounting)	9 655	1 420	1 680	1 985	14 740
Throughput III (TIII)	53 443	4 911	(2 559)	9 448	65 243
Throughput III/Revenue	0.19	0.13	(0.07)	0.17	0.16
Administrative and selling expenses (method ABC)	2 272	1 363	909	1 136	5 680
Administrative and selling expenses (traditional cost accounting or TI)	17 338	1 897	2 081	3 644	24 960
Operating profit	33 833	1 651	(5 549)	4 668	34 603
Operating profit / Revenue	0.12	0.04	-0.15	0.08	0.09

Administrative expenses, for which it is difficult to find a cost-driver according to the ABC method, are better distributed in proportion to the indicator "TI". This distribution base is the most equitable, as it is very difficult to associate administrative expenses with industries and business processes. Indicators "TI / Revenue", "TII / Revenue", "TIII / Revenue", Operating profit / Revenue become a roadmap of a company. They provide an opportunity to see how a financial result could be gradually formed. According to the statement, P3 is unprofitable (5549 monetary units). It is necessary to optimize cost-drivers of production overheads or revise the pricing policy.

Therefore, the purpose of the TA is to increase the throughput, the purpose of the ABC is to control operating costs. This form of the statement can be used at certain stages of the product life cycle, in order to optimize costs as a response to changes in the external market environment, and for pricing purposes, for example once a year, etc. It is also important to compare the activities of the reporting and previous periods.

CONCLUSION

It can be concluded that the majority of authors noting relations between TA and ABC hold the opinion on the use of the TA method in managerial decision-making in the short-term objectives of the company, and the ABC method in the long-term objectives. Both methods have the same objective: to maximize profit of an organization. The TA method is used in order to

improve profitability within existing resources and constraints, and existing products and customer relationships. The ABC method helps to reduce operating costs, giving signals to managers which products and customers generate revenues in excess of the resource consumption, and what products and customers require resources greater than the revenues generated from the current use of resources. Reports under TA can be drawn up on an operational basis. In the cases where the information about the operating profit for each product is required, the reports under TA should be supplemented by ABC information. Reports under the TA-ABC with breakdown to customers are encouraged to draw up once a year.

The joint use of the TA and ABC methods lead to a more structured information in an enterprise on the constrained factors (resources), as well as actions that use those resources (constraining and non-constraining the achievement of maximum financial results by the company). This method will allow a company to make management decisions for a longer time period for the production of new products, as well as to reduce costs.

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FINANCIAL STATEMENTS AS AN INFORMATION BASE FOR THE ANALYSIS AND MANAGEMENT DECISIONS

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ABSTRACT

The processes and events taking place in an organization, and the results of financial and economic activity are represented by a variety of information which in turn in the aggregate forms an information base for analysis. The leading place among the information needed for the analysis is taken by accounting data and financial reports of the company to which, in turn, increased requirements are applied at the present stage of improvement accounts and records. However, the data of financial statements of Russian companies for a number of years, as a rule, are not comparable due to the frequent changes in accounting policy caused by changes in legislation, registration forms, as well as failing to take inflation into account. The main reasons for the low demand for accounting data for managerial purposes are that in most cases they were incomplete, and also financial statements were low reliable. We have selected two groups of respondents for their study the first of them consists of the heads of Russian companies reporting under RAS (Russian Accounting Standards), and the second of CEOs of the companies that prepare financial statements both under RAS and IFRS. Based on the survey, we found that the companies preparing the statements both in accordance with RAS and IFRS, have more accurate figures of financial statements than the companies that use RAS. We have found that financial statements data are more in demand to external users than the internal ones, and the reason for this is the lack for external users of other sources of information, while internal users use all possible sources of additional information about the property and financial condition of an enterprise.

Key Words: Information Database, RAS, IFRS, Respondents, Financial Statements, Reliability, Transparency.

INTRODUCTION

With the development of market relations information support for management decisions becomes increasingly important. Processes and events being under way in organizations, results of financial and economic activity are disclosed by a variety of information which in turn collectively forming information base for analysis. The lack of necessary information and the use of unreliable or irrelevant data are the causes of serious mistakes in management decisions. It is believed that the main purpose of the use of information, above all, should be to reduce uncertainty in decision-making. Economic analysis and reliable decision-making is only possible if there is the most complete information about the economic activity of an economic entity. Thus, an analysis contains technical, technological, and other information, and is not limited to economic data. This is due to the fact that in carrying out complex economic research, an information base of the analysis should be developed with a view to its use within not a single

problem, and a complex of analytical problems. This information may be obtained from various sources the main of which include (Ushakova and Mukhametzyanov, 2015):

1. economic legislation in the country;
2. the charter of the organization that reflects the types of its activities;
3. norms and standards used by the organization;
4. accounting data of the organization;
5. financial and statistical reporting of the organization;
6. control checks and special auditions data;
7. information from data bases of organizations and various non-system information.

Thus, we can say that it is necessary to use all possible sources of information for economic analysis and management decision-making.

The key place among the information needed for the analysis is taken by accounting data and financial statements of a company as they contain the most important and reliable information about the activities of an economic entity. This information is grouped in various forms of reporting and bookkeeping records on the basis of the information classification principles (Izmestyeva, 2009).

Company's books provide summary information which summarizes and presents business results in generalized terms.

In the Russian Federation the order of presentation of financial statements, their volume and content are regulated by the Federal Law №402 - FZ dated 06.12.2011 "On Accounting" and the Accounting Regulations 4/99 "Accounting reporting of an organization" (Federal law №402-FZ "About accounting", 2011).

Accounting and reporting information is used as the basis for monitoring the implementation of plans and forecasts, as well as the efficient use of material, financial, labor, and other resources which share accounts for more than 70% of management information.

A special place is also taken by information from managers, and the professionals of an organization that are directly involved in production and economic activity of the economic entity.

At the present stage of improving the business management, increased requirements are presented to the accounting information. It must be of high quality and be effective, it must meet the requirements of internal and external users of information. In addition, it is desirable that the financial statements would contain as little as possible indicators, but to satisfy the maximum number of users at different levels of management. Accounting information must be necessary and appropriate, and be formed with the least expenditure of labor and time. Obviously, it is necessary to use different methods for collecting, processing and accounting information to meet all the above requirements (Kulikova et al., 2014).

METHODS

According to the statistics, the accounting data of the Russian companies for a number of years, as a rule, are not comparable due to the frequent changes in accounting policy caused by the changes in legislation, in registration forms, as well as the inability to take inflation into account. Reporting of these companies, in many cases, remains non-transparent, does not allow one to interpret results obtained on the basis of its analysis. Currently, in Russia collection of public financial statements is difficult due to the lack of real progress, common misstatements in

reporting and fear of their detection upon its analysis, lack of interest of companies to provide information in connection with the lack of need (Aletkin, 2014).

The majority of respondents indicated incompleteness and low reliability of financial statements in the capacity of the main reason for low demand in accounting figures for the purpose of management. Most often this component is demonstrated in the financial statements of companies prepared in accordance with the Russian Accounting Rules. There is such a feature when companies that report in accordance with Russian regulations often do not fully reflect the accounting information in its reporting, trying to achieve certain goals. An example of this can be an artificial lowering of company's profits in order to avoid high taxes. As for the companies which prepare the reporting both according to Russian, and to international financial reporting standards (IFRS), the situation is reversed. On the contrary, companies' chief executives are interested in an artificial increase in the rates of profit, thereby pursuing the goal of improving the well-being of their owner by increasing the value of shares which in turn increases based on improvement of efficiency of their activity for the reporting period or pursuing the goal on attracting new investors (Kulikova and Gafieva, 2014).

Carrying out a survey of top managers of Russian companies on two above-stated categories, we have come to certain results. Anonymous replies to the questionnaire made it possible to find out what financial statements are in question. Under the terms of the survey, when answering the question "In your opinion, how well companies reflect the following indicators in their financial statements? - It was necessary to assess on a 4-point scale the degree of reliability of the individual indicators from the financial statements. (Antonov, 2007)

Figure 1
THE RESULTS OF THE RESPONSES OF COMMERCIAL ORGANIZATIONS HEADS FROM THE GROUP №1 ON THE SURVEY QUESTIONS, % OF RESPONDENTS
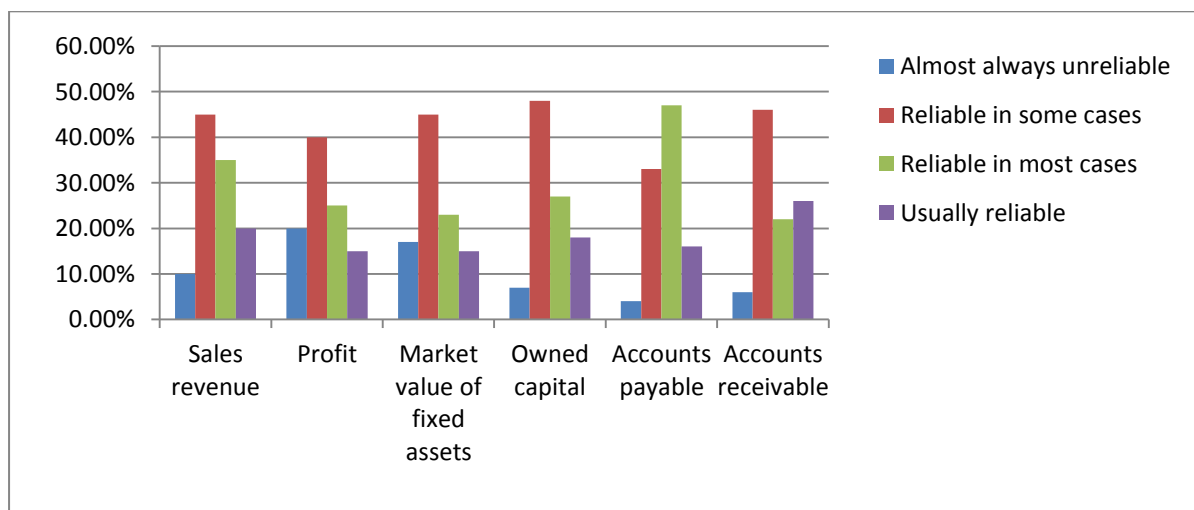
About 25% of surveyed chief executives of the companies reporting under the Russian Accounting Standards (Group №1) have considered the line "Revenue" in reporting as reliable in most cases. The argument they replied was that the entire revenue goes through the account or cash. About 20% of respondents said that the figure, as a rule, is reliable, whence about 45% considered it valid only in individual cases. The indicated reason for unreliability was that organizations apply the principle of splitting revenues to several related companies in order to

optimize taxation. And only about 10% of the respondents felt that in most cases the indicator "revenue" recorded in the financial statements, is misleading.

Figure 2
THE RESULTS OF THE RESPONSES ON THE SURVEY QUESTIONS OF THE HEADS OF COMMERCIAL ORGANIZATIONS FROM THE GROUP №2, % OF RESPONDENTS
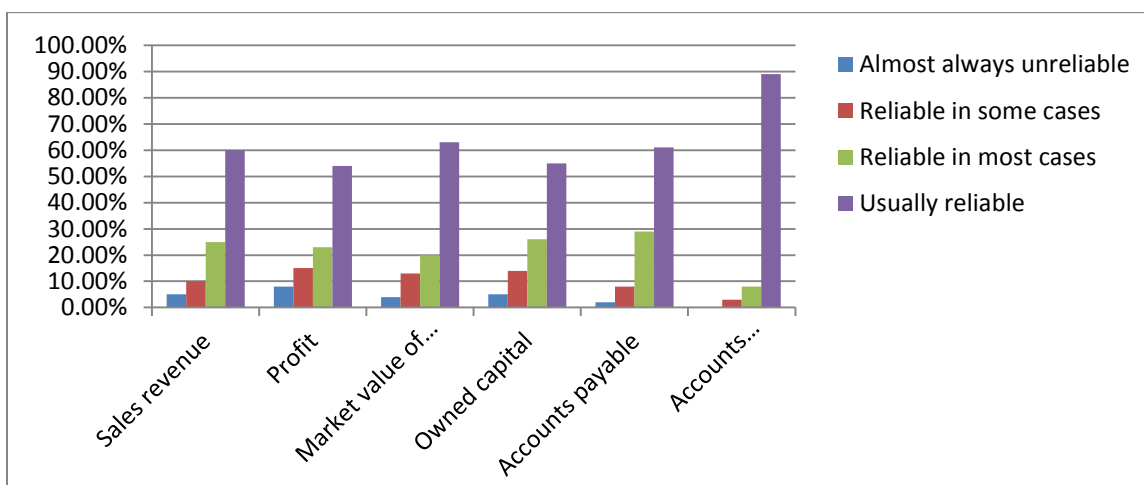
As for the firms that publish statements both according to RAS, and IAS (group №2), the situation looks different. About 25% of respondents believe the indicator of "revenue" to be reliable in most cases. More than 60% of respondents say that this figure is usually reliable. Only 10% believe that this figure is valid only in individual cases and only 5% said that the indicator of "revenue" is misleading. (Kulikova and Goshunova, 2014)

Profit indicator is considered most reliable by over a third of respondents in the first group, while 40% consider it valid only in individual cases, and the fifth part consider it more often misleading. Many of the respondents indicated that companies take steps to optimize profit, and often do that towards underdeclaration of it. Much of the respondents noted that measures used for underdeclaration of profit have certain limits because stable losses or low profits with revenue growth may inevitably arouse a suspicion of tax authorities. The desire to distort the value of this indicator in the direction of overstatement is typical for companies which consider reporting as the main source of information for foreign investors (Fig. 2).

Typically, the analysis of such covert reports on the stage of negotiations and the signing of some contracts, analysts can incorrectly assess the financial position of an organization and effectiveness of its operations that could lead to wrong decisions. Problems with the reliability of profit indicators make it difficult to analyze profitability and other relative indicators of effectiveness of a company (Kulikova et al., 2015).

The results of evaluation of reliability and completeness of financial statements with respect to the market value of fixed assets have shown that about 20% of respondents believe this figure misleading. More than 40% believe this figure reliable in some cases, and over 20% of respondents - reliable in most cases, and about 20% - always reliable. This distrust of this important parameter may be explained by a representation in a balance sheet of the residual value of fixed assets what is not always in line with market estimates. According to respondents, this is due to the low value of this indicator for financial analysis purposes. According to

respondents, unreliability of this indicator may be explained in a certain sense by the lack of the market where it would be possible to assess the real value of the objects. If to consider the results of the second group of respondents, it can be noted that more than 60% of respondents believe the figure reliable, 20% consider reliable in most cases, and only about 4% believe this figure misleading. The higher reliability of this indicator is related to representation in the balance sheet of facilities in accordance with IFRS requirements where the fair value of facilities plays a big role.

With regard to own funds, about 35% of the respondents noted that their figures in the financial statements are almost always reliable. Less than 20% said that these figures are reliable in most cases, and about a quarter - in individual cases. More than 20% of respondents noted that the data on the amount of own funds are unreliable in most cases because they do not give any idea about the actual amount of invested own funds and surplus funds available to the company. In practice, indicators of the authorized and additional capital often do not mean real investment in fixed or revolving funds. For example, a car may be used as a contribution, and really it is not used in the production (Kulikova et al., 2015). As respondents note, today financial statements format does not represent even for internal users how many own funds were actually invested in the business due to that it is difficult to assess their actual impact. Analysts receive incorrect assessment of solvency of the business partners as a result of incompleteness and unreliability of the data displayed in the balance sheet.

Survey of the second group of respondents showed that only about 5% of respondents believe the own funds index unreliable when more than 55% rely on its validity.

As to assessment of reliability of the information concerning the debts of an enterprise, almost 17% of respondents believe that it is almost always reliable, and nearly half believe that it is reliable in most cases. According to respondents, the main drawbacks of the information regarding the enterprise debt indicator are related to the fact that reporting does not allocate "arrears", but it is the figure which has particular importance in the assessment of financial stability and independence of the business partners. Survey results carry the inference that more important sources of information for management purposes are the " instruments of payment", payment schedules, and other similar issues that make it possible to avoid temporary problems with insolvency, as compared with the calculation of indicators on the basis of accounting data characterizing solvency, liquidity, and financial stability. According to the survey of the second group, it may be noted in relation to the reliability of the accounts payable that more than 60% believe this indicator is usually reliable when only 2% believe this figure misleading.

As to the indicator of debt to the company, assessments of reliability of information in the financial statements are even more conservative. Nearly half of respondents believe that this information is almost always or often reliable. About one-third believe that information about the receivables is valid only in certain cases. Less than 20% negatively evaluate the objectivity of the indicator. According to respondents, the main observation is also related to the lack of information on arrears, and dependence of calculations on the specific debtors.

The survey of respondents in the second group has showed that about 90% of respondents consider the indicator "receivables" as reliable when any one respondent has not spoken of unreliability of this indicator. It tells about that the companies forming the statements both in accordance with RAS and IFRS, the indicator of accounts receivable is less likely to contain false information.

RESULTS

Based on the results of our study we may note that analysis of the responses to the survey questions confirms our previous conclusion that the financial statements data are more in demand to external users than internal. The main reason is the lack of other sources of information in external users, while internal users use all possible sources of additional information about the property and financial condition of the company.

To clarify the causes and frequency of demand for reporting by external organizations in management decision-making, we have studied the answers to the question: "Do you use the reported financials of other organizations to assess their financial condition in making decisions, and for what reason?"

Results of the survey have shown that about one-third of the respondents do not use statements of external organizations as a source of information, and only one of ten respondents regularly use statements of external organizations as a source of complete and reliable information.

The main reason for lack of demand for the information represented in the financial statements is that the fulfillment of the legal requirements to reporting does not guarantee representation in it of the real picture of the financial status. An analysis of third-party reporting would be claimed even more than analysis of the own organization reporting, but not for the reasons of more confidence to it, and because of absence of other more reliable sources of information. (Kulikova et al., 2015)

Despite that all the respondents recognize the need to use information about financial status of a company for management decision-making; the majority of enterprises use mainly other information from the accounting system in the conditions of unreliability and incompleteness of the financial statements.

CONCLUSIONS

In general, based on the analysis results for the survey of two groups of respondents it can be noted that financial statements figures of the companies that form their reporting in accordance both with RAS and IFRS are more reliable than of companies that use only RAS. This tells us that reporting in accordance with international financial reporting standards would make reporting more transparent and trustworthy.

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ENSURING THE EFFECTIVENESS OF THE PRIVATIZATION OF STATE-OWNED COMPANIES IN THE CONDITIONS OF INSTABILITY OF THE FINANCIAL MARKETS (UNDER THE EXAMPLE OF OJSC "OIL COMPANY "ROSNEFT")

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ABSTRACT

The current state of the world and Russian economy makes it necessary to search for the additional sources of funding by the Government of the Russian Federation in terms of undervaluation of the Russian companies.

The privatization strategy is aimed at regulation of the state budget deficit by attracting the maximum possible amount of cash flows at the present stage of development of the Russian economy. However, due to the volatility of financial and commodity markets, and imposed sanctions against the Russian companies, it raises the problem of an adequate assessment of the privatized assets. A potential stabilization of markets and the prospects of lifting of restrictions actualize the temporal aspects of privatization.

The paper includes the assessment of the value of cash flows generated by the company and the shareholders' equity. A comparison of the cash flows of the company, attributable to the shareholders' equity, and its capitalization has allowed identifying the undervaluation or overvaluation of the companies.

Cost evaluation of the OJSC "Oil Company "Rosneft" shows its undervaluation. This company is overburdened with debts, which indicates the inefficiency of its privatization in the current conditions. The undervaluation of the company by the investors is supported by a comparative analysis of the values of its financial multiples and financial multiples of foreign oil and gas companies. In the long term perspective the value of the company's cost of capital may be reduced, and the values of cash flows may be increased. This will lead to an increase in the value of the company's assets.

Key Words: Internal Value Of The Company, Market Capitalization, Company Cash Flow, Required Rate Of Return, Cost Of Capital.

INTRODUCTION

Carrying out a privatization of the Russian companies to replenish the state budget may show low efficacy in the present conditions. A decreased capitalization of the privatized companies will attract significantly fewer resources to the budget than in the periods of stabilization or economic growth. The issue on the privatization need is settled by assessing the asset growth potential and the time when this potential will be realized. The privatized Russian companies are significantly dependent on commodity prices, showing recently the poor market conditions and the increasing financial risks, which significantly increase the required rate of

return on the shareholders' equity. These factors lead to a decrease in the intrinsic value of the Russian companies, which is determined by the capitalization of cash flows.

MATERIALS AND METHODS

Assessment of the company value growth potential is made through the free cash flow forecast (FCFF). Forecasting distinguishes two periods - the forecast and the post-forecast period.

The cash flow forecast is based on historical data obtained from the company's reports made under the IFRS standards.

The company value assessment model can be represented as follows (A. DamodaranInvestment Valuation: Tools and Techniques for Determining the Value of any Asset, 2016):

$$CV = FCFF_{2016} + \frac{FCFF_{2017}}{(1+WACC)^1} + \frac{FCFF_{2018}}{(1+WACC)^2} + \frac{FCFF_{2019}}{(1+WACC)^3} + \frac{FCFF_{2020}+TV}{(1+WACC)^4} \qquad (1)$$

Where

CV - the intrinsic company value, that is, the value of cash flows shown in the initial period.
FCFF - free cash flow forecast attributable to the entire company, that is, cash flow from the operating and investing activities to the settlement for debt capital.
WACC - weighted average cost of capital.
TV - terminal (residual) value or the company value in the post-forecast period. To determine the TV definition, it is used the Gordon's formula, which is a variation of the capitalization

formula: $TV = \frac{FCFF_{2020}*(1+g)}{(WACC-g)}$ \qquad (2)

where
n - rate of cash flow growth in the post-forecast period.
The free cash flow forecast (FCFF) is found by the indirect method (https://www.rosneft.com/Investors/Reports_and_presentations/Consolidated_financial_statements/ 26.07.2016)

FCFF = NOPAT+Amortization+ΔFA+ΔWC \qquad (3)

where
NOPAT - net operating profit after tax,
Δ FA – investments in fixed assets,
ΔWC – investments in working capital.

To evaluate the share value upside potential, it is necessary to estimate the cash flow value attributable to the shareholders' equity. An overrun of the present value of the company's cash flows over its market capitalization, says about the growth potential of the company's value. The opposite situation says about the company's asset overvaluation.

E = CV – D \qquad (4)

where
D - value of the company's debt.

RESULTS

Analysis and Forecasting of Cash Flows of the OJSC "Oil Company "Rosneft"

The company's ability to generate a cash flow is determined by the potential of the market for the products. The OJSC "Oil Company "Rosneft" is the world's largest publicly traded company on the volume of oil production. The company's business is focused on activities related to the sale of oil and petroleum products.

The oil market dynamics showed a downward trend that was reflected in the value of the free cash flow forecast (see Table 1).

Table 1
THE DYNAMICS OF REVENUES, COSTS AND INCOMES, OPERATING PROFIT AND NOPAT OF THE OJSC "OIL COMPANY "ROSNEFT" FOR 2010-2015 (MLN. USD) (SIMKINS, 2013)

	2010	2011	2012	2013	2014	2015
Revenues	63,056	92,512	99,389	145,272	142,148	83,295
Costs and incomes	50,543	77,229	86,133	130,035	128,299	72,963
Operating profit	12,512	15,283	13,256	17,436	15,495	11,629
NOPAT	10,010	12,226	10,605	13,949	12,396	9,304

As it is seen from Table 1, there has been a positive trend in revenues from 2010 to 2014, increasing the cash flow. In 2015, there has been a strong negative correction, which has decreased it by 41%. At the same time it has been observed the dynamics of costs and expenses growth from 2010 to 2014. Thus, the growth rate has amounted to 2.54 times, with the cost correction for 42% in 2015. A slowdown of these indicators is due to a decrease in oil prices on the international markets and a decrease in the exchange-value of rouble, which have devalued the price of refined petroleum products on the domestic market of the Russian Federation. A significant decrease in the operating performance of the company has occurred in dollar terms, and in rouble terms the decrease is insignificant.

It should be noted the company's ability to reduce costs with a decrease in revenues. Therefore, the OJSC "Oil Company "Rosneft" can withstand a comparable level of operating profit and NOPAT due to the flexible taxation system of the oil extraction industry. The main component in the composition of costs and expenses, which has showed a strong decrease in 2015 compared to 2014, is the export duty, which has decreased from 29,915 mln. USD to 12,692 mln. USD, that is, by 58%.

The further dynamics of operating performance of the company is determined by the state of commodity markets. There are extreme points of view regarding the role of oil and oil products in the world economy. It is argued that humanity can dramatically reduce the consumption of these resources (perhaps completely abandon), which can destroy the oil extraction industry. The extraction limitations lie on the demand side due to the possibility of replacing fossil resources by the alternative sources of energy, caused by the policy of reducing emissions (Ibragimov, 2016).

However, the impact of these factors will be negligible in the short term. The rates of average annual growth of revenues and costs have amounted to 1.07 and 1.08% in dollar terms, respectively, from 2008 to 2015. This is the cycle period after the previous crisis, including a decrease in 2015. In the first half of 2016 it is observed an increase in oil prices.

Table 2
THE DYNAMICS OF REVENUES, COSTS AND INCOMES, OPERATING PROFIT AND NOPAT OF THE OJSC "OIL COMPANY "ROSNEFT" FOR 2016-2020 (MLN. USD)

	2016F	2017F	2018F	2019F	2020F
Revenues	89,126	95,364	102,040	109,183	116,826
Costs and incomes	78,071	83,536	89,383	95,640	102,335
Operating profit	11,055	11,829	12,657	13,543	14,491
NOPAT	8,844	9,463	10,126	10,834	11,593

Therefore, in the forecast period the pace is adopted at 1.07 as the growth rate, and in the post-forecast - 1.03. At that the revenue growth is possible both due to a rise in prices and to the production volume (https://www.rosneft.com/Investors/Reports_and_presentations/Consolidated_financial_s tatements/ 26.07.2016). The forecast data are presented in Table 2.

At this growth rate the company will bypass the level of 2012 to 2020 in terms of income and expenses, but will be far from the record levels of 2013 and 2014.

To evaluate the cash flow of the company, it is necessary to amend the NOPAT, which are presented in Table 3 based on the formula 3.

Table 3
FORECAST OF THE CASH FLOW DYNAMICS OF THE OJSC "OIL COMPANY "ROSNEFT" IN 2016-2020 (MLN. USD)

	2016F	2017F	2018F	2019F	2020F
NOPAT	8,844	9,463	10,126	10,834	11,593
Amortization	7,539	7,690	7,844	8,001	8,161
Capital costs	1,985	2,025	2,065	2,107	2,149
Investments in the WC	6,940	5,552	4,442	3,553	2,843
FCFF	7,458	9,576	11,462	13,175	14,762

At the free cash flow forecast (FCF), Table 3 supposes a decrease in the investments in the WC. This is explained by the WC calculation method according to the formula:

WC = (CA-CASH) - (SL-SD)(5)

where

CA – current assets,

SL – short-term liabilities,

SD – short-term debt.

At the same time the company OJSC "Oil Company "Rosneft" has the non-debt items as the long-term liabilities that should reduce the WC from the point of view of the classical financial management. These liabilities enable not to use the shareholders' equity and debt capital to finance the company's current assets (Levy, 2010).

For example, the item "Prepayment on the long-term contracts of oil and oil products supply" has amounted to 2012 - 0 USD, in 2013 - 14,360 mln. USD, in 2014 - 15,766 mln.USD, in 2015 - 24,492 mln. USD in the long-term liabilities of the company OJSC "Oil Company

"Rosneft". And this item of the long-term liabilities has become comparable with the total long-term debt of the company in 2015.

Based on these characteristics of the company, this item of the liabilities has been used in the WC evaluation. At that it should be noted the presence of debt signs in this item, which suggests the presence of the company's quasi-debt. The presence of high values of this item and the recognition of its non-debt nature lead to negative values of the WC, and a working capital of the company has been actually decreased by 10 times in 2013.

It is expected the WC increase by 67% in the proposed estimation and forecasting model due to the company's long-term debt growth by 76%, shareholders' equity growth by 23% and fixed assets growth by 10% in 2020. The growth of investments in the fixed assets is negligible, since the assessment model is guided by the conservative estimates of oil and oil products price growth.

A replacement of quasi-debt with the real debt leads to the FCFF growth, but this increase is compensated by the growth of the required return on shareholders' equity by the financial leverage adjustment. It occurs due to the fact that the debt increase leads to the increased risk of investment in the shareholders' equity of the company.

Valuation of the Company's Cost of Capital

The capital provided by the owners and financial institutions as the debt has a cost. The cost of capital is determined by the interest rate per capital unit for a certain period of use. Therefore, the company's cash flows that define the desired level of profitability are discounted at the rate of cost of capital. A comparison of the discounted flows generated by the assets with the costs for asset acquisition enables to speak about the economic efficiency of investments.

Classical formula for determining the cost of capital

$$WACC = C_e \cdot W_e + C_d \cdot (1 - T) \cdot W_d \qquad (6)$$

where:

T - income tax rate;

(1-T) – tax shield;

We - share of the shareholders' equity in the company's capital;

Wd - share of debt capital in the company's capital;

Ce - shareholders' equity cost;

Cd - debt capital cost.

According to reports the weighted average cost of capital of the OJSC "Oil Company "Rosneft" amounted to 13.1% in 2015 (11.0% in 2014) prior to the payment of income tax [6].

For the independent calculation of weighted average cost of capital, it is necessary to evaluate the shareholders' equity. The OJSC "Oil Company "Rosneft" is included in the list of blue chips. Therefore, in order to evaluate the shareholders' equity we can use the Capital Asset Pricing Model (CAPM) (https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield 29.07.2016), which shows good results in the publicly traded companies.

$$C_e = r_f + \beta(r_m - r_f) + \text{specific risks} \qquad (7)$$

Rf - risk-free rate,

β (beta) - measure of the company's (industry's) shares volatility in comparison with the market as a whole (systemic risk),

Rm - average market return (market yield) on portfolio.

It has been adopted the US Treasury rate of government bonds as a risk-free rate for the calculations (http://people.stern.nyu.edu/adamodar/ 29.07.2016).We took the data calculated by A. Damodaran as a premium for the risk of investment in the shareholders' equity in the formula (7) $r_m - r_f$ and β (http://moex.com/a3691 30.07.2016).

As it is seen from Table 4, the required rate of return on the investment in the shareholders' equity of the OJSC "Oil Company "Rosneft" is from 31.67% to 34.35%. A high value is determined by the high value of premium for the risk of investment in the shareholders' equity of the Russian companies and the high level of financial leverage. At the same time we have not amended the foreign exchange risk, as the cash flow calculation is in USD.

Table 4
CALCULATION OF THE SHAREHOLDERS' EQUITY COST OF THE OJSC "OIL COMPANY "ROSNEFT" FOR 2016-2020

	2016	**2017**	**2018**	**2019**	**2020**
Rf (risk-free)	1%	1%	1%	1%	1%
Market premium for the risk of investment in E	10%	10%	10%	10%	10%
Beta excluding debt load	1.63	1.63	1.63	1.63	1.63
D\E indicator	0.9387	1.034048	1.094806	1.129334	1.144017
Income tax effective rate	0.2	0.2	0.2	0.2	0.2
β coefficient - lever adjustment	2.854065	2.978399	3.057627	3.102652	3.121798
Small company	-0.37%	-0.37%	-0.37%	-0.37%	-0.37%
Non-systemic liquidity risk	1.50%	1.50%	1.50%	1.50%	1.50%
Non-systemic growth risk	0.01	0.01	0.01	0.01	0.01
Risk amount	2.13%	2.13%	2.13%	2.13%	2.13%
Ke - capital rate in the context of leverage	31.67%	32.91%	33.71%	34.16%	34.35%

The definition of the weighted average of cost of capital has no particular problems. Thus, the value of cost of borrowed resources is provided in the company's reports. But the increase in financial leverage may increase both the value of shareholders' equity and debt capital. For the calculations, it was assumed a stable value of the shareholders' equity of the OJSC "Oil Company "Rosneft".

The calculations show that the weighted average cost of capital of the OJSC "Oil Company "Rosneft" compose a value close to 20%. This value is different from the same indicator of 2015 under the company's reporting data upward. It should be noted the growth of DER level of the companies, which can be characterized as an aggressive policy of financing their activities.

Table 5
CALCULATION OF THE WEIGHTED AVERAGE COST OF CAPITAL OF THE OJSC "OIL COMPANY "ROSNEFT" FOR 2016-2020

	2016	2017	2018	2019	2020
Debt share in capital (Wd)	0.48419	0.50837	0.522629	0.53037	0.533586
Share of shareholders' equity (We)	0.51581	0.49163	0.477371	0.46963	0.466414
Debt cost (Cd)	8.83%	8.83%	8.83%	8.83%	8.83%
Shareholders' equity cost (Ce)	31.67%	32.91%	33.71%	34.16%	34.35%
WACC	0.197563	0.197726	0.197823	0.197875	0.197896

The experts offer to reduce the leverage level at the sale of companies or public offering as a measure to increase the company capitalization. High debt level carries a high level of risk for the investor, which is reflected in the increase in required yield and reduces the estimate of the current value of assets.

The Intrinsic Value of the Company, Shareholders' Equity and Market Capitalization

We find the intrinsic value of the company by discounting the cash flow forecast and add the terminal value of the company to the cash flow of the last year.

Table 6
DYNAMICS OF UNDISCOUNTED AND DISCOUNTED CASH FLOW OF THE COMPANY WITH A TERMINAL VALUE OF 2016-2020 (MLN. USD)

	2016F	2017F	2018F	2019F	2020F
FCFF	7,458	9,576	11,462	13,175	14,762
TV					90,562
DF	1	0.834915	0.69702	0.581887	0.485757
Discounted FCFF	7,458	7,995	7,990	7,666	51,162

Based on the data presented in Table 6 the company value amounted to 86,104 mln. USD, short-term and long-term debt of the company amounted to 32,066 mln. USD, respectively the cost of cash flows attributable to the shareholders' equity would be 54,038 mln. USD.

Figure 1
DYNAMICS OF THE MARKET CAPITALIZATION OF THE OJSC "OIL COMPANY "ROSNEFT" FOR 2007-2016 (MLN. USD) [10]
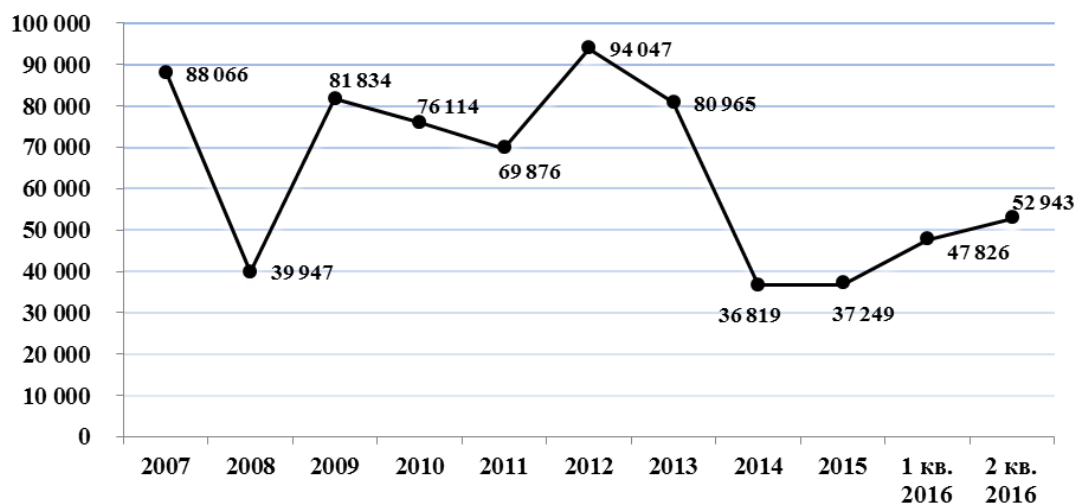
The company OJSC "Oil Company "Rosneft" has no preference shares, so the entire cash flow is reinvested or distributed among the holders of ordinary shares after payment.

As it is seen from Figure 1, the intrinsic value of shareholders' equity of the OJSC "Oil Company "Rosneft" is comparable to its market capitalization. However, the upward trend of the first half, which is provided by a sharp increase in oil prices, could be short-lived. Accordingly, the market capitalization of the company can come close to the levels of 2014 and 2015.

Another confirmation of the fact that the value of the company OJSC "Oil Company "Rosneft" has a potential for further growth is the fact that the multipliers, which are calculated as the ratio of the market capitalization of the company and some of its financial performance (income before interest, taxes and amortization, net income and revenues from sales), are significantly lower than the same multiples calculated for the leading oil and gas companies in the whole world (see Table 6).

Table 6
MULTIPLIERS OF OIL AND GAS INDUSTRY AND THE COMPANY OJSC "OIL COMPANY "ROSNEFT"

Indicator	Multiplier for the oil and gas industry	Multiplier for the company OJSC "Oil Company "Rosneft"
EV/EBITDA	6.40	1.79
Mkt. Cap./ Net Income	8.93	6.11
EV/Sales	0.90	0.43

The low value of the multiplier is due to the specific risks of the company and/or risks of the country where the company operates. For example, the risk of a decrease in oil prices affects equally the entire oil and gas industry. Removing these specific risks will lead to an increase in

the company value, which will ensure a compliance of the multipliers with the worldwide industry standards.

CONCLUSION

The raw character of development of the Russian economy leads to the significant cyclical problems. In a period of high conjuncture of the commodity markets, the macroeconomic risks of state budget deficit are hardly noticeable. However, when the price conjecture has a downward trend, there are problems of reducing the state spending and covering the state budget deficit.

The decision on the sale of assets of the companies with state participation is self-contradictory, since the value of company assets is directly or indirectly linked to the value of natural resources. From the standpoint of achieving a high efficiency in making decisions on the privatization, it is necessary to carry out the sale of assets of the companies at the time of high prices for resources, but in this period, as a rule, the cash flow of these companies and their net profits are sufficient (Kirshin, 2016).

From the standpoint of obtaining the high cash flows, it is necessary to wait, for example, an achievement of the level of 70,000 mln. USD of 2011. According to forecasts this indicator may be achieved in 2017 - 2018, subject to the forecast increase in oil and oil products prices, lifting of sanctions from the Russian economy and reducing the leverage of companies with state participation.

ACKNOWLEDGEMENTS

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FINANCIAL RISK MANAGEMENT INSTRUMENTS FOR PETRO-CHEMICAL INDUSTRY

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ABSTRACT

The article deals with the problem of estimate of efficiency of the risk-adjusted projects, influencing the time-frame and final result of realization. State of the Russian economy despite some positive tendencies can be characterized as a crisis in terms of the reproduction process. It also concerns the investment sphere in full.

The investment processes mediated by the relevant organizational structures (primarily by commercial banks for the Russian Federation) are the catalysts in any economic system, the driving force of the dynamic development of social production.

Currently, the banking sector comprises large financial resources that could contribute to the economic development of the country. However, in case of investment activities, commercial banks are faced with rather complex problems. As a result, the costs of banks in preparing and realizing the investment projects are extremely high, and the risk is great at every stage, as there are many economic factors that are likely to adversely affect the investment process.

To assess the effectiveness of the projects on the example of JSC "Taneco", the Weighted average cost of capital model (WACC) was used. It is the average interest rate on all sources of financing the company. To demonstrate the efficiency of the risk-adjusted project, the capital asset pricing model is used - Capital Asset Pricing Model, CAPM, the calculation of which we will dwell upon on the example of JSC "Taneco".

Key Words: *Management of Project Risk, the WACC Model, Efficiency.*

INTRODUCTION

At the present time, most of the largest commercial banks in the world sent substantial part of funds for crediting investment projects, and not only as the participants but also as the organizers of the project financing. Such situation is determined by the opportunity for the banks to get more profit and improve their image in the world financial market. For Russian banks this activity is relatively new, the lack of practical experience in this area makes them be bewaring of investing in large investment projects, which is extremely unfavorable for further development.

The new modern large-scale production of full processing of hydrocarbons to increase the value added within the country and to avoid dependence on raw materials is especially needed in today's geopolitical environment of Russia. Today's reality, when it is difficult to talk about long-term stable high prices for traditional energy resources, force the Russian government and the oil companies to do systematic development of this industry and launch of new large and medium-sized petrochemical plants. (Abramov, 2009)

But to reverse the situation, it is needed a systematic work on the part of the Russian Government for the development of new clusters, and on the part of large and medium-sized

businesses to build a great number of new large and medium-sized high-tech enterprises in the petrochemical industry.

Considering the world trends and with a view of promoting diversification, growth, profitability and, most of all, the desire to stand on a par with the world's largest oil and gas giants, one had better contribute to the development of specialized petrochemical companies as well as expand the petrochemical sectors in the leading Russian oil and gas companies. After all, these companies along with some large and medium-sized chemical companies have the potential and the greatest chances to promote the exit from the domestic petrochemical crisis. For the development in this area, it is necessary to constantly implement the investment projects. (Tsykunov, 2009)

Considering all of the above, a high level of risk influence the decision about implementation of the project, so you need to take into account the risk factors from the point of view of management of company's projects. The main criterion of choosing the project is a risk-adjusted project - a ratio project risks and the expected benefits, that is, the assessment of profitability of the project can be affected by iaccount and assessment of possible adverse events.

LITERARY REVIEW

The subjects of the project financing is fairly widely reflected in the works related to the general theory of corporate finances and in the specialized literature on risk management, project management, cost estimating of investment projects, etc.

Among the works that cover the general theory of corporate finance, one is, first of all, to highlight works by R. Braley and S. Myers "The Principles of Corporate Finance" and by Z. Bodie, A. Kane and A. J. Marcus "The Principles of Investments". These works consider the issues connected with the theory of financial management of corporation and basic principles of implementation of investment projects. The general theoretical issues of project financing are expanded in work by F. Benoist "The Project Financing at the World Bank". The modern approaches to the project financing are widely reflected in the monograph by E. R. Yeskomb "The Principles of Project Financing". (Finnerty, 2006)

Among the works that deal with the project financing in Russia, one should note the work by V. Y. Katasonov, D. S. Morozov, M. V. Petrov "The Project Financing: The World's Experience and Prospects for Russia", the work by A.Konoplyanik and S. Lebedev "The Project Financing in the Oil and Gas Industry: International Experience and the Beginning of Application in Russia", the work by A. M. Tavasiev "Banking: Management and Technology", and an analytical study of the rating agency Standard & Poor's "The Possibilities of Project Financing in the Russian Oil and Gas Industry". The key aspects of the topic under study are considered in the listed publications. First of all, the authors pay attention to the main features of the "classic" project financing, give the examples of the practical use of schemes of the project financing in the CIS and abroad. Particular attention is given to the risks that arise when implementing the major investment projects, and the ways of their minimizing.

The Object of Research

Building the Complex of Oil Refining and Petrochemicals in Nizhnekamsk was initiated by the Government of the Republic of Tatarstan in 2005, during the construction of this complex it was supposed to create a continuous process of oil refining. For the first time after the post-Soviet period a new complex has been built, from scratch with a phased launch of additional

capacities and plants. When constructing and launching the first complex, the mechanism of public and private partnership was applied, which is actively used for further financing.

The first phase of the complex was launched in December 2011, and Tatarstan took the sixth place among Russian regions in terms of refinery in 2012.

According to the plans of the Group's management of the PJSC "Tatneft", with a phased launch of the complex, the construction of the unit of a delayed coking is approaching completion, the launch of which will completely eliminate the yield of dark oil. Coke produced in DCU will be used as fuel at Nizhnekamsk heat electropower station that will save natural gas for JSC "TANECO" and solve the issue of utilization of coke.

In the process of realization of this project being obviously successful for JSC "Taneco", we faced with the problem of under-funding, as the project was developed in the pre-crisis period. It was planned that DCU will process 2 million tons of heavy oil residues (sludge) per year. As a result, the depth of processing petrol raw material at JSC "Taneco" reached 95-97% (currently 67.92%). The cost of realization of the DCU project is 11,603 billion rubles.

Methodology

Diversification of the sources of project financing is a determining factor of the success in realizing the project. In addition, as a rule, with the entry into the period of implementation, the project will require the involvement of expensive equipment. In such circumstances, to attract, for example, bank lending to purchase it would be impractical due to the fact that banks are restricted by the estimated cost of collateral assets of the organization as well as the amount of own funds invested in the project. However, in addition to equipment of project organization, the project being implemented requires significant resources for other activities, including payments to employees, suppliers and contractors, taxes and licensing fees, and other costs. (Nevitt and Fabozzi, 1995)

The showing a typical contract structure and the structure of ownership of the project, which is based on the establishment of the project company, is presented in Figure 1.

Distribution of risks between the participants may vary, depending on the specifics of the project, and this issue has often a legal character as the risks and their distribution are reflected in the design documentation and are critical issues of any contract. The basic moment of distribution of risks is to find a balance between project risks taken by the parties and their remuneration so that the project could be organized on the basis of a limited right of obligation transfer. Since the basic principle of implementation of non-state investment projects is their self-financing - agreements and contracts based on them should be directly or indirectly aimed at facilitating the process of funding and reducing the risks of lenders and investors by determining the obligations of participants of the project. The lenders lay responsibility for repayment of a credit on the project company and, in the event of failure of the latter, have the opportunity to take possession of the assets of the project company and appoint their own administrative staff under existing agreements.

Figure 1
PROJECT FINANCING IN PETROCHEMICAL PRODUCTION
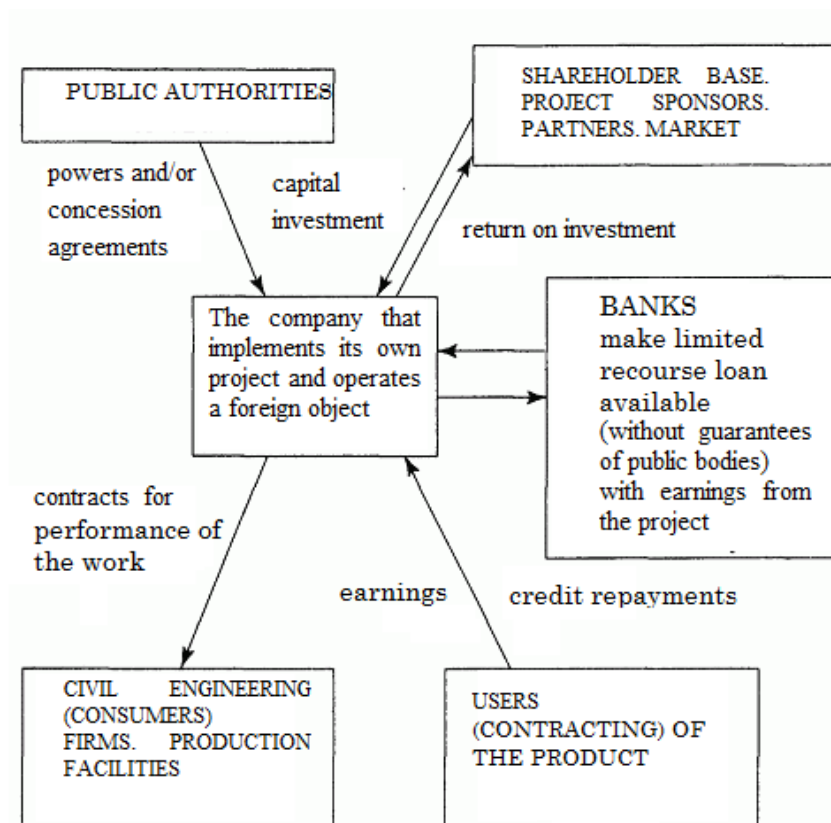
Non-acceptance of the bank risks in implementation of the project financing is nullified by the efforts of the banking units on assessment and management of risks, such structures are constantly being reorganized and reoriented according to the new goals, and the proposals put forward by them on the allocation of funding, limits, the approaches to determining the discount rate have a negative impact on the credit process. A striking proof of this is the current situation with the Security Council of the Russian Federation, which adopted a single discount rate for all investment projects (15%). The consequence of insufficient investigation of determining the influence of banking risks is the fact that the credit limits on the unit of the Security Council of the Russian Federation are directly (often unnecessarily) increased, and the standards of financial and economic activity of borrowers are simplified.

On the basis of the statistical data and the data of petrochemical companies, the methodology of assessment of riskiness of the project has been developed.

Table 1
FACTOR CORRECTION OF THE RISK PREMIUM IN THE FINANCING OF INVESTMENT PROJECTS

Factors of influence	Risk-adjusted (%)
1. Uncertainty in demand and prices for products produced within the project: — increase in existing products; — the development and promotion of a new product.	0-5 8-13
2. The instability of demand (cyclical, seasonal)	2-7
3. The nature of the technologies applied: — traditional; — environmentally more costly.	0-5 12-20
4. The uncertainty of supply of raw materials	2-7
5. The need to adopt new techniques and technologies that ensure environmental safety.	3,92-8
6. The need of implementing the R & D project: — within the organization; — by outside organizations; — jointly by several organizations.	10-15 15-20 20-25

RESULTS

On the basis of this method and the CAPM model discount rate of the investment project is calculated, taking into account o the risks of project financing. The rate of the risk premium are given at intervals, which enables to make additional correction due to the additional information, besides, to use a variety of statistics on specific industrial projects. It is especially important that the author's methods can be expanded for account of other factors (natural, technological and others). These factors in the methodology can be referred to the group of factors of credit risks as inefficient (non-elaborated, not enough analyzed investment project) projecting.

The discount rate for calculating the efficiency of the DCU project equal to 6% is understated, since it does not reflect the riskiness of the project and the expected return for the investors. Facing this problem has led to prolonging the term of start-up of the DCU (from the end of 2015 to July 2016). To calculate a more realistic discount rate, we use the weighted average cost of capital and the CAPM model.

CAPM formula is as follows:

$$R_e = R_f + \beta_{relevered} \times (R_m - R_f) + S_1 + S_2 + C, \tag{1}$$

where R_e - the rate of return on equity;

R_f - the rate of return on risk-free investments;

R_m - the average market rate of return;

$(R_m - R_f)$ - the risk premium for long-term investments in shares;

$\beta_{relevered}$ - beta coefficient reflecting the ratio between debt capital andequity of the company;

S_1 - the additional rate of return for the risk of investing in a particular company (unsystematic risks);

S_2 - the additional rate of return for the risk of investing in a small company;

C - the additional rate of return with consideration taken for the country risk.

To illustrate the CAPM model, each of its components is considered in more detail below.

Table 2
CALCULATING THE COST OF EQUITY CAPITAL USING THE MODEL OF CAPITAL ASSETS PRICING (CAPM)

Title	Value
Risk-free rate	4,75%
The risk premium of investing in share capital	7,1%-1,5%=5,6%
Factor beta	1,3
Country risk	2,25%
Premiun for small capitalization	3,92%
Premium for the specific risk	2,05%
Total:	**20,25%**

In fact, WACC characterizes the alternative cost of investing, the rate of return that can be received by the company when investing not in a new project but in an existing one. WACC is calculated by the following formula:

$$WACC = Ks * Ws + Kd * Wd * (1 - T), \qquad (2)$$

where, Ks - The cost of equity capital(%);
Ws - The share of equity capital(in % (at balance);
Kd - The cost of borrowed capital (%);
Wd - The share of borrowed capital (in %(at balance).
After the calculations of WACC = 12,2%, which is 2 times higher than the proposed discount rate. Now for a more realistic calculation of the efficiency, we will carry out the financial and economic calculations of the project.

The economic effect of the project with such assessment is also higher, which will attract investors, at the same time, when calculating, the assessment of an expected profitability of the project was also used, taking into account the risk and cost of borrowed capital, which, due to the project financing, is also inflated. (Yearbook, 2007)

Thus, during the preliminary examination, it is difficult to assess all the variants of the development of the project with a variety of changing parameters, although such opportunities are provided by a modern system of financial modeling. One of the most difficult moments in the financial evaluation of the project is the prediction of the discount rate, which would take into account the expectations of the parties of the project financing and the risks of such project.

CONCLUSION

The role of banks in the development of project financing increases. It is connected with the increase of number and volume of transactions of project financing in the world, and with the strengthening of banks' activity in this area. In spite of the increase in stock market values in financing the companies, with project financing, bank is indispensable, since it takes an individual approach to each project, flexible structuring of the transaction based on the capabilities and the needs of the project. Quantitatively, the role of the bank is determined by the volume and the variety of banking products offered within the project financing - from project

loans to equity and hedging of interest and currency risks. The main banking product within the project financing remains the project credit, which is determined by a high proportion of debt financing of the project (90%). At the same time, banks are increasingly involved in the capital of project companies, especially international banks and development banks. Also, banks are developing a wide range of products being necessary for successful and effective realization of the project. Qualitatively, the role of bank is determined by its effect on the economy and consists in the development of banking products to facilitate the effective reproduction. Strengthening of the project values in society creates a solid foundation for enhancing the role of the banks involved in project financing.

The specificity of project financing predetermines the need to focus on risk management. For successful realization of the project, it is necessary to pay attention to risk distribution between the project participants, which is the most important principle of project financing. The bank must monitor the quality of risk management by various stakeholders.

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MANAGEMENT OF INNOVATIVE PROJECTS ON THE ORGANIZATION OF PRODUCTION AND COMMERCIALIZATION OF ENERGY-EFFICIENT PRODUCTS

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ABSTRACT

This article discusses the management theory and methodology relating to the economic efficiency of an innovative project on the organization of production and commercialization of energy-efficient heat-insulated pipes for the housing and communal services of Russia and its region - Tatarstan. The study has been aimed at analyzing the assessment methods for the economic efficiency of an innovative project on the organization of production and commercialization of energy-efficient heat-insulated pipes for the housing and communal services of Russia and its region - Tatarstan. The singularity of the study is firstly, a positive innovative management solution made by Teplopipe, LLC for the design, organization of production and sales of heat-insulated pipes was justified; such pipes are designed to ensure energy saving efficiency in the housing and communal services in Tatarstan; secondly, a feasibility study was made for the organization of production of heat-insulated pipes with Tatarstan's planned quantities; thirdly, the risk factors of this innovative project and the methods to reduce them were justified; fourth, variative possibilities were determined as to survival of Teplopipe, LLC; such possibilities relate to the production, commercialization and application of heat-insulated pipes in a possible crisis.

Key Words: *Energy Saving, Heat Saving, Energy Efficiency, Innovative Project, Investment Support, Housing and Communal Services, Economic Efficiency*

INTRODUCTION

The global economic crisis has made the energy saving topic one of the major challenges of the 21st century. Currently, Russia consumes for heating one square meter of housing 6-8 times as much energy resources as in the developed countries of the world.

The level of citizen's life greatly depends on the solution of this problem. Russia does not only have the essential natural resources and intellectual capacity to solve its energy problems, but it is also objectively a resource base for the European and Asian countries; it exports oil, petroleum products and natural gas in the volumes strategically important for the importing countries. However, with a large volume of fuel and energy resources the Russia's strategy should not include the energy wastage, as the most important factor for the competitiveness of Russian goods and services is an energy-efficient economic management in the open market economy. Therefore, it is unlikely to achieve sustainable growth in the gross domestic product (GDP) not having radically changed the attitude towards energy and resource saving and not

having reduced the energy intensity of production. The energy saving should be a strategic goal and a method of ensuring the countries' energy security, as well as a way of saving when using the hydrocarbon raw materials.

The high priority Russian authorities' regulation in the field of energy saving represents the Federal Law of the Russian Federation as of November 23, 2009 "On Saving Energy and Increasing Energy Efficiency, and on Amendments to Certain Legislative Acts of the Russian Federation", according to which the energy efficiency is implementation of organizational, legal, technical, technological, economic and other measures aimed at reducing the amount of used energy resources while maintaining the appropriate useful communicative and synergetic effect from their use (including the volume of production, works, and services). (Antonyvech et al., 2010)

The definition of the concept "energy saving" incorporates its strategic goal, which is to increase the energy efficiency in all sectors, settlements and in Russia in general. The aim is to search and select the spheres and measures for ensuring this increase.

We believe that such sphere in Russia is energy efficiency in the housing and communal services (HCS). The ongoing structural changes in Russia in the past decade that take place in all economic sectors have necessitated the market transformation exactly in this critical survival industry and exactly by means of energy-saving technologies. The current situation is characterized as critical. This is due to the influence of external and internal factors and a number of problems accumulated in the pre-market period and resulting from certain market reforms. Unfortunately, the level of the industry's efficiency does not meet the modern requirements. It accumulated the problems, which solution should be accelerated, because it is one of the most important spheres of life of the population. The critical fundamental problems of the Russian HCS include the restructuring of the investment process through the introduction of innovative energy-saving technologies. That's it, in our opinion that should be preferred and declared a high priority in the long-term and short-term housing and communal innovation policy of Russia.

Implementation of innovative projects in the field of energy saving requires a prior monitoring of the regional energy consumption (such as electric and heat power, water, etc.). Its results will provide a choice of the main directions of investments in innovation based on the identified reserves of savings or excessive resource consumption. This work presents short main results of the feasibility study relating to the organization of production and sale of the items aimed at heat saving, namely, heat-insulated pipes. (Blyakhman, 2013)

The implementation of energy-saving technologies should be motivated with trilateral agreed and self-organized terms and conditions: for the authorities, which define the game rules in the industry; for the business, a private investor, who comes into the industry; for the society, which should have a dynamic socio-ecological-economic balance.

METHODS USED TO STUDY

To achieve this goal systematic and synergetic methods have been applied to assess the economic efficiency of an innovative project on the organization of production and commercialization of the heat-insulated pipes ensuring the economic efficiency of energy saving in the housing and communal services. These methods allowed determining the innovative project's systemic effectiveness, which can be obtained in the process of self-organization of the innovative interaction among the business, authorities and society in this sphere. The practical

model of the innovative project on the organization of production and application of heat-insulated pipes was implemented using a SWOT-analysis and economic experiment. Application of these methods allowed determining and calculating the design and experimentally derived indicators to measure the economic efficiency of the organization of production and commercialization of heat-insulated pipes ensuring the energy efficiency in the housing and communal services: net present value of the project (net discounted income) (NPV); internal rate of return (yield) (IRR); profitability index (PI); payback period (simple - PP and discounted - DPP). As a result of the calculation, the considered indicators made, respectively: NPV – USD 975.395.8; IRR - 69%; PI – 1.91; payback period, years – 2.46.

The obtained data show the accuracy and efficiency of an innovative management solution on the organization of production and commercialization of heat insulated pipes ensuring the energy saving efficiency in the housing and communal services of Russia and its regions.

RESULTS

Current State of Heat Supply in Tatarstan

The analysis revealed that as of 01.10.2015 1,916 heat supply sources functioned with a total capacity of 6.7 thous. Gcal/h in Tatarstan; they supplied heat energy to the population and budget organizations and produced 9,045.2 thous. Gcal of heat energy.

In 2015, the heat losses amounted to 3,495.0 thous. Gcal or 10.2% of the total amount of heat supplied to the network for various reasons of imperfection of the heat networks in Tatarstan. The length of heat networks requiring renovation totaled 904.1 km (or 25% of the total length), of which 606.4 km are dilapidated networks. Between 2009 and 2015, more than 200 km of networks, of which 150.4 km dilapidated, were replaced.

Currently, the program On Saving Energy and Increasing Energy Efficiency in the Republic of Tatarstan for 2010-2020 is implemented in Tatarstan. Its main tasks are:

1. decrease in the specific consumption of electric and heat energy;
2. reduction in the energy resources losses in production and consumption;
3. decrease in anthropogenic impact on the environment.

This Program has a section "Energy Efficiency in Housing and Communal Services and Housing Facilities", which provides for some repair measures in relation to the housing and communal networks ensuring heat supply of houses and industrial facilities: replacement of existing pipes, in particular, hot water supply and heat pipes.

As of January 1, 2015, a need exists to replace more than 1,500 km of pipes. General wear and tear of the heat networks exceeds 40% in Tatarstan. 15-20 km of heating mains are to be replaced every year, but actually only 6-8 km of heating mains are re-laid. The main reasons for this situation embrace the imperfection of processes in the housing and communal services in Tatarstan and Russia in general.

Innovative Heat Saving Technologies in Tatarstan

The contemporary period is filled with intelligent technologies that contribute to the savings and durability of manufactured products. The category of innovative products, which are

introduced in Tatarstan for the heat saving program implementation, includes pre-insulated polyurethane foam (PUF) pipes. The innovation and advantages of heat-insulated pipes are that the polyurethane foam retains heat in the network and saves the energy consumption by several times compared to a traditional pipeline. Heat losses account for only 2%, whereas those of conventional pipes reach the value of 20%. In addition, the polyurethane foam is resistant to extreme temperatures, and it can be used even in areas of permafrost and extreme heat. Depending on the laying area, the products are available in three types: for hot, cold and temperate areas differing in thickness of the insulating layer and the price. The products are resistant to the damaging effects of aggressive environment and excessive humidity.

PUF pipes are environmentally friendly, especially when molding the PUF not freon, as before, but water or other advanced expanding agents are used as an expanding agent.

PUF pipes are easy to lay; there is often no need in unlined canals and wells, which significantly reduces the mounting cost by 1.2 times and accelerates the introduction of objects into operation in 2-3 times. Easy maintenance and availability of the products allows reducing the operating costs by 8-10 times. Due to the high reliability and durability, the maintenance costs of heating mains decrease by almost 3 times. Furthermore, the PUF pipes are very durable. Their approved service life is at least 30 years. The study of pipes being used in Western countries for decades shows that their service life exceeds 50 years. (Vagizova, 2011)

Meeting the needs of Tatarstan in this type of pipes requires mass rather than experimental production for their release.

Feasibility Study of Innovative Project

According to the innovative project's feasibility study, the planned quantities of production and commercialization of Teplopipe, LLC heat-insulated pipes makes 75 km of pipes per year. The expected income from their sale will be more than USD 4,577.

Calculation of indicators for assessing the economic efficiency of the innovative project under consideration confirms its feasibility. The assessment was carried out using such indicators as:

1.   net present value of the project (net discounted income) (NPV);
2.   internal rate of return (yield) (IRR);
3.   profitability index (PI);
4.   payback period (simple - PP and discounted - DPP), year.

Table 1 presents calculation of the planned revenues and expenditures from the production and commercialization of Teplopipe, LLC heat-insulated pipes.

Table 1
PLAN OF TEPLOPIPE, LLC REVENUES AND EXPENDITURES

USD

Indicators	2014	2015	2016	2017	2018	Total:
1. Sales revenue	1,731,861	2,932,764	4,329,652	4,329,652	4,329,652	17,653,579
2. Cost of goods manufactured	1,673,681	2,294,876	3,152,605	3,080,084	3,080,084	17,653,579
3. Taxes before income tax	100,421	137,693	189,156	184,805	184,805	796,880
4. Income tax	-8,448	100,039	197,578	212,952	212,952	715,074
5. Net income (projected revenue)	-33,793	400,156	790,312	851,810	851,810	2,860,295

Table 2 shows the calculation of the innovative project's economic efficiency.

Table 2
INDICATORS OF ECONOMIC EFFICIENCY OF TEPLOPIPE, LLC INVESTMENT AND INNOVATION PROJECT

Description of indicators	2014	2015	2016	2017	2018	Total:
Initial indices						
1. Effect of investment activities, USD	-1,078,184					
2. Effect of operating activities, USD	104,537	538,485	928,641	990,139	990,139	3,551,941
3. Flow of real money, USD	-973,647	538,485	928,641	990,139	990,139	2,473,757
The same, cumulative total	-973,647	-435,162	493,479	1,483,618	2,473,757	
4. Discounted flow of real money, USD	-811,373	373,948	537,408	477,498	397,915	975,395.8
Calculated indices						
5. Net present value of the project						975,395.8
(NPV), USD						
6. Internal rate of return						69%
(IRR), %						
7. Profitability index (PI)						1.90
8. Payback period, year						2.47
For reference only:						
discount factor at the discount rate of 10%	0.8333	0.6944	0.5787	0.4823	0.4019	

Below are the considered indicators resulted from calculation:

1. Net present value of the project (NPV), USD   - 975,395.8
2. Internal rate of return (IRR)   - 69%
3. Profitability index (PI)   - 1.91
4. Payback period, year   - 2.46

The obtained data indicate that the calculated indicators meet the necessary criteria for a positive innovative management solution.

Innovative Project's Risks and Methods to Reduce Them

Risk analysis in the production of PUF pipes by Teplopipe, LLC showed that the company can use the following methods to reduce the risks:

1. diversification, which implies an increase in the number of project participants, suppliers and customers (can be used if this method does not lead to increased organizational and transport costs);
2. insurance, which involves: insurance of the company's property from natural disasters; insurance of the products shipped from the company for the period of transportation (if products are delivered to a Teplopipe, LLC costumer); vehicle insurance; health insurance.
3. compensation (redundancy) suggesting the creation of certain reserves: financial, material and information. The acquisition of additional information (for example, by carrying out more detailed marketing research) can be considered as information resources. Financial reserves are organized by allocating additional resources to cover unforeseen expenses. Stock of raw materials, materials and components can serve as the material reserves.

Analysis of the innovative project's sensitivity to the risk factors was performed under the following conditions:

1. decrease in production quantities by 10%;
2. increase in material costs by 10%;
3. increase in investment costs by 15%.

The sensitivity of production to these risk factors was assessed by the results of changes in such indicators of the innovative project's efficiency as the net present value of the project (NPV), internal rate of return (IRR), and profitability index (PI), and payback period.

The calculations revealed that the greatest negative impact on the project results has a potential 10% increase in prices for materials. The project is less sensitive to a possible 10% reduction of the production quantities. The possible increase in investment costs by 15% had the least influence, as the rise in prices of equipment leads to increased depreciation charges.

As a result of the quantitative assessment of risk impact on the project, one can say that none of the risks has a critical impact on the innovative project's implementation. These risks within the calculated limits do not pose a threat to the created production. (Gazizullin et al., 2012)

In order to prepare the company's development strategy in crisis conditions, the main factors of external and internal environment affecting the innovative project's viability were analyzed. Our own SWOT-analysis demonstrates that the company has substantial strong points that enable it to survive in a crisis. They include its variative possibilities: enter new domestic markets in such regions of Russia as Mari El, Chuvashia, Ulyanovsk region with low prices,

extend the range of products, export the products to foreign markets, and/or enhance the production quantities by increasing the construction volume in Tatarstan and other regions of Russia and abroad. Compact equipment, which can be easily dismantled, reduces the threat of dependence from a lessor and indicates the production mobility. High profitability of the project lowers a threat of increasing the bank loan interest. High rates of the innovative project's efficiency reduce the threat of no profit. (Kvon and Khamidullin, 2012)

CONCLUSIONS

The analysis showed that the management level of a positive innovative solution requires the identification of factors that influence the innovation activities of business, authorities and society in specific space-time dimensions, whether it is the city of Kazan, Tatarstan, Russia or other territorial entities. In order to implement certain energy-saving technologies, efficiency of the organization of production and sale of pipes ensuring heat saving in the housing and communal services was calculated. The calculation results confirm a high degree of generality and feasibility of investment resources in this innovative project. It should be noted that implementation of this project will provide obtaining the economic efficiency to the business, authorities and society in specific space-time dimensions. Further development of the project involves effectiveness not only because of creation of the production, but also because of its further implementation in constructing the heat-protected pipelines; this is caused by the advantages of PUF pipes, which have been presented above. Implementation of this project in the construction of a pipeline for the housing and communal services' facilities, as well as industrial enterprises will provide economic benefits on the following positions:

1. savings in the construction of heat-insulated pipes;
2. cost reduction in the current and capital repair of a pipeline;
3. savings from the heat loss reduction, etc.

According to the calculations carried out by authors of the article, the specific economic benefits (per 1 km of pipes) are about USD 100 thousand. The amount of the expected effect from the introduction of pipes per the planned production quantities will be USD 5.5 million for the calculation period.

As noted above, the innovative project's attractiveness rating for an investor is measured by such indicators as the profitability index, payback period, net present value, and others. However, the social component of this innovative project is generally of special importance within specific space-time dimensions, because it allows reducing tensions on the labor market. The project will create new jobs, decrease environmental tensions in the region and improve the efficiency of interaction between the business, authorities and society.

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INNOVATIZATION OF PLANNING INSTITUTIONS IN THE SYSTEM OF RUSSIAN ECONOMIC MANAGEMENT

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ABSTRACT

The article focuses on the importance of innovatization of planning institutions in the system of Russian economic management, describes the continuous planning as an alternative to periodical planning, as well as the collaborating system of institutions affecting the management efficacy in the Russian economy and an institutional form of struggle with losses produced by both positive and negative factors of management. The study has focused on the importance of innovatization of planning institutions in the system of Russian economic management, described the continuous planning as an innovative alternative to traditional periodical planning, as well as the collaborating system of institutions affecting the management efficacy in the Russian economy and an institutional form of struggle with losses produced by both positive and negative factors of management. The originality of the study is that the innovatization of planning institutions has been presented as a process of accumulation, preservation, use and development of the innovation potential of institutions in the system of collaboration among the business, authorities and society in the Russian economic management. A thesis is substantiated on the need for replacement of traditional institutions of periodic planning by innovative continuous planning institutions. It is proved that such replacement increases the efficiency of the institutional forms of struggle with losses produced by both positive and negative factors of the Russian economic management.

Key Words: *Innovatization, Institutions, Continuous and Periodical Planning, Management, Monitoring, Regulation, Positive and Negative Factors and Losses*

INTRODUCTION

Studying innovatization of planning institutions in the system of state economic management is a fundamentally new holistic approach to the study of the dynamic collaboration among the business, authorities and society in the part of the national institutional matrix, in which institutional management traps occur. Their appearance is connected with the use of alternative institutions and the emergence of correspondent losses caused by an inefficient norm.

In the "periodic planning - continuous planning" pair, the periodic planning in the management of socio-economic objects, in particular, an enterprise and country's economy served for a long time as the only object of development in the economic science, and it's ideal form called a "formal planning" in the western management was mainly developed. The continuous planning as an alternative to the periodic planning actually existed in the form of a "vague" image formed on the noticed shortcomings of the formal planning. In this case, the term

"continuous planning" was used, albeit on a small scale, but it meant: 1) operational planning representing not an adjustment but a specification of periodically devised plans of different levels, for example, planning using a rolling wave method being trendy now, 2) the same periodic planning, but with adjustment of a plan within a planning period on certain dates (for example, a 5-year planning with adjustment of a 5-year plan in planning for the following year). Only in recent years, the term "continuous planning (or its variants)" has come into general scientific use in the interpretation of a norm of planning being alternative to the periodic planning. In such interpretation, the term "continuous process of strategic development" is used, for example, in the article "From the traditional strategic planning to a continuous strategic development" by Franklin & Grant (2005). In this case, the drawbacks of studies on continuous planning are from the perspective of this study: 1) focus on planning at the levels of management of an association of enterprises (companies) and below, 2) lack of a clear definition of "continuous planning", 3) insufficient analysis of losses caused by periodic planning.

METHODS

Theoretical and methodological basis of this study is the author's position, according to which the effective innovatization of planning institutions in the economic management system is possible thanks to a dynamic replacement of periodic planning institutions by continuous planning institutions, that will provide protection against institutional traps in this sphere of collaboration among the business, authorities and society (Postalyuk, 2014).

The continuous planning is characterized as an activity that ensures timely decisions or measures. So, the above article contains, in particular, a case when Boeing made a decision after a sadly remembered event of September 11, 2001 related to the dismissal of 30,000 employees; such decision was not envisaged in the strategic plan, and at the same time it is noted that "in its essence, this decision has been a timely management response to the threat. The response, which allowed the company to save millions of dollars" (http://www.franklin-grant.ru/ru/news2/data/news_06/2005_10/2005100). In fact, the same continuous planning characteristics are reflected in such result for a company as "continuous improvement", which the Western author S. Arbogast mentions in his article "Budgeting: why continuous planning is so important for the permanent success (2005) (Arbogast, 2012). In this case, the vague definition of continuous planning consists in unclear interpretation of timeliness.

The continuous planning is also characterized as an activity that responds directly to the actions of competitors' market forces. For example, as noted in the article "From the traditional strategic planning to the continuous process of strategic development" in Franklin & Grant (2005), "the nature of behavior of markets and competitors prevailing in the modern world is creating new threats and opportunities, which are not taken into account in the traditional strategic planning. When these threats and opportunities arise, managers cannot and should not wait for a next planning cycle" (http://www.franklin-grant.ru/ru/news2/data/news_06/2005_10/2005100). In S. Arbogast's article "Budgeting: why continuous planning is so important for the permanent success (2005), continuous planning is characterized as an activity, which results in the "changes in accordance with the requirements of market forces" (http://www.franklin-grant.ru/ru/news2/data/news_06/2005_10/2005100). In this case, the vague definition of continuous planning consists in unclear interpretation of market forces' and competitors' actions, on which the continuous planning directly reacts.

Several attempts have been made in the domestic science only recently to give an adequate general definition of the continuous planning, which relates to all levels of economic management. For example, the K.N. Lebedev's work "Analysis of the constituent entity's economic activity as an instrument of state economic management" (2013) formulated a general (i.e. related to the national economic management as well) concept of adequate current management as the management based on the identification of problematic situations as they occur and the corresponding decision-making as such situations are identified (Lebedev, 2013); its features can be extended to such part of the management as planning. According to this, an adequate, or continuous, planning consists in making decisions with identification of problematic situations that are revealed so far as they occur. In his work "Problems and Prospects of the Science of Economic Analysis" (2103) K.N. Lebedev gave a relevant direct and general definition of the continuous planning (with regard to the company management): "...Adequate strategic management is based on the continuous planning, which consists in adjustment of the company's program plan (program) in process of identification of relevant problematic situations that are identified so far as relevant factors of the company's activity occur" (Lebedev, 2013). Thus, timely decisions and measures mean those that are taken in (adequately carried out) process starting immediately after the identification of corresponding problematic situations (evidence of factors), and actions of market forces and competitors, which need an immediate response, mean those of their actions that form certain problematic situations (set for each managed object).

In such a manner, so far an idea of continuous planning as an effective norm contrasted with periodic planning has been formed in the science (for simplicity, the functions themselves will be called the norms, as G.B. Kleiner calls them). This allows to make the periodic planning an object of study in the theory of institutional traps. (Budovich, 2011)

RESULTS

It is proved in studying this issue that the planning implies drafting (adjusting) the plan of a managed object (company, industry, economy of constituent object of the Federation, national economy, etc.), during which its main goals (mission, strategic goals) are changed, or clarifying the general plan. Planning is one of the traditionally specified management functions in a row "planning, organization, motivation, coordination, control". Adjustment of the managed object's plan, which does not affect its main goals (i.e. making adjustment decisions - decisions related to measures ensuring the managed object's movement towards the goals set in the planning), is an element of regulation comprising, in addition to this adjustment, management (in this case - adjustment) actions as well. Regulation, together with monitoring of external and internal environment of a managed object, forms a "control" management function.

An adequate type of planning (in this respect) is a continuous planning. Continuous planning consists in adjusting the managed object's general plan in the process of identification of relevant factors of its operation (i.e. factors that require adjustment) revealed as they become available, or, in other words, in adjusting the general plan so far as relevant factors appear. If a plan has a planning horizon that goes beyond a current year (a year, in which an adjustment is made), then not only a current year's plan, but also plans of following years are to be adjusted. It should be noted that the managed object's operation factors mean phenomena in the object's external environment (external factors) and in the processes of the object itself (internal factors), on which appearance a management subject should directly respond with decision-making

processes to ensure its most effective operation. The factors (including, in the form of evidence of their presence, or problematic situations) are identified in monitoring the managed object's external and internal environment; this process consists in observing this environment and comparing the fact with the standards. (Zembatova, 1990)

The (effective) norm of monitoring, which is associated with continuous planning, is the continuous monitoring, i.e. monitoring, which also takes place continuously (or with an allowable frequency). Such monitoring can be defined as a monitoring process, which consists in the identification of factors so far as they occur (ideally - as in many cases their consequences are revealed, and, which factors are behind them, often becomes clear only in the course of decision-making processes). It is understood that the continuous planning is impossible beyond a continuous monitoring of the environment of the object's activity. It is worth noting that a continuous monitoring in conjunction with a continuous planning and relevant management actions constitute an adequate current management of a socio-economic object.

The institute of regulation linked with a continuous planning, i.e. making adjustment decisions or decisions ensuring the movement towards the goals set in the planning, and implementation of appropriate management actions (regulation plus monitoring form control) means a regulation that does not lead to deterioration of (less efficient) activities of a managed object, even if such regulation is possible because there is no goal to achieve the main goals at all costs. It should be noted that the regulation causing a corresponding deterioration is not possible if the main goals of the managed object's operation exhaust the criteria of its effectiveness. For example, if the company's main goals are income and profitability of the invested capital, which simultaneously act as exhaustive effectiveness criteria of the company's activity, the regulation leading to the company's deteriorated activity is impossible, since in this case it turns into planning. Accordingly, in the circumstances where the main goals do not exhaust the managed object's effectiveness criteria the regulation that impairs an activity of such object is possible. Thus, there should also be a conjugation between a continuous planning and effective norm of the main goal selection, which ensures inclusion therein of the goals reflecting the managed object's effectiveness. (Meskon, 2004)

The periodic planning in a form opposite to a continuous consists in the adjustment of a plan within specifically established dates, for example, once a year before the beginning of the next calendar year (clear that if a plan of the object's activity has a planning horizon that goes beyond a current year, not only the current year's plan but also the plans of the object's activity in the coming years should be also adjusted). Periodic monitoring carried out immediately prior to adjustment of a plan means a (an ineffective) norm of monitoring associated with periodic planning. In this case, the periodic planning can be based on continuous monitoring of the external and internal environment of the managed object's operation, i.e. on the effective norm of monitoring.

The periodic planning can involve both efficient and inefficient norm of regulation. An ineffective norm of regulation associated therewith is a regulation related to the prevention of an impact of negative factors on an object or the compensation for it at any price (but not within the resources allocated to regulation); i.e. such regulation leads to a decrease in the managed object's effectiveness. It should be recalled here that the condition of its action is a failure to include all the criteria of managed object's effectiveness in its main goals. Suppose that the sales volume, rather than income and costs, belongs to the managed object's main goals. Below an example of regulation is given, at which the object's activity is getting worse. Suppose that this object deals with the execution of budget orders. One of the customers intended not to cooperate with this

object any more. Let us assume that the impact of this factor on the object's activity has been prevented by entering into an agreement with an appropriate customer's representative about constant payment of compensation for an order given to this object. In the conditions when costs and parameters of the object's activity calculated on their basis are not included in the object's main goals, a corresponding change would not alter the managed object's main goals, although it will reduce its efficiency. This inefficient norm of regulation can act in the conditions of both effective norm of monitoring (continuous monitoring) and its alternative (periodic monitoring). The considered inefficient norm of regulation represents the same struggle for a plan, but it differs from the one carried out in the planning process, because the main goals are not changed during it (because of the use of ineffective norm of the main goal selection). (Vagizova, 2009)

It may seem that modern enterprises operating in the market conditions do not use such a norm of regulation as the struggle for a plan on the grounds that the companies' main goals include, as a rule, all effectiveness criteria, first and foremost, income and profitability of the capital invested in a company. However, this is not true. The point is that the private costs of companies, which are reflected in the effectiveness criteria, do not always correspond to the social costs associated with its operation, primarily, due to the fact that companies are able to enhance the labor exploitation, at least until the next revision of employment contracts. In this case, the struggle for a plan during regulation is largely linked to the labor costs. In this connection, the companies have an opportunity to fight for a plan through an increase in labor costs, which is not reflected in the efficiency of their activity. (Robbins, 2004)

Not only the analysis of losses caused by the periodic planning, but also its actual application (so far at enterprises and their associations) indicate ineffectiveness of the periodic planning. Like any inefficient activity initially implemented through a propaganda and artificially created trend, the annual strategic planning and its preceding periodic monitoring at firms and companies have turned to a formal measure. The main elements of the strategic periodic planning naturally became formal measures as well. As written in the work "Analysis of the strengths and weaknesses of the company" published in our country in 2004, the Western authors P. Dzhenster and D. Hussey, "... management of many companies has reduced the task of assessing their strengths and weaknesses to the insignificant and formal annual ritual..." (Dzhenster, 2004). Exactly the same experience, however, quite some time ago, had economic analysis in its traditional interpretation.

CONCLUSIONS

In the "periodic planning - continuous planning" pair, the science traditionally dealt with the periodic planning, while the continuous planning as an alternative to the periodic one actually existed in the form of a "vague" image formed on the noticed shortcomings of the formal planning. The term "continuous planning" itself was used, albeit in other respects. Only in recent years, the term "continuous planning" has come into general scientific use in the interpretation of a norm of planning being alternative to the periodic planning; its adequate definition has been given – an activity aimed at adjustment of a program plan of the managed object's activities in the process of identification of relevant problematic situations revealed so far as corresponding factors of its activities appear. This allowed determining the periodic planning as a stable ineffective form and making the planning an object of study in the theory of institutional traps. In its pure form, the periodic planning is impossible; it is actually a periodic planning and informal adjustment of a plan within a planning period. The latter does not provide for the best measures,

since, in particular, a reaction to negative factors implies unconditional ensuring the achievement of the most important goals, which is called the struggle for a plan.

The (effective) continuous monitoring and effective regulation serve (within the resources allocated to regulation) as norms of monitoring and regulation associated with a continuous planning. The periodic planning may involve both the effective monitoring and regulation, and inefficient norms - periodic monitoring (that includes a forced continuous monitoring) and regulation resulting in reduced effectiveness of the object's activity in connection with the requirement to ensure movement towards the set goals "at any cost".

The concept of losses caused by the periodic planning is not sufficiently developed in science. So, traditionally only such losses from the formal planning are specified as losses from a failure to use positive factors from the moment when it becomes possible, and losses caused by negative factors due to delaying development and taking measures in the belief that the negative factors will disappear and the time of their impact will be prolonged until the plan's official adjustment.

Types of losses from the periodic planning based on positive factors are stated below. They are caused by 1) failure to use them from the moment when it becomes possible, 2) inadequate use because of development of such measures, which do not affect the most important main goals, 3) instruction to develop certain measures to lower management, 4) late detection of factors – at association with the periodic monitoring, 5) inability to use positive factors by the time of the plan's official adjustment, 6) the fact that at the time of adjusting the plan still valid unused positive factors can be used effectively, 7) the fact that during the plan's official adjustment the losses stipulated in Clause 2 and 3 cannot be eliminated completely.

Types of losses based on negative factors are given below. They are caused by 1) the fact that measures developed during a plan's forced adjustment are aimed at absolute ensuring the achievement of the most important main goals (in the form of a struggle for the plan), 2) the fact that the regulating measures are associated with a reduced effectiveness of the object's operation, 3) instruction to adjust a plan to lower management within a planning period, 4) late detection of the factors during a plan's forced adjustment - at association with the periodic monitoring, 5) delaying development and taking measures in response to the early identified factors in the belief that the negative factors will disappear and the time of their impact will be prolonged until the plan's official adjustment, 6) the fact that the impact of some negative factors on a managed object cannot be prevented by the time of the plan's official adjustment.

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ANTI-CORRUPTION POLICY OF THE REPUBLIC OF TATARSTAN

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ABSTRACT

The object of study of this article is the anti-corruption policy of the Republic of Tatarstan.

The aim of this study is to study the regulatory legal acts of the Republic of Tatarstan, forming the legal basis for anti-corruption policy of the Republic.

The article states that the development of anti-corruption legislation of subjects of the Russian Federation has followed the path of advancing the formation of anti-corruption legislative framework of the federal level, which ultimately has given rise to certain problems of law enforcement nature.

In the process of writing this article we have been using both the scientific methods of research (logical analysis and synthesis, functional and historical-legal methods) and special methods.

The research methodology includes primarily the regulatory legal acts of the Russian Federation, the Republic of Tatarstan, as well as the papers of Russian scientists; the international experience on the issue has been also studied.

As a result of the study the authors conclude that currently almost all regional legislation, including in the Republic of Tatarstan, is brought into line with the federal legislation in the field of anti-corruption; and it is necessary to carry out a permanent set of measures of the legal, socio-economic and educational nature for the effective implementation of the anti-corruption policy both in the regions and the federal center.

Key Words: Corruption, Anti-Corruption Policy, Regional Anti-Corruption Policy, Anti-Corruption, Anti-Corruption Legislation, the Republic Of Tatarstan

INTRODUCTION

Corruption is a phenomenon that reflects the level of development of the society itself, as well as the state and the entire legal and political system. Corruption is born, exists and changes at the same time with the state and its institutions.

V. Cope notes that corruption as an anti-social phenomenon has a destructive impact on all legal institutions, with the result that the established rules of law are replaced by the rules dictated by the individual interests of those who are able to influence the representatives of government authority and are ready to pay for it (Koop, 1998).

It is obvious that the fight against corruption should be one of the priorities of state policy (it should be noted that based on the content of many regulatory legal acts, it is really so).

Understanding the experience of fighting against corruption is essential, taking into account an attempt to improve the anti-corruption policy in the public authorities, including at the legislative level.

METHODS

In the process of writing this article we used the general methods of scientific knowledge. The specifics of this theme led to the use of formal-legal and comparative-legal research methods. Thus, the formal-legal method was used in determining the methodological aspects of the anti-corruption policy in the Russian Federation and the Republic of Tatarstan. The comparative-legal method was used in the analysis of international experience on the subject under study, as well as for the analysis of various provisions of the regulatory legal acts of the Russian Federation and the Republic of Tatarstan.

The empirical base of the research includes primarily the regulatory legal acts of the Russian Federation, the Republic of Tatarstan, as well as the scientific studies of Russian and foreign scientists.

MAIN PART

Currently, there are a lot of scientific papers devoted to the anti-corruption issues. Several foreign authors have devoted their researches to various aspects of the organization of counteraction to corruption practices in the government and judicial authorities (Arnim, 2003; Bradley, 1998; Hodgkinson, 1997).

At the same time at the study of anti-corruption policy, which is highlighted in the papers of many legal scholars, it is actually not fully developed the scheme, which would determine such important aspects of development and implementation of the anti-corruption measures as: disclosure of anti-corruption policy and its social properties; definition of the content and the implementation mechanism of anti-corruption measures; comprehensive analysis of anti-corruption policy and its relations with other areas of legal protection of the citizens' rights and freedoms - criminal, administrative, disciplinary, civil, etc.

In this regard, the main direction of state policy in the sphere of state and public security provision should be an improvement of the legal regulation to prevent and fight against corruption in the long term (Sukharenko, 2013).

Investigation of the role of anti-corruption policy shows that it is one of the priority directions of the state policy and aims to fight against corruption, to define the main vectors of activity of the state in the future, to develop the measures to fight against corruption, to identify and overcome its social component.

The legal concept of anti-corruption policy is a fundamental structural unit, which connects all other elements of the state-legal mechanism of fighting against corruption with direct real forms of its manifestation. It reflects the real-existing phenomenon and introduces it within the legal framework (Idrisova, 2012).

Anti-corruption policy - is a science-based, systemic lawmaking activity and the activity of civil society institutions aimed at fighting against and preventing corruption in order to reduce its negative impact on the life of the state, society and citizens, associated with the elimination of causes and conditions that contribute to its occurrence (Tashchilin, 2016).

The objectives of the anti-corruption policy are the most comprehensive fair protection of rights and freedoms of individual persons and legal entities, strengthening the rule of law, increasing the level of legal culture.

At the same time, it should be noted that each subject of the Russian Federation has its own peculiar certain specifics of corruption risks, as well as its own system of corrupt practices and methods of their implementation. In this connection, it should be noted that the effective

solution of the problems in the field of fighting against corruption in the activity of public authorities and local self-government authorities of a certain subject of the Russian Federation depends on the development and implementation of a set of measures to fight against corruption, taking into account the requirements of the current legislation and the specifics of each region (Korotkova, 2012).

It should also be noted that the development of anti-corruption legislation of subjects of the Russian Federation has followed the path of advancing the formation of anti-corruption legislative framework of the federal level, which suggests the formation of a complex legal regulation of fighting against corruption.

The researchers note that, given the importance and necessity of fighting against corruption, as well as seeing the inaction of the federal public authorities in this field, the separate regional public authorities and their senior officials began to form their own legal frameworks for fighting against corruption, including their own regional anti-corruption legislation (Bikmukhametov, 2008).

Such subjects of the Russian Federation include also the Republic of Tatarstan, where its own republican Law "On Fighting Against Corruption in the Republic of Tatarstan" has been already in force from May 2006 (whereas a similar law has be adopted only at the end of 2008 at the federal level).

The Law of the Republic of Tatarstan "On Fighting Against Corruption in the Republic of Tatarstan" and regulatory legal acts adopted on the basis of it include the typical mechanisms of fighting against corruption at the republican level, which subsequently have been taken by other subjects of the Russian Federation, which have adopted the similar legal acts. In general, the regional anti-corruption program of the Republic of Tatarstan is, without exaggeration, one of the best programs.

In the most general terms it should be noted that in the Republic of Tatarstan the specialized anti-corruption bodies are established; the measures for the prevention of corruption practices are actively implemented at the level of ministries and departments, as well as the local self-government authorities; the activity of public authorities and local self-government authorities becomes more accessible and open; the methodical work is carried out to ensure fighting against corruption, etc.

The analysis of the regulatory legal framework of the Republic of Tatarstan enables to conclude that the main emphasis is made on expanding the arsenal of anti-corruption means within the fight against corruption in the Republic, using for this purpose the political, legal, economic, organizational and educational measures. The main measures include:

1. adoption of the Anti-Corruption Policy Strategy of the Republic of Tatarstan. The Strategy was adopted in order to organize an effective fight against corruption, to eliminate the causes and conditions generating it, to ensure the rule of law in the activities of public authorities of the Republic of Tatarstan;
2. the Law of the Republic of Tatarstan dated May 4, 2006 No. 34-ZRT "On Fighting Against Corruption in the Republic of Tatarstan";
3. the Resolution of the Cabinet of Ministers of the Republic of Tatarstan dated October 16, 2013 No. 764 "On Approval of the State Program "Provision of Public Order and Combating Crime in the Republic of Tatarstan for 2014-2020";
4. planning work on fighting against corruption both in the whole Republic and in the ministries, municipalities (see, for example, the Resolution of the Executive Committee of the Municipal Unit of the City of Naberezhnye Chelny of the Republic of Tatarstan dated November 18, 2014 No. 7047 "On Approval of the Municipal Program "Implementation of Anti-Corruption Policy of the Municipal Unit of the City of Naberezhnye Chelny for 2015-2020";

5.   creation of a special body under the President of the Republic of Tatarstan, coordinating and directing the preventive anti-corruption activities. Such body in the Republic is represented by the Commission for Coordination of Fighting Against Corruption in the Republic of Tatarstan, established in accordance with the Decree of the President of the Republic of Tatarstan dated October 13, 2015 No. UP-986 "On the Commission for Coordination of Fighting Against Corruption in the Republic of Tatarstan". The Commission for Coordination of Fighting Against Corruption in the Republic of Tatarstan is a permanent coordinating body under the President of the Republic of Tatarstan. The Commission shall perform the functions assigned to the Commission to comply with the requirements for the official behavior and to settle the conflict of interest in respect of persons, holding the public offices of the Republic of Tatarstan, for which it is not otherwise provided by the federal law or the laws of the Republic of Tatarstan, and to consider the relevant issues in accordance with the procedure established by the President of the Republic of Tatarstan;

6.   introduction of the administrative regulations and standards for the provision of public services to the individual persons and legal entities, reducing the level of corruption (the Resolution of the Cabinet of Ministers of the Republic of Tatarstan dated November 2, 2010 No. 880 "On Approval of the Procedure for Development and Approval of Administrative Regulations for the Provision of Public Services by the Executive Public Authorities of the Republic of Tatarstan and on Amendments to Certain Resolutions of the Cabinet of Ministers of the Republic of Tatarstan";

7.   carrying out the anti-corruption expertise of regulatory legal acts and draft of the regulatory legal acts in accordance with both the federal and regional legislation;

8.   implementation of anti-corruption propaganda and creation of a system of anti-corruption education. Thus, according to Article 12 of the Law of the Republic of Tatarstan dated May 4, 2006 No. 34-ZRT "On Fighting Against Corruption in the Republic of Tatarstan", the purpose of anti-corruption education is the acquisition of knowledge, skills and competence on the detection and prevention of corruption offenses, formation of intolerance to corruption manifestations in the society, increasing the level of legal awareness and legal culture. And the anti-corruption education is implemented through the students' training under the additional educational programs approved by the Ministry of Education and Science of the Republic of Tatarstan.

In addition, in this direction the agency of mass communication "Tatmedia" holds an annual republican competition "Corruption: Journalist Opinion", the purpose of which is to identify the journalists, who cover the issues on prevention and fighting against corruption in the best way in the media of the Republic of Tatarstan.

Another way to fight against corruption is to participate in the anti-corruption civil society institutions (inclusion of the public representatives to the audits made by the public authorities, conduct of the sociological surveys of citizens about the prevalence, forms of corruption and its most affected areas). In the anti-corruption legislation of most regions of the Russian Federation, it is expressly stated that the public authorities and local self-government authorities shall cooperate with the civil society institutions on the anti-corruption issue. For example, in the legislation of the Republic of Tatarstan the cooperation in the sphere of anti-corruption means the impact of various anti-corruption subjects, including the public authorities and the local self-government authorities, as well as the civil society institutions on each other. This impact shall pursue a common goal - a reduction of corruption level in the public administration system (Kabanov, 2012).

An effective tool to increase the efficiency of anti-corruption measures implemented has become the Decree of the President of the Republic of Tatarstan dated March 23, 2011 No. UP-148 "On Measures for the Organization and Implementation of Monitoring the Effectiveness of Activity of the Executive Authorities of the Republic of Tatarstan, Territorial Bodies of the Federal Executive Authorities in the Republic of Tatarstan, Local Self-Government Authorities of Municipal Districts and Urban Districts of the Republic of Tatarstan on Implementing the Anti-Corruption Measures in the Territory of the Republic of Tatarstan", jointly developed by

the Presidential Anti-Corruption Policy Department of the Republic of Tatarstan and the Committee for Socio-Economic Monitoring of the Republic of Tatarstan, as well as the corresponding Decree of the Cabinet of Ministers of the Republic of Tatarstan.

As noted above, the regional anti-corruption legislation has been developed ahead of the federal one. At the same time the consequence of this trend was represented by the differences in the definition of concepts used in the federal regulatory legal acts on fighting against corruption and in the regulatory legal acts of subjects of the Russian Federation that created additional difficulties in the course of law enforcement activities.

However, it should be noted that at present almost all the regional legislation, including in the Republic of Tatarstan, is brought into line with the federal law in the field of fighting against corruption.

Summing up, it is possible to make some conclusions.

There is no doubt that one of the key means of fighting against corruption is the law as a mean of regulatory legal impact, aimed at overcoming and preventing the occurrence and development of corruption (Borgen Jan, 2005).

The basis of anti-corruption measures should be the legislation, taking into account the international anti-corruption standards and anti-corruption experience in foreign countries.

As T.Ya. Khabrieva notes rightly, all public authorities should be aimed at improving the law enforcement system, provision of effective implementation of laws and other legal acts, full implementation of the powers of any bodies and organizations in the fields of public and private law, protection of rights and legitimate interests of the citizens. This requires the development of specific system of indicators that illustrate the effectiveness of the implementation of the legal regulations (Khabrieva, 2012).

The law effectiveness is not equal to a simple aggregate of the effectiveness of individual legal regulations and institutions, because the law is not limited to their amount. To ensure the effectiveness of law it is necessary to constantly carry out a set of measures of the legal, socio-economic and educational nature. When implementing purely legal measures it is necessary to select those legal means, which contribute to achieving this goal. This includes the scientific support of law-making and the new procedures of implementation of laws, etc.

RESULTS

The result of the study conducted is a statement of the following provisions:

1. corruption is a phenomenon that reflects the level of development of the society itself, as well as the state and the entire legal and political system.
2. understanding the experience of fighting against corruption is essential, taking into account an attempt to improve the anti-corruption policy in the public authorities, including at the legislative level.
3. the regional anti-corruption policy is aimed as a whole at the implementation of the federal anti-corruption policy;
4. in order to implement the anti-corruption policy in the Republic of Tatarstan the specialized anti-corruption bodies are established; the measures for the prevention of corruption practices are actively implemented at the level of ministries and departments, as well as the local self-government authorities; the activity of public authorities and local self-government authorities becomes more accessible and open; the methodical work is carried out to ensure fighting against corruption, etc.;
5. the analysis of the regulatory legal framework of the Republic of Tatarstan enables to conclude that the main emphasis is made on expanding the arsenal of anti-corruption means within the fight

against corruption in the Republic, using for this purpose the political, legal, economic, organizational and educational measures.

SUMMARY

Based on the analysis of anti-corruption legislation of the Republic of Tatarstan, as well as the situation in the field of fighting against corruption, which prevails in the Republic, it should be noted that the anti-corruption policy of the Republic should be developed in the following areas:

1. organization of work to bring the republican law and municipal regulatory legal acts into conformity with the federal legislation, because of the need to improve the governance in the field of fighting against corruption;
2. bringing available to the public of the information on corruption offenses admitted by the officials of the public authorities and local self-government authorities and on measures taken by the public authorities for the implementation of both the republican and federal anti-corruption policy;
3. prevention of the emergence of corruption crimes, as well as reducing the conditions conducive to the emergence of corruption practices;
4. improvement of the efficiency of cooperation between the public authorities and local self-government authorities with the civil society institutions;
5. consistent application of the existing legal and educational measures aimed at fighting against corruption.

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CONCEPT OF DEVELOPMENT OF AN ENTREPRENEURIAL CULTURE IN THE HOSPITALITY INDUSTRY ENTERPRISES OF THE REPUBLIC OF TATARSTAN

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ABSTRACT

This paper presents the role of an entrepreneurial culture in the management system to improve the efficiency of the hotel business enterprises in Tatarstan. Currently, the Republic of Tatarstan has become one of the most attractive tourist destinations not only in Russia, but also abroad, that certainly confirms the relevance of this study. Popular hotels of the city of Kazan: "Shalyapin Palace Hotel", "Safar-Hotel" and "Regina" were made the objects of the study.
Survey and subsequent analysis of its data used in the capacity of a research method.
It was revealed that the organizational culture as an institutional framework of modern business is characterized by focusing on maximum customer satisfaction, innovations, productivity, independence and entrepreneurial attitude, quality, labor and product safety, and customization.
Based on substantiation of the motivational mechanism for development of organizational culture in hospitality industry enterprises, we have developed an adaptive strategy of organizational culture "implantation" into a company of hospitality industry that shapes the entrepreneurial style of behavior, initiates staff efforts to achieve final results and the efficiency with feedback system.
Practical application of the developed strategy enhances the effectiveness of labor efforts of hospitality industry enterprise employees.

Key Words: *Entrepreneurial Culture, Management System, Hotel Business, Staff Motivation*

INTRODUCTION

As known, there are a lot of factors that determine the effectiveness of management system of the hospitality industry enterprises. Among them the entrepreneurial culture factors, the task of which is to give businesses a humane, socially oriented and culturally mediated nature, become very significant.

Business viability has become defined by its flexibility, dynamism and adaptability to environmental requirements. Now, a company is already regarded as an "open" system focused on results. There is a need in transition to a new approach in the management of organizations based on the entrepreneurial culture as an integral component of the entrepreneurial system.

This approach to management opens new possibilities for building an effective organization; however, upon transition to it, a company will inevitably face with the complex problems of the theoretical, methodological and applied nature. Analysis of these problems leads to the understanding of a need to address the most important of them: creation of a technique of transition to the management based on the entrepreneurial culture. Changes in the economic,

political and other spheres of life in the Russian society led to the transformation of the external and internal environment of a company: the system of values, norms, rules and principles that make up the social world has radically changed. Today, as in other crisis periods for the society, loss of landmarks in activity of individuals becomes especially apparent; the status of the public life subjects remains uncertain. These processes can be characterized as a crisis of values necessary for a person to make a selection of his/her behavior patterns within the hospitality industry firms.

It is extremely important to consider the organizational culture as a means (instrument) to improve the efficiency of hospitality industry enterprises in connection with implementation of the concept of "human capital" which affects the quality of services (Ivanov, 2003).

The entrepreneurial culture management strategies, its development and regulation should help to solve many of the complex problems faced by the staff of hospitality industry enterprises, in particular, improving the quality of services, enhancing the cohesion and unity of a team, development of acceptable behavior forms and technology of works executed.

The hospitality industry companies which, for the realization of their objectives, employ many workers and affect as a result of their activities the interests of other people, have to reckon with the consequences of the impact of their operations. (Abulkhanova, 2011)

Entrepreneurial culture is considered by us as an effective management tool in contributing to the achievement of business goals. Entrepreneurial culture is expressed in the behavior of employees and their attitude to work. The system of values that are shared by employees, and their skills, united in individual and collective efforts lead a company to the intended results.

Existing entrepreneurial culture in a company shapes the behavior of employees and their attitude to work. The efforts of employees lead to certain results of their activity: financial, manufacturing, marketing, and social outcomes. According to the feedback system, the results should be compared with the planned objectives that allow determining the effectiveness of the costs incurred. Depending on the performance efference of remuneration for work of employees is carried out that forms the degree of satisfaction or dissatisfaction with the job performance and reward, and affects the further efforts of employees. (Kobelev and Simulation, 2013)

The value of an entrepreneurial culture for development of enterprise management system of the hospitality industry is determined by several factors. First, it gives employees an organizational identity, defines intragroup vision of the company, and is an important source of stability and continuity in the organization. This creates among employees a sense of security of the organization and their position in it, and contributes to formation of a social security sense. Second, a basic knowledge of a company's corporate culture helps new employees to correctly interpret the events taking place in the organization, defining all the most important and significant in them. Third, more than anything else, the organizational culture stimulates self-awareness and a high responsibility of an employee. Recognizing and rewarding such people, organizational culture identifies them as role models (inspirational persons) (Abulkhanova et al., 2016).

METHODS

The study of entrepreneurial culture at the enterprises of hotel business in Tatarstan was conducted by us to identify problems and make recommendations for its improvement. The objects of the study were three hotels: "Shalyapin Palace Hotel", "Safar-Hotel", and the hotel

"Regina". The study was conducted based on a questionnaire for hotel employees in the following areas:

1.   The attitude of staff to the entrepreneurial culture of the hotel. Such issues were studied as understanding by the staff of the hotel mission, their perception of the content and implications of organizational culture and other issues.
2.   Motivation of employees in the hotels as a necessary part of an entrepreneurial culture. Such issues were studied as the dependence of wages on the employee's job performance and satisfaction with the current remuneration system.

The results showed that all respondents consider an entrepreneurial culture as extremely important for the activity of a hospitality industry enterprise, but the majority of employees (75%) understand the culture only at its surface level: tradition, corporate celebrations, rituals, symbols. 25% of respondents could not even formulate the concept of organizational culture. (Paley, 2012)

Among the positive aspects of the current organizational culture, employees of "Shalyapin Palace Hotel" complex called availability of a corporate style in the interior of the hotel, rationally organized system of training the newly arrived employees. The employees of "Safar-Hotel" noted the following positive features of the organizational culture: availability of brand marks and holding corporate events.

"Regina" hotel staff identified the following positive features of the current organizational culture: tradition to celebrate holidays, in particular day of hotel birth; competitions of professional skills; issuance of various products with company logo (calendars, letterheads, pens, etc.); permission for employees to use the services of the hotel complex: swimming pool, gym.

Along with the positive aspects of the current organizational culture, disadvantages also were noted in the respondents' answers. We cannot say that these shortcomings immediately have a negative impact on the effectiveness of the control system, but may affect negatively in the near future.

We asked respondents to identify the main positive and negative factors that shape behavioral patterns of labor behavior at the enterprises of hotel business. The following responses (table 1) were received. (Sinyavets, 2015).

In the service sector where they work with a client face to face, there cannot be a question about the high quality of service if employee satisfaction indicators are low. An important factor in job satisfaction is an employee involvement in the organization. An involvement is much deeper than a motivation. The motivation must be demonstrated to the company management, and involvement is a characteristic of the staff that is often expressed in a deep emotional commitment, even devotion to the goals and values of the organization. Namely, involvement generates within an employee pride in the fact that he or she works in the organization, that he or she is a part of the conglomerate (it does not matter, a large conglomerate or not) (Balashikha, 2014)

Table 1
SPECIAL FEATURES OF ORGANIZATIONAL BEHAVIOR OF STAFF AT THE ENTERPRISES OF HOTEL BUSINESS

Features of organizational behavior	The meaning and description
Positive image of the hospitality industry	A special high service environment providing the necessary emotional impact on the staff
Using behavior patterns	Active introduction of international experience in the hotel business into Russian practice, the opportunity to study abroad
Work and train	The ability to combine work with studies
Staff overloading	Many employees in the hospitality industry have complained for excess hours, overtime, night shifts.
Absence of really working system of mentoring and staff rotation	A mentor should not only "put" a young specialist at any position, but also to train him/her providing his/her career growth.

Importance of this concept for the hospitality industry is expressed; above all, in the ability of the staff to overcome the difficulties associated with the performance of his/her professional duties. (Spiridonov, 2015)

Processed study materials on motivation assessment suggest that there are some problems in the surveyed hotels. In the studied organizations there is no practically a system of motivation and stimulation of the personnel. This is evidenced by the following data. Being asked with the question of whether you are satisfied with wages and material incentives, the following results were obtained. According to the survey, it is possible to judge that the motivation of employees in the hospitality industry has not been developed effectively.

When analyzing the survey of hotels employees there were revealed major problems in the enterprise management systems related to the attitudes of employees to the organizational culture of hospitality business enterprises. The employees mostly understand under the organizational culture its surface level: corporate events, logo, and uniforms. From our point of view, the employees undervalue such properties of an organizational culture as maintenance of a system of values and positive traditions, solidarity, joint efforts. The absence of an effective organizational culture in enterprises cause a number of other issues, particularly the problem of supply of qualified personnel and the problem of motivation. (Chumarina, 2014)

On this basis, we concluded that it is necessary to implement a model of highly efficient labor behavior motivation for employees in enterprises of the hospitality industry (see Figure 1).

RESULTS

Highly effective labor motivation strategy for employees of hospitality industry enterprises is aimed at:

1. Evaluation of the labor contribution effectiveness of employees;
2. Creation on an enterprise the environment promoting to high efficiency implementation of labor potential of managers and specialists;
3. Parity protection and promotion of the rights of highly motivated managers who organize a highly effective personal work and work of subordinates;
4. Guarantee of the maximum possible working life quality level at the given level of development of society, industry, and organization;

Figure 1
MODEL OF MOTIVATING HIGHLY EFFECTIVE WORK BEHAVIOR OF HOSPITALITY INDUSTRY EMPLOYEES

5		2		1	
Estimating the probability of labor input connection - compensation		Estimating the probability of labor output connection - compensation		The significance of the remuneration for the employee (valence)	
$T_B - B$		$T_O - B$		$B_Л$	

7	4	3	6
Comprehensive assessment of the role of the worker in the enterprise	Labour input of staff	Work efficiency of staff	Personal qualities of employees
O	T_B	T_O	K_L

9	8
The effectiveness of the employee in the overall results of the organization	The results of the individual nature of the employee
P_K	P_I

10b	10a	11
External employee remuneration	Internal employee remuneration	Rewards are perceived as fair

B_{ext}	B_{int}	B

13 +	12 −	12 +	13 +
Formation negatively motivated employee behavior	− dissatisfaction	+ Satisfaction of administrative activity	Formation of positive behavior motivated employee
$F_{PM} (−)$	$U+ −$		$F_{PM} (+)$

According to the proposed model, working efficiency of an employee (9) is mediated by the results of the employee work (8) and depends on several variables: labor output (3) and labor input (4) (these are not equivalent, because the effort does not always correspond to the effective labor contribution, a part of them may be useless or even harmful), the personal qualities of an employee (6), and a comprehensive assessment of the role of an employee in the enterprise (7) (Fig. 3).

The level of an employee labor output (3) depends on the importance of (valence) of the expected remuneration (1), on individual estimation of the probability of connection between a labor output and remuneration (2); the level of labor contribution of an employee (4) depends on the individual assessment of the probability of connection between a labor contribution and remuneration (5). The individual working results (8) are directly related to the employee's work dedication (3). The operating results of the organization, subordinate division or team are related with working results and the labor efficiency of an employee (9).

The dotted line between the labor productivity (8) and a remuneration perceived by an employee as fair (11) shows the individuality of remuneration justice assessment. (Hofstede, 2011)

Satisfaction from the activity (12+) is the result of a fair external (10b) and internal rewards (10a), and dissatisfaction (12) of the unfair.

A success of the practical application of the model for labor behavior motivation of hospitality industry enterprise employees depends on whether the specific conditions in the organization (division) and features of a specific employee correspond to the proposed model.

The peculiarity of the proposed model for labor behavior motivation of hospitality industry enterprise employees is caused by that it brings together labor output figures, the real labor contribution of an employee to the objective effectiveness of the organization as a whole.

Building a model for labor behavior motivation should increase the efficiency of labor efforts of hospitality industry enterprises employees.

Rational sequence of building a motivation model in the hospitality industry may be as follows:

1) study of typical conditions in trade enterprises for a social procurement on the model adequate to them;
2) assessment of the state - the phase of development of the organization and its motivational potential;
3) identification by testing, expert assessment and other methods of the extent to which the developed model corresponds to the real situation in an enterprise;
4) finding a set of deviations and evaluation of the extent and nature of their removability;
5) periodic assessment of economic effect for modeling.

No organization will operate efficiently if at the level of a region, industry, ownership, or an individual firm, or its affiliates, an effective motivation model motivating staff productivity in achieving specific goals will not be developed.

DISCUSSION

Grounded on the above, it must be concluded that the entrepreneurial culture management strategy based on the model of highly effective work behavior of hospitality industry employees, its development and regulation should help to solve many of the complex problems faced by the staff of hospitality industry enterprises, in particular, improving the quality of service delivery, strengthening of team cohesion and unity, development of acceptable forms of behavior and technology of works executed.

So, the basic theoretical conclusions derived from the analysis of entrepreneurial culture of the hospitality industry companies, are brought to the creation of scientific and practical recommendations for its formation and development. These findings can be used to improve the management system of hospitality industry enterprises based on an entrepreneurial culture.

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ECONOMIC FORECASTING AND PERSONNEL MANAGEMENT OF SMALL AND MEDIUM ENTERPRISES

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ABSTRACT

Development of small and medium-sized businesses and the environment in which they operate are essential for the successful development of the country. Small and medium entrepreneurial activity is primarily an institution that provides the employment. The problem of formation of high-quality and efficient use of the staff of small and medium enterprises is the most relevant in the modern world. Therefore, the development of methodological approaches to the management and forecasting of entrepreneurial staff is an urgent topic of the study.

Search techniques of extrapolation, trend and econometric models, the normative target method. The method for predicting entrepreneurial staff allowing making recommendations in training for small and medium-sized businesses has been formulated.

The methods of forecasting human resource capacity for small and medium-sized enterprises have been offered.

It is manifested in the possibility to increase the accuracy of forecasting parameters for training of small and medium-sized businesses.

Key Words: Small and Medium Entrepreneurship, Methods of Management, Forecasting, Business Personnel

INTRODUCTION

Small and medium-sized companies due to their mobility and flexibility may mitigate the negative processes in the field of employment, ensure social adaptation of employees disengaging from large enterprises as well as create new market niches in terms of economic growth.

At the same time, the contribution of small and medium-sized businesses to the overall economic performance in Russia is much lower than in most not only developing but also developed countries.

For forecasting of training, retaining and advanced training of personnel for enterprise system, it is requires the studies of quantitative and qualitative characteristics, including the definition of forecasting demand.

At the same time economic forecasting should be considered as the system of scientific research of quantitative and qualitative character, aimed at identifying the trends in the development of economic relations and the search for optimal solutions to achieve the goals of this development. (Abulkhanova, 2011)

Economic forecasts of personnel of business is closely connected with other forecasts, particularly with the measures of GDP, the number of active small and medium-sized enterprises in the country on the whole, including in the regions of cross-section, the number of trained personnel, the account of which, of course, increases the reliability of economic forecasting . The important in forecasting is a selected method as well as techniques. The set of special rules, techniques and methods is forecasting methodology, including the search methods of extrapolation using annual average growth rates, trends and econometric models, and normative target.

METHODS

The search forecast (or research, trend) is forecast of determining possible states of the phenomenon in the future while maintaining the trends prevailing in the past (extrapolation).

In the medium-term forecasting of demand (from one year to 5 years), when in the development of indicators of demand there is a stable tendency to its increase or decrease, for predicting the state of future levels of the indicator under study, it is appropriate, in our view, to use the indicators of average annual growth rates. The method is based on the assumption that a number of indicators of the development of demand in time is a geometric progression. This means that each subsequent member of the dynamic series (a_{i+1}) is equal to the previous one, multiplied by the average annual growth rate (k_p). (Abulkhanova, 2015)

$$k_{p=}n\sqrt{\frac{Y_n}{Y_1}} \, ,$$

where k_p- average annual growth rate;

n - number of periods of dynamic series;

Y_n - value Y in the reporting year;

Y_1- value Y in the base year.

Forecast extrapolation of a trend is the curves of correlation and regression dependencies based on factor analysis. It is typical for the trend to find a smooth line, reflecting time development patterns. In this case, it is essential to use it as a main component of the forecast time series, requiring the construction of a graph of dynamic timeline on which the function line is mathematically defined. The line of trend in the general form for the linear dependence is defined by the formula

y = a +bt,

where y – dependent rate (the quantity of trained personnel);

t – studied time interval;

a– parameter characterizing the effect of factors not accounted for in the model;

b – parameter characterizing the effect of the time factor on the change of dependent indicator.

To determine the parameters, the system of equations is solved by the method of least squares (MLS). The trends are calculated by means of equations, i.e. aligned values of demand over the past years are determined and the forecast for the future is calculated.

In practice of the medium-term forecasting, correlation and regression or econometric models (static and dynamic, single-factor and multi-factor) are also widely used. These models serve as a function of demand, which use the factors determining changes in demand as variables.

It is necessary to build a homogeneous dynamic econometric models of linear relationship of the form y = a + bx, where y is a dependent variable (the number of trained personnel); x - an independent factor (the number of small and private enterprises); and a – an indicator of the influence of factors not accounted for in the model; b - an indicator of change in the dependent variable (y), depending on the variation of the independent factor (x) by one unit (in physical units).

The parameters of econometric models as well as a trend are calculated by the method of least squares. The forecast of demand uses the indicator of elasticity expressing the dependence of change of one factor on another state in percentage.

The ratio of demand of elasticity E is calculated according to the formula

$$E = \frac{\Delta y}{y} : \frac{\Delta x}{x} \ ,$$

where y – demand for personnel;

 x – the number of small and private enterprises;

 Δ – changes of indicators.

In contrast to the trend models, econometric model enables more accurately reflect the process of formation of demand. It provides an opportunity on the basis of the available volume and structural parameters of consumption for the past and present periods with consideration for the influence of factors to determine the trajectory of demand for the coming period and to calculate its key parameters. (Babeshko, 2011)

To assess the quality of the obtained trend and econometric models it is necessary to use:

1. the coefficient of determination - R^2_($0 \le R^2 \ge 1$), which shows the changes in percentage (variation) of resultant variable, in% (the closer to one, to more extent the factors influencing the resultant sign are taken into account);
2. F- Fisher criterion to assess the statistical significance of the forms of communication of model. The model is recognized meaningful if the calculated criterion value with the degrees of k_1=n-1 , k_2 =n-m-1,where n - number of observations and m - number of factors included in the model, more table value of Fisher criterion for a given level of significance; α ;
3. DW- Durbin - Watson criterion to evaluate the random nature of connection of levels of a number of remains by calculating the autocorrelation coefficient and comparing it with the theoretical table values of criterion - the d_l and d_u according to lower and upper limits;
4. Assessment of the significance of the regression coefficients in the model is conducted by the t - Student criterion. Estimated value of t – the criterion with the number of degrees of freedom - k = n-m-1 is compared with the tabular value of the criterion for a given level of significance - α , and if it is more than a table one, a regression coefficient of the model is considered to be statistically significant.

Point forecast is complemented by interval presented in the form of confidence intervals, reflecting the average forecast error.

The average forecasted error is calculated according to the formula

$$\mu = {}^+_- \sqrt{\frac{\delta^2}{n}} \ ,$$

where μ - the average forecasted error;

δ^2 - dispersion, defined by the formula $\delta^2 = \dfrac{\sum (y - \bar{y})^2}{n}$.

Long-term forecasting of demand for enterprise personnel is by means of the normative-target method. The normative forecast (or software, target) is performed to determine the ways and time frames for achieving the possible states of an object of forecasting in future, taken as a target.

Calculations by this method are carried out in two stages.

The first stage is determined by the average annual growth rate for the analyzed period of time:

$$k_{p=} n \sqrt{\frac{Y_n}{Y_1}} .$$

In the second stage, one calculates the number of years of achieving the norm of consumption under the existing growth of consumption v:

$$k_{p=} v \sqrt{\frac{Y}{Y_1}} .$$

where Y – given level of demand.

RESULTS

Given the development of the system of entrepreneurship in the Republic of Tatarstan and the prospects of its growing role in the national economy as well as adequate proposals in the field of basic training of personnel for the system of enterprise (universities, colleges, non-governmental organizations, and others.), one can review the results and prospects of activity of accelerated training of personnel, their retraining and advanced training, using the econometric analysis. The organizers of the accelerated training of personnel are educational structures of the Republic of Tatarstan, which are able on the whole to create effective demand for personnel at their own expense as an addition to the basic training of specialists in the event of lack of their necessary number (especially in groups of economic, legal, technological and engineering specialties in industrial sectors). (Ilchenko, 2009)

To do this, it is essential to analyze the dynamics of the number of active small and medium-sized enterprises (SMEs) from the point of view of the cities, regions and generally in Tatarstan, where conventionally it is necessary to distinguish 2 group of cities, areas with different trends of development of SMEs in the Republic, where the 1st group is characterized by an increase in the number of active enterprises of SMEs, and in the other group it has been declining.

Next, one is to consider the dynamics of the number of SME enterprises in Tatarstan in general, applying an already trend econometric model by using the following indicators: the number of active enterprises (thousand units); t - time (year) (Table 1).

Table 1
CALCULATION OF THE COEFFICIENTS OF THE ECONOMETRIC MODEL

Years (2010 -2015)	Econometric models	Criterion				Coefficient	
		Darbin-Watson DW (DWl=0,95 Dwu=1,23)	F-Fisher (F4,5,0.05=5,19)	t-Student (t5,0.05=2,02)		R^2	Э
				t0	t1		
Tatarstan	x = 23.955t +105,39	1,98	8,33	-2,35	3,33	0,96	0,44

Let us carry out the assessment of quality of the obtained trend model. The statistical significance of the linear form of the equation is calculated according to the criterion of F- Fisher (Table 1). Since F is a fact> F table (8,33> 5,19) at the 5% significance level, we can conclude about the importance of a linear dependence.

The checking of independence of the levels of a number of remainders (no autocorrelation) is conducted by comparing the calculated DW = 1,96 and table values DWl = 0,95 and DWu = 1,23. The estimated value of 1,96 falls within the range from 1,23 to 2,0. Conclusion - the independence of the levels of a number of residues.

The analysis of significance of the model coefficients is performed by t-Student criterion. As shown in Table 2, the actual value of the t-criterion of both model coefficients (t0 = -2,35 and t1 = 3,33) exceeds the table (t 5,0,05 = 2,02), so the hypothesis of the immateriality of the regression coefficients of the model can be rejected and they can be recognized statistically significant. R2 = 0, 9622 shows that the change of the time factor (t) by 96% explains the change in the number of SME enterprises.

As follows from the model, every year (2010 - 2015) the number of enterprises of SMEs in country in general increased by 23,96 thousand units in average. The coefficient of elasticity E = 0,44 shows that the annual increase in the number of active SME enterprises in Tatarstan averaged 0,44%.

Also, a comparative analysis of personnel, trained for the small and medium enterprises in Tatarstan in order to reveal the level of training, as the dynamics of the number of trained personnel from the point of view of the cities, regions may exhibit unstable trend.

The analysis of calculated values of the criteria with tabulated data (Table 2) suggests a statistical significance of the model on the whole. Hence, one can go to the interpretation of coefficients of the model. If there is a tendency to increase the level of training personnel for SMEs for 2000-2015 in the Republic of Tatarstan, the model shows that the annual number of the trained personnel for SMEs increased by 6012,2 of people or 0,62% in an average.

Table 2
CALCULATION OF THE COEFFICIENTS OF THE ECONOMETRIC MODEL *

Years (2010 - 2015г.г)	Econometric model	Criterion				Coefficient	
		Darbin-Watson DW (DWl=0,95 Dwu=1,23)	F-Fisher (F4,5.0.05=5,19)	t-Student (t5,0.05=2,02)		R^2	Э
				t0	t1		
Tatarstan	y =6012,2t + 12637	2,01	11,27	2,81	3,36	0,7381	0,62

The value of R2 = 0,7381 indicates that the change in the time factor (t) by 74% explains changes y. This figure is much lower than in the previous model, i.e. the change was significantly influenced by other factors.

One can also analyze a statistically significant dependence and between the number of personnel trained for SMEs (y) and the number of enterprises of SMEs (x) in country on the whole. This relationship should be presented by means of econometric model.

Like the previous models, this model is statistically significant according to all criteria (Table 3).

Table 3
CALCULATION OF COEFFICIENTS OF ECONOMETRIC MODEL*

Years (2010 - 2015г.г)	Econometric models	Criterion				Coefficient	
		Darbin- Watson DW (DWl=0,95 Dwu=1,23)	F-Fisher (F4,5.0.05=5,19)	t-Student (t5,0.05=2,02)		R^2	Э
				t0	t1		
Tatarstan	y =251,96x -13999	1,65	13,62	2,05	3,69	0,773	1,42

The analysis of the coefficients of the model enables to conclude that during the period being analyzed the increase in the number of SMEs per 1 thousand units led to an increase in the number of the trained personnel for SMEs by 251,96 people in average. The coefficient of elasticity E = 1,42 shows that during the period under review an increase in the number of active SME enterprises by 1% led to an increase in the number of the trained personnel for SMEs by 1,42% in average.

However, in the context of the regions of the republic there is not always a statistically significant relation between the changes in the number of the trained personnel for SMEs (y) and the number of active enterprises SMEs (x). This can be demonstrated by building econometric models in terms of the regions of the republic.

As stated, a statistically significant association and its absence the studied indicators (y and x) are observed in cities and regions of Tatarstan and Kazan itself.

Noteworthy is the prevailing weak inverse relationship between y and x in Kazan. From our viewpoint, this can be explained by oversaturation with public institutions and the system of training in the capital.

Using the models of the cities and regions included in the group of a statistically significant relationship, one can analyze and interpret the existing stable trends of change in the number of the trained personnel for SMEs and the number of active enterprises of SMEs. For example: the econometric model for Naberezhnye Chelny shows:

$$y = 327{,}36x - 3182{,}8.$$

This means that for the period, an increase in the number of SME enterprises by 1 thousand units in Naberezhnye Chelny led to an increase in the number of the trained personnel for SME by 327 people in average.

In the regions of another other group, for example in Nizhnekamsk and Zelenodolsk, the investigated dependence does not have a marked trend. There is no the relationship between the dynamics of the trained personnel and the number of the existing enterprises.

An analogous analysis can be performed using the models built for other cities and regions of the group. All they are statistically significant, t. e. they can be used for further economic analysis and forecasting.

By extrapolation method, as an example, we calculate the medium-term forecast values (from 1 to 5 years) of the studied parameters as follows:

$$k1 = \sqrt[n]{\frac{Y_n}{Y_1}} = \sqrt[6]{\frac{237{,}5}{125{,}6}} = 1{,}89^{\wedge}\frac{1}{6} = 1{,}112.$$

The average annual rate of growth of SME enterprises for the period from 2010 to 2015 amounted to 1,112.

The forecast of this index will be: in 2016 - 264,1*1,112 = 293,7 (enterprises) and so on.

For this method, one can calculate forecasted value of this indicator from the point of view of the cities and regions in the republic.

Also let us calculate the errors of forecast and confidence intervals for the predicted values of the forecasted period in country on the whole

2016: $$\delta^{\wedge}2 = \frac{\sum(y - \bar{y})^{\wedge}2}{n} = \frac{15177{,}01}{7} = 2168{,}144.$$

$$\mu = \frac{+}{-}\sqrt{\frac{\delta^{\wedge}2}{n}} = \frac{+}{-}\sqrt{\frac{2168{,}144}{7}} = \frac{+}{-}17{,}6 \text{ и т.д.}$$

Table 4

Forecasted years	X- μ	Forecasted values X	X+ μ
2016	276,2	293,8	311,39

Next, let us calculate short-term and medium-term forecasted values for the number of the trained personnel for SMEs. In 2015, the number of trained personnel for SMEs in the

country amounted to 44312 persons, whereas in 2000 - 8412 people, hence the existing rate of growth of this indicator is equal to 1,319

$$k_3 = 6\sqrt{\frac{44312}{8412}} = 5,27^{\wedge}\frac{1}{6} = 1,319.$$

The forecasted values of the revealed trend of this indicator are the following: in 2016 - 58492*1,32 = 77209,4 (people) and so on.

The errors of the forecast of the indicator for this forecasted period in the republic on the whole will be following:

in 2016: $\delta^{\wedge}2 = \dfrac{\sum(y - \bar{y})^{\wedge}2}{n} = 197820763;$

$$\mu = \frac{+}{-}\sqrt{\frac{\delta^{\wedge}2}{n}} = \frac{+}{-}5316 \text{ and so on}$$

Taken into account the problem posed by the government about bringing the share of small and private entrepreneurship in the GDP in 2017 to 35,0%, using the method of forecast estimates, we calculated the required number of personnel and active enterprises of SME. The result revealed the following: to achieve a share of MPE in GDP by 2017 by 35,0% it is necessary by the above educational institutions to prepare, retrain and improve the skills of 91,4 thousand and have 60,0 thousand of existing enterprises. It is necessary in this regard to continue assessing the investment complex of Tatarstan not only for SME, but also for the education system and personnel of business. (Kobelev, 2013)

DISCUSSION

The forecasting of development of personnel potential of the enterprise system can be carried out using an econometric model that includes search extrapolation methods with annual average growth rates, trends and correlations and normative target. This takes into account the development of small and medium-sized businesses, the number of people employed in them, the need for specialists, including those with higher education and with their advanced training.

The search and normative methods of forecasting allow making recommendations on improvement of the level of objectivity and, consequently, the effectiveness of management decisions in training of necessary number of personnel for small and medium-sized businesses.

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MODELING OF ACCOUNTING POLICIES AS A TOOL OF MANAGEMENT OF CORPORATE FINANCIAL PERFORMANCE

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ABSTRACT

In this paper, a study of methodological aspects of company's accounting policies as a tool of management of the corporate financial performance in terms of its market capitalization and net profit. The comparative analysis of the accounting policies conducted with an example of methods of depreciation for fixed assets showed that the choice of various depreciation methods can lead to significant variations in the company's annual net profit indicator. The paper presents the results of the econometric study the aim of which was to analyze the degree of influence of separate accounting policies items on the financial performance with the example of JSC "Transneft" to simulate accounting policies promoting to maximize the corporate financial performance. In the course of the regression analyzes us have confirmed all the null hypotheses, namely: it was found that the analyzed accounting policies of JSC "Transneft" (depreciation method) affect the corporate financial performance indicators. Upon that, the greatest impact of depreciation method was on the net profit of the company as compared to its market capitalization. Thus, we can conclude that the modeling of accounting policies by selecting the optimal method of accounting elements is an effective tool for a company management system.

Key Words: *Accounting Policies, Financial Performance, Net Profit, Market Capitalization, Management, Corporate Governance*

INTRODUCTION

The process of formation and transformation of accounting policies requires an optimum combination of the factors influencing it. The solution to this problem depends on the professional judgment of an accountant which uses scientifically grounded methods, one of which is a simulation [Dănescu et al., 2014]. The combination of the professional judgment expression process with the use of objective and subjective factors and the modeling method in the formation of accounting policies to the present day has not been quite fully addressed in the scientific literature that conditions the urgency of solving this problem [Socea, 2012].

Modeling of accounting policies considered as a separate process in the formation of accounting policies acts as a method which it is advisable to use in a professional judgment of an accountant that is the main tool of a modeling subject [Rees & Sutcliffe, 1989].

At this stage, a professional judgment of an accountant has an important role, because this or that interpretation affects a user's perception of accounting information formed as part of the accounting process [Archer et al., 1995]. Accordingly, modeling of accounting policies in the process of its formation is subject to subjective influences. This is due to the presence of many economic interests that lead to a justification of different methodological and methodical approaches to building the accounting and opportunity to choose accounting policies.

In this work we have conducted an econometric study the aim of which is to analyze the degree of influence of separate accounting policies items on financial performance with the example of JSC "Transneft" to model accounting policies promoting to maximize the corporate financial performance.

In the course of the regression analyzes we have confirmed all the null hypotheses, namely, we have found that the studied elements of the accounting policies of JSC "Transneft" (depreciation method and written-down inventory assessment) influence on the financial performance indicators of the company. Thus, we can conclude that the modeling of accounting policies by selecting the optimal method of accounting elements is an effective tool for a company management system.

However, there are some limitations for our work. The most serious limitation is a not enough large number of observations used in the econometric analysis. In order to improve the accuracy of estimation of the quality management system as a result of modeling the accounting policies, our study should be based on a broader knowledge base. Despite this, the resulting research findings are reliable because they are based on the logic of economic processes, and are confirmed by statistically significant models.

ASSESSMENT OF THE IMPACT OF ACCOUNTING POLICIES ON THE CORPORATE PERFORMANCE INDICATORS

A distinctive feature of the priority aspects choice for the accounting policies is the fact that almost all alternative accounting policies affect the cost of sales rate and net profit later on.

In order to provide an economic assessment of implementation of the effective accounting policies development model we investigated the influence of certain accounting policies items on the financial performance indicators of JSC "Transneft", in particular, the choice of depreciation method.

According to IFRS 16 "Fixed assets", the accounting policies may provide three methods for calculation of fixed assets depreciation [Kulikova et al, 2015.]

1.   Straight-line method;
2.   Declining balance method;
3.   A way to write off the cost in proportion to the volume of goods (works).

Russian accounting standards (RAS 6/01 "Accounting of fixed assets") also provide a fourth method of depreciation: the method of writing off value according to the sum of the digits of the years of useful life.

Using the example of a truck "KAMAZ" purchased by JSC "Transneft" in 2013, we calculated the depreciation by all methods applicable to the asset (useful life was set to 96 months, the original cost was 9.8 mln. rubles). It has allowed us to determine the impact that the choice of the method to charge depreciation to cost of sales, and therefore to the financial results.

Table 1 shows that for the first two years of use of the truck, much of the fixed asset cost is written-down applying the declining balance method by 4.277 million rubles (or 44% of the original value of the object). Upon the straight-line method, for the first two years costs would be equal to 2.45 mln. rubles what is 25% of the original cost.

Table 1
THE IMPACT OF THE METHOD TO CHARGE DEPRECIATION ON FINANCIAL RESULTS OF JSC "TRANSNEFT" (PER 1 ITEM OF FIXED ASSETS)

Years	The results using the methods to charge depreciation, mln. rubles		
	Straight-line	**Declining balance**	**According to the sum of the digits of the years of useful life**
2014	(1.225)	(2.450)	(2.178)
2015	(1.225)	(1.837)	(1.906)
2016	(1.225)	(0.153)	(1.633)
2017	(1.225)	(0.115)	(1.361)

Extrapolating the results of the calculations for the whole group of fixed assets, including more than 35 000 units with inventory numbers, let's calculate the effect of depreciation methods discussed on the financial results of JSC "Transneft" using coarse simplification (Table 2).

Table 2
REPORT ON THE FINANCIAL RESULTS OF JSC "TRANSNEFT" FOR 2015 MLN. RUBLES (EFFECT OF THE METHOD OF DEPRECIATION)

Indicator name	Straight-line	Declining balance	According to the sum of the digits of the years of useful life
Revenue	31 884.4	31 884.4	31 884.4
Cost of sales	(21 081.4)	(21 693.9)	(21 761.9)
Gross profit (loss)	10 803.0	10 190.5	10 122.5
Selling expenses	(52.5)	(52.5)	(52.5)
Management expenses	(3 808.9)	(3 808.9)	(3 808.9)
Profit (loss) on sales	6 941.6	6 329.1	6 261.0
Interest receivable	2.9	2.9	2.9
Other incomes	2 162.8	2 162.8	2 162.8
Other expenses	(2 769.1)	(2 769.1)	(2 769.1)
Profit (loss) before tax	6 338.2	5 725.7	5 657.7
Current income tax	(1 872.3)	(1 872.3)	(1 872.3)
Change in deferred tax liabilities	(156.9)	(156.9)	(156.9)
Change in deferred tax assets	312.4	312.4	312.4
Other	(6.5)	(6.5)	(6.5)
Net income (loss)	4 614.8	4 002.3	3 934.3

According to Table 2 it is clear that the choice of different depreciation methods can lead to significant variations in the annual net profit of a company.

Table 3 shows the effect of different methods to charge depreciation on the financial profitability of JSC "Transneft".

Table 3
THE IMPACT OF THE METHOD TO CHARGE DEPRECIATION ON PROFITABILITY INDEX OF JSC "TRANSNEFT" FOR 2015, %

Indicator nane	Straight-line	Declining balance	According to the sum of the digits of the years of useful life
Return on current assets (net profit / current assets)	57.96	50.27	49.41
Return on equity (Net income / Equity)	4.8	4.1	4.09
Return on sales (operating profit / revenue from sales)	21.77	19.85	19.64

According to Table 3 it is clear that the best is to choose the straight-line method to charge depreciation of fixed assets. In this case, return on current assets is by 7.69 percentage points more than according to the declining balance method and by 8.55 percentage points more for than according to the sum of numbers of years of useful life. The situation is similar to return on equity and return on sales. The largest percentage falls on the straight-line method to charge depreciation as a result of application of the existing accounting policies. At the same time, two other methods to charge depreciation, as opposed to the straight-line method, enable the organization to accumulate more funds for the further recovery of fixed assets which have lost their original physical properties.

Based on the above it can be concluded that using by its accounting policies completely different ways for accounting assessment of the facts of its economic life, an organization could present in its financial statements the same economic situations by different methods and therefore affect the financial performance indicators in different ways [Kulikova & Goshunova, 2014].

METHODOLOGY OF MODELING ACCOUNTING POLICIES FOR MANAGEMENT OF CORPORATE FINANCIAL PERFORMANCE

In this study, we have conducted an econometric study the aim of which is to analyze the degree of influence of separate elements of accounting policies on the financial performance with the example of JSC "Transneft" to model accounting policies promoting to maximize the corporate financial performance.

The subject of the study is identification of links between the key indicators of the financial success of the company, net profit and market capitalization, and the individual items of accounting policies of the organization (charging of depreciation methods).

The two variables were used as the dependent ones:

1.   The quarterly net profit for the period of 2015-2016 years;
2.   The quarterly value of market capitalization of OJSC "Transneft".

The independent variable was the value of fixed assesses depreciation.

In economic literature, the net profit indicator is seen as a universal financial indicator by which it is possible to evaluate the effectiveness of a company for the period under review. This indicator is often used by external users of information contained in the financial statements, in particular, for investors to calculate financial ratios.

Market capitalization of a company is one of the benchmarks which are taken into account when deciding about investing money by external users of accounting information contained in the financial statements. In this context, it becomes important to identify whether the accounting policies of the company has the effect on fluctuations of its market capitalization.

The study was conducted with the help of the econometric package STATA 9.1. Sample scope has amounted to the financial statements of JSC "Transneft" for 16 quarters in the period 2015-2016.

To confirm or rebut the null hypotheses we carried out a paired regression analysis between the accounting policies item and a net profit, as well as between an accounting policies item and a market capitalization of JSC "Transneft".

RESULTS

The analysis results are presented in Table 4.

Table 4
REGRESSION ANALYSIS OF AN ACCOUNTING POLICIES ITEM OF JSC "TRANSNEFT"

The dependent variable Y = Net profit						
Independent variable	**Factor**	**Student's t-test**	**P-level**	**Number of observations**	**Adjusted R-squared**	**F-test**	**Significance F-test**
C	12.9626	12.81345	0.0000	16	0.291085	11.6156	0.00668
Depreciation	0.260508	3.408023	0.0067				

As a result of correlation and regression analysis, the following net profit model on the basis of depreciation of fixed assets items was obtained:

$$Net\ Profit =\ 12.96\ \times\ Depreciation^{0.261} \times E \qquad (1)$$
$$\quad (1.012) \qquad\qquad\qquad (0.076)$$

Coefficients included in this model describe the behavior of the dependent variable for 29.11% ($R^2 = 0.2911$), the share of unaccounted factors accounts for 70.89% (E - the error term of the model). Upon that, all regression coefficients and the model in general are statistically significant with a probability of 95%. All this testifies to the high quality of the model.

Next, it is necessary to consider the influence of this accounting policies item on the external efficiency of JSC "Transneft". This involved a paired regression analysis between a market capitalization of the company and the cost of depreciation of fixed assets items.

Table 5
REGRESSION ANALYSIS OF ACCOUNTING POLICIES ITEMS OF JSC "TRANSNEFT"

The dependent variable Y = Market capitalization						
Independent variable	**Coefficient**	**Student's t-test**	**P-level**	**Number of observations**	**Adjusted R-squared**	**F-test**	**Significance F-test**
C	11.95878	9.33652	0.0000	16	0.373422	3.5556	0.020522
Depreciation	0.251853	2.74875	0.0205				

According to the results of the analysis, it was found that the dependence of the market capitalization of "Transneft" JSC on depreciation of fixed assets is described by the equation:

$$Market\ Capitalization\ =\ 11.96\ \times\ Depreciation^{0.252} \times E \qquad (2)$$
$$(1.280) \qquad (0.092).$$

The parameters of this equation are significant for the t- statistics. Statistically the equation is statistically significant as a whole; it shows the significance of F-criterion that is equal to 0.0205. This model has the highest quality among all the models considered by us as it explains by 37.34% the change in the market capitalization depending on depreciation of fixed assets of JSC "Transneft".

Thus, the selected item of JSC "Transneft" accounting policies affects to some extent the net profit and the company's market capitalization.

DISCUSSION AND CONCLUSIONS

Interpretation and analysis of the regression models coefficients made it possible to come to the following conclusions: the analyzed element in accounting policies has a positive effect on the corporate financial performance. The depreciation charging method has the greatest impact on the net profit of a company as compared to its market capitalization.

Change of depreciation by 1% leads to a change in market capitalization by an average of 25.19%. This influence is due to the fact that a huge number of plants and equipment was carried as an asset of JSC "Transneft". Since the quality of oil transportation depends on the quality of the oil pipelines which are the fixed assets of the company, more stringent requirements are presented to them consistently in this regard that leads to the need for regular diagnostics and maintenance of oil and oil products pipelines in good condition, with their periodical upgrading and reconstruction. Additional investments in fixed assets, in particular pipelines, contribute to the qualitative performance of the company which strengthens the company's reputation and lead to a further increase in the market capitalization of JSC "Transneft".

In turn, the increase in depreciation by 1% leads to a change in net income by an average of 26.05%. From an accounting point of view, depreciation is expenses of the current period and has a negative impact on the company's financial results. However, in its economic essence, depreciation acts as the source of reproduction of fixed assets. Sufficiency of depreciation is a prerequisite for the continued long term operation of the company. In turn, the reproduction of fixed assets, and their expansion contribute to that economic benefits will inflow in the future.

Thus, the study was considered assessment of the impact of certain accounting policies on the performance indicators of JSC "Transneft".

An integrated approach to understanding the company's management system involves not only internal but also external evaluation of the impact of company's activities. In this connection, obtaining objective and reliable results of the economic analysis of organizations plays an important role for a company's management which goal is to ensure the growth of investment attractiveness of the company as well as for potential investors interested in an objective and accurate assessment of the financial and economic activities of the organization with a view to establish long-term economic cooperation [Ntim, 2016; Marilena & Corina, 2012; Fadhel et al, 2015.; del Carmen Briano - Turrent & Rodríguez-Ariza, 2016; Cheng et al., 2014].

The information necessary for management is generated in the accounting system, and methods for generating this information depend on the accounting policies developed by the company.

In the course of regression analysis carried out by us, all the null hypotheses were confirmed, namely, it was found that the studied elements of the accounting policies of JSC "Transneft" affect the financial performance indicators of the company.

Thus, we can conclude that the modeling of accounting policies by selecting the optimal items of accounting method is an effective tool for a company management system.

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INNOVATION POTENTIAL MANAGEMENT FOR ECONOMIC SYSTEMS

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ABSTRACT

1. Introduction: At the present stage of economic development one of the important trends of an enterprise competitive advantages development is the intangible resources along with conventional ones, which form the basis for an innovation growth and the development of an enterprise.

2. Methods: The methods of scientific research were the following ones: analysis, synthesis, indicating method, system approach, factor analysis method, economic and mathematical methods of data processing and analysis. The use of the abovementioned methods provided the logical nature of an article structure development and the possibility of an informed description of findings.

3. Results: The increase of investment volume in the i-th element of the innovative capacity by 1% will result in market value increase as it was determined that the market value increase after the investment increase by 1% in the institutional capacity of the considered enterprise PJSC "Nizhnekamskneftekhim" is projected at the level of 1.095% at ceteris paribus of a used econometric model.

4. Discussion: The subject of an innovative potential management and development at a company is an actual one and demanded. In this respect the issue of its effective management as large and medium industrial enterprises is an important one.

5. Final report: The practical significance of the innovation potential algorithm control for economic systems is explained by the possibility of a practical application by the enterprises of any industry sector and production scale.

Key Words: *Innovative Potential, Management, Economic Systems, Development*

INTRODUCTION

The relevance and a high practical importance of control process concerning the innovative potential of economic systems determined the choice of the scientific article subject, its content, the setting of goals and objectives.

The aim of the scientific article is the management algorithm improvement in respect of economic system innovative potential.

The goal made it necessary to perform the following tasks:

1. To study the essence of innovative potential concept;
2. To conduct a review concerning the main approaches to innovative potential management;

3. To propose and justify an innovation potential control algorithm innovation for economic systems as the basis for innovative development.

The innovation potential (IP) of an enterprise is the synthesis of several types of resources: intellectual, financial, administrative and technical one, which will provide the ability to create and implement innovations for a company (Albert and Bradley, 2015; IJTM, 2011; Saifullina, 2010; Edvinsson, 2014). Processes, products, technologies, packaging, the schemes of product sales are the result of an intellectual potential use (IJTM, 2011).

METHODS

The approaches to the evaluation of an innovative potential as a mandatory step of IP management can be divided into three groups: quantitative, qualitative, and mixed (combined) ones (Hakansson, 2010; Sultanova, 2007; Bukovich and William, 2003).

Quantitative methods involve the use of mathematical tools during the processing of a significant amount of indicators based on their interpretive property.

The qualitative methods represent the approaches based on the identification of innovation potential qualitative characteristics on the basis of indicators reflecting the efficiency of a company activity according to potential key elements: fixed assets, current assets, trade and production processes, marketing, management and human resources.

The western theory of innovation recognizes the importance and significance of innovative potential evaluation in innovation management. So, Mityakova O.I. develops IP management model on the basis of task solution stage structuring from the analysis of an external environment to the assessment of outcomes in the work "The assessment of an industrial enterprise innovation potential". At that the importance is given to the issue of an available IP evaluation (Mityakova, 2004).

I.L. Tukkel and R. Nayak, J. Ketteringhem offers to take into account the age of experts engaged in innovative projects within "The economy and the financial support of innovation activity". However, in our opinion, the need of this indicator inclusion in the assessment of an enterprise innovative potential seems to be very controversial one, since the age-related features appear as from the best and the worst parts, serve as an advantage and as a disadvantage (Davenport and Prusak, 2013; Nayak and Ketteringhem, 2001). Besides, under the system of innovative activity indicators some authors are encouraged to use the amount of an enterprise participation in exhibitions, seminars and conferences, which is not informative itself without the establishment of cause-and-effect relationships with an enterprise innovative activity results (Klimov, 2002; Sarabia and Sarabia, 2005; Sveiby, 2004).

According to the authors, the innovation potential of a company is the collection of individual types of resources that influence innovation activity and have the characteristics of innovation growth and development. One may represent the functional groups in an enlarged way, which forms the innovative potential of an economic system as follows: an intellectual (research), organizational, marketing and logistics potential. This IP structure will be used by us in the framework of this article.

RESULTS

During the consideration of IP management issue it is worth to note five signs, ensuring the effectiveness of IP control algorithm according to our opinion (Ustinova, 2013):

1. IP office is the part of a unified enterprise management system and is subject to the main purpose of an enterprise;
2. The aims and the objectives of IP management model SP should be determined clearly;
3. The development of a management model is performed in a structural way;
4. The development of a model is performed using the system tools.

Let's emphasize additionally the fact that the goals and the objectives of a model should be consistent with the goals and the objectives of an innovation development concerning an entire economic system. Thus, it is possible to design, predict and control the trajectory of the whole economic entity development.

According to the proposed principles the algorithm of effective enterprise IP use estimation is reasonable to develop on the basis of a systematic approach. This process can be divided into three stages:

1. The determination of a status and the needs of internal and external enterprise environment;
2. The determination of IP dominant elements on the basis of economic and mathematical models;
3. The selection of an optimal IP management model and the assessment of the compliance with the established criteria.

A created model IP management model has a communicative model property, which provides a mutual influence of an external environment on a system and a system on an external environment. A key reason of this lies in the dynamics of the global economic, scientific, technical and information content change that requires the systematization, the structuring and the search of new management tools.

An outlined formalization and algorithm creation problem for an enterprise IP management facilitated the process of differentiation into separate four units within functional stages (Figure 1):

1 IP diagnosis. On the basis of empirically proven relationships between IP elements and key performance indicators of an enterprise, the authors proposed to start the IP management process with the diagnosis of quantitative and qualitative IP volume available at an enterprise (Kaplan and Norton, 2006). The methodological base of this study phase can be the common methods of study and the evaluation of qualitative and quantitative characteristics of an object: the market capitalization method and the econometric methods of factor analysis. It is offered to use market capitalization in this article as an indicator which demonstrates a company value in an external environment.

The following speculations are within a proposed IP use efficiency measurement unit:

H_1: There is a statistical relationship between the market performance of a company activity and IP level.
H_2: The determination of priority elements in a company IP structure will influence the market performance effectively.
H_3: The determination of priority elements in a company IP structure will allow determining a company innovative profile.

The feasibility of an indicator approach application in the field of IP research is described by many scholars (Kozyrev and Makarov, 2003; Kokurin and Innovation, 2011; Dzinkowski, 2011). The indicators will allow characterizing, evaluating and studying the intangible objects and acting as the equivalent of its absolute or a relative expression.

The development of an equation is conditioned by a put forward hypothesis 1 on the need to study the statistical relationship of the argument Cap_i and the variables E_{IC_i}.

In our view, the information about the establishment of such a relationship between the parameters and about its absence is a valuable one. So, for example, the result of the correlation analysis in the form of any relationship absence between the parameters may indicate:

1. a real absence of statistical relationship between considered parameters and a studied variable to the extent that reflects any kind of relationship;
2. the lack of data array in a sample volume;
3. a significant impact of not recorded model factors on a considered argument.

A matrix correction by the exception of insignificant variables will allow suggesting the following relationship:

$$Cap_i = \Sigma f(E_i), \text{ at } i = 1 \tag{1}$$

Where Cap_i is a system market capitalization;

$\Sigma f(E_i)$ – the sum of innovation potential elements, including intellectual, organizational, marketing and engineering potential.

Figure 1
MANAGEMENT ALGORITHM CONCERNING THE INNOVATION POTENTIAL OF ECONOMIC SYSTEMS
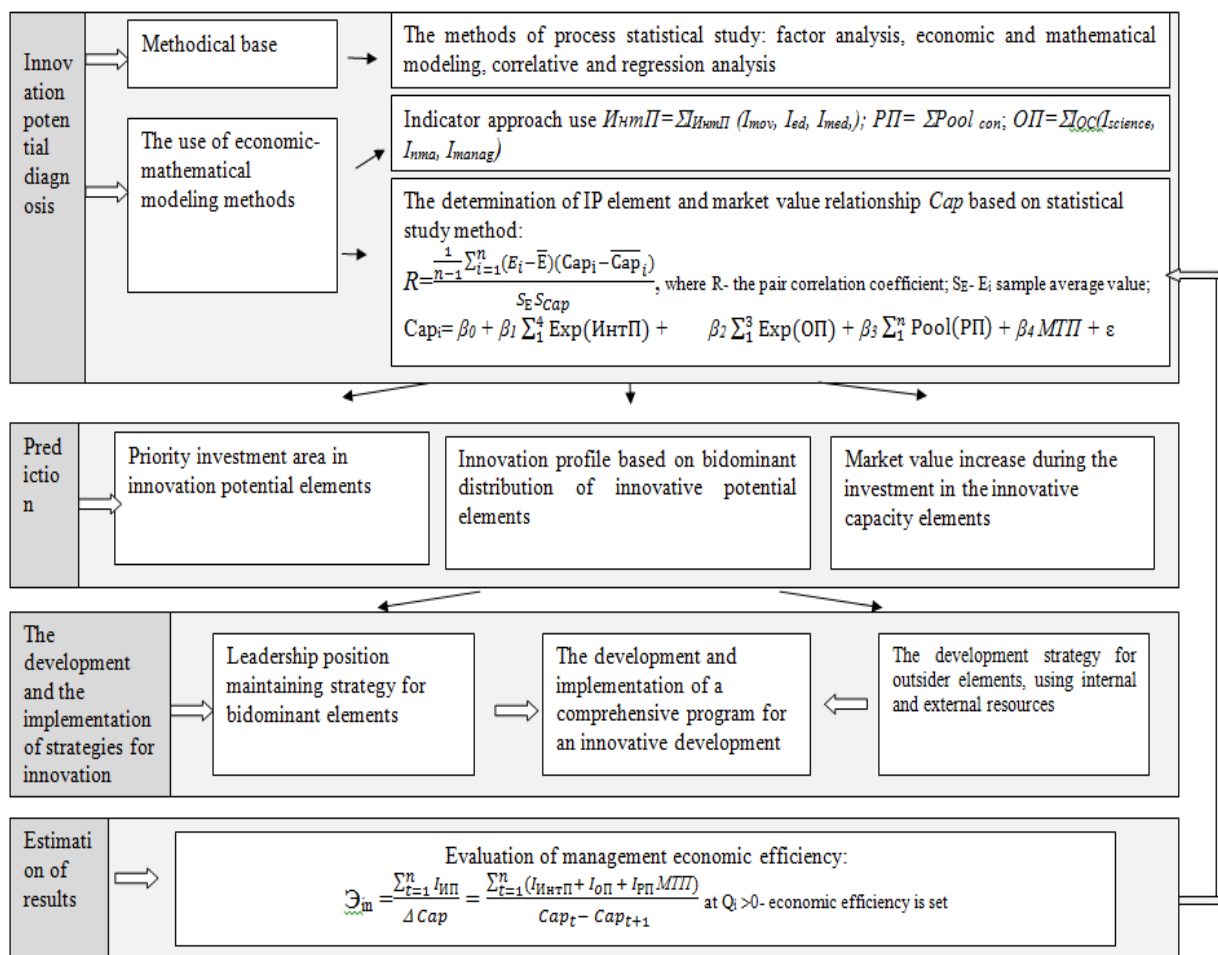
In order to solve this problem, let's assume that E_i variable is the function, which is influenced by the sum of z_i factors.

Then the equation (1) will be transformed into the following one:

$$E_i = f(\Sigma z_i \dots z_n) \tag{2}$$

In our opinion, the use of multifactor statistical model class such as the multiple regressions with regard to IP management tasks is an attractive and a convenient one from the point of view of time series analytical data transparency used in a calculation.

However, the regression equations have high demands in respect of their economic content and interpretation correctness. The increase of regression equation studied parameters concerning a sample volume will make a positive impact on the performed analysis quality, since the studied category IP is characterized by a long payback period of investment funds, the ability to cyclic reproduction and accumulation.

Then we use the regression analysis equation in order to solve the equation (2):

$$Cap_i = \beta_0 + \beta_1 \sum_1^4 Exp(\text{Инт}) + \beta_2 \sum_1^3 Exp(\text{ОП}) + \beta_3 \sum_1^n Pool(\text{РП}) + \beta_4 MT\Pi + \varepsilon \tag{3}$$

We will use the following indicators of IP elements in the equation (3):

Where, Cap_i – the market value of an enterprise;

$\sum_1^4 Exp(\text{ИнтП})$ - The totality of the costs for intellectual potential development;

$\sum_1^3 Exp(\text{ОП})$ - The totality of the costs for a company maintenance and operation, as well as the costs of research and design developments, describing an organizational capacity of an enterprise.

$\sum_1^n Pool(\text{РП})$ – the share of an enterprise market, which characterizes the market opportunities of an enterprise;

MTP – the carrying amount of a company property.

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$ – the parameters of a regression equation describing the change of results at the change a relevant factor per unit during a constant value of the other factors set out at an average level; ε - a random member, explaining the influence of an equation unaccounted factors.

The development of a regression model (3) allows reflecting epy specific weight of each element E_i on the proving sign Cap_i, which will allow revealing the most significant trends and initiating their development.

Let's suppose that at the specific weight of the element E_i, the parameters of the regression equation $\beta_0, \beta_1, \beta_2, \beta_3$ are the static ones, while the largest positive value of the specific weight β_i indicates the greatest contribution of E_i element in Cap_i argument. The priority objective of this block for IP control is the determination of that IP part, which provides the greatest increase concerning the qualitative and quantitative characteristics of an enterprise.

Prediction: Prediction is the process of development possibilities evaluation on the basis of certain regularities. The objective of this phase of analysis is to define the criteria for the priority investment areas in IP in order to increase the efficiency of intellectual resource use and to increase the market appeal of an enterprise.

The proposed method of priority investment trends determination is based on the assumption of element heterogeneity and the exclusion of chaotic character of influence on the market value after the determination of an enterprise intellectual profile. The empirical studies of IP elements effect on the market capitalization of a company, allow us to state that two elements out of four ones make the influence on a proving sign. In this regard, it can be assumed that a substantial impact on the market capitalization of a company and, consequently, the financial

stability in general is performed by the bidominants which define an innovative profile of a company.

Evaluation of results. The effectiveness of performed management actions on the control object is estimated by the economic return, which was recorded within a control result:

$$Э_{in} = \frac{\sum_{t=1}^{n} I_{Ip}}{\Delta Cap} = \frac{\sum_{t=1}^{n} (I_{ИнтП} + I_{ОП} + I_{РП} + МТП)}{Cap_t - Cap_{t+1}} \qquad (4)$$

$Э_{in}$ – economic efficiency of investments;

$I_{ИнтП}, I_{ОП} I_{РП}, I_{Mmn}$ – investment in IP elements.

The expediency of performed investments is a justified one at $Э_{in} > 0$, otherwise, it is necessary to conduct a further study concerning the external influencing factors on a proving sign and establish the degree of its influence on the basis of a proposed approach.

In order to enable the practical implementation of a proposed algorithm on Figure 1 let's perform its approbation using the example of one of the largest enterprises of the Republic of Tatarstan which is OJSC "Nizhnekamskneftekhim".

Table 1
CALCULATION OF CORRELATION COEFFICIENTS AT OJSC "NIZHNEKAMSKNEFTEKHIM"

Indicator	IntP	MP	OP	MTP
R_i	0,86269	0,868579	0,617405	0,851225
Student's critical distribution, $t_{крит}$*	3,182			
Student's estimated distribution, $t_{расч}$	3,39	3,48	1,56	3,2
Evaluation of relation importance and closeness	Important, connection relation is strong	Important, connection relation is strong	Negligent	Important, connection relation is strong

Where IntP - intellectual potential,

MP - market potential;

OP - organizational potential;

MTP- material and technical potential of a company.

In the first proposed block of the algorithm - the diagnostics of innovation potential for this enterprise is used by the sample volume of 14 years.

The following results were obtained: during the analyzed period from 1999 - 2013 the greatest impact on the market value of the enterprise OJSC "Nizhnekamskneftekhim" was made by the market potential (Rrp = 0.868579), and the smallest impact was made by the material and the technical condition of the enterprise (Rmtp = 0.851225) (see Table. 1)

DISCUSSION

The use of regression analysis model (3) revealed that the development of a positive dynamics concerning the market capitalization value change of "Nizhnekamskneftekhim" company is influenced greatly by intellectual potential which, ceteris paribus, proved to be a significant one and an organizational, highly significant coefficient. This company has a high level of intellectual resources in human capital, which has the highest rate of return (5):

$$Cap_{нкнх} = 15,15 + 1,16 \sum_{1}^{4} Exp(ИнтП) + 0,38 \sum_{1}^{3} Exp(ОП) - 0,40 \sum_{1}^{n} Pool(РП) - 0,55 \, МТП \quad (5)$$

With the obtained calculation results, according to the 3-rd block of the algorithm the OJSC "Nizhnekamskneftekhim", while in a high orientation sector on innovation and a type of an enterprise - an internal innovator have a promising development trend of innovative infrastructure in terms of investment into intellectual and organizational potential.

An integrated management of an enterprise IP can improve the efficiency of its use. At the same time an own distinctive specifics is recorded causing the tendencies of an enterprise innovative development for each control subject.

The systematic approach to the management by the innovative potential of economic systems suggested by the authors is in the four-stage sequential algorithm of interrelated actions aimed at the analysis, the study, the assessment of available IP enterprise, its structuring into dominant elements, the calculation of necessary investment level into each IP element for the possibility of an effective influence on the macro-financial indicator of a company activity - its market capitalization. A systematic approach to IP management is the basis for the management decision-making regarding the choice of future impact nature and the development of a particular IP element, and it contributes to the purposeful management in order to improve its effectiveness.

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