



## **Management of Innovations and Innovative Process: Concept, Essence, Classification and Diffusion**

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### **ABSTRACT**

The development, introduction of new products are important for companies as means of improving the competitiveness and the elimination of the company depending on the discrepancy between the life cycles of products. In modern conditions, the product update is a rapid pace. The system of innovative management is necessary for successful implementation of professional innovations introduction at the enterprise. Innovative management is one of the directions of the strategic management performed on the top-level management of the company. Its purpose is to determine the main directions of scientific-technical and production activities of the company in the following areas: Gap-elaboration and introduction of new products (innovation); modernization and improvement of products; further development of the production of traditional products; removal from production of outdated production. Innovations are peculiar both dynamic, and static aspects. In the latter case the innovation is represented as the result of the research and production cycle, these results have an independent set of problems. Innovative process (IP) is connected with creation, development and distribution of innovations. It follows from the foregoing that the innovation result needs to be considered taking into account IP. For innovation are equally important, all three properties: The scientific and technological innovation, industrial applicability, tradability.

**Keywords:** Management, Management of Innovations, Innovative Process, Concept, Innovation

**JEL Classifications:** O31, O32, O39

### **1. INTRODUCTION**

The commercial aspect defines innovation as the economic need realized through requirements of the market. It is necessary to pay attention to two moments: "Materialization" of the innovation, inventions and development in new technically perfective aspects of the industrial output, means and objects of the labor, technologies and the organizations of production and the "commercialization" turning them into the income source (Afonin, 2007).

Therefore, scientific and technical innovations have to: (a) Be new; (b) satisfy to the market demand; (c) make profit for the producer.

### **2. MATERIALS AND RESEARCH METHODS**

The methodological principles underlying the study are based on the fundamental positions of the leading Russian and foreign economists of organization and management of innovations. In the research, the concepts of modern science of strategic management, and results of expert research of the organizations regarding realization of technologies of innovative management are widely used.

### **3. DISCUSSION**

Distribution of innovations, as well as their creation is a component of the innovative process (IP).

Successful management of innovative activity requires careful studying of innovations. First, it is necessary to be able to distinguish innovations from insignificant modifications in products and technological processes (for example, esthetic changes - colors, forms, etc.); the minor technical or external changes in the products, which leave invariable design and do not have rather noticeable impact on parameters, properties, product cost, and enter it materials and components; from expansion of product range due to development of production not being issued before at this enterprise, but products, already known in the market, for the purpose of satisfaction of the current demand and increase in the enterprise income (Yasin and Yakovlev, 2004).

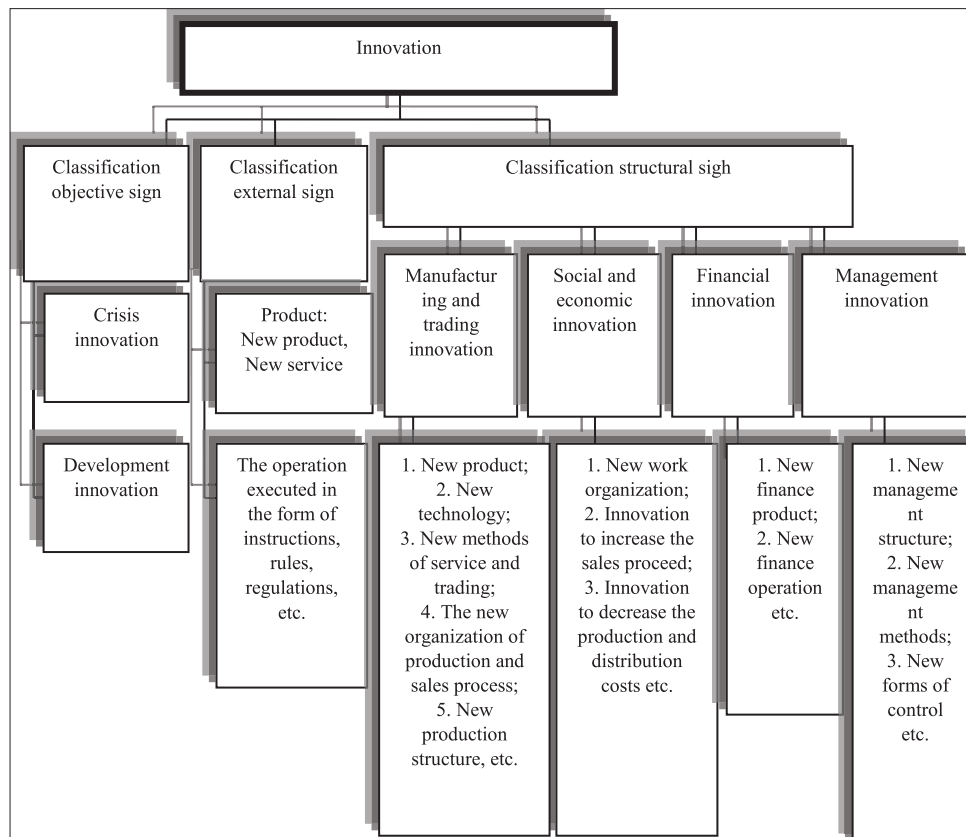
The novelty of innovation is estimated in technological parameters, and from market positions. Taking it into account, classification of innovations is based (Afonin, 2007). Innovations are subdivided on a target sign of qualification, an external sign of qualification, a structural sign of qualification that is reflected in Figure 1.

However, for today there is a large number of the researches directions to study of innovations classification, the most important are the following:

1. Depending on the external parameters, innovations are divided into:
  - Product innovations, they include the use of new materials, new semi-finished products and components; obtaining fundamentally new products
  - Process innovations mean new methods of the production organization (new technologies). Process innovations

2. By the novelty type to the market, innovations are divided into:
  - New to the industry in the world;
  - New to the industry in the country;
  - New to this enterprise (group of companies).
3. To the place in the system (at the enterprise, the company), it is possible to allocate:
  - Innovations at the enterprise input (change in a choice and use of raw materials, materials, cars and the equipment, information, etc.);
  - Innovations at the enterprise output (a product, service, technologies, information, etc.);
  - Innovations of the enterprise system structure (administrative, production, technological).
4. Depending on the depth of the changes allocate innovations:
  - Radical (basic);
  - Improving;
  - Modification (private).
5. The Scientific Research Institute for System Studies developed innovations classification taking into account fields of the enterprise activity. On this sign, innovations are allocated:
  - The technological;
  - The production;
  - The economic;
  - The trade;
  - The social;
  - In the field of management.

**Figure 1:** General structure of innovations classification



For the new technology acquired the economic importance, time is necessary. First, the technology should be introduced in the economy (innovation). Then she gradually accepted by many recipients (diffusion). However, diffusion is as important as innovation; new technologies will have no economic impact before they become widespread in the economy (Balabanov et al., 2008; Hotyashaeva, 2007).

Diffusion is the process by which the innovation spreads communication channels in time and space among the social system members. In the process of innovations diffusion affected by many factors. The main of them are directly innovation as information about the innovation, time and the social system nature into which the innovation is entered. Diffusion research in the simplest form is the study of these and other factors interaction promoting relief of perception of new technology members of a certain social system (Zhukov and Zakorin, 2007; Silnov, 2015).

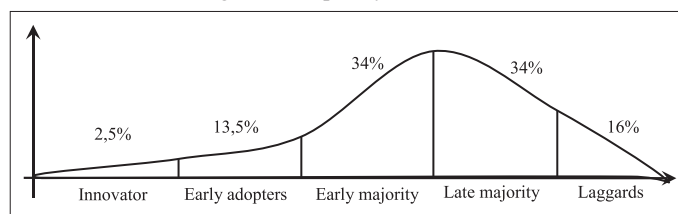
The decision making process of innovation consists of five stages: Knowledge (knowledge), conviction (persuasion), decision (decision), testing (implementation) and confirmation (confirmation). Potential recipients of innovation should know all about innovation, to be convinced of it as ready for its perceptions, innovation and try to confirm (reaffirm or reject) solution-set to accept innovation (Vader, 2008; Prentice, 2007; Medynsky, 2008).

The individual susceptibility to innovations allocates the recipients more susceptible and less susceptible to the perception of innovation. All continuum recipients are divided into 5 main categories:

1. Innovators (innovators, 2.5%) are characterized by tendency to risk; they seek to test any innovation (new idea, method, product, etc.), possess considerable financial resources (as a guarantee from risk at unsuccessful perception of an innovation), ability to understand and apply difficult technical knowledge
2. Early recipients (early adopters, 13.5%) form the main contingent of “leaders (sources) of opinions” (opinion leaders) in the majority of social systems: To them potential recipients most of all address for council and consultation. As a rule, early recipients serve as a role model for other members of social system - the potential recipients
3. The early majority (early majority, 34%) are the representatives of this category of recipients, can hesitate a little until perception of an innovation (their period of perception of an innovation rather longer, than at recipients of I and II categories). They are willing to follow others in the process of perception of innovation; however, is rarely a cart-headed the movement
4. The late majority (late majority, 34%) are sceptics, they perceive an innovation after the “average” member of social system. The perception them innovations can speak economic need or their reaction on increasing social pressure
5. Late recipients (laggards, 16%) are the representatives of traditional, conservative orientation; they the last who perceives the innovation, and most often can refuse perception.

The results of a large number of studies have shown that the timing of the number of recipients resembles a Gaussian curve (a curve of normal distribution; Figure 2).

**Figure 2:** The curve representing the amount of the individual categories receptivity to innovation



This classification is conditional; however, it allows to achieve methodological uniformity and to liquidate a disparate in classification and designations of different recipients' categories in works of various researchers.

The diffusion rate is determined by five main factors perceived by properties that potential recipients estimate at decision-making to use an innovation or not:

1. The relative benefits of innovation (relative advantage) are the degree of superiority, which offers innovation over other (often the same) type products (processes), often expressed in economic or social categories (profitability, efficiency, pollution reduction, noise, manual labor, etc.)
2. Compatibility (compatibility) of the innovation is the degree of innovation compliance to the existing system of values (is defined by cultural norms of social system), to last experience and needs of the recipient (Fatkhutdinov, 2008)
3. The innovation complexity (complexity) is the degree of simplicity and ease for understanding, use or the adaptation to innovation; it is supposed that complexity of an innovation is negatively connected with her perception
4. Simplicity of approbation (trial ability) of innovation is the possibility of innovation approbation in limited scales. Sometimes this characteristic of innovation is identified with staging, innovation divisibility (divisibility) on separate parts.

Communicativeness (communicability) of innovation is the possibility of innovation distribution between other recipients (Vader, 2008; Raychenko, 2009; Titorenko, 2008; Ilyenkova, 2008).

#### 4. INNOVATIVE ACTIVITY: ESSENCE OF ADMINISTRATIVE INNOVATIONS AT THE ENTERPRISE

The basis for the innovation management in the enterprises oil and gas sector is to change the problems solved now, which, in turn, is caused by objective changes taking place in the environment of its activities. This is true both for countries with developed market economies, and for the developing the Russian business. In addition, it is important that the number of new challenges posed by changes in the situation has been steadily increasing. Many of them are new and fundamentally not be decided based on experience gained by our managers in the same conditions. The difficulty lies in the fact that the transformation specifics of the Russian economy does not allow a gradual aging of market relations, a smooth transition from one stage to another, as it was

in the West, and, accordingly, the gradual complication of the market behavior of business management systems. Rapid entry of Russia into the global market system creates a gap between the objective conditions of the oil and gas sphere activities, level control technology, which is able to implement the control of these organizations (Falko, 2011; Kunelbayev et al., 2016). Moreover, the change rate in the external environment is much greater than the adjustment rate of consciousness and the level of professional competence of the overwhelming majority of Russian managers (including managers of small businesses who usually have no special training in the field of management). The elimination of this gap is possible due to the constant upgrade of the enterprises control systems, introduction of administrative innovations that allow taking into account the historical experience of the management development as a field of professional activity and from the technological point of view closer to the current level of countries with developed market economies.

The real administrative revolution (including the sphere of innovations management) began in the American economy at the turn of the 80s. So-called oil shocks, change of the situation in the Middle East region, invasion of Japanese competitors on the markets of electronics and cars, financial shocks, the largest technological breaks in electronics, biotechnology, etc. - all this demanded sharp reorientation of activity of many firms, so set also the new administrative tasks. It was transition to a new management paradigm which essence consisted in a certain refusal of administrative rationalism, of initial belief that the success of firm is defined, first, by the rational organization of production, decrease in costs due to identification of intra production reserves, increase of labor productivity and use of all types of resources (Mindlin et al., 2016). At such approach, the enterprise was considered as the "closed" system, the purposes and which tasks remain rather stable during the long period of time, as well as the general conditions of activity. Long time this administrative approach (Silnov and Tarakanov, 2015) was justified, it provided to firms' development and the successful competition, allowed to perfect forms and methods of the intra firm management connected with effective use of internal potential.

The new paradigm of management in the developed countries is based on system and situational approach to management. The firm is considered as "open" system, its success contacts, first, that, how successfully it adapts to the external environment: Economic, social, scientific and technical, etc. Whether the enterprise will manage to distinguish threats for the activity in time, whether it will miss the opportunities appearing in the environment, whether will be able to benefit at most by these opportunities - here the main criteria of efficiency of all control system in relation to which internal rationality of the organization of production and management are secondary (Telichenko et al., 2008; Shadova et al., 2016).

The situational approach to management states that the construction of in-house management system is nothing other than the response to the different influences from the external environment, as well as the accounting of the production technology and quality of human resources.

The Russian socio-economic reality specifics concludes that this objective management paradigm is now the most relevant to our business. However, it must be admitted that the Russian presiding heads did not manage to really master the previous approach and to really learn not only to maximize the potential of the organization, but also to adequately evaluate it.

General terms and conditions, which are our businesses, are characterized by a high level of variability, high level of intervention the state with the political instability and economic protectionism deficiency, aborted market mechanisms, that is required of management oriented primarily to the external environment. The most significant quality control in the present circumstances is the flexibility, ability to be reoriented to face new challenges, using new, appropriate conditions, forms and methods of management.

In the market formation process the enterprises conduct their changing attitudes to the management objectives (Filippova et al., 2016). There is an awareness of insufficiency of the available arsenal of administrative activity means, understanding of the changes need.

All administrative tasks can be divided on difficulty degree for businesspersons in the following groups:

1. Strategic planning of the enterprise activity;
2. The activity hidden problems analysis and identification;
3. Analysis and assessment of the enterprise environment;
4. Planning of the enterprise current activity;
5. Creation of the effective system for monitoring the implementation of the objectives;
6. Creation of the innovations introduction system;
7. Stimulation of subordinates productive work;
8. The effective account organization at the enterprise;
9. Formation of management functional structure;
10. Analysis of the enterprise activity results.

Leadership of strategic planning is not surprising and is explained by that the development problem of the enterprise strategy and plans creation based on such strategy is new to the Russian economic practice. During the pre-reform period under rather stable social and economic conditions, slow change of equipment and technology, the operated financial situation, quite weak international competition to the enterprises managed to build the activity without special study and justification, the clear formulation of the strategy. Moreover, strategic plans at the level of the separate enterprises simply did not exist.

The market system formation made this task actual. In the conditions of the increased variability of the environment, there is an objective need of the enterprises strategy study. It can help them to avoid financial losses, missed opportunities or in general threat to the business existence. Strategic planning essentially differs from the long-term one. The last is focused on the long period and is carried out, as a rule, by extrapolation of the revealed tendencies on the future. Strategic planning is constructed on the analysis of the enterprise prospects, identification of those influences which are capable the developed tendencies to break. It assumes,



besides, the analysis of positions of the enterprise in competitive fight and a choice of strategy of actions that is establishment of the activity priorities.

Strategic planning does not mean long time intervals. It only defines the planning method - movement from the strategy. Moreover, the more uncertain is the environment, the shorter should be the plans length in order to ensure flexibility and adjustment operations.

The organizations survival in modern conditions of dynamically changing markets possibly only at their adaptation and the constant adaptation to the changing environment. These strategic problems are solved at design and development of any business and organization. Synthesis of practice and theoretical idea of innovative transformation problems of this sort of the organizations in foreign literature received the name of engineering. Both the companies and numerous engineering consulting firms carry out engineering activity.

Engineering techniques include:

- Step-by-step procedures for business design;
- The designations system (language) describing business design;
- Heuristics (creativity methods) and the pragmatic decisions allowing to measure the compliance degree of the designed business to the set purposes.

Business engineering is directed on the commercial business organization on a competitive basis. On complexity and value, the tasks solved by methods of engineering can be divided into two classes:

1. Evolutionary, conducting to gradual improvements, improvements, having an appearance of rationalization of business processes;
2. Radical, conducting to global changes, having an appearance of inventions of new business processes. The second class of tasks is solved by the reengineering method.

Reengineering is a kind of the engineering method. Reengineering is directed on the solution of especially complex challenges of business processes design (so-called "business processes") as a result of which problems are solved at qualitatively new level, and indicators improve not for 10-50%, but many times over, that is for 100-500% and more.

Thus, engineering includes two essentially different approaches:

1. Process improvement (just improvements of indicators for 10-50%);
2. Process reengineering or redesign (growth of indicators by 100% and above).

Therefore, reengineering is possible only at reconsideration of fundamental bases of the company activity, namely answering the questions:

1. Why it does what it does?
2. Why it does it in such a way?
3. What does company want to become?

When searching for then answer to these questions experts reveal and reinterpret rules and assumptions (obviously not expressed hypotheses) which are been the basis for the current way of business. In a method of reengineering, it is taken nothing on trust.

The radical redesign of business processes mentions roots of the phenomena, but not superficial changes when all existing structures and procedures are rejected and new way of work performance, that is the invention, but not modification is offered. Sharp (spasmodic) improvements much (at least by 10 times) mean not <90% reduction of cost or time expenditure or 90% improvement of quality. Distinction between improvement and reengineering of business processes (business processes) is shown in Table 1.

There are three types of organizations, for which the use of reverse engineering is necessary and appropriate:

1. The organizations, which are in a crisis state that is being on the verge of crash in connection with adverse situations in the prices field, requirements to quality, demand. These firms have no choice: If they do not take the plunge, they will inevitably be ruined. All firms are practically from time to time in similar situation.
2. Companies that develop innovative development strategy which are not in crisis situation at the moment, but heads expect inevitability of emergence of the stubborn problems connected with appearance of new competitors, change of requirements of clients, change of behavior of branch competitors, change of deliveries of resources, changes in macro conditions.
3. The leading organizations pursuing aggressive innovative policy. They have no problems now, in the near future. However, the leading organizations are not satisfied with the current good shape and by means of reengineering want to achieve the best.

The factors of the reengineering projects success include:

1. The project motivation, the interested and competent management;
2. Employees support, accurately certain roles and duties;
3. The project clearness (transparency), tangible results and the acceptable risk;
4. Focusing on the priority purposes and the autonomous budget of the project;

**Table 1: Differences between improvement and reengineering of business processes**

Parameters	Methods	
	Improvements	Reengineering
Changes level	Extensible	Radical
Start point	Existing process	"Clear table"
Changes frequency	Uninterruptedly/at a time	At a time
Required time	Short	Long
Direction	Down up	Up down
Coverage	Narrow, at functions level	Wide, cross-functional
Risk	Moderate	High
General mean	Statistic management	Information technologies
Change type	Cultural	Cultural/structural

5. Technological support (techniques and tools) and consulting maintenance.

Typical mistakes when carrying out reengineering. During the reengineering, the following characteristic mistakes meet:

1. Attempt only to improve the existing process instead of redesigning it; attempt to carry out reengineering, without infringing upon nobody's interests; a consent to be content small, that is only with improvement; premature completion of reengineering; limited problem definition;
2. The companies do not concentrate on commercial processes (business processes) or the companies concentrate only on the processes redesign, ignoring all the rest (for example, restructuring of the company for preparation it to introduction of the project);
3. Underestimation of the performers values and belief role; the company recedes when encounters resistance of the employees dissatisfied with reengineering consequences; the existing corporate culture and the principles of management admitted to the companies can interfere reengineering (Kurbanov et al., 2016);
4. Attempts to carry out reengineering not "from up to down," but "from down up";
5. Appointment of the senior manager, responsible for reengineering, who does not understand what it is; it is inexpedient to carry out reengineering in a year or for two to resignation of the executive director of the company;
6. Lack of resources for reengineering carrying out; reengineering is held against a set of other events; the number of projects on reengineering should not be big;
7. The company concentrates only on plans; the dragged-out carrying out reengineering.

The organization business processes have difficult hierarchical strategy, which needs to be presented in models. As the decisive main models are allocated, the providing and serving processes, and management process.

It is necessary to tell about innovative nature of reengineering. Innovative nature of reengineering is new developed business process, and its realization gives the subsequent innovations tree in co-standing production and other elements of the organization. On the other hand, reengineering acts as a method of innovative activity and as a kind of innovative strategy. One of organizational elements can be object of reengineering: Technology of business processes.

The following items define steps of reengineering (further, we will present examples of sequence of the reengineering performance in the companies with a world name):

1. The conclusion is that the problem lies not into the solved problem essence and not in efficiency with which performers worked, but in structure of processing worked. Therefore, for a solution it was necessary to find out process, but not its separate steps.
2. The analysis revealed an assumption that underlies the processing method used: Each request is a complex task that requires solving the participation of experts of different

specialties. The analysis of inquiries showed that this assumption is wrong as the majority of inquiries are simple and their processing is reduced to work with a database that the clerk, but not the expert can make. Thus, the existing processing was focused on the most difficult inquiry. Conclusion: Now the former hypothesis of the process complexity was not confirmed and it is necessary to refuse it.

3. In the new process, all of the processing performed by one expert provided with information expert system of the decision support and access to all necessary data and tools. Now in most cases (more than 90% of inquiries) one expert provides the solution of a task, only in hard cases addressing to experts.

Because of reengineering, IBM Credit considerably redesigned processing and reached spasmodic improvement of the main indicators of the company activity: Processing time is reduced from 6 days to 4 h, the processed inquiries amount increased 100 times (with a slight decrease in the number of employees).

Management of innovative transformations is inseparably connected with the innovative strategy realization and the business processes redesign according to plans in the form of the innovative program. For the goals achievement, it is necessary to have an objective assessment of innovative capacity of the organization, which factors internal and external environment, innovative climate, a concrete situation influence.

The leader appointed for project management by innovations defines the organization development concept. Approaches to implementation of projects should be parallel and iterative character for implementation of  $s$  innovations in the terms of the squeezed time. The most radical transformations are carried out with application of the reengineering method, which allows improving the main indicators of the organization activity several times. Projects of new business process with use of the progressive methods arsenal, approaches and tools are developed for this purpose.

## 5. CONCLUSION

Management of the production development aims to change its state, its transformation to advance planned level corresponding or exceeding the highest world achievements. Managements of development are the cornerstone of an innovation or innovations.

The innovation is understood as a new order, new custom, new method, invention, new phenomenon. The Russian phrase "innovation," in literal sense "introduction new", means the innovation use process.

Thus, since the adoption of the innovation consideration gains new quality - becomes novelty (innovation). It is accepted to call process of the innovation introduction on the market commercialization process. The period between emergence of innovation and its embodiment in novelty (innovation), is called as the innovative lag.

Innovative managers carry out the organization of IPs. In innovative management, it is possible to allocate practical and

scientific components. The practical component is shown in implementation of specific administrative actions in this or that sphere of production at the heart of which, also as well as in the scientific sphere, a certain methodology, a conceptual framework, receptions lie, that is development in innovative management is impossible without scientific component.

Scientific activity is connected with the new knowledge production of the nature development laws, society and the person, with storage of this knowledge and their distribution, and with the organization of interaction between various branches and fields of knowledge. Engineering activity is connected with application of the available knowledge for creation of new equipment and new technologies and for management of creation processes, operation and distribution.

Scientific and engineering activity is united by information activities that receive, transfer, processing, storage and provide various data to consumers. Creation and development of innovations becomes more and more difficult business, management that demands special professional knowledge as any innovation inevitably breaks the adjusted functioning of production, its developed technical, organizational and social communications and proportions.

## REFERENCES

- Afonin, I. (2007), *Innovative Management: Manual*. Moscow: Gardarika. p224.
- Balabanov, V., Dudin, M., Lyasnikov, N. (2008), *Innovative Management: Manual (SIGNATURE STAMP)*. Moscow: Science and Education. p246.
- Falko, S. (2011), Strategic management and controlling in non-profit and public organizations: Current state and prospects. *Controlling*, 5(42), 14-18.
- Fatkhutdinov, R. (2008), *Innovative Management: The Textbook for Higher Education Institutions*. 6<sup>th</sup> ed. Saint Petersburg: Piter. p448
- Filippova, M.K., Mindlin, Y.B., Litvinenko, I.L., Kucherov, A.V., Shichiyakh, R.A., Prokhorova, V.V. (2016), Rationale for the use of the cluster approach to the formation of localities in the regional economic system. *International Review of Management and Marketing*, 6(S1), 20-26.
- Hotyasheva, O. (2007), *Innovative Management: The Manual*. 2<sup>nd</sup> ed. St. Petersburg: Piter. p384.
- Ilyenkova, S. (2008), *Innovative Management: The Textbook for Students of the Higher Education Institutions, Which are Trained in "Management", to Specialties of Economy and Management*. 3<sup>rd</sup> ed. Moscow: UNITY-DANA. p335.
- Kunelbayev, M., Auyelbekov, O., Katayev, N., Silnov, D.S. (2016), Factor of catching of solar radiation of a tubular heat receiver with a cellular transparent covering. *International Journal of Applied Engineering Research*, 11(6), 4066-4072.
- Kurbanov, A., Gurieva, L.K., Novoselov, S.N., Gorkusha, O.A., Novoselova, N.N., Kovalenko, A.A. (2016), Features sub-regional localities in the structural - Level organization of the economic system. *International Review of Management and Marketing*, 6(1), 287-292.
- Medynsky, V. (2008), *Innovative Management: The Textbook*. Moscow: INFRA-M. p295.
- Mindlin, Y.B., Zhukov, B.M., Prokhorova, V.V., Shutilov, F.V., Belova, E.O. (2016), Main stages of the formation of an economic cluster. *International Journal of Economics and Financial Issues*, 6(S1), 261-265.
- Prentice, S. (2007), *The Integrated Time-Management: New Instruments of Management of Time for Very Busy Persons*. Kind Book. Rostov-on-Don: Phoenix. p288.
- Raychenko, A. (2009), *Administrative Management: The Textbook*. Moscow: INFRA-M. p416.
- Shadova, Z.H., Gurianov, P.A., Fedorova, S.N., Zemlyakova, A.V., Grishchenko, O.V. (2016), The structure of the share capital and the interests of the majority shareholder. *International Journal of Economics and Financial Issues*, 6(S1), 211-219.
- Silnov, D.S. (2015), Security holes in manuscript management systems. *ARN Journal of Engineering and Applied Sciences*, 10(18), 7994-7996.
- Silnov, D.S., Tarakanov, O.V. (2015), Assessing the stability of antivirus software and data protection means against erroneous outcomes. *International Journal of Applied Engineering Research*, 10(19), 40342-40349.
- Telichenko, V., Collectors, S., Pustovgar, A., Markova, I. (2008), *Innovative Management in Construction: Textbook*. Moscow: DIA. p208.
- Titorenko, G. (2008), *Information Technologies of Management: The Manual for Higher Education Institutions*. 2<sup>nd</sup> ed. Moscow: UNITY-DANA. p439.
- Vader, M. (2008), Instruments of economical production: The mini-guide to introduction of techniques of economical production. *Alps Business*, 4, 125.
- Yasin, E., Yakovlev, A. (2004), Competitiveness and modernization of the Russian economy. *Economy Questions*, 5, 121-126.
- Zhukov, A., Zakorin, N. (2007), *Innovative Aspects of Administrative Activity at the Enterprises of the Tourism Sphere: The Monograph*. Moscow: D.A.R.K. p224.