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Marketing approach to innovation management as a tool for enhancing innovative activity of enterprises

First of all, for creating competitive advantages of Kazakhstan enterprises in markets with high competition it is necessary to rethink the scope and role of marketing in management the innovative activity of enterprises. However, in the Kazakh literature there aren't any special studies devoted to the use of marketing in innovation management. As a consequence, the main purpose of this study is to present the importance of using marketing approach in management of innovative activity of enterprises as an effective tool to improve their innovation activity. This paper analyzes the views of domestic and foreign scientists on the role of marketing in the innovation process. On this basis, there is an expediency of using a marketing approach to the management of innovation performance of enterprises. The methodology of the study bases on the hypothesis about the necessity of consideration the category of «management of innovative activity» from the standpoint of an integrated approach – from the point of view of the manufacturer and from the point of view of the consumer. Features of this methodology are explained, on the one hand, the complexity of the phenomenon of innovation, the results of which may not always be appreciated by the consumer because of the lack of special knowledge and competencies, as well as the complexity of managing the process, on the other hand. The logical conclusion of the work proposed by the authors is the main uses of the marketing concept to improve the innovation activity of enterprises.

Keywords: innovative activity, management of innovative activity, marketing approach, innovative activity of enterprises.

Problem setting. Modern scientific studies in the field of innovation management companies are characterized by a multiplicity of approaches to the interpretation of this category. Moreover, there is a clear prevalence of industrial and technical approaches to the definition of innovation management. Meanwhile, complexity of the environment of enterprises' innovative activity, its rapid variability and uncertainty as well as the probabilistic uncertain innovation processes as such, objectively reinforces the need of market research to gather information and develop the competitive strategies. It is about the use of a marketing management model. Accordingly, the need for theoretical studies is increasing, which are adequate to the practice of innovative processes' development.

Therefore, to create a competitive advantage for the enterprises of Kazakhstan in markets with a high competition, there is a real need to rethink the scope and role of marketing in the management of enterprises in order to increase their innovative activity.

Recent research and publication analysis. The place and role of marketing in the management of industrial innovation policy was introduced in the works of foreign researchers: P.Kotler, F.Trias de Bes [1], J. Lambin [2, 3], A.Romanov [4], E.Golubkov [5], R.Fatkhutdinov [6] et al. For the present time Kazakhstan scientists do not present any specific studies on the use of marketing in innovation management yet and there are only some studies in the field of innovation management which referred to the need of fragmented marketing usage. The works of such authors as R.Karenov [7], E.Golubkov, R.Baisultanova and G.Yalovecki [8], S.Mukasheva [9], D.Danabayeva and R.Danabayeva [10]. Also studies related mainly to market research innovations of S. Nyussupov, I.Nikitina and N.Uruzbayeva [11], S.Satybaldy and K.Sakibayeva [12], or studies related mainly to market research innovations.

In the later works of foreign scientists, such as F.Christian and S.Bjorn [13], R.Charles and L.David [14], M.Bogers, A.Afuah and B.Bastian [15] and others, the role of marketing in the management of innovative activity is considered through the prism of the consumer who takes an active part in the joint innovation process, along with the producer.

At the present time the analysis of publications shows there aren't any systematic studies concerning the use of the marketing approach to innovation management.

The research objective is to show that marketing approach in the management of innovative activity of enterprises has become a decisive factor for stimulating and improving their innovative performance.

Key research findings. Innovative activity is a complex system process which has got the interaction and implementation of different kinds of potentials, such as scientific, technical, personnel, management and

marketing. This allows considering the category of innovative activity as a complex and multidimensional concept which generates a multiplicity of approaches to its interpretation. In particular, the category of «innovative activity» is studied from the perspective of intellectual activity by B.Santo [16,17], as a process and an object by R. Fatkhutdinov [6], R.Karenov [7], G.Goldshtein [18], and from the viewpoint of its industrial component by S.Mukasheva [9], S.Konoplev [19].

However, despite the existing differences in the interpretation of innovative activity, the researchers tend to consider this category in indissoluble unity with its management component. This is confirmed by the fact that the approaches to innovation management are constantly evolving views on the adequate development of innovative activity itself (Table 1).

Table 1
Evolution of approaches to management of innovative activity

Approach	Characteristics	Advantages	Disadvantages
Functional	The processes of the organization of innovation activity and management are concentrated in the specific functional areas involved in research, design, and technological preparation of production.	High specialization increased the technological level of development, facilitating the improvement of the quality as well as elaborating the products and technologies.	In the process of development of the new products and technologies there were some constant conflicts between the functional services.
Project	Management of innovative projects started to allocate into the separate «cross-functional» projects, and the management structures of enterprises in their turn started to transform from the linear-functional steel into a matrix or project, program and targeting ones.	The presence of horizontal ties, a common vision of the end result of all the project participants. The project approach allows to concentrate resources to control the execution of certain tasks and steps to improve the effectiveness of the innovative projects	Such factors as customer needs, market conditions' dynamics, and achievements of the competitors were not considered.
Process	It examines the innovation as a complex, involving all the divisions and enterprises which is at the same time a complex of the business processes for the creation, development, promotion and support of innovation	Saving the profound specialization of the innovation process. Ensuring the integration of the participants and the connection of the resources. In addition, innovation becomes a permanent form of enterprise's development and doesn't end in realization of the individual projects.	Mainly it focuses on the internal factors of innovation and does not consider the external ones.
Marketing	Management of innovative activity in term of producer and consumer perspectives. Moreover, the external communications to customers for sales of goods are considered to be overriding.	Makes it possible to consider the decision factors of the internal and external environment as a whole, which reduces risks and improves quality.	There may be some contradictions between the financial and marketing department while setting prices for innovative products.

Note. Made by the authors.

By the mid-1950s the focus was solely on the internal factors of production, such as the rational organization of production. However, a reduction of production costs failed in growth of the labor productivity and improving the level of competitiveness.

Firstly, in a rapidly changing competitive industrial environment the main issues involve a requirement for adaptability and responsiveness to external factors.

Secondly, the uncertainty arising in the planning and management decisions in the field of innovation makes it necessary to use the information obtained on the basis of market research.

Thirdly, the systematic and comprehensive assessments of enterprise's resources as well as their usage in comparison with the competitors are obligatory. On this basis, enterprises can develop the effective marketing strategies for innovation.

Finally, innovative solutions affect all the functions of the enterprise and marketing is the result of a special kind of a «dialogue» between them.

Thus, marketing concept is a result of an appeared problem connected to the lack of an application and development of the modern concept of innovative activity of enterprises.

Modern marketing methodology considers innovation management from the two perspectives, from the producer and the consumer ones. This integrated approach within the framework of marketing seems to be quite legitimate. On the one hand this is explained by the complexity of the phenomenon of innovation as its results may not always be appreciated by the consumer due to some lack of the specific knowledge and competencies (for instance, complex multifunction machines), as well as the complexity of this object's management. In addition, innovations are often introduced in the same unit, where they are established. In this case, the producer and consumer of innovations are the same ones.

F.Christian and S.Bjorn [13] emphasize the active role of marketing in innovative activity of enterprises. It's explained by the fact in the early stages of the innovation process using of so called «prediction» marketing allows to select the best ideas and the prototypes of future innovations and warns of the failure of investing in products and services.

R.Charles and L.David [14]., M.Bogers, A.Afuah and B.Bastian [15] pay a special attention to the questions of organizing the co-innovations with the customers. If before the 1970s, the majority of marketers considered the consumer as a passive buyer though starting with the 90s of the last century, the emphasis has shifted toward the enhancing of consumer's role in the creation of the comparative competitive advantage of innovative products and reducing the risk associated with the promotion of these products in the market.

The same view it is possible to find in the works of T.Zyuzina and M.Ponomaryov [20] use of the marketing approach gives an ordinary consumer a role of creator of future products, services, ideas releasing them from the scope of limited choice.

Obviously, it's about the active marketing which main purpose is to meet the «hidden» needs and the formation of the new ones in the innovation market by involving the consumers in the process of generating the new product ideas and services. In general this marketing approach better reflects the specifics of innovation management.

As a tool to attract the consumers and to gather information about the market marketing is also seen in the works of S.Ren, A.Eisingerich and H-T.Tsai [21]. In this context, it's possible to cite the idea of customized service, which was studied by J.Lambin [2,3]. This concept can be used in the basis of the innovation management. Using the technology of customization allows to study the individual needs of consumers thus, making easier the adaptation of innovation to a wide range of consumers. This reduces the risk of failure-to-market innovation, which is one of the major constraints to the innovative activity of the domestic companies.

And what are the basic regulations of the modern marketing approach to innovation management?

1. Marketing approach is based on the need for the market research as the fundamental basis of innovation. Moreover, it is advisable to conduct the market research on the results of distribution and marketing of innovation to identify the new directions for the development of the future innovative ideas.

2. The modern management of innovative activity involves the use of integrated marketing, as innovations are often created by the orders of the customers, and are involved in the innovation process.

3. The marketing management of innovative activity is based on the maintaining the feedback from the customer and thus allows to receive information about it continuously. This circumstance makes it possible to reduce the negative consequences of the effect of information asymmetry.

4. The use of marketing tools helps to promote the innovative product from producer to consumer quickly and cost-effectively. This is especially true for the innovative enterprises of the Republic of Ka-

zakhstan faced with the problem of commercialization. It could be explained by the fact that Kazakhstan has got only a small number of innovative companies using the marketing innovations that could accelerate the commercialization of the technological innovations. For example, according to the official statistical data in last years out of innovation-oriented enterprises about 20% companies had marketing innovations [22].

5. The successful management of innovative activity is based on the development and use of the effective marketing strategies. It increases the potential competitiveness of the innovation-oriented companies.

In summary, it's possible to see the differences between the traditional and the marketing approach to the innovation management in the form of Table 2.

Table 2

The differences between the traditional and marketing approaches to innovation management

Traditional approaches of innovation management	Marketing approach to innovation management
Focus on producer	Focus on producer and consumer
Market research is usually carried out mainly in the early stages of the innovation process (in the stage of the development)	Market research is carried out at all the stages of the innovation process
The active role of a provider and for the consumer a passive one	The active role of the provider and the consumer
The price of an innovative product is formed on the basis of the objective expenses (producer's expenses)	The price of an innovative product is made up by the objective and the subjective costs (producer's and consumer's expenses due to the acquisition and the usage)
The main criterion for the competitiveness of an innovative product is its quality	The main criterion for the competitiveness of an innovative product is its contribution to the development of the client
There is a traditional concept of marketing, focused on one-off contact with the buyer	There is a modern concept of relationship marketing, focused on continuous contact with the buyer
There isn't a high service for the innovative product's consumer	A high importance of the best service of innovative product's consumer

Note. Made by the authors.

For the present time the concept of «relationship marketing» seems more appropriate to the existing realities of market innovation. The implementation of such concept as marketing interactions in the system of innovation management gives a chance to create an effective system of relationship between the different actors of the innovation process: 1) just opened small innovative enterprises; 2) big companies carrying out their innovative activities; 3) medium-sized business; 4) research organizations and educational institutions engaged in innovation; 5) governmental agencies providing support and regulation of innovative activity [23].

A special attention should be paid to the role of relationship marketing to enhance the cooperation between the business sector and the institutions of science and education.

The most effective are the marketing methods related to the promotion of innovative ideas of researchers in business and with the ability to get such ideas for the enterprises to ensure the competitiveness in the market. For Kazakhstan, this aspect is highly relevant, given the weak links between science and business, a lack of interest to the university scientific research by the business sector, which certainly limits the possibilities of innovative activity. And this is evidenced, for instance, by the share of the business sector in the total expenditure on science. For example, in last years the share of the business sector in the internal R & D expenditures amounted to only 29 % [22].

Also, a weak position of Kazakhstan with the regard to the integration of science and business are reflected in the ranking of global competitiveness. According to the rating, Kazakhstan has got one of the lowest indexes in innovation. According to K.Schwab (2014) in the ranking of 2014-2015 the country lost one position in comparison with 2013-2014 and dropped to 85 out of 144 countries in the level of innovation.

A significant subfactor affecting the country's position in the field of innovation is the cooperation of universities and business in the field of R & D. In 2014-2015 Kazakhstan took 88th place, whereas in 2013-2014 it was the 79th place [24].

Thus, the enterprises in Kazakhstan should make greater use of relationship marketing concept in order to promote their interaction with universities.

Also one of the latest «trends» of marketing approach to innovative activity is that foreign companies instead of the traditional test marketing began to use the technique of simulated test marketing, i.e. the study of simulated test market (further –STM). The study of S.Satybaldy and K.Sakibayeva [12]. STM can determine the most effective investment projects as well as optimize the effectiveness of marketing activities of the company. STM saves time of the company, gives the results within 3-6 months instead of 1 year and more than in the real market.

In sum, it should be noted that recognizing the real benefit of marketing approach doesn't mean the failure of the other approaches to innovative activity. For example, project approach seems one of the best for the individual innovation or small innovative enterprises.

Conclusions. Using a marketing model in the management of innovative activity of the enterprises in order to improve their innovation activity includes:

- active marketing to create a demand for the innovative products by conducting the market research and implementation of marketing innovations in the innovative activity of the enterprise;
- the concept of marketing relationship which gives a possibility to build a long term and mutually beneficial relationships between business and science;
- integrated approach, considering management of innovative activity from the two perspectives, from producer's point of view and the consumer's one.

Thus, the use of marketing as a management concept of innovative development of the domestic enterprises could be an important step in increasing their innovative activity.

References

- 1 Котлер Ф., Триас де Без Ф. Новые маркетинговые технологии. Методики создания гениальных идей (Латеральный маркетинг): пер. с англ., под ред. Т.Р. Тэор. — СПб.: Издат. дом «Нева». — 2004. — 192 с.
- 2 Ламбен Ж. Менеджмент, ориентированный на рынок: пер. с англ., под ред. В.Б. Колчанова. — СПб.: Питер, 2007.
- 3 Ламбен Ж. Стратегический маркетинг (Европейская перспектива): пер. с фр. — СПб.: Наука, 1996. — 589 с.
- 4 Романов А.Н. Маркетинг. — М.: Банки и биржи, 1995. — 560 с.
- 5 Голубков Е.П. Основы маркетинга: учебник. — М.: Финпресс, 1999. — 656 с.
- 6 Фатхутдинов Р.А. Инновационный менеджмент: учебник для вузов. 6-е изд. — СПб.: Питер, 2011. — 448 с.
- 7 Каренов Р.С. Теоретические основы и практические приложения инновационного менеджмента в контексте развития современных предприятий // Вестн. Караганд. ун-та. Сер. Экономика. — 2012. — № 2. — С. 56–69.
- 8 Голубков Е.П., Байсултанова Р.М., Яловецкий Г.М. Инновационная деятельность предприятий в Республике Казахстан // Вестн. КАСУ. — 2008. — № 4. — С. 28–34.
- 9 Мукашева С.Б. Управление инновационной деятельностью национальных компаний Республики Казахстан: дис. ... д-ра филос. (PhD). — Алматы, 2013. — 184 с.
- 10 Danabayeva D., Danabayeva R. Development of innovation management in Kazakhstan Economy // Vestn. KazNU. — 2012. — № 1(89). — P. 98–102.
- 11 Нюсупов С.Н., Никитина И.И., Урузбаева Н.А. Экономико-правовые аспекты формирования рынка инноваций // Национальная экономика в векторе глобального развития: Сб. материалов междунар. науч.-практ. конф., посвящ. 80-летию акад. НАН РК Я.А.Аубакирова. — Алматы, 2005. — С. 126–130.
- 12 Сатыбалды С.С., Сакибаева К.С. К вопросу реализации инновационных проектов и строительства новых заводов (предприятий): маркетинговый подход // Вестн. КазНУ. — 2015. — С. 303–308.
- 13 Christian F.H., Bjorn S. Corporate Prediction Markets for Innovation Management // Adoption of innovation. Balancing Internal and External Stakeholders in the Marketing of Innovation. — Switzerland: Springer International Publishing, 2015. — 230 p.
- 14 Charles R., David L. Collaborative Innovation with Customers: A Review of the Literature and Suggestions for Future Research // International Journal of Management Reviews. — 2012. — Vol. 14. — P. 63–84.
- 15 Bogers M., Afuah A., Bastian B. Users As Innovators: A Review, Critique, And Future Research Directions // Journal of Management. — 2010. — Vol. 36. — No. 4 — P. 857–875; Skiba F. and Herstatt C. International Journal of Services Technology and Management. — 2009. — 12 (3): 317–37, doi:10.1504/ijstm.2009.025393.
- 16 Санто Б. Инновация и глобальный интеллектуализм // Инновации. — 2006. — № 9. — С. 32–44.
- 17 Санто Б. Сила инновационного саморазвития // Инновации. — 2004. — № 2. — С. 5–15.
- 18 Гольдштейн Г.Я. Инновационный менеджмент. — Таганрог: Изд-во ТРТУ, 1998. — 132 с.
- 19 Коноплев С.П. Инновационный менеджмент: учеб. пособие. — М.: Велби, Проспект, 2008. — 128 с.

- 20 *Зюзина Т.Е., Пономарев М.А.* Маркетинговый подход к управлению инновационными процессами в российской экономике // Вестн. Томского гос. ун-та. — 2012. — № 4(20).
- 21 *Ren S., Eisingerich A.B., Tsai H-T.* How do marketing research and development capabilities and degree of internationalization synergistically affect the innovation performance of small and medium-sized enterprises (SMEs)? A panel data study of Chinese SMEs // International Business Review. — 2015. — 24. — P. 642–651.
- 22 Наука и инновационная деятельность Казахстана: Стат. сб. — Астана, 2014.
- 23 *Никулина О.В.* Перспективы развития маркетинга инноваций в России. — [ЭР]. Режим доступа: innclub.info/wp-content/uploads/2011.
- 24 *Schwab K.* The Global Competitiveness Report 2014-2015. — Geneva: World Economic Forum, 2014. — P. 231.

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Кәсіпорынның инновациялық белсенділігін жоғарылату құралы ретінде инновациялық қызметті басқарудағы маркетингтік тәсіл

Бәсекелестігі жоғары деңгейдегі нарықта кәсіпорынның инновациялық қызметін басқаруда олардың инновациялық белсенділігін жоғарылату бағытындағы қазақстандық кәсіпорындардың бәсекелестік артықшылығын құру үшін маркетингтің рөлі мен ауқымын ой елегінен өткізу керек. Сонымен қатар инновациялық қызметті басқарудағы маркетингті қолдануға арналған қазақстандық әдебиеттерде арнаулы зерттеулер әзірге жоқ. Осыған орай осы зерттеудің мақсаты — инновациялық белсенділігін жоғарылатудың тиімді құралы ретінде кәсіпорынның инновациялық қызметін басқаруда қажеттілікті негіздеу және маркетингтік тәсілдің негізгі бағытын қолдану. Мақалада отандық және шетелдік ғалымдардың көзқарастары инновациялық үрдістердегі маркетингтің рөліне талдау жасалды. Осыған орай маркетингтік тәсілді кәсіпорындардың инновациялық қызметін басқаруында орынды қолдануға негізделген. Зерттеу әдіснамасы біріктірілген тәсіл ұстанымынан, яғни өндіруші көзқарасынан және тұтынушы көзқарасынан, «инновациялық қызметті басқару» категориясын қарастыру қажеттілігі жайлы болжамынан шығады. Қолданылатын әдіснама ерекшеліктерін, бір жағынан, инновациялық қызметтің өз құбылысының күрделілігімен, яғни, нәтижелері тұтынушылардың арнайы білімі мен құзыретінің жоқтығынан үнемі бағаланбауы мүмкін болуымен, басқа жағынан, сол объектіні басқару үрдістерінің күрделілігімен түсіндіріледі. Жұмыстың логикалық түрде аяқталуы авторлар ұсынған кәсіпорындардың инновациялық белсенділігін жоғарылату үшін маркетингтік тұжырымдамаларды қолданудағы негізгі бағыттары болып табылады.

Кілт сөздер: инновациялық қызмет, қызметті инновациялық басқару, маркетингтік тәсіл, кәсіпорынның инновациялық белсенділігі.

А.Б. Берсимбаева, Н.А. Урузбаева, Д.А. Айбосынова

Маркетинговый подход к управлению инновационной деятельностью как инструмент повышения инновационной активности предприятий

Для создания конкурентного преимущества казахстанских предприятий на рынках с высокой конкуренцией необходимо переосмысливать масштабы и роль маркетинга в управлении инновационной деятельностью предприятия в направлении повышения их инновационной активности. Между тем в казахстанской литературе пока отсутствуют специальные исследования, посвященные использованию маркетинга в управлении инновационной деятельностью. В этой связи целью настоящего исследования является обоснование необходимости и основных направлений использования маркетингового подхода к управлению инновационной деятельностью предприятий как эффективного инструмента повышения их инновационной активности. В данной работе анализируются взгляды отечественных и зарубежных ученых на роль маркетинга в инновационных процессах. На этой основе обосновывается целесообразность использования маркетингового подхода к управлению инновационной деятельностью предприятий. Методология исследования исходит из гипотезы о необходимости рассмотрения категории «управление инновационной деятельностью» с позиций интегрированного подхода – с точки зрения как производителя, так и потребителя. Особенности используемой методологии объясняются, с одной стороны, сложностью самого феномена инновационной деятельности, результаты которой не всегда могут быть оценены потребителем в силу отсутствия у него специальных знаний и компетенций, а также сложностью процесса управления данным объектом — с другой. Логическим завершением работы являются предложенные автором основные направления использования маркетинговой концепции для повышения инновационной активности предприятий.

Ключевые слова: инновационная деятельность, управление инновационной деятельностью, маркетинговый подход, инновационная активность предприятий.

References

- 1 Kotler F., Trias de Bez F. *New marketing technologies. Techniques for creating brilliant ideas (Lateral marketing)*, trans. with the English, Ed. T.R. Theor, Sankt-Peterburg: Published House «Neva», 2004, 192 p
- 2 Lambin J. *Management, market-oriented*, trans. with english, Ed.V.B. Kolchanov, Sankt-Peterburg: Peter, 2007.
- 3 Lambin J. *Strategic Marketing (European Perspective)*. Trans. from the French, Sankt-Peterburg, Science, 1996. 589 p.
- 4 Romanov A.N. *Marketing*, Moscow, Banki i birzhy Publ., 1995, 560 p.
- 5 Golubkov E.P. *Principles of Marketing*, Moscow, Finpress, 1999, 656 p.
- 6 Fatkhutdinov R. *Innovation management*, Sankt-Peterburg: Piter Publ., 2011, 448 p.
- 7 Karenov R.S. *Bulletin of KarGU, Seriya Ekonomika*, 2012, 2, p. 56–59.
- 8 Golubkov E.P., Baisultanova R.M., Yalovecki G.M. *Bulletin of KASU*, 2008, 4, p. 28–34.
- 9 Mukasheva S.B. *Management of innovative activity of national companies of Kazakhstan*, dis. ... doc. of philol., Almaty, 2013, 184 p.
- 10 Danabayeva D.I., Danabayeva R.I. *Bulletin of KazNU, Seriya Ekonomicheskaya*, 2012, 1(89), p. 98–102
- 11 Nyussupov S.N., Nikitina I.I., Uruzbayeva N.A. National Economy vector of global development. Proc. of the international scientific-practical conference dedicated to the 80th anniversary of academician of NAS of the republic of Kazakhstan Y.A. Aubakirov, Almaty, 2005, p. 126–130.
- 12 Satybaldy S.S., Sakibayeva K.S. *Bulletin of KazNU*, 2015, p. 303–308.
- 13 Christian F.H., Bjorn S.I. Adoption of innovation. Balancing Internal and External Stakeholders in the Marketing of Innovation, Switzerland: Springer International Publishing, 2015, p. 230.
- 14 Charles R. and David L. *Journal of Management Reviews*, 2012, 14: 63–84;
- 15 Bogers M., Afuah A., Bastian B. *Journal of Management*, 2010, 36, 4, p. 857–875; Skiba F. and Herstatt C. *International Journal of Services Technology and Management*, 2009, 12 (3): 317–37, doi:10.1504/ijstm.2009.025393.
- 16 Santo B. *Proc. of Innovations*, 2004, 2, p. 5–15.
- 17 Santo B. *Proc. of Innovations*, 2006, 9, p. 32–44.
- 18 Goldshtein G.Y. *Innovation management*, Taganrog, TRTU Publ., 1998, p. 132.
- 19 Konoplev S.P. *Innovation management*, Moscow: Velby, Prospekt, 2008, 128 p.
- 20 Zyuzina T.E., Ponomarev M.A. *Bulletin of Tomsk State University*, 2012, 4 (20).
- 21 Ren S., A.B.Eisingerich, H-T.Tsai. *International Business Review*, 2015, 24: p. 642–651.
- 22 *Science and innovation in Kazakhstan*, Statisticheskii sbornik Astana, 2014.
- 23 Nikulina O.V. *Prospects for the development of innovation marketing in Russia*, innclub.info/wp-content/uploads/2011/.
- 24 Schwab K. *The Global Competitiveness Report 2014-2015*, Geneva: World Economic Forum, 2014, p. 231.