



SINGLING OUT SOME ECONOMIC CHARACTERISTICS WHILE DEFINING OF THE «INNOVATION» CONCEPT ESSENCE

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Abstract

The article deals with comparative legal characteristics of the most common approaches to the interpretation of the «innovation» essence. There was revealed «contact points» in the vision of this category. There was determined some basic factors affecting the formation of innovation as a market relations product. There was identified the most important economic characteristics that differ innovation from spontaneous and indirect social and economic changes. There was done the estimation of the modern condition of enterprises readiness for innovative activity on the basis of the analysis of implemented technical, organizational and marketing innovations. There was asked to assess readiness for innovation activities in three areas: the willingness of labor resources, management system and capital resources.

Keywords: innovation; market innovation; abstracting; a comparative legal approach; attribute; factors of innovations' transformation; competition; integration; technological innovation, process innovation, institutional innovation, marketing innovation; indicators of the enterprise readiness to innovate.

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Introduction and literature review

The complexity and versatility of the innovation process in the economy generates a search of theoretical and practical approaches to formation the most effective ways and mechanisms of reform implementation on the basis of the creative solutions, which give rise to significant competitive advantages of the subjects of the business activity, long-term profitability and high growth rates. The qualitative differentiations of essential and non-essential characteristics of an economic phenomenon or process largely determine the high quality level of the diagnosing and establishing the economic activity spheres, which are prior for the analysis. The orientation to the «weak places» and the analysis of the «control points», which in a timely manner provide information on the market participant's status, allow to make operational decisions in conditions of the increased risks of the external environment.

Such economists as N. D. Kondratyev, I. Schumpeter, N. V. Basov, L. D. Vodyanka, M. E. Rogoza, Howard Smith made significant contribution to the transformation of the conceptual content of the «innovations» in the direction of the economic orientation. Scientific aspects of the economic development of the society and relationship between the innovation phenomena and social economic dynamics were researched by them.

On the basis of the modern views about the most essential characteristics of the innovation process, we'll make an attempt of determining the content of the concept «innovation».

The article is aimed at revealing and selection of the most significant characteristics of the economic essence of the concept «innovation» among existing domestic and foreign literature and legislative base, the analysis of the theoretical approaches to understanding the essence of this category, and to classify the factors affecting the formation of innovation in market conditions.

It should be noted that in Ukraine started the process of creating effective legal base of innovative activity, however, the absence of formed system approach, science-based conceptual principles, certain structured objectives of the state scientific-technical and innovation policy is not compensated by the increase in the number of legislative and regulatory acts, numerous changes and additions to them.

The legislative framework in this field, in addition to basic laws «On scientific and scientific-technical activity», «On innovation activity», «On scientific and scientific technical expertise», «On special regime of investment and innovation activity of technological parks», Concept of scientific-technological and innovative development of Ukraine are adopted special laws, the provisions of which are aimed at the regulation of relations on the stage of program development (P., 2008).

Rationale existing theoretical approaches to understanding the essence of «innovation»

Achievement of the dynamism of the current economic activity both at local self-government bodies level, as well as within the individual enterprise is possible under condition of a clear, objective and science-based approach to organization of

the innovative activity, selection modern management practices and tools on the basis of introduction of different innovations (P., 2008).

In modern literature there are many definitions of the term «innovation», but only some of them enable the scientific interpret the contents of this category. The official legal document that defines a uniform approach to definition of essence of the concept of «innovation» on the territory of Ukraine is the Law «On innovation activity» in which this term is used in the meaning of the newly created or improved competitive technologies, products, services and solutions that improve the structure and quality of the production and social sphere. According to the law, the Law of Ukraine «On scientific and scientific-technical activity» to innovation refers scientific and technical products and development. Moreover, given the strengthening of integration processes in the sphere of science and technology intellectualization of factors of production, the search for new markets for products of special importance European trends regarding the development of innovative economy, fixed in the normative document of the Organization for economic cooperation and development and the Statistical office of the European communities (Eurostat), which is called «Oslo Manual» (Recommendations for the collection and analysis of data on innovation) (Chinar'jan, Rukovodstvo Oslo, 2011). If the Ukrainian legislation firmly holds the position regarding the provision of priority of conception, implementation and development of innovations exclusively in technical sphere of the enterprise, shifts innovative priorities of developed countries occurs in the direction of organizational and economic innovations, which include the scope of marketing, business, organizational relationships, the organization of workplaces and external relations (Fig. 1).

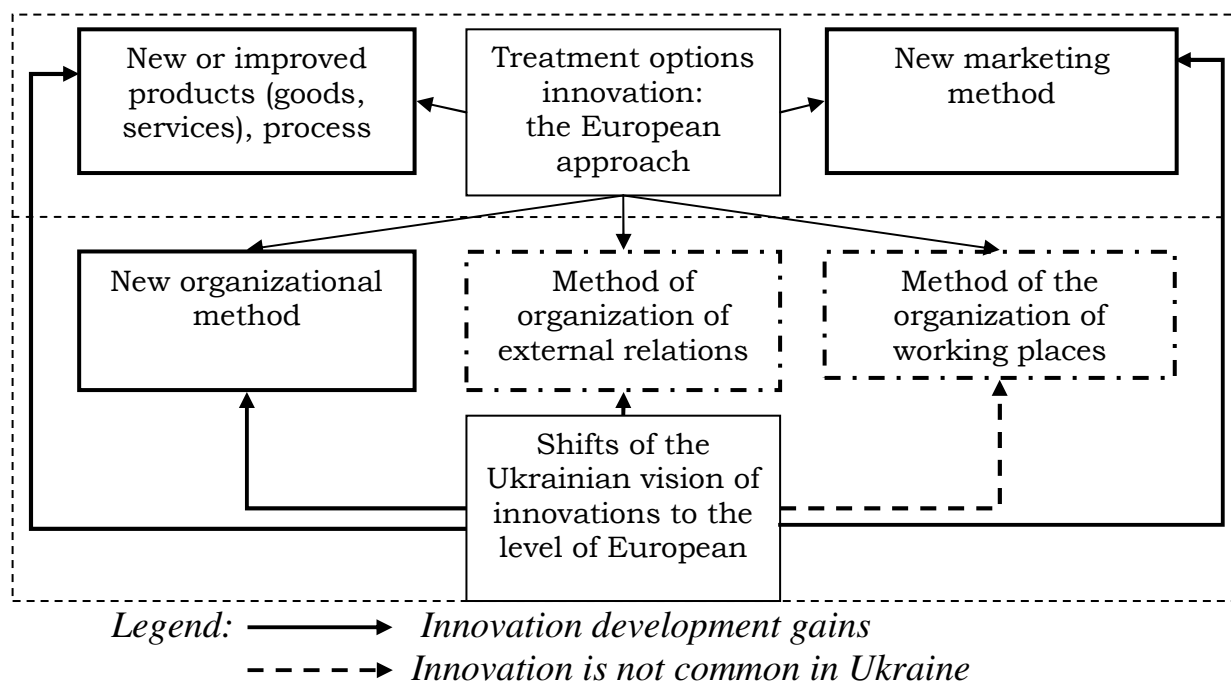


Fig. 1. Approximation of the vision of Ukrainian legislation regarding the content of the concept of «innovation» to the European level, compiled by the author

In recent years, along with the introduction of a new or significantly improved products (goods, services), considerable attention is paid to introduction of new processes. In this regard, according to the European approach is proposed to consider four types of innovation, which cover a wide range of changes observed in the activity of enterprises: product, process, organizational and marketing. To some extent, in Ukraine today already taken certain steps towards overcoming разбежностей in the vision of the object of innovation. So, popularized the concept of «process innovation» in terms of innovations that aim at the gradual improvement and/or a radical change in the business processes by introducing modern methods of management, which contributes to the implementation socially responsible policy of enterprises (O.O., 2011). Unlike the existing classification of innovations, including technological, process, organizational and marketing innovations, are allocated technological, production and sales, human, social, financial, environmental, legal, organizational, managerial, information and networking, process innovations (P., 2008).

The analysis of literary sources witness that rise to the discussion of questions of introduction of innovative strategies in different spheres of the economy based on the use of domestic institutional innovations. Their implementation will create conditions for the technical modernization of housing and utilities enterprises with their resource base and engineering systems» (S., 2010).

Given the traditional interpretation of innovation as a product (goods, services), as well as updates of innovation definition as a process under the influence of European trends, deserve special attention the following two approaches:

1. Static, where innovation acts as the «innovation – product», when it appears as a result of the innovation process in the form of new equipment (products) technology, a new method, which were introduced on the market;
2. Dynamic, where innovation acts as the «innovation – process», when the process of the introduction of new products, technologies, principles instead of the existing are considered in dynamics (Ukrai'ny, 2013).

With the second approach, the group of the authors (D. Bessant, I. Budnikevich, P. Druker, V. Medinckii, M. Molchanov, B. Santo, K. Freeman, M. Khuchek, D. Chervaniov, I. Schumpeter) views the «innovation» as a complex process – from the initial idea to its realization into some physical such as technologies, products, services, which may involve various technical-and-economic, social, environmental and other changes in the social environment. In connection with this, the most acceptable is the definition of innovation as a complex process, i. e. from the initial idea to its realization into technologies, products, services (I., 2010).

Thus, Ukraine has just started a path to understanding of necessity of change of priorities regarding the use of innovative potential in the direction of the formation of a strategic model of economic growth and innovation development. In addition, among the factors positively affecting the development of innovative potential of specialists note a high level of technological readiness and implementation of innovative technologies at the enterprises of Ukraine. However, in addition to the technological readiness, we should pay attention to comprehensively assess the

readiness of the labour resources, management system and capital resources of the enterprise to a radical and innovative changes.

Factors affecting the formation of innovation as a full-fledged market product and main characteristics of the economic category «innovation»

Under the influence of the system of transformational factors innovations change into a qualitatively new state «a market innovation». The process of such transformation is influenced by the time factor, investment and energy costs. As a result of these factors, innovation is gradually gaining sustainable attributes such as novelty, the ability to meet market demand and generate profits, i. e. to transform into commercialization goods.

Among a large number of the different according to their content and direction factors, which influence on the innovation transformation, the priorities include: informing, selection of the innovation strategy, consumers' interest in search and acquisition of innovations, approbation, adaptation, routinetization. Focusing on these factors is associated with a certain periodicity of the existence of innovation – from the emergence of information on innovations for the market to its implementation and routinetization at the enterprise. Throughout the existence of the cycle, the gradual transformation of innovations in innovation (Fig. 2).

To operationalize the interpretation of the «innovation» essence one must take into account the following characteristics, which distinguish it from spontaneous innovations or undirected social and economic changes (V., 2008):

1) Subjective constructiveness. Innovation always implies the existence of the subject of the innovative activity, which realizes it with the aim of changing reality in the direction of subjectively better status in accordance with its values and vision of the desired reality;

2) Purpose and rationality. Consistent process of creation and introduction of the innovation, which aims to change certain aspects of reality;

3) Technology and reflexivity. Innovation is designed and implemented with the involvement of theoretical knowledge. The implementation of innovation is preceded by a forecasting of possible consequences and evaluation of risks, the reduction of uncertainty;

4) Completeness. The innovation process is always the ultimate goal to introduction of some innovations in the structure for changing certain aspects of reality.

Penetration at the market of modern technical, technological, economic and organizational innovations creates, accordingly, the innovation market and the market of pure competition of innovations. The existence and interaction of these market components are impossible without investment income. In connection with this, the integration at market of new ideas and innovations to the national economic environment with the support of the investment market forms a specific sphere of economic relations based on the innovational development, working in which the enterprises get the possibility to extend the effective activity and intensive growth in the future.

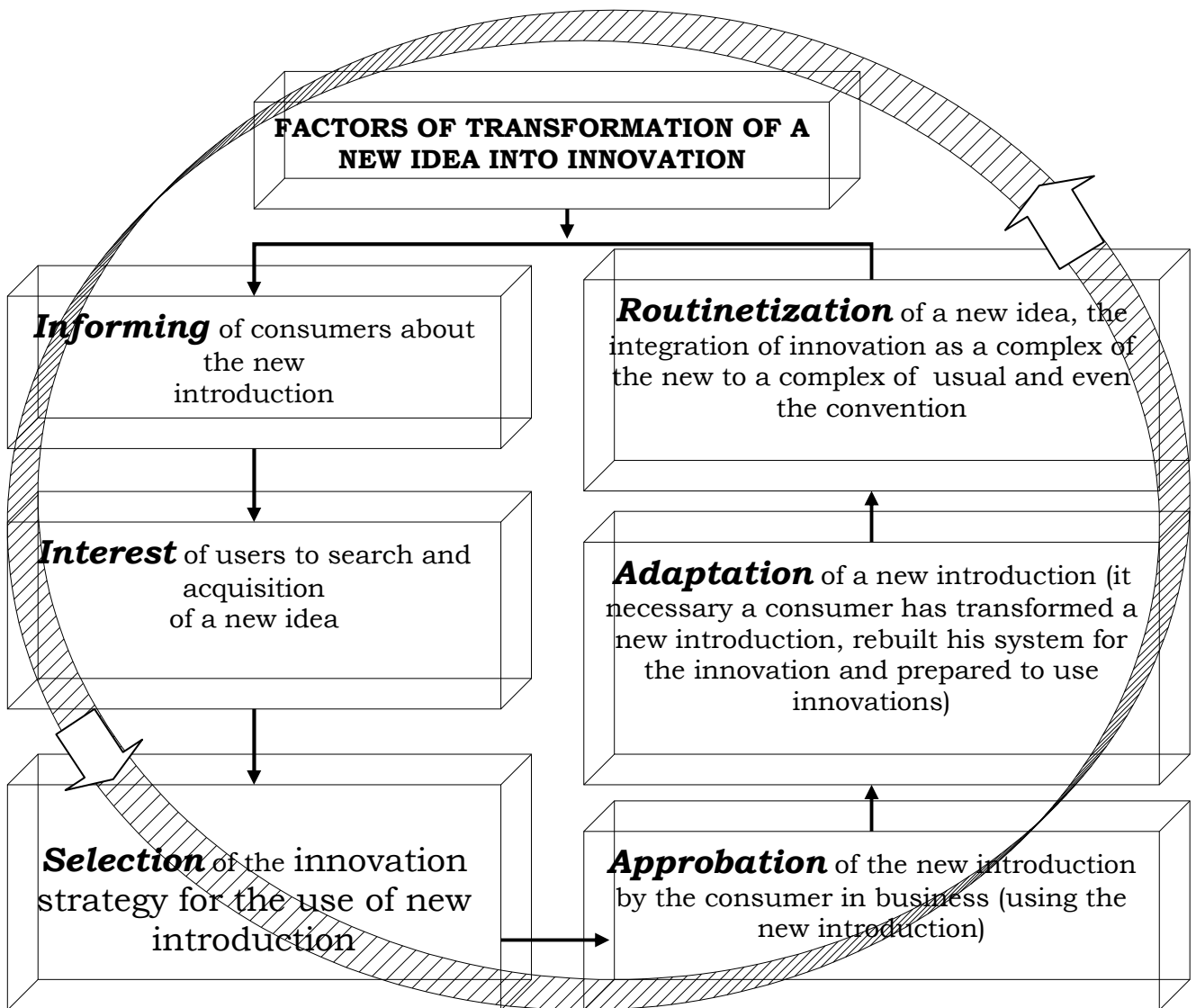


Fig. 2. Singling out some economic characteristics while defining of the «innovation» concept essence, *compiled by the author*

Analysis of the ability and readiness of the enterprise to the innovative development

Analysis of the susceptibility of enterprises for innovative development should be implemented taking into account the strategic direction of the company activity. In such directions in the field of innovative activity are: «self-production innovation», position «fast second», «the gap with minimum costs», «filling the gaps». Each of these areas is determined by the specific economic circumstances, investment opportunities and the goals of the company with respect to products, markets, competitors, and others (I., 2010).

Diagnostics of the effectiveness of the innovative capacity can be spent in marketing innovative benefits, which is a multilevel system with two distinct vectors of orientation:

- Correlation vector innovation capacity of the enterprise's ability to realize its goal of innovative activity, the level of which enables to ensure an adequate level of innovation activity of the enterprise;

- The vector of innovation activity of the enterprise, that is, a state in which the enterprise is able to develop, manufacture and introduction of the competitive innovation on the basis of business-processes organization of the activity, the development of production, diversification) in accordance with the needs arising in the market of innovative products (I., 2010).

Readiness of the company to innovate depends on the ability to innovative development and a possibility of its implementation, as well as the presence of causative motive to implement innovations, which can be characterized as the susceptibility of the company to innovate. The situation in Ukraine dissemination implementation of organizational and marketing innovations at the enterprises of Ukraine. This is confirmed by the data of official statistics (Naukova ta innovacijna dijal'nist' v Ukraïni u 2012 roci, 2012), which show that in 2008-2010, 1940 or 32% of the companies own technological innovations, of them 884 or 45,6% implemented organizational and marketing innovations, 638, or 32,9% only marketing innovations and 417, or 21,5% - only organizational innovations (Fig. 3).

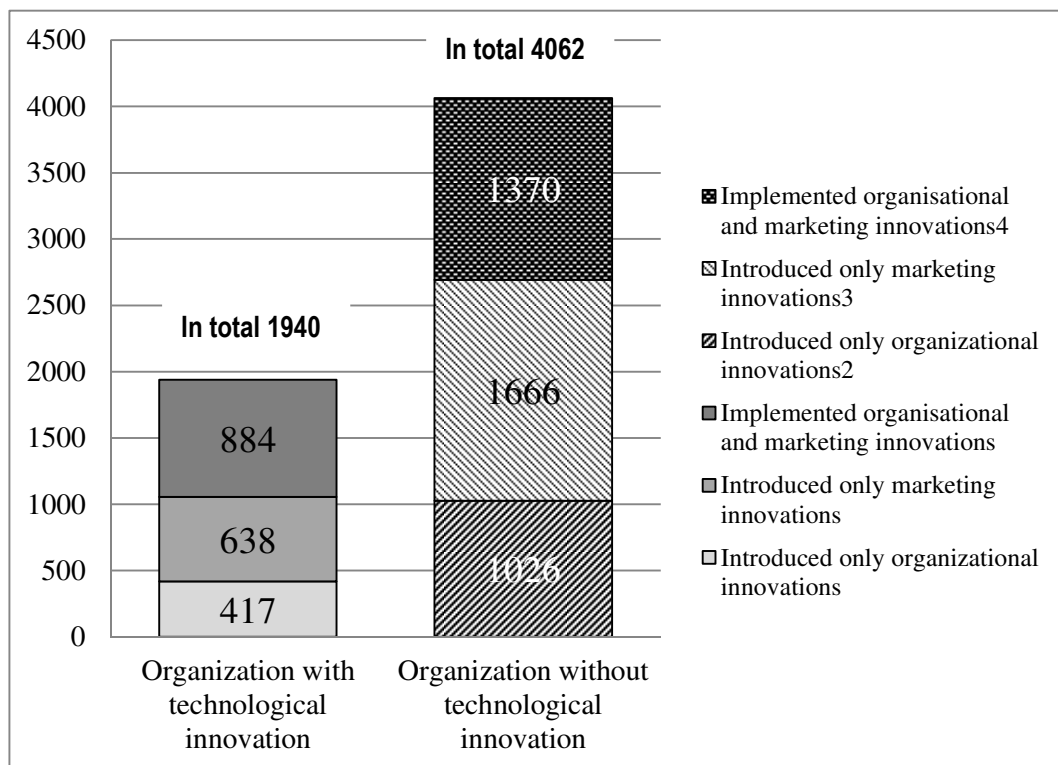


Fig. 3. The number of enterprises, which implemented organizational and/or marketing innovations in Ukraine for 2008-2010, compiled by the author

Analysis of the statistical information (Fig. 1) indicates that the time for the development of market principles service, demonopolization and restructuring of the management structures based on the use of organizational and marketing innovations, which are able to give the development of new functions: financial management, cost management and energy saving, quality management, introduction of geo-

information technologies. This could become a reality in terms of breaking conservatism in thinking and action, i.e. in terms of priority attention to the innovation culture in collectives of housing and communal services and the urban environment (S., 2010).

Overcoming stereotypes regarding the management style of the organization of workers and traditional approaches to the use of available resources of the enterprise should start with the assessment of the current status of the innovative potential of domestic enterprises, namely the study of the level of readiness of enterprises for innovative transformations based on the identification and evaluation of relevant metrics.

Strategic planning of development of the enterprise provides the definition of the level of readiness to absorb new innovations by collecting, processing and analyzing information on three main areas (tab. 1):

- 1) Work;
- 2) Management;
- 3) Capital resources.

Tab.1.

The definition of performance indicators of readiness of the enterprise to innovate

Parameter	Equation	Prudential requirement
<i>1. Preparedness of labor resources</i>		
1. Coefficient of education (C_e)	$C_e = \frac{T_e}{T_h}$	Where T_e – the total number of employees in the enterprise, company; T_h – number of persons with higher and secondary special education
2. Coefficient of innovation (C_i)	$C_i = \frac{T_p}{T_h}$	Where T_p – number of workers filing of various innovative proposals.
3. Coefficient of personnel specialization (C_{ps}^e)	$C_{ps}^e = \frac{T_{ps}}{T_h}$	Where T_{ps} – workers prepared and trained for the introduction of means of automation.
4. Coefficient of psychological perception of innovation (C_{per})	$C_{per} = \frac{T_{per}}{T_h}$	Where T_{per} – number of employees, waiting for a favorable impact of innovations on wages and better working conditions.
5. General availability of labor resources (C_{lr}^e)	$C_{lr}^e = \sqrt{\frac{C_e^2 + C_i^2 + C_{ps}^2 + C_{per}^2}{4}}$	
<i>2. Preparedness management system</i>		
6. Coefficient of labor conditions (C_{lc})		Set in relation to the proper standards of illumination of workplaces, put a cubic capacity of air, mental stress and physical severity of labor. Significance $C_{lc} = 0,6-1$.
7. Coefficient of production discipline (C_{pd})		Determined depending on the level of staff turnover, spoilage, quality of our products. Significance $C_{pd} = 0,3-0,95$.
8. Coefficient milestone (C_m)	$C_m = \frac{N_p}{N_{is}}$	Where N_p – proposed by employees to the implementation proposal and opening; N_{is} – number of implemented innovative solutions
9. Coefficient of automation control (C_{ac})	$C_{ac} = \frac{F_{amt}}{F_{ame}}$	Where F_{amt} – cost of automated management tools, F_{ame} – the total cost of the administrative machinery and equipment.

10. Availability depending on management factor (C_{mf})	$C_{mf}^e = \frac{\sqrt{C_{lc}^2 + C_{pd}^2 + C_m^2 + C_{ac}^2}}{4}$	
3. <i>Preparedness of the capital resources</i>		
11. Coefficient of specialization for finished products (C_s^p)	$C_s^p = \frac{P}{P^n}$	Where P – one finished product, (machine); P^n – the nomenclature of finished products produced at the enterprise.
12. Coefficient of specialization equipment (C_{se})	$C_{se} = \frac{F_1}{F_t}$	Where F_1 – the cost of specialist equipment; F_t – intended for performance of certain operations, the total carrying value of fixed assets.
13. Coefficient of automation equipment (C_{ae})	$C_{ae} = \frac{F_{ae}}{F_t}$	Where F_{ae} – the cost of automation equipment.
14. Coefficient of use of the automated equipment (C_{uae})	$C_{uae} = \frac{F_b}{F_1}$	Where F_b – the price listed on the balance sheet but is not used by automated equipment.
15. General availability depending on system administration, labor and capital resources (C_g)	$C_g = \frac{\sqrt{C_s^{p2} + C_{se}^2 + C_{ae}^2 + C_{uae}^2}}{4}$	

The company can be considered not ready to innovation, if (C_g) is in the range of 0,3-0,6. C_g from 0.6 to 0.8 speaks about the possibility of partial introduction of innovations in the individual, the most prepared shops and sites. C_g from 0,85 to 0,97 means that the company is ready to introduce innovations (Innovacii biznesa, 2013).

Conclusions

Thus, today in the economics and the management theory innovation is identified with a new introduction and understood as a complex process of creation, diffusion and use of innovations in order to satisfy human needs, as well as the associated changes in the socioeconomic environment.

Selection of main economic characteristics of the innovation process is an attempt to systematize the different views on the essence of the concept «innovation» on approaches, factors and the most essential characteristics, which distinguish it from spontaneous innovations or undirected social and economic changes. The direction of the further research is the streamlining of economic events from the moment of the emergence of the idea to achieve different effects from the introduction of innovations in production.

The effectiveness of innovation policy of the enterprise depends on the degree of readiness of the subject to absorb new innovations. That is why in formulating and assessment of innovative potential of the entity proposed to diagnose its efficacy by marketing innovative benefits in three areas – the willingness of labor resources, management and capital resources to innovation.

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АБСТРАГИРОВАНИЕ ЭКОНОМИЧЕСКИХ ХАРАКТЕРИСТИК ПРИ ОПРЕДЕЛЕНИИ СУЩНОСТИ ПОНЯТИЯ «ИННОВАЦИЯ»

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Аннотация. В статье представлена сравнительно-правовая характеристика подходов к определению понятия «инновация». Выявлены «точки соприкосновения» в видении сущности данной категории. Определены основные факторы, влияющие на формирование инновации как продукта рыночных отношений. Исследованы основные характеристики, которые отличают инновацию от спонтанного и ненаправленного социально-экономического изменения. Проведена оценка современного состояния готовности предприятий к инновационной деятельности на основе анализа внедренных технических, организационных и маркетинговых инноваций. Предложено оценивать готовность к инновационной деятельности по трем направлениям: готовность трудовых ресурсов, системы управления и капитальных ресурсов.

Ключевые слова: новация; рыночная инновация; абстрагирование; сравнительно-правовой подход; атрибут; факторы трансформации новаций; конкуренция; интеграция; технологические инновации, процессные инновации, организационные инновации, маркетинговые инновации; показатели готовности предприятия к инновациям.