

JEL Classification: D92; J54; O31;  
O32; Q55

UDC 330.341

DOI: 10.30857/2415-3206.2020.1.10

**METHODOLOGICAL ASPECTS OF  
EVALUATING THE EFFECTIVENESS OF  
MANAGEMENT OF INNOVATION AND  
INVESTMENT ACTIVITIES OF  
ENTERPRISES**

**T. KRAKHMALOVA<sup>1</sup>**

<sup>1</sup> *Kyiv National University of Technologies and  
Design, Ukraine*

**Introduction.** One of the complex social and economic problems facing Ukraine in the XXI century, is the urgent need to transfer the economy to a new technological base of post-industrial development. This becomes the most important condition for rapid overcoming of the technological backwardness of the country. This problem can be solved by relying on innovative technologies in production and management.

**The research hypothesis.** The practical implementation of tactical and operational management in accordance with the chosen strategy of innovation and investment activities of the enterprise will achieve a positive economic effect based on the optimization of technological and business processes, marketing, logistics, financial relations.

**Objectives** to offer methodological tools for evaluating the effectiveness of management of innovation and investment activities of enterprises.

**The methodology of the study:** methods of comparative analysis, rating, tabular, graphical, cluster analysis.

**Results.** The key feature of the proposed approach is the choice of innovation strategy based on the effectiveness of management of innovation and investment activities of enterprises, analysis of the parameters of the projected stability of the enterprise under given conditions of implementation of both product and technological and managerial innovations by attracting foreign investment.

**Conclusions.** Methodical tools for evaluating the effectiveness of management of innovation and investment activities of enterprises are proposed.

**Keywords:** innovation and investment enterprises; management strategy; innovation strategy; venture enterprises.

JEL Classification: D92; J54; O31;  
O32; Q55

УДК 330.341

DOI: 10.30857/2415-3206.2020.1.10

**МЕТОДИЧНІ АСПЕКТИ ОЦІНЮВАННЯ  
РЕЗУЛЬТАТИВНОСТІ УПРАВЛІННЯ  
ІННОВАЦІЙНО-ІНВЕСТИЦІЙНОЮ  
ДІЯЛЬНІСТЮ ПІДПРИЄМСТВ**

**Т. КРАХМАЛЬОВА<sup>1</sup>**

<sup>1</sup> *Київський національний університет  
технологій та дизайну, Україна*

**Вступ.** Стратегії управління інноваційно-інвестиційною діяльністю підприємства дозволяє менеджменту і власникам підприємства визначити найбільш прийнятну інноваційну стратегію розвитку з попередньою оцінкою форм і розмірів необхідних інвестиційних ресурсів при можливості коректування стратегії на будь-якому етапі її практичної реалізації.

**Гіпотеза.** Практична реалізація тактичного і оперативного управління відповідно до обраної стратегії інноваційно-інвестиційної діяльності підприємства дозволить досягти позитивного економічного ефекту на основі оптимізації технологічних і бізнес-процесів, маркетингових, логістичних, фінансових зв'язків.

**Цілі:** запропонувати методичний інструментарій щодо оцінювання результативності управління інноваційно-інвестиційною діяльністю підприємств.

**Методи:** порівняльного аналізу, рейтингування, табличний, графічний, кластерного аналізу.

**Результати.** Ключовою особливістю запропонованого підходу є вибір інноваційної стратегії на основі результативності управління інноваційно-інвестиційною діяльністю підприємств, аналізу параметрів прогнозованої стійкості підприємства при заданих умовах необхідності впровадження як продуктових і технологічних, так і управлінських інновацій за допомогою залучення зовнішніх інвестицій з урахуванням екзогенних факторів зовнішнього інноваційного ринку.

**Висновки:** запропоновано методичний інструментарій щодо оцінювання результативності управління інноваційно-інвестиційною діяльністю підприємств.

**Ключові слова:** інноваційно-інвестиційні підприємства; стратегія управління; інноваційна стратегія; венчурні підприємства.

**Formulation of the problem.** In order to make an innovative breakthrough in the national economy, transition from stagnant situation in all sectors of the economy to innovative structural transformations in high-tech sectors of the national economy, wide introduction of know-how, the company's development strategy should be developed through the introduction of product and technological and managerial innovations, volumes.

At the same time, a positive innovation effect from the activities of enterprises at this time can be obtained by using existing innovation and investment strategies through the realization of endogenous and exogenous potential, finding a niche market segment, not just adapting their economic activities to external conditions.

**The purpose** of the article is to study the methodological tools for evaluating the effectiveness of management of innovation and investment activities of enterprises.

**Research results.** Innovation policy is a powerful lever to overcome the consequences of the crisis in the economy, to ensure its structural adjustment and sustainable economic growth, to saturate the market with a variety of competitive products [4]. The formation of the innovation and investment activity mechanism starts with specific objects and subjects of management. Managers (organizers of production) can be state bodies, enterprises, individuals and legal entities that are capable of carrying out innovation and investment activities, taking appropriate decisions and participating in the production process. The industrial, economic and business relations which arise in the course of innovative and investment activity allow transforming objects of management into economic subjects (Figure 1).

Currently, only the economic effect is determined when calculating the effect of an innovation development strategy. Other types of effects are not quantified due to the lack of methodological guidelines and difficulties in collecting information. At the same time, ecological and social types of effects play a major role in the evaluation of strategic development alternatives, especially for industrial enterprises.

$$E_{f_{str}} = E_{f_{pr}} + E_{f_{technol}} + E_{f_{manag}} + E_{f_{exter/invest}} + E_{f_{inter/invest}}, \quad (1)$$

where  $E_{f_{str}}$  – efficiency of the existing strategy of innovation and investment activity of business;  $E_{f_{pr}}$ ;

$E_{f_{technol}}$ ;  $E_{f_{manag}}$  – efficiency, respectively, of product, technological and managerial innovations;

$E_{f_{exter/invest}}$ ;  $E_{f_{inter/invest}}$  – efficiency, respectively, the attraction and use of external and internal investment resources.

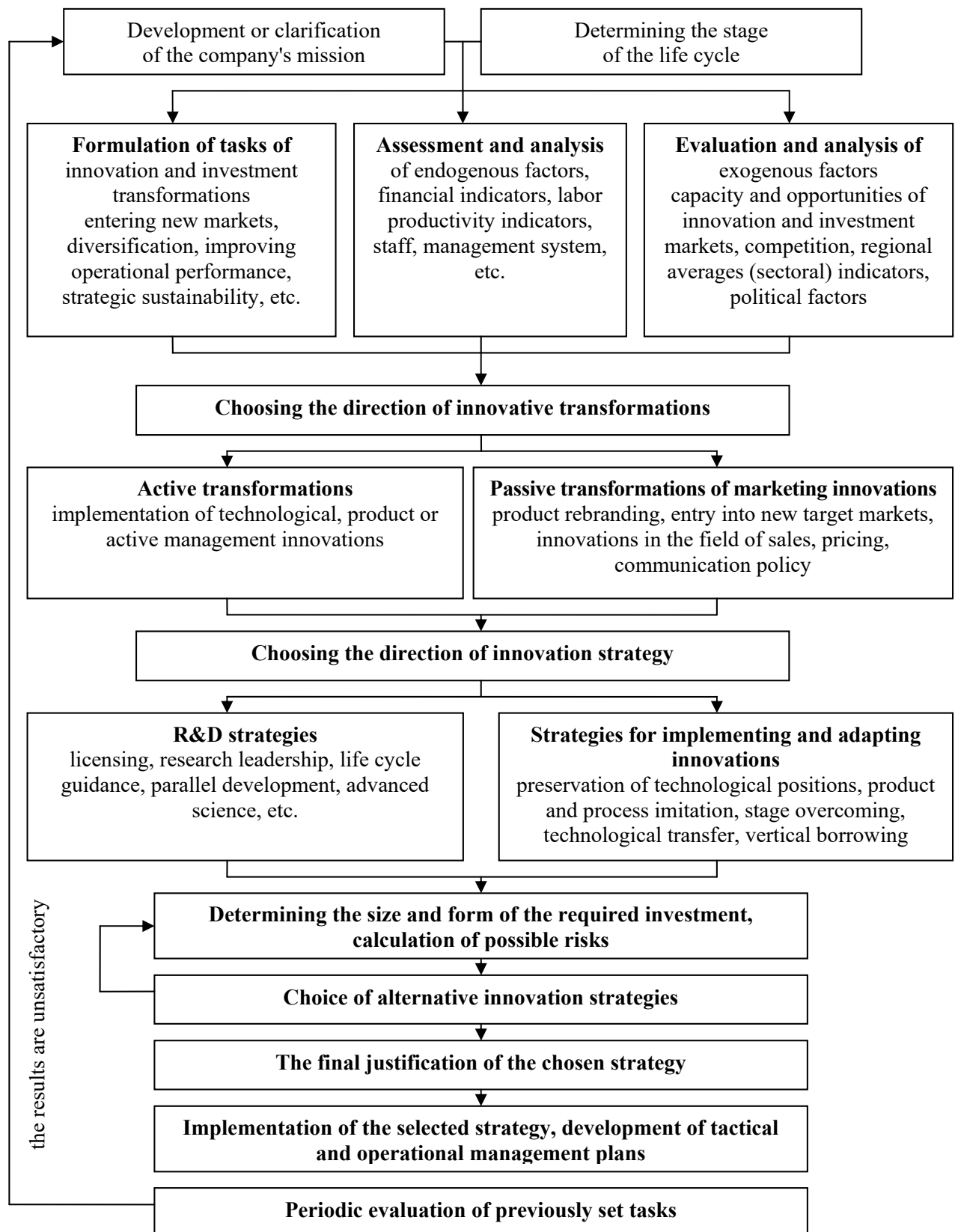


Figure 1. Algorithm for building a strategy for managing business innovation and investment activity

The efficiency of product innovations should be understood as an increase in the share of innovative products, the effectiveness of technological innovations – the introduction of innovative technologies, and, accordingly, the effectiveness of managerial innovations – an increase in the overall profitability of management.

The analysis of the theory and practice of domestic business, the main types of strategies for innovative development of enterprises were identified and characterized (Table 1).

Table 1

**Type of strategies of innovative development of the enterprise**

Characteristic	Type of strategy for innovative and investment business development		
	Regressive	Adaptive	Progressive
Business development	Focus on government subsidies, lack of promising development, lack of innovation	Simple playback with elements of advanced, simulated innovation	Comprehensive innovative development
Ways to create added value	Operating	Point investments	Investment and innovation
The relative value of value added	Low	Average	High
Type of enterprises	Uncompetitive, lost market position	State corporations, extractive industries	Leadership in creating/promoting high technology
Stability and stability of the enterprise	A financially unstable company	Financially stable enterprise in the short and / or long term	An economically stable enterprise with balanced stability
The most relevant forms of risk	Lack of opportunity to borrow, due to unsatisfactory indicators of financial stability, liquidity	Business processes, planning levels, staff resistance to innovation, the necessary transformation	Investment long-term risks due to the introduction of innovations

The performed classification allowed to conclude that each strategy of development of domestic enterprises differ in the degree of risk, stability and opportunities for hedging innovation and investment activities, which determine the key features of tactical and operational levels of management of agricultural enterprises in terms the need to invest in different types and levels of economic activity. Therefore, the strategy of the enterprise can be represented as the following dependence:

$$St = f \left\{ \frac{\partial G}{\partial t}, \frac{\partial R}{\partial t} \right\}, \quad (2)$$

where  $St$  – enterprise strategy;

$\frac{\partial G}{\partial t}$  – changing the degree of stability of the enterprise;

$\frac{\partial R}{\partial t}$  – change in the risks of the enterprise.

On the other hand, all endogenous and exogenous processes of industrial and economic activity of enterprises should be considered at three interdependent levels: macro (state economy); meso (industry, region) and micro (enterprise, business). Therefore, the process of substantiation of the strategy of innovation and investment activity management of the enterprise as a function of the parameters of its projected stability and the total relative amount of risks of its activities in terms of the need for both product and technological and managerial innovations. taking into account exogenous and endogenous factors in the innovation market. The obtained dependence can be represented by the following equation:

$$St = f \left\{ \underbrace{\left\{ \frac{\partial G}{\partial t}, \frac{\partial R}{\partial t}, \frac{\partial NPV}{\partial t} \right\}}_{f(\text{exo})} \right\}^{f(\text{innov})}, \quad (3)$$

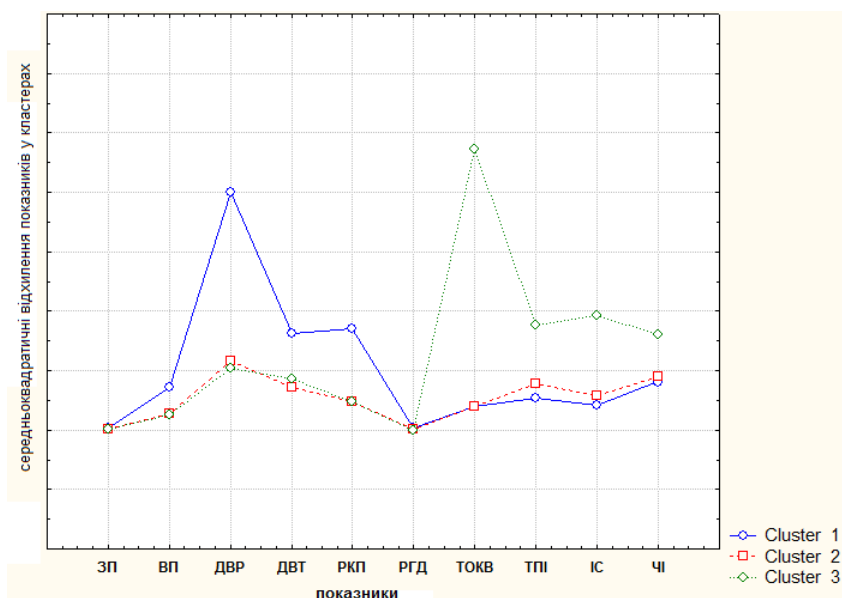
where  $f(\text{innov})$  – business attractiveness for innovation and investment;

$f(\text{exo})$  – exogenous and endogenous innovation market factors;

$\frac{\partial NPV}{\partial t}$  – change in the net present value of the enterprise.

In order to assess the effectiveness of management of innovation and investment activities of enterprises, we will typologize the surveyed enterprises on the basis of "Results of innovation and investment activities" by cluster analysis using the application package STATISTICA 7. Initial data for analysis of innovation and investment activities of enterprises in Kyiv region. The results of calculations by the method of cluster analysis (listing of the program STATISTICA7) are shown in Figure 2.

The results of the analysis of production and economic performance of 25 agro industrial enterprises (Figure 2) allowed to distinguish three clusters. We will analyze the composition of each of the obtained clusters – a group of enterprises that have homogeneous specific features of the results of innovation and investment activities. The list of enterprises that were part of the first cluster is shown in Figure 3. The RMS value of indicators of innovation and investment activities of enterprises of the first cluster according to the results of cluster analysis is shown in Figure 3.



Source: calculated by the author.

**Figure 2. K-average performance chart of 25 agricultural enterprises (STATISTICA listing)**

Analysis (исх.дан.25 предпр)  
Means clustering results dialog  
Plot of Means for Each Cluster  
Members of Cluster Number 1  
Members of Cluster Number 2  
Members of Cluster Number 3

Members of Cluster Number 1 (исх.дан.25 предпр) and Distances from Respective Cluster Center Cluster contains 6 cases	
	Distance
П7	118444,1
П8	100102,3
П11	52109,1
П19	88001,0
П24	61311,8
П25	60524,7

Source: calculated by the author.

**Figure 3. RMS value of indicators of innovation and investment activities of enterprises of the first cluster (listing of the STATISTICA7 program)**

As evidenced by the data from Figure 3 to the first cluster got mostly large enterprises – violets (6 enterprises out of 25 studied). In relation to innovation and investment, violent behavior is characteristic of large companies with large resources, they operate in the market from a position of strength, allocate a lot of funds for research and development, marketing and distribution networks. The list of enterprises that are part of the second cluster is shown in Figure 4.

As evidenced by the data from Figure 4 the second cluster includes mainly moderately active in innovation and investment activities, medium and small enterprises – patients, which are characterized by serving the needs of consumers of mass, but not standard; specialized profile of production of innovative products, adaptation to a special market (17 enterprises out of 25

studied). The list of enterprises that are part of the third cluster is shown in Figure 5.

3\*

Analysis (исх.дан.25 предпр)  
Means clustering results dialog  
Plot of Means for Each Cluster  
Members of Cluster Number 1  
Members of Cluster Number 2  
Members of Cluster Number 3

Members of Cluster Number 2 (исх.дан.25 предпр) and Distances from Respective Cluster Center Cluster contains 17 cases	
	Distance
П1	89795,8
П2	141669,2
П3	73404,5
П4	91782,7
П6	98404,9
П9	82993,3
П12	242719,8
П13	97187,8
П14	66817,1
П15	49573,3
П16	105171,4
П17	67048,5
П18	53132,0
П20	65307,5
П21	224349,5
П22	62267,5
П23	91087,2

Source: calculated by the author.

Figure 4. RMS value of indicators of innovation and investment activity of enterprises of the second cluster (listing of the STATISTICA7 program)

3\*

Analysis (исх.дан.25 предпр)  
Means clustering results dialog  
Plot of Means for Each Cluster  
Members of Cluster Number 1  
Members of Cluster Number 2  
Members of Cluster Number 3

Members of Cluster Number 3 (исх.дан.25 предпр) and Distances from Respective Cluster Center Cluster contains 2 cases	
	Distance
П5	79794,98
П10	79794,98

Source: calculated by the author.

Figure 5. RMS value of indicators of innovation and investment activities of enterprises of the third cluster (listing of the STATISTICA7 program)

As evidenced by the data from Figure 5 the third cluster includes expert companies (venture enterprises) – enterprises characterized by servicing the innovative needs of consumers; high level of R&D expenditures, advancement in innovations, low level of stability in the market (2 enterprises out of 25 surveyed). The results of calculations by this method are shown in Figure 6. In the listing, the indicators that have an impact on the studied process are highlighted in red.



Показники	Factor Loadings (Unrotated) (исх.дан.25 предпр) Extraction: Principal components (Marked loadings are >,700000)		
	Factor 1	Factor 2	Factor 3
ЗП	0,947528	0,136939	-0,102248
ВП	0,967737	0,179234	-0,014858
ДВР	0,964241	0,213981	0,033271
ДВТ	0,924994	0,295035	0,117382
РКП	-0,223495	0,242523	0,766943
РГД	0,948388	-0,234214	0,231238
ТОКВ	0,296315	0,741028	-0,132541
ТПИ	0,478221	0,557436	-0,371898
ИС	0,543605	0,320672	0,782692
ЧИ	0,257035	0,855428	0,602998
Expl.Var	5,248632	1,804293	1,062014
Prp.Totl	0,524863	0,180429	0,106201

Source: calculated by the author.

**Figure 6. Listing of factor analysis of indicators that have an impact on the effectiveness of innovation and investment activities of the surveyed enterprises**

As can be seen from Figs. 6, the effectiveness of innovation and investment activities of the surveyed enterprises are influenced by 3 components (respectively: factor 1, factor 2, factor 3 listing). Thus, the components of the first component of the diagnosis of the effectiveness of innovation and investment activities of enterprises are characterized by the following dependence on the analyzed indicators:

$$F1 = 1/5,248632 \cdot (0,947528 \cdot ЗП + 0,967737 \cdot ВП + 0,964241 \cdot ДВР + 0,924994 \cdot ДВТ + 0,948388 \cdot РГД). \quad (4)$$

The second component, which includes indicators: TOKV (return on capital investment / investment), CHI (investment in successful innovation projects), has a load of 18.0429% and is responsible for the effectiveness of investment activities of enterprises. Thus, the components of the second component of the diagnosis of the effectiveness of innovation and investment activities of enterprises are characterized by the following dependence on the analyzed indicators:

$$F2 = 1/ 1,804293 \cdot (0,741028 \cdot ТОКВ + 0,855428 \cdot ЧИ). \quad (5)$$

The third component, which includes indicators: RCP (level of qualification of employees), IP (implementation of innovative projects at the enterprise), has a load of 10.62014% and is responsible for the effectiveness of innovative activities of agricultural enterprises. Thus, the components of the third component of the diagnosis of the effectiveness of innovation and

investment activities of enterprises are characterized by the following dependence on the analyzed indicators:

$$F3 = 1/1,062014 \cdot (0,766943 \cdot PKП + 0,782692 \cdot IC). \quad (6)$$

According to the results of the multifactor analysis, we can propose a model for assessing the effectiveness of management of innovation and investment activities of enterprises on the basis of determining the maximum values of both innovation and investment and economic effects. In the offered model it is necessary to carry out a gradation of results of activity of the enterprises on economic and innovation-investment signs. It should be noted that increasing efficiency and increasing profits of enterprises leads to a synergistic effect:

$$Ef_{\text{innov/invest}} = Ef_{\text{innov}} + Ef_{\text{invest}}, \quad (7)$$

where  $Ef_{\text{innov/invest}}$  – efficiency of innovation and investment efficiency of economic activity of the enterprise depending on its type;

$Ef_{\text{innov}}$  – achieved economic effect from innovative transformations;

$Ef_{\text{invest}}$  – achieved economic effect from investment transformations.

In turn, the innovation, investment and economic effects, which correspond to the 3 factors of the program listing, can be calculated using the following equations:

$$\begin{cases} Ef_{\text{invest}} = \frac{\partial B}{\partial t} + \frac{\partial E_{\text{KOH}}}{\partial t} \\ Ef_{\text{инновац}} = \frac{\partial B}{\partial t} + \frac{\partial \text{Технол}}{\partial t} + \frac{\partial \text{Интел}}{\partial t} + \frac{\partial \text{Информац}}{\partial t} \end{cases}, \quad (8)$$

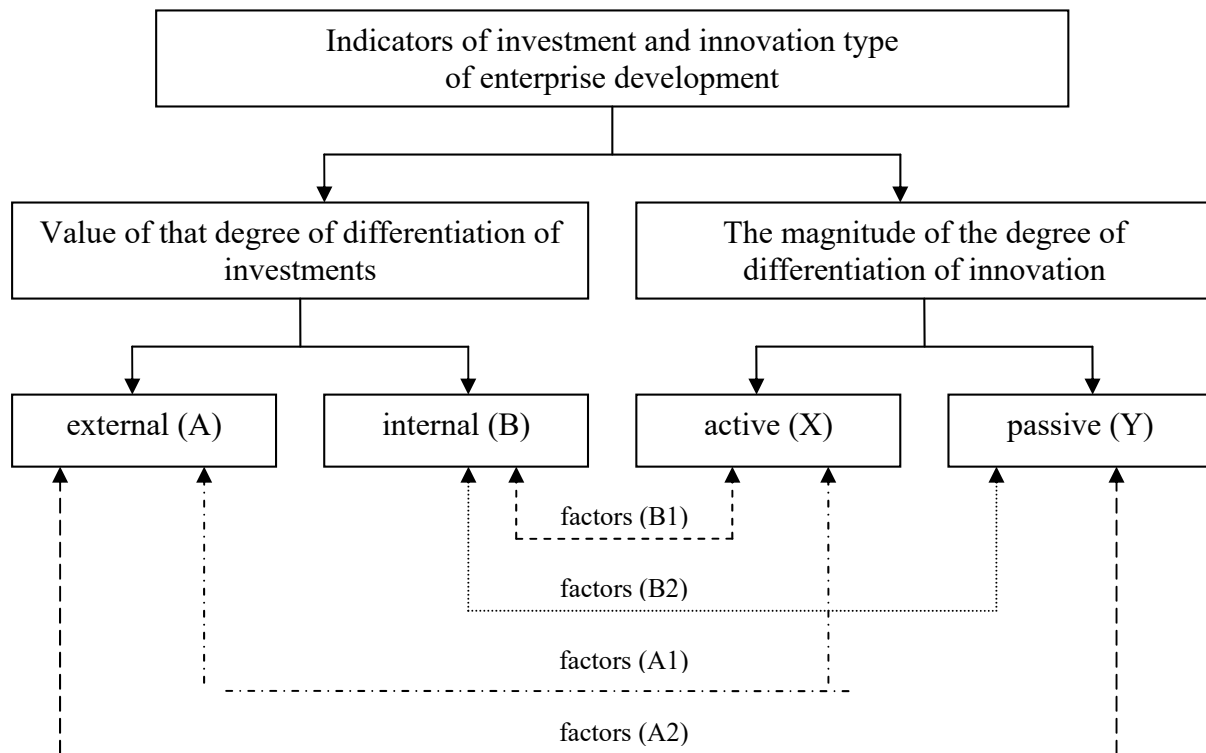
where  $\frac{\partial B}{\partial t}$ ,  $\frac{\partial \text{Технол}}{\partial t}$ ,  $\frac{\partial \text{Интел}}{\partial t}$ ,  $\frac{\partial \text{Информац}}{\partial t}$ ,  $\frac{\partial E_{\text{KOH}}}{\partial t}$  – change, respectively, of production, technological, intellectual, information and economic efficiency, acceleration of scientific and technological progress, increase in economic efficiency, increase in income of enterprises engaged in innovation and investment activities.

Substituting the data of the system of equations (8) into equation (7), we obtain the following dependence:

$$Ef_{\text{инновац}} = 2 \cdot \frac{\partial B}{\partial t} + \frac{\partial E_{\text{KOH}}}{\partial t} + \frac{\partial \text{Технол}}{\partial t} + \frac{\partial \text{Интел}}{\partial t} + \frac{\partial \text{Информац}}{\partial t}. \quad (9)$$

Efficiency of management of innovative-investment development of the enterprise is defined as efficiency of use of the allocated budget for the innovative changes received incomes from innovative-investment activity. The

conducted analysis has allowed to differentiate determinants of innovative-investment development of the agro industrial enterprises in two directions: degrees of innovative activity and characteristics of industrial and economic activity (Figure 7).



Source: proposed by the author.

**Figure 7. Types of factors of innovative support of system transformations of the enterprise**

The conditions for transition to an innovative type of enterprise development are determined by four classification indicators: external active (AX), external passive (AY), internal active (BX), internal passive (BY). This differentiation allows for a comprehensive description of all possible stimulators and distimulators of innovative activity, taking into account the nature of the sources of formation, possible limitations and risks of innovative development. At the next stage it is offered to consider an indicator of probability of realization of innovative transformations at the level of the enterprise in the form of a matrix of the factors different on classification type.

$$W_{INV} = \left\{ \begin{array}{cccc} AX_1 & AX_2 & \dots & AX_i \\ AY_1 & AY_2 & \dots & AY_j \\ BX_1 & BX_2 & \dots & BX_n \\ BY_1 & BY_2 & \dots & BY_m \end{array} \right\}, \quad (10)$$

where  $W_{INV}$  – relative probability of introduction of innovations in production and economic activity of the enterprise.

The use of the proposed indicator for practical purposes allows for a comparative analysis of the level of innovative development, probability and degree of realization of innovative potential. The use of the proposed indicator for practical purposes allows potential investors to hedge risks when making an investment decision when forming an investment portfolio. Thus, probability of introduction of innovations in practical activity of the enterprise and, accordingly, maximization of a degree of return of investments, is defined as follows:

$$W_{INV} = \frac{\sum_{i=1} AX_i + \sum_{j=1} AY_j + \sum_{n=1} BX_n + \sum_{m=1} BY_m}{\max(\sum_{i=1} AX_i + \sum_{j=1} AY_j + \sum_{n=1} BX_n + \sum_{m=1} BY_m)} * 100\%, \quad (11)$$

where  $\sum_{i=1} AX_i$ ,  $\sum_{j=1} AY_j$ ,  $\sum_{n=1} BX_n$ ,  $\sum_{m=1} BY_m$  – general assessment, respectively, of external active, external passive, internal active, internal passive indicators of the transition to an innovative type of enterprise development;  
 $\max(\sum_{i=1} AX_i + \sum_{j=1} AY_j + \sum_{n=1} BX_n + \sum_{m=1} BY_m)$  – maximum possible value of indicators.

The degree of market influence on the innovation activity of an enterprise may vary. The degree of market influence can be ranked in three gradations: negative, zero (no influence) and positive. Selection of the most significant factors was made with the help of equations 4–6 taking into account the obtained correlation-factor relations on sufficiency principle (Table 2).

The substantiated set of factors is sufficient for carrying out the analysis of efficiency of innovative and investment development of the enterprise. For carrying out of a complex estimation of efficiency of innovative-investment management of business it is enough to minimize effect of cross-correlation. In some cases it is possible to expand the offered list by separate factors which as a result of the spent analysis render less essential influence on efficiency of business and a competitive position of the enterprise. The positive moment of the offered technique is carrying out of the analysis of degree of use of innovative and investment potential of development of the enterprise. As a result of this analysis it is possible to compare individual market operators by the degree of use of their innovative and investment potential, the possibility and probability of their transition to a higher level of development. The calculations

of the WINV indicator have proved that the achieved level of innovative development of an enterprise directly depends on the size of the spent investment resources (Table 3).

Table 2

**Ranking and classification of factors of transition to an innovative type of enterprise development**

Classification type	Factor
External active factors	Direct sectoral or targeted grants or state guarantees on loans Tax policy Sectoral regulatory and technical regulation
External passive factors	The level of competition in the market The degree of development in the areas of activity of the enterprise Innovation infrastructure Legislation in the field of innovation regulation Presence of barriers to entry into the foreign capital market
Internal active factors	Availability of strategic and tactical levels of enterprise planning Innovative orientation of staff Management qualification
Internal passive factors	Existing production and technical base Form of organization, management and ownership

Table 3

**Assessment of the degree of probability of transition of enterprises to innovation**

Indicator value WINV	The degree of probability of the company's transition to an innovative path of development	Ensuring innovative transformation with the help of investment capital
+100%<WINV<0%	Maximum possible market position of the company for further innovative development	Low
WINV=0%	Possibility to use "inhibition" factor for innovative development of the enterprise	Average
0%<WINV<-100%	Extremely negative position of the enterprise in the market, lack of practical opportunities for further innovative development	High

Based on the proposed approach in the study, an assessment of the effectiveness of innovation and investment activities of the surveyed enterprises, the results of which are presented in Table 4.

Table 4

**Evaluation of the effectiveness of innovation and investment activities of the studied enterprises**

Indicator	Result, %		
	Violents	Patients	Experts (venture companies)
Efficiency of product innovations	58	21	72
Efficiency of technological innovations	71	13	82
Effectiveness of managerial innovations	32	17	44
Efficiency of external investment resources	48	21	17
Efficiency of domestic investment resources	56	37	10

**Conclusions and suggestions.** The analysis of the effectiveness of management of innovation and investment activities of the studied enterprises allowed to determine the differences in the investment resources involved in the enterprises of 3 defined clusters (the largest in violent – large enterprises (up to 60%), the smallest – in small enterprises of venturers – 10–17%, in the use of its own financial and resource subsystem – components of investment potential, organizational and economic subsystem for the implementation of innovative projects: (the largest in small enterprises of experts (venture enterprises) (up to 80%), the smallest – in patients – medium enterprises (about 20% Comprehensive consideration and analysis of the components of innovation and investment potential will allow the company to identify weaknesses and strengths in its innovation and investment activities, and as a consequence – to increase its efficiency.

**References**

1. Gitman, L.Dzh., Dzhonk, M.D. (1997). *Osnovy investirovaniia* [Investment Basics]. Moscow: Delo. 1008 p. [in Russian].
2. Denysenko, M.P., Mykhailova, L.I., Gryshchenko, I.M. et al. (2008). *Investytsiino-innovatsiina diialnist: teoriia, praktyka, dosvid: monohrafiia* [Investment and innovation activity: theory, practice, experience: monograph]. Sumy: VTA "Universytetska knyha". 1050 p. [in Ukrainian].
3. Hanushchak-Iefimenko, L.M., Shcherbak, V.H. (2016). *Rozvytok innovatyvnoho pidpriemnytstva na zasadakh klasternoї orhanizatsii* [Development of innovative entrepreneurship on the basis of cluster organization]. *Aktualni problemy ekonomiky* [Actual problems of economics], No. 11 (185),

**Література**

1. ГИТМАН Л. ДЖ. ОСНОВЫ ИНВЕСТИРОВАНИЯ / Л. ДЖ. ГИТМАН, М. Д. ДЖОНК. – М.: Дело, 1997. – 1008 с.
2. Денисенко М. П. Інвестиційно-інноваційна діяльність: теорія, практика, досвід: монографія / М. П. Денисенко, Л. І. Михайлова, І. М. Грищенко та ін. – Суми: ВТА "Університетська книга", 2008. – 1050 с.
3. Ганущак-Єфіменко Л. М. Розвиток інновативного підприємництва на засадах кластерної організації / Л. М. Ганущак-Єфіменко, В. Г. Щербак // *Актуальні проблеми економіки*. – 2016. – № 11 (185). – С. 88–96.

P. 88–96 [in Ukrainian].

4. Hanushchak-Iefimenko, L.M. (2015). Pobudova klasternoї modeli upravlinnia innovatsiinym rozvytkom pidpriemnytstva v Ukraini [Construction of a cluster model of management of innovative development of entrepreneurship in Ukraine]. Aktualni problemy ekonomiky [Actual problems of economics], No. 10, P. 106–116 [in Ukrainian].

5. Shcherbak, V.H., Kholodnyi, H.O., Ptashchenko, O.V., Bykhova, O.M. ta in (2013). Upravlinnia torhovoїu markoїu v mekhanizmi tovarnoї innovatsiinoї polityky pidpriemstva: monohrafiia [Trade mark management in the mechanism of commodity innovation policy of the enterprise: monograph]. Kharkiv: Vyd. KhNEU. 252 p. [in Ukrainian].

6. Honcharenko, I.V., Shumska, K.O. (2014). Aktyvizatsiia investytsiinoho protsesu v Ukraini [Activation of the investment process in Ukraine]. Visnyk KhNAU im. V.V.Dokuchaieva [Bulletin of the Kharkiv National Agricultural University of V.V. Dokuchaieva], No. 5, P. 3–7 [in Ukrainian].

7. Khrushch, N.A. (2004). Investytsiina diialnist: suchasni stratehii ta tekhnolohii: monohrafiia [Investment activity: modern strategies and technologies: monograph]. Khmelnytskyi: KhNU. 309 p. [in Ukrainian].

8. Mykytiuk, P.P., Seniv, B.H. (2009). Innovatsiina diialnist [Innovative activity: textbook for students of higher educational institutions]. Kyiv: Tsentр uchbovoi literatury. 392 p. [in Ukrainian].

9. Yохna, M., Stadnyk, V. (2005). Ekonomika i orhanizatsiia innovatsiinoї diialnosti: navchalnyi posibnyk [Economics and organization of innovation: a textbook]. Kyiv: Vydavnychiy tsentr "Akademiia". 399 p. [in Ukrainian].

10. Shkoda, M.S. (2012). Svitovyi dosvid vykorystannia lohistychnykh pidkhodiv dlia efektyvnoho upravlinnia rozvytkom pidpriemstva y adaptatsiia yikh do vitchyznianykh realii [World experience of using logistics approaches for effective management of enterprise development and their adaptation to domestic realities]. Aktualni problemy ekonomiky [Actual problems of economics], No. 10, P. 31–36 [in Ukrainian].

4. Ганущак-Єфіменко Л. М. Побудова кластерної моделі управління інноваційним розвитком підприємництва в Україні / Л. М. Ганущак-Єфіменко // Актуальні проблеми економіки. – 2015. – № 10. – С. 106–116.

5. Щербак В. Г. Управління торговою маркою в механізмі товарної інноваційної політики підприємства: монографія / В. Г. Щербак, Г. О. Холодний, О. В. Птащенко, О. М. Бихова та ін. – Х.: Вид. ХНЕУ, 2013. – 252 с.

6. Гончаренко І. В. Активізація інвестиційного процесу в Україні / І. В. Гончаренко, К. О. Шумська // Вісник ХНАУ ім. В.В.Докучаєва. – 2014. – № 5. – С. 3–7.

7. Хрущ Н. А. Інвестиційна діяльність: сучасні стратегії та технології: монографія / Н. А. Хрущ. – Хмельницький: ХНУ, 2004. – 309 с.

8. Микитюк П. П. Інноваційна діяльність: навч. пос. для студ. вищ. навч. закл. / П. П. Микитюк, Б. Г. Сенів. – К.: Центр учбової літератури, 2009. – 392 с.

9. Йохна М. Економіка і організація інноваційної діяльності: навчальний посібник / Микола Йохна, Валентина Стадник. – К.: Видавничий центр "Академія", 2005. – 399 с.

10. Шкода М. С. Світовий досвід використання логістичних підходів для ефективного управління розвитком підприємства й адаптація їх до вітчизняних реалій / М. С. Шкода // Актуальні проблеми економіки. – 2012. – № 10. – С. 31–36.