The Mechanism of Effective Implementation of Strategies for Diversification of Agro-Industrial Enterprises of Ukraine

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ABSTRACT: In the context of formation, use and development of modern information technology, today one of the important issues is development of effective strategies for diversification of the activities of enterprises towards intensification of innovation processes. Taking into account the current trends of accelerating the process of reducing the life cycles of enterprises, the present study is devoted to examining the implementation of strategies for diversification of the activities of agro-industrial enterprises, which will provide sustainable competitive advantages in world markets. The study found that the strategic orientation of the company involves a certain compromise between industries, which is based on the maximum possible use of strengths to ensure, deepen and expand the production of quality competitive products for a long-term period of operation. In this regard, the paper develops the organizational and economic mechanism of strategic management of agro-industrial enterprise under the condition of implementation of innovative strategies for diversification of activities, while attracting certain innovative resources aimed at developing additional areas of economic management. The mechanism was developed applying the systemic approach, which is primarily caused by the complexity of the object of management, a wide range of elements of control, as well as the need to take into account the specifics of the agro-industrial sphere.

The problematics of effective implementation of diversification strategies was solved based on innovative approaches to the predetermined goal of the enterprise as a whole, consistent with the potential opportunities and benefits of the enterprise, ensuring long-term stability of development. The organizational and economic mechanism of strategic management of an agro-industrial enterprise in the conditions of implementation of diversification strategies is developed taking into account the specifics of the internal environment of enterprises' functioning in accordance with the rapidly changing external conditions. One of the main tasks in the present scientific work was to implement a strategic forecast of the implementation of strategies in accordance with market needs and the degree of prospects for diversification changes. It was determined that selection and implementation of optimal strategic decisions for diversification of activities is a defining prerequisite for strategic changes in the agro-industry of Ukraine.

Keywords: diversification of activity, diversification strategy, organizational and economic mechanism of strategic management of the enterprise, innovative infrastructure of the enterprise, innovative strategies of diversification, optimal strategic decision.

I. INTRODUCTION

Intensive search for potential opportunities and ways to diversify the activities of agro-industrial enterprises contributes to the construction of a new organizational structure of strategic management of the enterprise, and will make it possible to strengthen the role of the corporate center of a diversified enterprise through the implementation of innovative diversification strategies. Strategic processes, which are characterized by the parameters of static and dynamic situation and rational decomposition, are divided into separate interrelated stages, characterized by a high level of independence of structural units at each stage of the strategic management process of the enterprise. Direct, cross and feedback links, which are necessary to measure the level of efficiency, provide the optimal direction of movement of all information and resource flows. According to the specifics of management processes in the enterprise, extremely important is the information resource that characterizes the direct and feedback of effective strategic management of the economic entity. The information base makes it possible to adjust these relationships, thereby comparing the results with the normative indicators. The analysis of existing deviations takes place at the stage of diagnostics of production processes, organizational and administrative processes. The analysis of signals of deviations in the course of strategic innovative processes of diversification development allows to make appropriate management decisions aimed at coordination, control and alignment of individual performance indicators for the purpose to obtain a positive result.

The importance of the issue of the implementation of innovative diversification strategies of agro-industrial is significantly increasing as a complex strategic system in which the processes of defining the substance, structure, organization, methods and forms of development and implementation of innovative strategies are provided with strategic information alternatives to a whole mutually agreed process of functioning and development. Theoretical and practical development issues of innovative strategies and methodological tools of implementation efficiency were highlighted in the scientific papers of such prominent economists as: [5, 6, 9, 11, 13 ,15, 20, 21, 24, 27, 28].

II. MATERIALS AND METHODS

Within the systemic approach to the development of diversification strategies, reflected and reasonable application of situational and synergetic approaches, which, in a certain orderly interaction involve the study of real situational conditions, driving aspects and factors of successful functioning of the enterprise and the development of a scenario of appropriate management influence control, which is corresponding to the modern conditions of information development. Such an approach is sufficiently flexible and allows for maneuvering the situation, and therefore allows to achieve the set goals in the best way, based on the alternative management decisions. The methodological basis of the present scientific research was the method of analogies and comparisons aimed at determination and analysis of the strategic goals of enterprises in the direction of innovative diversification processes. Methods of statistical modeling and economic-mathematical forecasting were used in the realization of strategic forecasting of the results of the implementation of innovative strategies for diversification of activities. The strategic forecast (level of profitability) of the results of implementation of innovative strategies for diversification of agro-industrial enterprises was carried out by ranking the main criteria (Kruskal-Wallis ranking criteria (KWC) to assess the differences between the medians of different samples ($c > 2$).

To compare the reliability of the study results, Dunnett's analysis was also performed, and it confirmed the validity of the choice of certain diversification strategies in order to increase the profitability of the studied enterprises. The method of graphical display was used to present the results of the strategic forecast of profitability on the basis of the obtained results on the generally accepted median parameter as a key indicator of the results of the effectiveness of the implementation of enterprise diversification strategies.

III. RESULT AND DISCUSSION

The processes of strategic planning in the course of economic activity determine the system of calculated indicators of efficiency of controlled processes at the enterprise. Strategic control over the performance of processes, as well as the current state of management mechanisms, is carried out within a closed innovative system of diversification within a certain optimal set of diversification strategies. In this context, an essential task is to determine the compliance of management mobility with the long-term needs and objectives of the diversification structure, namely - the assessment of innovative strategic goals, their forms and methods of their achievement [3].

Creating a rational organizational and managerial structure of a diversified enterprise is one of the main mechanisms that ensures the effectiveness of strategic activity management. The management company performs implementation of the main plans, administrative and control functions: coordination of the agro-industrial enterprise within the group, management support, forecasting, development of innovation strategy, up-to-date strategic planning, control of plan implementation, analysis of the current state and reasons for deviation from the plan [7]. When developing the organizational and economic mechanism of agro-industrial enterprise management in the direction of formation and implementation of innovative strategies of diversification of activity an important aspect is consolidation of relevant functions by departments, quick transfer of information, increased flexibility and rapid development of the diversified enterprise. Flexibility, relevance and adaptation of the enterprise to rapid changes in the information society involves improving efficiency, success of management decisions, as well as increasing responsibility for strategic tasks, while management decision-making processes for the development, organization, implementation, control of management goals are decentralized and divided into all levels of the diversified structure (Fig. 1).

In terms of business informatization, the optimal strategy of diversification involves the relationship of functional and strategic nature in all areas, which allows Ukrainian companies to successfully adapt to dynamic changes in the environment, helps to solve situational issues through coordination of all departments in the rapid development of infocommunicative management methods [12].

An important stage in the implementation of innovative strategies for diversification of the enterprise is assignation of functions to certain functional units, rapid transfer of information, increasing flexibility and rapid development of the diversified organization. At the same time, each entity in its business must understand the fact that for the effective implementation of diversification strategies are important innovative knowledge and developments that allow to understand the patterns and trends of the current state of strategic innovation change in the enterprise [9]. This aspect is associated with the identification of internal current strategic capabilities of the economic entity, as well as with forecasting of management, technological, production, marketing, financial, economic and organizational status of the enterprise.

An important stage of implementation of strategies for diversification of the enterprise activities there should be considered a strategic diagnosis, development of appropriate stages of strategic development, as well as selection of effective operational strategies for development and implementation of specific innovations. In order to carry out the defined mission, the company's senior management should choose the most rational methods of implementation, while adhering to a set of tasks, namely [2]:

— stages of implementation should be ranked and mutually agreed;
— strategic directions should include a series of simple tasks;
— all the predefined tasks must be characterized by specific issues;
— tasks should be presented using functional formats.

The process of strategic management of the enterprise in the implementation of strategies for diversification of activities

PLANNING	Components of the management process	CONTROL

ORGANIZATION

A set of tasks in the direction of innovation activity

1. Defining strategic priorities for activities in national and international markets

2. Planning and conducting strategic innovation researches for the long term

3. Formation and implementation of the concept of strategic development of diversification

4. Creation of new offers by enterprises in national markets

5. Assessing the structure of incentives and barriers for entering international markets

6. Assessing the impact of innovative diversification strategies

7. Creating and maintaining the competitive advantages of the enterprise in domestic and foreign markets

PURPOSE AND TASKS OF STRATEGIC MANAGEMENT OF THE ENTERPRISE IN THE PROCESS OF DEVELOPMENT AND IMPLEMENTATION OF INNOVATIVE STRATEGIES OF DIVERSIFICATION

THEORETICAL — SCIENTIFIC — CONCEPTUAL — RESEARCH — APPLIED

A set of strategic priorities

1. Increasing the competitiveness of products in the domestic and international markets

2. Expansion of international sales markets

3. Satisfaction of the needs of consumers in targe markets with high-quality agricultural products

4. Reduction of production and management expenses

5. Acceleration of introduction of scientific and technical achievements, implementation of various forms of innovations

6. Maximum minimization of business risks at all stages of the life cycle of the organization

7. Assessing the convergence of innovative attractiveness of new markets for enterprises

Information support | Infocommunicative support | Appropriate expert base and groups of examination performers

Making an effective strategic decision

Options

Methods

Algorithm

Performance control

Consideration of risks

Implementation of a strategic innovative decision

THE MECHANISM OF STRATEGIC MANAGEMENT OF A DIVERSIFIED ENTERPRISE IS **EFFECTIVE**

Methods:

Portfolio analysis, SWOT analysis, matrix analysis level of concentration and monopolization of targe markets, correlation analysis, system analysis, economic and mathematical modeling, economic and mathematical forecasting

Comprehensive assessment of the effect of implementation of innovative diversification strategies

Functional and organizational management mechanism of a diversified enterprise

Strategic forecast of long-term results of activities

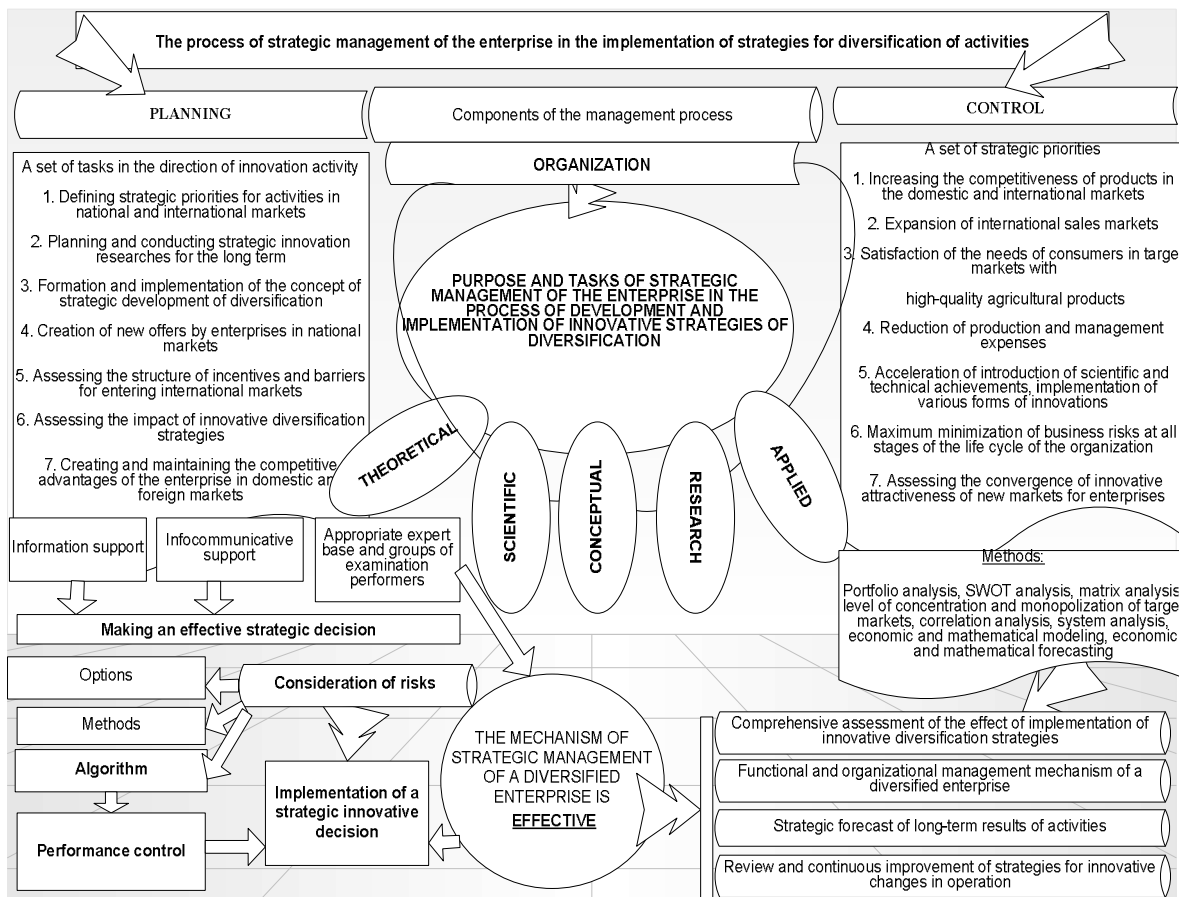Review and continuous improvement of strategies for innovative changes in operation

Fig. 1. Organizational and economic mechanism of strategic management of an agro-industrial enterprise in the conditions of implementation of strategies for diversification of activity.

Therefore, the considered organizational and economic mechanism of strategic management of the agro-industrial enterprise in the conditions of implementation of strategies for diversification of activities allows to define the basic approaches to its realization with the minimum expenses from the coordinated or uncoordinated behavior of divisions of diversified structure, and to use the proposed organizational schemes and decisions [13].

Thus, it possible to achieve maximum business efficiency of the enterprise in a rapidly developing information society only by combining its own efforts and a set of potential resources. Consequently, for any new functional and organizational management structure of a diversified company, it will be rational to concentrate its capitalization and investment functions at the level of company managers (chief executive officer and the administrative center), and the functions of production, processing, supply, marketing, logistics, cost budgeting, legal regulation, staffing, international export activities, international certification of activities should be allocated at the level of the company's divisions: financial and settlement department, production and processing of agar products, marketing, international activities [21]. Presence of the department of development and implementation of information technologies in the functional-innovative management structure automates, mobilizes and expands the participation of Ukrainian enterprises in the direction of effective diversification of activities; it ensures the competitiveness of agricultural production in domestic and international markets, strengthens the company's position in international markets and also provides access to new markets; increases sales of agricultural products in international markets by 2-3 times; strengthens the international orientation of the agricultural sector, taking into account trends in the markets of specific countries; contributes to the geographical diversification of target markets for agricultural goods.

Particular attention should be paid to determining the required degree of management and information mobility of the newly created conglomerate, to the distribution of management tasks, the burden on the administrative stuff and the centralized management branch. After determining the nature of the relationship of the enterprise's divisions, their functional load, it is necessary to establish a comprehensive strategic management of the existing diversified company, which will make it possible to increase efficiency and competitiveness in domestic and international markets [10]. Experts in the field of innovative technologies understand that due to the constant uncertainty of the external environment, there is a need for continuous search for information, development of information support for strategic innovation, environmental monitoring, and accordingly to the constant monitoring, control and adjustment of efficiency - organizational and economic mechanism of the enterprise's strategic management. At the same time, the choice of optimal strategic decisions for enterprise development requires a systematic approach to the formation of strategies for diversification of activities. It presupposes presence of certain subsystems that are interconnected and are part of a general system, the existence of which is impossible in the absence of one of its elements.

Assessing the effectiveness of the implementation of strategies for diversification of the enterprise's activities

is an integral part of the coordinated work of all departments and industry levels, both regarding individual amounts of funds allocated for innovation and marketing and for the sales policy, as well as for the development of innovative products and their introduction to target markets. Implementation of strategies for diversification of agro-industrial enterprise is a complex linear multi-stage process in which subprocesses of content, organization, methods and forms of development of innovative diversification strategies are separate parts of one whole mutually agreed process of functioning and development [11].

Forecasting the levels of effectiveness of implemented strategies, as well as financial and economic evaluation of these innovation and information projects should be based on the choice of a wide range of alternatives, namely - on the probable profiling of optimal projects, taking into account and comprehensive assessment of risk situations at each of the stages of decomposition of certain groups of strategies for enterprise diversification.

For the purpose of effective implementation of strategies for diversification of activities of agro-industrial enterprises, it is necessary to have a sufficient amount of necessary information, as well as significant information mobility of a mutually agreed data set regarding the development of a particular area of economic management. The information database must withstand the blows of a dynamic and uncertain external environment, strictly adhere to the strategic course of balancing the portfolio of the company being studied. Management mobility within the system creates the necessary conditions for effective maneuvering in a changing environment, while skillfully avoiding the uncertainty of the market environment, using the hidden potential of the internal environment and the speed of response and coordination of the project [8].

Employment of relevant diversification strategies requires special control and evaluation of the effectiveness of strategic cooperation at all stages of its implementation, as well as effective combination of production and consumer demand for agricultural products, increasing the effectiveness of diversification by establishing close partnerships in national and foreign markets; stimulating the consumption and improving the quality of agricultural products in accordance with international standards; maximization of current profit of agro-industrial enterprises.

The developed organizational and economic mechanism of strategic management of the agro-industrial enterprise in the conditions of implementation of strategies for diversification of activities based on formation of rational administrative structure of the diversified enterprises stipulates functioning of strategic planning department for realization of research functions, advancement and maintenance of competitive positions of the agricultural enterprise, as well as negotiations, execution of contracts and conclusion of agreements, control over their implementation and legal protection of the owner's rights in case of their violation, and certification.

The results of the study allow to determine the main directions of the effect of strategic expenses for the employment of effective IT solutions by reducing the number of internal interactions between the strategic management departments during the implementation of diversification strategies [17]: reducing of interaction expenses, improving infocommunications, formation and maintaining of customers' loyalty, increase of the export operations efficiency, strengthening of competitive positions, increase of sales and profitability of the studied enterprises.

The strategic forecast (level of profitability) of the results of implementation of diversification strategies for agro-industrial enterprises was carried out by ranking the main criteria (Kruskal-Wallis ranking criteria (KWC)) to assess the differences between the medians of different samples (c> 2). KWC is a non-parametric alternative to the F-test in one-way analysis of variance. If the conditions necessary for the application of the F-criterion in one-way variance-regression analysis are met, and KWC possesses the same power [20].

The ranking criteria KWC are used to test hypotheses that are taken from independent samples from general populations which have the same medians. In other words, the null and alternative hypotheses are defined as follows [13]:

H0: M1 = M2 = ... = Mc   (1)
H1: not all Mj (j = 1, 2, ..., c) are the same.

For this purpose, it is necessary to know the ranks calculated for all samples, and the general population from which they have been taken, must have the same behavior and type. In order to apply the KWC, it is first necessary to replace the **c** observations in the samples with their combined ranks.

Herewith, the first rank corresponds to the smallest observation, and the rank **n** – to the biggest (n = n1 + n2 + ... + n_c). If some values are repeated, they are assigned the average value of their ranks. Analytical diagnostics used in the KWC is similar in magnitude in the group variation by which the F-factor is calculated. Instead of comparing the average $\bar{X}$j values of all samples from the groups with the total average value of $\overline{X}$, in the KWC the average ranks of each of the groups are compared with the total rank calculated on the basis of all n observations. If there is an analytically significant effect of the experiment, the average ranks of each group will be significantly different from each other and from the overall rank.

When these differences are squared, the H-statistic increases. On the other hand, if the effect of the experiment is not observed, the analytic H should theoretically be equal to zero. However, in practice, due to random changes, the H statistics will have a non-zero form, but a rather small value. The CCU is the tool used with a small difference between the median samples. The calculation of the H criterion is performed according to the following formula:

$$(1) \quad H = \left[\frac{12}{n(n+1)} \right] \sum_{j=1}^{c} \frac{T_j^2}{n_j} - 3(n+1)$$,

where n is the total number of observations in the pooled samples, nj is the number of observations in the j-th sample (j = 1, 2,…, c), and Tj is the sum of the ranks of the j-th sample.

Thus, the corresponding variance-regression analysis of the level of profitability for the group of agro-industrial enterprises was carried out. Fig. 2 demonstrates the results of median calculations for the respective groups of agro-industrial enterprises in order to verify the feasibility of using the KWC [20]. As we can see, the spread of medians is insignificant, except for two groups of companies - "Agrotrade" and "Prometheus" [1]. To compare the reliability of the results of the study, Dunnett's analysis was also widely carried out, which further strengthened our understanding of the legitimacy of the choice of certain groups of innovative diversification strategies to increase the profitability of the surveyed enterprises (Tables 1-3).

Table 1: Criterial characteristics for the sample of surveyed enterprises

Data	The level of profitability					
Factor code	Group of innovation strategies					
Number of enterprises	10					
Indicators of the medians of the universe general population of enterprises						
	N	Minimum value	25% value	Median	75% value	Maximum
KERNEL	5	21.4000	21.400	21.700	26.663	32.490
NIBULON	5	14.1300	19.358	22.600	23.225	25.100
UKRLAND	5	11.1400	13.435	15.900	17.500	17.500
AGROPRO-SPERIS	5	17.5000	17.575	20.310	27.600	27.600
AGROTRADE	5	4.3100	5.060	6.268	7.670	7.670
ASTARTA	5	22.1000	22.100	23.700	24.677	26.800
MHP	5	19.5000	21.000	21.680	29.100	29.100
PROMETHEUS	5	14.1000	14.100	16.130	16.575	16.800
UKRAGROKOM	5	13.6000	14.350	17.200	17.815	19.660
UKR-PROMINVEST-AGRO	5	15.5000	16.018	17.000	41.700	41.700

Table 2: Kruskal-Wallis criterion of the studied agricultural holdings.

Result	31.7934
Correction factor Ht	31.8133
Degrees of freedom (DF)	9
Significance level	P = 0.000214

Table 3: Post-Hawk Dunnett criterion of the studied agricultural holdings.

Sample	Degree of freedom	Medium value	The difference (P<0.05) of parameters depending onP
(1) KERNEL	5	36.80	(5)
(2) NIBULON	5	31.20	
(3) UKRLAND	5	15.40	
(4) AGROPRO-SPERIS	5	33.00	
(5) AGROTRADE	5	3.00	(1)(6)(7)
(6) ASTARTA	5	38.60	(5)
(7) MHP	5	36.80	(5)
(8) PROMETHEUS	5	13.40	
(9) UKRAGROKOM	5	17.40	
(10) UKR-PROMINVEST-AGRO	5	29.40	

Table 4: Multiple regression (by the method of least squares) of the studied agricultural holdings.

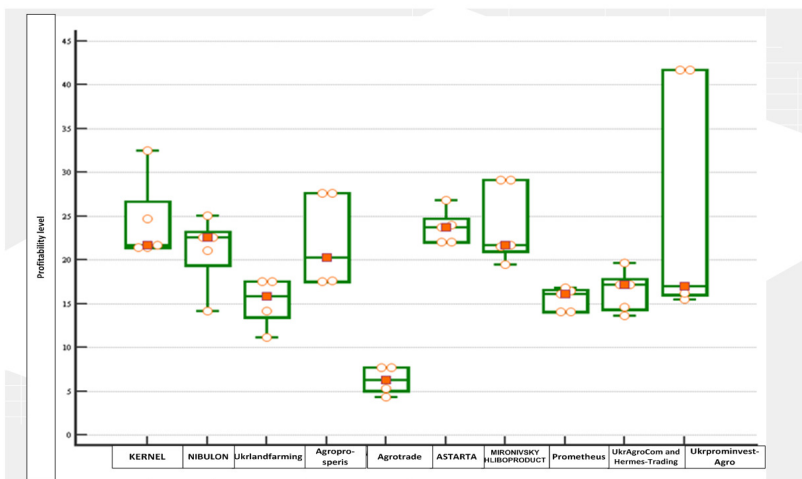| Dependence Y	Level of profitability
Method	Step by step
Enter the variable if P<	0.1
Delete the variable if P>	0.3
Sample size	50
Coefficient (determining) R^2	0.4258
R^2- adjusted	0.4014
Multiple correlation coefficient	0.6525
Fixed standard deviation	5.9597

Fig. 2. Strategic forecast of the profitability level of agro-industrial enterprises as a result of implementation of strategies for diversification of activities.

Thus, the main purpose of this calculation is to display graphically the strategic forecast of profitability based on the results obtained by the generally accepted median parameter as a key indicator of the effectiveness of implementation of strategies for diversification of the surveyed enterprises [1] (Fig. 2).

According to the results of the research, there were defined three leading companies: KERNEL, ASTARTA LLC, and the MHP agroholding, as well as obvious companies – outsiders, namely Agrotrade, Prometheus, UkrAgroCom and Hermes-Trading.

Further calculation using the method of multiple regression revealed a clear correlation between profitability and factors of strategic innovation development. Fig. 3 shows a reasonably clear correlation between these factors in the future development of the KERNEL company. This method revealed a linear dependence of multiple regression, which is fully consistent with the concept of implementing strategies for diversification of the studied enterprises (Table 4-6). Graphical display of results is shown in Fig. 3. The results of strategic forecast analysis and relevant indicators are shown in Figs. 4-13. Therefore, after analyzing the effectiveness of innovative strategies for diversification of agro-industrial enterprises, we can make a general conclusion about the need to develop a system of strategic innovative solutions in terms of improving the efficiency of management in today's information society. At the same time, we should not ignore the results of diagnostics of all elements of the micro- and macrosystem of the innovative infrastructure of the enterprise, which directly or indirectly affect the effectiveness of optimal decision-making to choose the optimal strategic decisions.

Table 5: Regression equation.

Independent variables	Coefficient	Std. Error	t	P	$r_{partial}$	$r_{semipartial}$	VIF
(Stable)	18.8169						
Prime cost	-0.02632	0.005745	-4.581	<0.0001	-0.5556	0.5063	13.049
Financial result	0.1281	0.02357	5.433	<0.0001	0.6211	0.6005	13.049

Table 6: Analysis of variation.

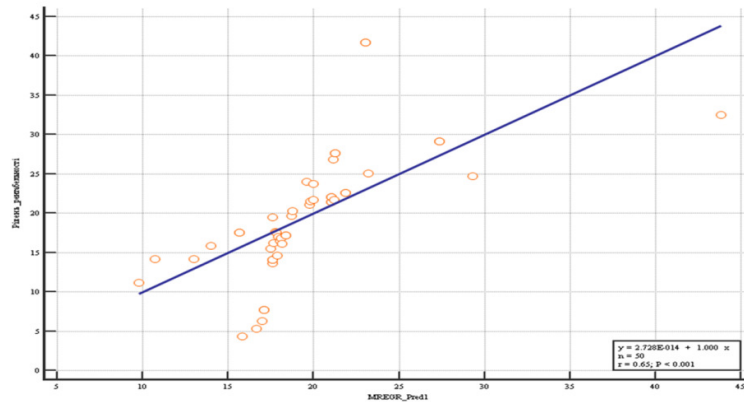| Source	Degrees of freedom	The sum of squares	The standard square deviation
Regression	2	1237.8943	618.9471
Residual	47	1669.3462	35.5180
F-factor			17.4263
Level of reliability			P<0.0001

Fig. 3. Strategic forecast of development of agro-industrial enterprises as a result of implementation of innovative strategies for diversification of activities.
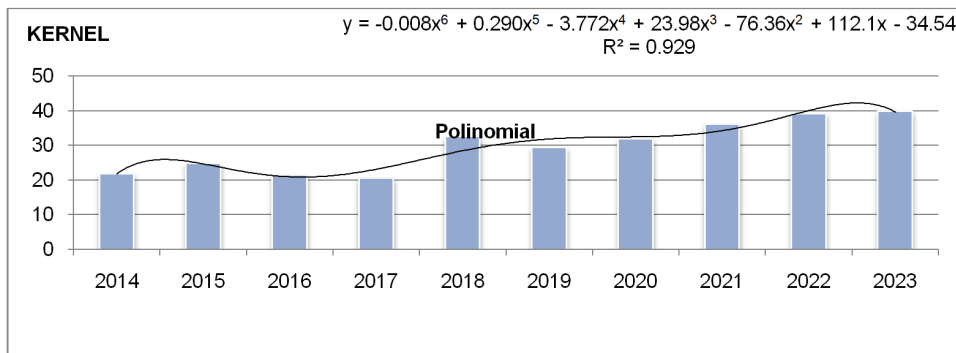

Fig. 4. Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the Kernel company.

Table 7: Strategic forecast of profitability of agro-industrial enterprises as a result of implementation of strategies of diversification of activities.

	YEARS	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	Name of the company	Profitability level	Profitability level	Profitability level	Profitability level	Profitability level	Strategic Forecast				
1	KERNEL	21,7	24,72	21,4	20,48	32,4	29,36	31,8	36,010	39,140	39,7
2	NIBULON	25,1	14,13	22,6	23,37	21,1	21,632	24,6	23,353	23,859	25,0
3	Mironivsky Hliboproduct	21,5	21,68	29,1	27,23	19,5	24,267	23,0	20,092	19,599	20,1
4	Ukrland-farming	14,2	11,14	17,5	22,93	15,9	20,891	23,0	22,766	23,150	26,0
5	ASTARTA	23,7	23,97	22,1	47,82	26,8	37,893	41,4	43,868	41,605	49,0
6	Agropro-speris	17,5	20,31	27,6	25,33	17,6	23,234	21,5	18,819	18,594	19,2
7	Ukrprominvest-Agro	15,5	16,19	41,7	27,77	17	28,006	25,8	18,596	20,576	21,3
8	Prometheus	16,5	16,13	14,1	9,974	16,8	13,034	12,9	13,60	14,303	12,8
9	UkrAgroCo	14,6	19,66	17,2	8,42	13,6	10,724	7,47	6,343	6,2310	3,13
10	Agrotrade	5,31	6,268	7,67	6,7	4,31	5,5812	4,68	3,6632	3,2786	3,10
	YEARS	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	Name of the company	Profitability level	Profitability level	Profitability level	Profitability level	Profitability level	Strategic Forecast				
1	KERNEL	9,28	12,632	16,821	11,238	7,65	10,134	7,44	4,7061	4,2551	3,16
2	NIBULON	7,77	11,762	15,862	9,281	5,68	8,0744	4,86	1,7959	1,2044	-0,24
3	Mironivsky Hliboproduct	6,27	10,891	14,902	7,3242	3,71	6,0147	2,28	-1,114	-1,846	-3,66
4	Ukrland	4,76	10,021	13,943	5,3671	1,74	3,9550	-0,29	-4,024	-4,896	-7,08
5	ASTARTA	3,26	9,1508	12,984	3,4100	-0,23	1,8954	-2,87	-6,934	-7,94	-10,4
6	Agropro-speris	1,75	8,2804	12,025	1,4529	-2,20	-0,164	-5,45	-9,844	-10,99	-13,9
7	Ukr-prominvest-Agro	0,25	7,4100	11,066	-0,504	-4,17	-2,223	-8,03	-12,75	-14,04	-17,3
8	Prometheus	-1,25	6,5396	10,106	-2,461	-6,15	-4,283	-10,6	-15,66	-17,09	-20,7
9	UkrAgroCom	-2,75	5,6692	9,1476	-4,418	-8,12	-6,343	-13,2	-18,57	-20,15	-24,1
10	Agrotrade	-4,26	4,7988	8,1884	-6,375	-10,0	-8,402	-15,7	-21,48	-23,20	-27,5

NIBULON

$y = 0.009x^6 - 0.332x^5 + 4.510x^4 - 30.38x^3 + 104.9x^2 - 170.1x + 116.4$
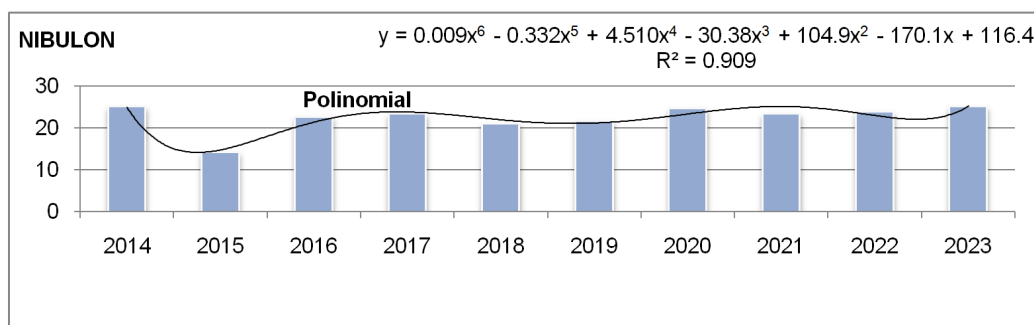$R^2 = 0.909$

Polinomial

Fig. 5. Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the Nibulon company.

MHP

$y = 0.007x^6 - 0.262x^5 + 3.364x^4 - 20.98x^3 + 64.83x^2 - 89.05x + 63.38$
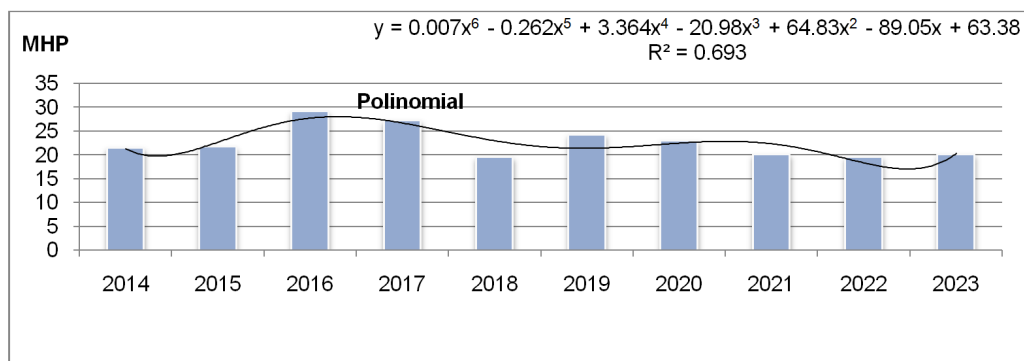$R^2 = 0.693$

Polinomial

Fig. 6. Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the MHP company.
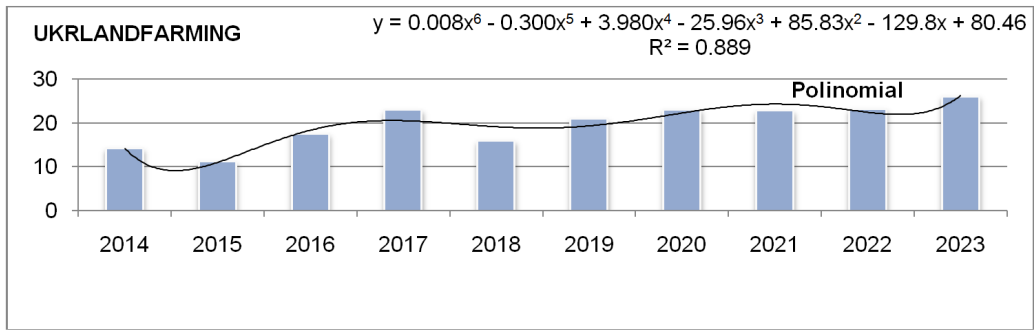
Fig. 7. Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the Ukrlandfarming company.
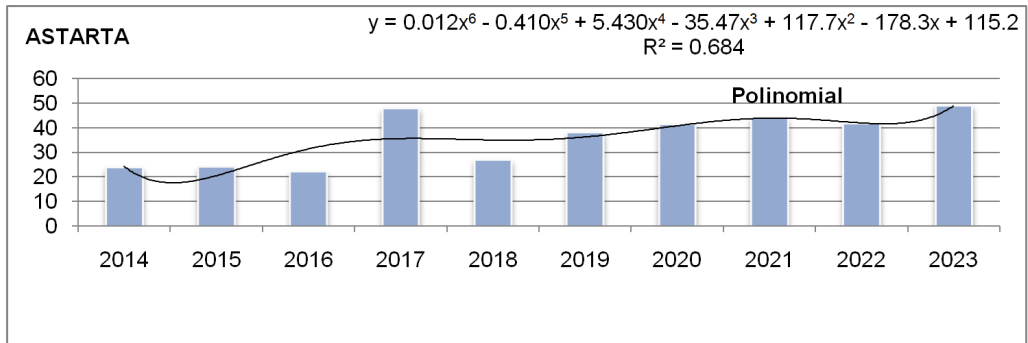

Fig. 8. Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the Astarta company.
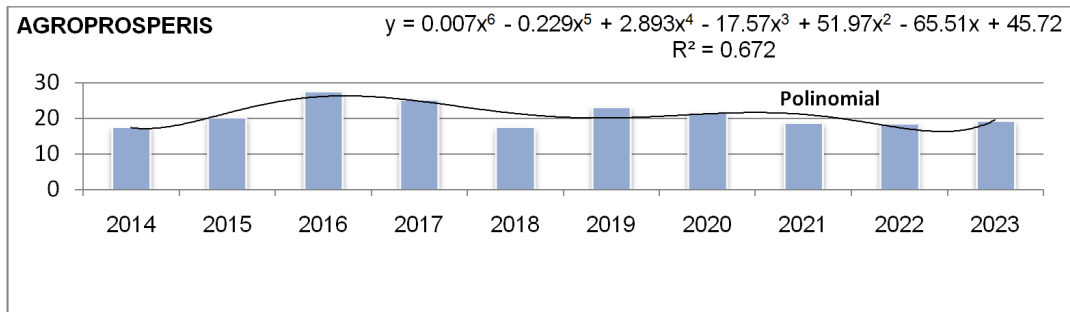

Fig. 9. Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the Agropro-speris company.
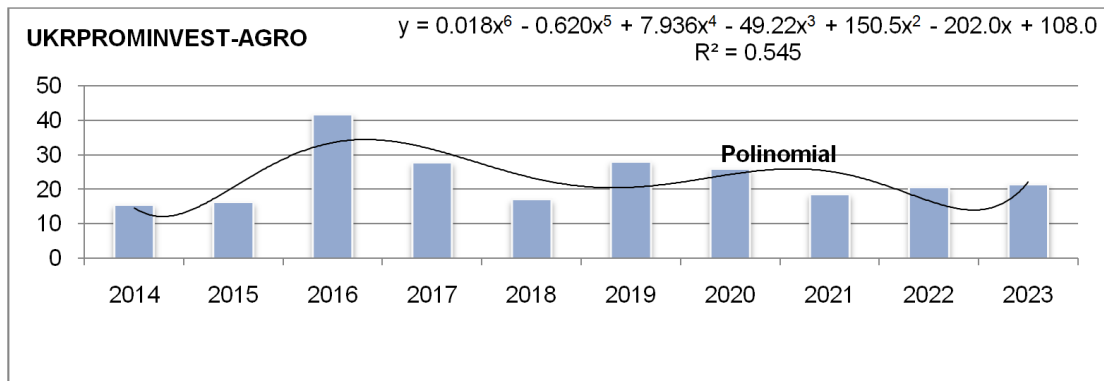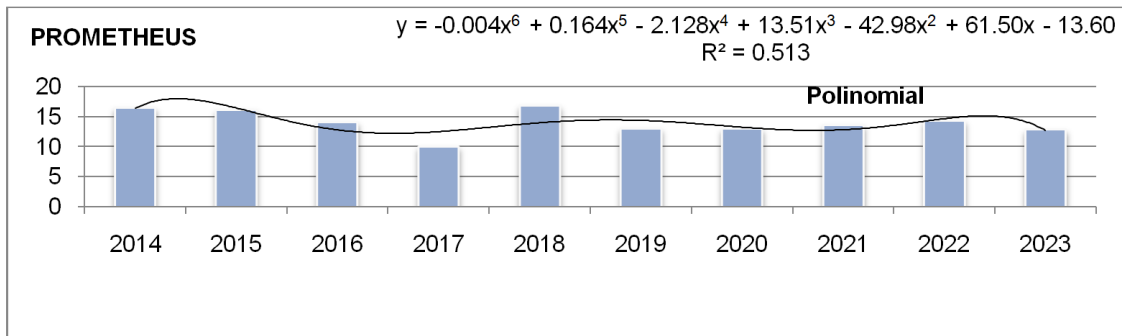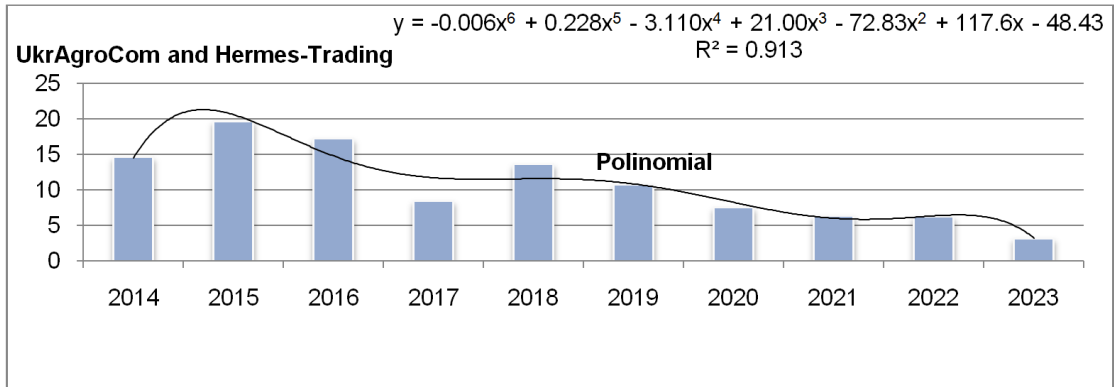

Fig. 10. Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the Ukr-prominvest-Agro company.

PROMETHEUS

$$y = -0.004x^6 + 0.164x^5 - 2.128x^4 + 13.51x^3 - 42.98x^2 + 61.50x - 13.60$$
$$R^2 = 0.513$$

Polinomial

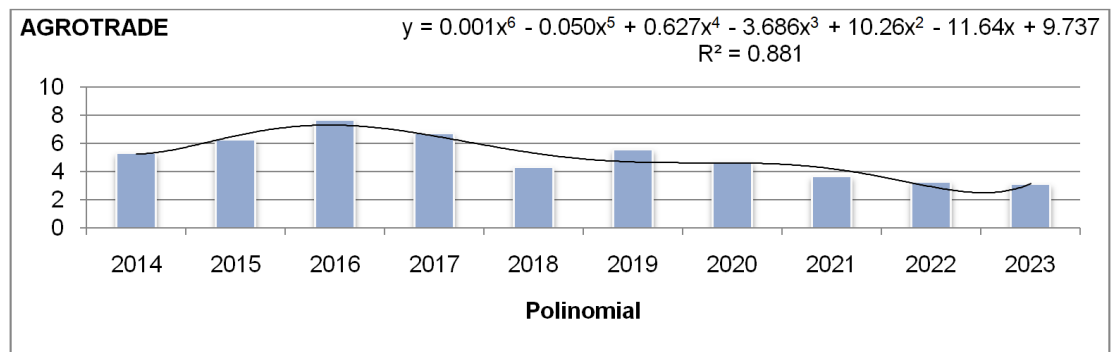**Fig. 11.** Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the Prometheus, LLC.

UkrAgroCom and Hermes-Trading

$$y = -0.006x^6 + 0.228x^5 - 3.110x^4 + 21.00x^3 - 72.83x^2 + 117.6x - 48.43$$
$$R^2 = 0.913$$

Polinomial

Fig. 12. Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the UkrAgroCom and Hermes-Trading Group of Companies.

AGROTRADE

$$y = 0.001x^6 - 0.050x^5 + 0.627x^4 - 3.686x^3 + 10.26x^2 - 11.64x + 9.737$$
$$R^2 = 0.881$$

Polinomial

Fig. 13. Strategic forecast of profitability dynamics as a result of implementation of strategies for diversification of the Agrotrade company.

IV. CONCLUSION

It should be also noted that the results of the present study proved that even perfectly formed innovative strategies for diversification of enterprise development do not constitute the final guarantee of future commercial success of the enterprise, if there is no clear mechanism for their formation and implementation. Because of this the present scientific work develops the organizational and economic mechanism of strategic management of the agro-industrial enterprise in the conditions of formation and implementation of innovative strategies for diversification, use of which will considerably mobilize and expand the participation of Ukrainianagro-industrial enterprisesin domestic and international markets, and ensure the competitiveness of agricultural production.

In the future, effective implementation of strategies for diversification of agro-industrial enterprises will require the use of conceptual approaches, which is, first of all, due to the complexity of the management object, the formation of strategically oriented human resources, a wide range of elements of management influence, as well as the need to take into account the specifics of agro-industrial sphere.

V. FUTURE SCOPE

Therefore, the current situation dictates its rules within the framework of rapid changes in information technology, in the structure of consumer needs, reorientation of motivational tools of influence, in the target system of strategic diversification process. The agro-industrial complex notably needs strategic changes, because the rate of variability of the market

environment has a direct and indirect impact, which results in an unprecedented necessity to meet the new requirements of the information society, while identifying strategic gaps and taking appropriate measures.

Thus, the optimal choice of certain strategies to diversify the activities of agro-industrial enterprises will significantly expand the range of economic management through geographical diversification of target markets, strengthen the company's position in national and international markets, while providing and activating the international orientation of the agro-industrial sector. Recommendations regarding the practical aspect of the formation of innovative diversification strategies can be successfully used in practical activity of domestic enterprises, including entering the world markets.

The specificity of choosing the best innovative solutions in the field of the agricultural complex is due to the peculiarities of this industry as one of the key sectors of the national economy. At the same time, these features can be considered as determining prerequisites for innovative restructuring of the agro-industrial complex of Ukraine.

Conflict of Interest. The authors declare that there is no conflict of interests with this research work.

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