BALANCED SYSTEM OF ECONOMIC PERFORMANCES AS A STRATEGY-FORMING TOOL OF DEVELOPMENT OF AGRICULTURAL ENTERPRISES IN UKRAINE

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Abstract

A strategy is a long-term mark of enterprises' activities that directs its efforts at obtaining higher results compared to its competitors. The article displays the results of conducted sociological investigation of application tendencies of different tools of strategic planning in practical activities of agricultural enterprises. This served as the basis of defining main problems of strategic planning management and the perspectives of its development. The authors improved the strategic planning management methodology on the basis of application balanced system of economic performances by taking into account the efficiency of the use of land, financial, labor and material and technical resources. The criterion scale of evaluating strategic planning ability of agricultural enterprises has been designed. The obtained investigation results serve as the basis for selection of strategic planning analysis tools and methods of strategy construction of agricultural enterprises development.

Key words: strategy, strategic planning analysis, agricultural enterprise, balanced system, economic performanc

INTRODUCTION

In conditions of rapid economic development it is more difficult for leaders of agricultural enterprises to obtain competitive advantages of efficient financial only at the cost and sufficient level management of assets. investments into fixed Besides, excessive concentration of managers on shortterm financial results and current problemsolving leads to insufficient financing of longterm projects potential value engineering. The important place here is occupied by strategic planning and the design of efficient business plan. An agricultural enterprise should find optimal new methods of activities management with the purpose of adapting to future external factors that are changing A strategy is a long-term constantly. landmark of the activities of an enterprise which directs its efforts at achieving higher results compared to its competitors.

Home and foreign scholars state that any agricultural enterprise needs provision of stable economic growth in long-term perspective. That is why it becomes more necessary to perform strategic planning and economical activities management cannot be limited just by approval of tactical management decisions.

Blank I. says that "at present stage the greater number of enterprises realizes the necessity of strategic planning management of economic activities on the basis of scientific methodology of forecast its directions and forms, adaptation to external aims of enterprise development and the demands of changing external environment" [5].

The divisional manager of agriculture and land reform of European Commission Enzo Damiani thinks that "a strategy is acting road map of reforming agricultural sector in Ukraine combining the combination of mutual vision of branch modernization with shortand medium-term plans and also a set of everyday tasks for ministry" [21].

Michael Boehlje, Allan Gray and Craig Dobbins state that successful farmers of XXI century are not highly qualified production managers but they also should know how to position their businesses in order to achieve long-term perspective. The strategy consists in making choices; defining what draws the attention of farm enterprise manager and where he concentrates his recourses [6].

Don Hofstrand states, that "the purpose of the strategic planning process is to design a farm business that allows the individuals involved in the business to achieve their personal goals" [11].

At present, the methodology of strategic planning is developing quite actively. In modern science there are many scientific approaches to the development of strategic plans [1; 6; 8; 11; 12].

Summarizing the results of our previous research on the specifics of the planning system at agricultural enterprises [22; 23], as well as analyzing the current trends of strategic planning in other countries [17; 18; 19], we proposed an improved methodology of strategic planning for agricultural enterprises based on a balanced system of indicators

Strategic planning and the design of the strategy agricultural enterprises of development depends on internal economic factors that emerge from the environment of an enterprise and are under its influence. If the management of an enterprise uses its internal resources effectively it influences strategic orientation and critical foresight of an enterprise.

MATERIALS AND METHODS

In this research, the following general scientific and specific methods were used: sociological research – to determine the level of development of the strategic planning system in the existing agricultural enterprises; comparison method – to determine the effectiveness of applying different methods of strategic planning; calculation and analytical method - to develop a balanced system of indicators; generalization - to systematize various scientific approaches to the process of strategic planning.

Taking into account the fact that the results of the research showed that the system of strategic planning is poorly developed at the existing agricultural enterprises of Ukraine. In connection with this, we have developed a methodology for strategic planning based on a system of balanced indicators.

The methodology of balanced system of economic performances design

Every agricultural enterprise has different possibilities for forming and implementation of development strategies on the basis of economic efficiency. As it has been mentioned before the development strategy design of agricultural enterprises is influenced internal economic efficiency performances, such as:

1) the use of land resources:

2) the use of financial resources;

3) the use of labor resources:

4) the use of material and technical resources.

In order to define strategic capacities of an agricultural enterprise we will build balanced system of economic performances that influence its activities. This system is necessary for tool choice for strategic analysis and strategy design.

Table 1. Key	indices	of balanced	system of	economic
performances				

Sphere	Index name	Statutory index meaning
The use of land resources	Gross production for 100 ha of land, El.	increase
	Absolute liquidity ratio, Rabs.l.	more than 0.1
There is a	Liquidity coverage ratio, Rcov.l.	more than 1
The use of financial resources	Long-term attracting of loans ratio, Rl.l.	less than 1
resources	Return on equity (ROE), Roe.	not less than 1 %
	Return on assets ratio (ROA), Rass.	optimally 10-20 %
	Labor productivity, Lpr.	increase
The use of labor	Return on labor (ROL), Rol.	increase
resources	Rate of turnover ratio, Rto.	decrease
The use of	Working capital ratio, Rwc.	increase
material and technical	Inventory turnover ratio, Rti.	3-6
resources	Profitability of stocks, Ps.	increase

Source: proprietary design of the authors.

The implementation of balanced system of

economic performances as a new management method makes it possible to solve present economic problems of every agricultural enterprise and also to shape and implement optimal development strategy in accordance with present strategic possibilities.

We chose key indices for analysis in terms of directions of balanced economic performances (Table 1).

After necessary calculations in every field of balanced system of economic performances it is important to compare them to their statutory indices, listed in Table 1.

Overall group performance of every separate field of agricultural enterprises activities can be defined according to the following formula:

where Xi – the indices characterizing every field of balanced economic performances within the boundaries of i-index:

Mi-weighting of every field.

The formula of overall performance of the use of land resources will look this way:

$$Ol.r. = El. \times Ml.r. \dots (2),$$

where:

Ol.r. – overall index of the use of land resources;

El. – economic efficiency of the use of land;

Ml.r. – productiveness of the use of land resources.

Economic efficiency of the use of land in agricultural enterprises can be defined with the help of natural and cost indices. The cost of gross product for 100 ha of farming land belongs to cost estimate. The increase of this index is a positive feature.

Economic efficiency of the use of land makes it possible to create favorable conditions for expanded reproduction of land resources and for reduction and relieving negative environmental consequences [15].

Value index of economic efficiency of the use of land is calculated by the formula [18]:

El. =
$$\frac{Go}{S} \times 100$$
(3),

where:

Go – gross output, hrn.;

S – the area of farm lands, ha.

The formula of integrated index of the use of financial resources will look this way:

If.r. =

⁵ √Rabs.l.×	Rcov. l.× 1/ Rl. l.× Roe.× Rass.
\times Mf.r.	(4),

where:

If.r. – integrated index of the use of financial resources;

Rabs.l. – absolute liquidity ratio;

Rcov.l. – liquidity coverage ratio;

Rl.l – long-term attracting of loans ratio;

Roe. – return on equity ratio;

Rass. - return on assets ratio;

Mf.r. – the effectiveness of the use of financial resources

Absolute liquidity ratio characterizes the urgent ability of an enterprise to pay its debts. It shows which part of current liabilities can be covered by an enterprise at the cost of the most liquid assets, namely money assets and their equivalents. The optimal statutory index for agricultural enterprises is more than 0.1 [17].

Absolute liquidity ratio is calculated by the formula:

$$Rabs.l. = \frac{Money assets and their equivalents}{Current liabilities}$$

Liquidity coverage ratio is calculated by the formula:

$$Rcov.l. = \frac{Current assets}{Current liabilities} \quad \dots \dots \quad (6),$$

Long-term attracting of loans ratio characterizes the part of long-term debt of an enterprise within fixed capital. From the viewpoint of financial sustainability the increase of the given index is a negative tendency, which shows the increase of PRINT ISSN 2284-7995, E-ISSN 2285-3952

enterprises dependence from external finances [3].

Long-term attracting of loans ratio is calculated by the formula:

$$Rl.l. = \frac{Long-term \ liabilities}{Own \ capital} \qquad(7),$$

Return on equity ratio (ROE) shows how mush income the owner of the capital obtains from every piece of money invested. It is an important index used for assessment the efficiency of assets [14]. Statutory index of this value – is not less than 1%.

Return on equity ratio is calculated by the formula:

$$Roe = \frac{\text{Net profit (Net loss)}}{\text{Annual average own capital amount}} \times 100 \%$$

Return on assets ratio is calculated by the formula:

$$Rass = \frac{\text{Net profit (Net loss)}}{\text{Annual average assets amount}} \times 100 \%$$

The formula of integrated index of the use of labor resources will look the following:

where:

Il.r. – integral index of the use of labor resources;

Lpr. – labor productivity;

Spr. – staff profitability;

Rto. – turnover rate ratio;

Ml.r. – labor resources efficiency.

The level of labor efficiency at agricultural enterprises characterizes labor intensity of agricultural production and shows which amount of goods manufactured falls to one employee [9]. The positive tendency is that this index is increasing.

The level of labor efficiency is calculated by

the formula:

L pr. =
$$\frac{Q}{\overline{q}}$$
 (11),

where Q – the amount of goods manufactured; $\overline{\Psi}$ – annual average headcount of staff.

Return on labor index shows which amount of the profit on sales falls to one employee. The increase of this index shows that there is a positive tendency.

Return on labor of the staff is calculated by the formula:

Lpr. =
$$\frac{\Pi}{\Psi} \times 100 \%$$
 (12),

where Π – the profit on sales;

 $\overline{\Psi}$ – annual average amount of staff.

Turnover rate ratio is the assessment index of external staff rotation of an enterprise. It is characterized by the correlation of the amount of employees that left the company (apart from the fired ones) to the average annual amount of staff within the respective period [1]. The increase of the given index proves the existence of negative tendency that is why statutory index is its decrease.

Turnover rate ratio is calculated by the formula:

$$Rto = \frac{Af.e.}{\overline{q}} \qquad (13),$$

where:

Af.e. – the amount of fired employees during accounting period for truancy and other violations of work discipline and also voluntarily (except for reasonable excuses); $\overline{\Psi}$ – annual average amount of staff.

The formula of integrated index of the use of material and technical resources will look this way:

Im.-t.r. =
$$\sqrt[3]{\text{Rwc} \times \text{Rti.} \times \text{Ps.}} \times \text{Mm.-t.r.}$$
.....(14),

where:

Im.-.t.r. – the integrated index of the use of material and technical resources;

Rwc – working capital ratio;

Rti. - turnover ratio;

Ps – profitability of stocks;

Mm.-t.r. – the efficiency of the use of material and technical resources.

Turnover ratio is the marker of business activities that characterizes the efficiency of the use of circulation assets of an enterprise. It shows which amount of turnovers the assets perform. The increase of this index shows that the enterprise needs fewer resources for sustaining current activities level. And vice versa, the decrease of turnover rate increases the need for financial resources.

Working capital ratio is calculated buy the formula:

where:

SR - sales revenue;

 \overline{OA} – annual average amount of circulating assets.

Turnover ratio characterizes the speed of assets disposal. The value of the index shows the amount of turnovers per year [7]. If this index increases this means positive tendency. Turnover ratio is calculated by the formula:

Rti =
$$\frac{c}{3}$$
(16),

where:

C – the net cost of goods sold;

 $\overline{3}$ – annual average cost of material assets.

Profitability of stocks characterizes their relative profitability. The positive thing is the increase of this index.

Profitability of stocks is calculated by the formula:

$$Ps. = \frac{NP}{3} \times 100 \% \qquad(17),$$

where:

NP – net profit of an enterprise;

 $\overline{3}$ – annual average cost of material assets.

The efficiency of the use of every direction of balanced system of economic performances has been defined by us with the help of peer assessment method. The subjects of peer assessment were scholars investigating problems of agricultural enterprises and

experts in agricultural branch. As the investigation results show the highest influence on activities efficiency and the development of agricultural enterprises is made by the effective use of land resources -0.365. All the rest directions have almost the same influence, namely: the efficiency of the use of labor resources -0.225, the efficiency of the use of material and technical resources - 0.21 and the efficiency of the use of financial resources -0.2.

Having defined the integral group index of every separate direction of balanced system of economic performances it is possible to design the line chart which will make it possible to depict and compare the degree of the use of land, financial, labor, material and technical resources. This will make it possible to improve the activity of those directions that operate at their worst.

The formula of overall integral index of balanced system of economic performances will look the following:

$$Iov. = II.r. + If.r. + II.r. + Im.-.t.r.$$

.....(19)

Having calculated integrated index of balanced system of economic performances it is possible to outline the level of strategic capability of agricultural enterprise. In order to define this level we built up the respective grading system (Table 2).

agricultural enterprises		
Integrated index value of balanced system of economic performances	Type of agricultural enterprise	
from 0 to 0.35	Enterprises with low level of strategic capabilities	
from 0.36 to 0.70	Enterprises with medium level of strategic capabilities	
from 0.71 до 1	Enterprises with high level of strategic capabilities	
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Table 2. Grading system of strategic capabilities of agricultural enterprises

Source: proprietary design of the authors.

As it can be seen from Table 2 we divided agricultural enterprises into three groups by their level of strategic capabilities depending on the value of integrated index of balanced system of economic performances.

In order to study the trends of using different methods of strategic planning in agricultural enterprises of Ukraine, a sociological study was conducted. The research involved 112 agricultural enterprises of Ukraine. The methods of grouping and statistical analysis have identified the features of strategic planning in small, medium and large farms.

RESULTS AND DISCUSSIONS

Sociological survey results

In order to study the situation of strategic planning at agricultural enterprises the managers of agricultural enterprises of different of legal forms of economic management in Ukraine have been questioned. 112 inquiry forms have been processed. 67.7% of the respondents comprised farm enterprises, 19.4% - limited liability companies and 12.9% - private enterprises. Rather "young" enterprises have been questioned as well as the experienced ones (Fig. 1).



Fig.1. The structure of agricultural enterprises according to the period of their existence Source: designed on the basis of processed surveys.

As Fig. 1 shows the biggest number of respondents (38.7%) comprised the enterprises that exist more 11-20 years, 22.6% comprised agricultural enterprises that operate 21-30 years and only 16.1% of the respondents – are "young" enterprises that exist less than 5 years.

The peculiarities of forming the strategy of agricultural enterprises are tightly connected with the methods selected for its construction. Strategic planning methods can be the following: input method, target method, method of extrapolation, interpolation method, trial statistical method, criteria method, normative method, balance method, matrix method and strategic planning design. The results of the survey lead us to the conclusion that most of the questioned respondents use several methods of strategic planning (Fig. 2).



Fig. 2 Strategic planning methods used by questioned respondents

Source: designed on the basis of processed surveys.

As Fig. 2 shows the most popular are the resource method (51.6%) that involves taking into account present resources of agricultural enterprises and the existing market conditions of economic management and the target method (32.3%) that depends on the needs of market and consumers demand. The third place is occupied by balance method used by 22.6% of respondents. The forth place is divided between trial statistical and normative methods used in strategic planning by 19.4% of respondents. The least popular strategic planning methods are the extrapolation method and strategic planning design -6.5%, respectively. 6.5% and 3.2% As to interpolation and criteria methods none of the respondents uses them. This is obviously caused by unstable conditions of agricultural market environment and the inability of the management of agricultural enterprises to outline ultimate targets of the activities of an enterprise taking into account subaggregates. When they were asked the question "How the strategies at your enterprise are formed?" the most of the respondents, namely 61.3%

answered that they do it on the basis of experience and expertise of the managers, 22.6% – on the basis of intuition and anticipation and only 25.8% that is the fourth of the respondents answered that by the results of the diagnostics of the strategic

management process (Fig. 3).



Fig. 3. The principle of strategic measures design among the questioned respondents Source: designed on the basis of processed surveys.

These results show that the managers of agricultural enterprises are oriented at current activities or they do not realize the advantages or neglecting the results of strategic planning, as it has been mentioned before, 35.5% of the questioned respondents practice strategic planning and 54.8% – practice it partially. This means that the percentage of strategic planning process is higher than the process of forming strategic measures according to the results of the diagnostics of strategic management process.

25.8% of the respondents that plan strategic measures according to the results of diagnostics of strategic management process serve as markers of strategic orientation of agricultural enterprises. It is very interesting to know that all these enterprises have been practicing strategic planning from the very beginning. Besides, 50% of them - are the enterprises that operate less than 5 years, 37.5% – the enterprises that operate 11-20 years and only 12.5% - the enterprises that operate 21-30 years. Thus, we can conclude that the "younger" agricultural enterprises are more strategically oriented as they realize the necessity and the performance of strategic planning under present conditions.

Nowadays, various scholars and practitioners use different methodological approaches to strategic planning. So, N. Ridler, M. Wowchuk, B. Robinson, K. Barrington, T. Chopin, S. Robinson, F. Page, G. Reid, M. Szemerda, J. Sewuster & S. Boyne-Travis use the scenario method analysis and modeling to determine the strategic development potential of Canadian farms [19].

Chi-Lin Yang, Min-Hsien Chiang, Chien-Wei Chen in their study analyzed the effect of financial leverage on the process of strategic planning with the help of methods of internal strategic analysis [8].

Asghar Afshar Jahanshahi, Alexander Brem, used a SWOT-analysis method based on an analysis of top management teams in SMEs in their study on corporate entrepreneurship strategy formation [13].

Dara G. Schniederjans investigated the relationship with incremental business process innovation between SQM and supply chain performance using the method of causal relationships [10].

Shaomin Li, Seung Ho Park, David Duden Selover, exploring the prospects for cross cultural change in developing countries, used the PEST analysis method [20].

The most popular tools of strategic analysis are SWOT- and PEST- the analyses that anticipate the analysis of internal and external environment with the purpose of defining further strategic measures.

Among the total of the questioned respondents 22.6% conduct strategic analysis with the aid of SWOT- та PEST- analysis, 48.4% of the respondents partially apply these tools and 29% - do not conduct strategic analysis at an enterprise which means that they do not use the above-mentioned strategic tools for analysis. This may prove the lack of special qualifications for implementation of strategic analysis tools or lack of understanding the benefit of application the results of this analysis or the inability to use them in real-case scenario.

Under present economic conditions the managers of the most agricultural enterprises start realizing all the advantages of strategic planning. The main advantages that agricultural enterprise obtains from strategic planning are the following:

1) reducing the factors of "uncertain future";

2) timely response to internal and external environmental factors;

3) the presence of essential foundation for strategic and tactical managerial decisions;

4) the ability to evaluate alternative ways of investments;

5) the ability to combine the decisions of all levels of management.

The results of the survey make it possible to analyze which advantages of strategic planning are important for the managers of agricultural enterprises in modern economic conditions (Fig. 4).



Fig. 4. Structural analysis of the advantages obtained by agricultural enterprises in case they apply strategic planning

Source: designed on the basis of processed surveys.

As fig. 4 shows within the framework of advantages obtained by agricultural enterprises when they apply strategic planning the respondents note timely respond to internal and external environmental factors as well as the presence of essential foundation for strategic and tactical managerial decisions -35.5% each.

29% of the respondents believe that the important advantage is the reduction of "uncertain future" factors, 19.4% – the ability to evaluate alternative ways of investments and only 9.7% think that it is an advantage to combine the decisions of all management levels. This structure of distribution comes out of inconsistency and instability of external and respectively internal environment, which again proves the importance of strategic planning for agricultural enterprises in present economic conditions.



Fig. 5. The assessment of the impact of strategic planning on agricultural enterprises activities (0 - no impact, 5 - maximum)

Source: designed on the basis of processed surveys.

In Fig. 5 you can see how strategic planning improves the activities of agricultural enterprise.

Fig. 5 shows high impact of strategic planning on production improvement of agricultural enterprises. Besides, 19.4% of the questioned respondents assessed this impact as maximum (grade 5), the most of the questioned, namely 54.8% - less than maximum (grade 4/5), 12.9% of the respondents assessed the impact as average (grade 3/5), 9.7% of the respondents - less than average 9grade 2/5) and only small percent of the questioned (3.2%) defined the impact of strategic planning as low (grade 1/5). The positive thing is that none of the questioned admitted the absence of impact of strategic planning on improvement the activities of agricultural enterprises. The respondents that assessed the given interdependence as average or low (1-3 points) belong to those who do not apply strategic planning and have no designed mission or the do it partially, besides the part of questioned that assessed the impact at 1 point do not do it at all.

We can make a conclusion that the managers of agricultural enterprises that apply strategic planning rate high its impact on improvement its activities and it is obvious that the management of those enterprises that do not conduct strategic planning rate its impact as low or average.

When asked the question "Whether your enterprise needs strategic planning?" 77.4% of the respondents gave positive answer, 19.4% – said "probably yes" and only 3.2% – said "no".

The results of the conducted survey among agricultural enterprises of Ivano-Frankivsk show that there exist high strategic potential and prove the necessity of forming and implementation strategy which in its turn has positive effect of improvement the activity of an enterprise as a whole.

Results of research on the level of strategic planning in agricultural enterprises of Ukraine using the balanced system of indicators.

In order to choose the most rational

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methodology for developing a strategy for the development of an agricultural enterprise, it is necessary to determine for each area of its activity those indicators that have the greatest impact on the effectiveness of its functioning and development. This should be determined on the basis of a balanced scorecard. The results of calculations of such a system of indicators on the basis of agricultural enterprises of Ukraine are given in Table. 3.

Table 3. The results of the analysis of the balanced system of economic indicators at agricultural enterprises of Ukraine

		Indicator value	
Sphe re	Indicator	Regulat ory	Estimate
The use of land resou rces	Gross production for 100 ha of land, El.	increase	0.2696
	Absolute liquidity ratio, Rabs.l.	more than 0.1	0.0242
The use	Liquidity coverage ratio, Rcov.l.	more than 1	2.8627
of finan	Long-term attracting of loans ratio, Rl.l.	less than 1	1.4723
cial resou	Return on equity (ROE), Roe.	not less than 1 %	15.9427 %
rces	Return on assets ratio (ROA), Rass.	optimall y 10-20 %	4.5015 %
The use	Labor productivity, Lpr.	increase	0.9974
of labor	Return on labor (ROL), Rol.	increase	0.5048
resou rces	Rate of turnover ratio, Rto.	decrease	0.1
The use	Working capital ratio, Rwc.	increase	0.8919
of mater	Inventory turnover ratio, Rti.	3-6	1.3088
ial and techn ical resou rces	Profitability of stocks, Ps.	increase	0.1372

Source: [2].

The generalized results of the calculation of the balanced system of economic indicators at Ukrainian agricultural enterprises are shown in the Table 4. Table 4. Generalized indicators of a balanced system at agricultural enterprises of Ukraine

Indicator	Method of calculation	Indicator value
The use of land resources	0.2696 × 0.365	0.0984
The use of financial resources	$ \sqrt[5]{ 0.0242 \times 2.8627 \times \\ \times \frac{1}{1.4723} \times 15.9427\% \times \\ \times 4.5015\% \times 0.2 $	0.0404
The use of labor resources	$ \sqrt[3]{0.9974 \times 0.5048 \times \\ \times \frac{1}{0.1} \times 0.225}} $	0.3856
The use of material and technical resources	$\sqrt[3]{\frac{0.8919 \times 1.3088 \times}{\sqrt{0.1372}}}_{0.21} \times$	0.1140
The integral indicator	0.0984 + 0.0404 + 0.3856 + 0.1140	0.6384

Source: [2].

According to the results of calculations in Table 3 and 4, it can be concluded that the average utilization of labor resources at agricultural enterprises of Ukraine is positive, which is 0.3856. The level of use of land and logistical resources is practically the same, their integrated values are 0.0984 and 0.1140 respectively. The worst situation is the use of financial resources, the size of the integrated group indicator is 0.0404.

The calculated total integral indicator shows that the average enterprises fall in the range from 0.36 to 0.70. This leads to the conclusion that they belong to enterprises with medium level of strategic ability.

CONCLUSIONS

The developed balanced system of economic performances is the basis for defining strategic capability of an agricultural enterprise on the ground of assessment the use of land, financial, labor, material and technical resources. The given system makes it possible to select optimal tools of strategic analysis and methods of strategy design of further development of the enterprise.

Different agricultural enterprises have different present possibilities and needs to conduct strategic analysis and building of a strategy. Thus, the enterprises with high strategic capability that have enough of

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financial resources need more detail and precision for strategic analysis, and building of a strategy – more visibility. For enterprises with low level of strategic capability it is enough to apply the easiest methods of strategic analysis and to outline further strategic actions. In order to design the mechanism of formation and implementation of development strategy we use the system of economic performances balanced that presupposes the division of agricultural enterprises into three groups according to the level of strategic capability.

With the aim of organizing the effective mechanism of formation and implementation of development strategy we list below the classification of tools of strategic analysis and methods of strategy building according to strategic capability of an agricultural enterprise (Table 5).

Table 5. Classification of tools of strategic analysis and methods of strategy building according to strategic capability of an agricultural enterprise

Type of agricultural enterprises	Strategic analysis tools	Methods of strategy building
Enterprises with low level of strategic capabilities	SWOT-analysis	"Tree of objectives" method
Enterprises with medium level of strategic capabilities	PEST-analysis, SWOT-analysis, Ansoff matrix, Michael Porter analysis, strategic groups mapping	Road mapping, method of balanced system of indices
Enterprises with high level of strategic capabilities	STEEPLE-analysis, TELESCOPIC OBSERVATIONS, ADL model, McKinsey matrix	Hosing kanri method

Source: proprietary design of the authors.

Thus, on the basis of different possibilities of agricultural enterprises, having divided them into three groups we offer to conduct the design and implementation of the strategy by applying different tools and methods of strategic analysis. For small agricultural enterprises it is better to apply "tree of objectives" while building development strategy, for medium ones – road mapping (road map design) or balanced indices method, and for the big ones – hosing kanri method, which is characterized by integrity and visibility.

Besides, balanced system of economic performances let it define and eliminate the faults in different important directions of enterprises activities.

The use of balanced system of economic performances follows this pattern:

1) calculation of key indices of balanced system of economic performances;

2) calculation of integrated group indices of every branch of activity of an agricultural enterprise;

3) design of line chart of integrated indices of components of balanced system of economic performances in order to define the level of use of land, financial, labor, material and technical resources;

4) calculation of overall integrated index of balanced system of economic performances;

5) defining strategic capabilities of an agricultural enterprise with the help of respective grading system;

6) selection of optimal tools of strategic analysis and methods of development strategy design;

7) design of strategic analysis of an agricultural enterprise;

8) formation and implementation of strategy of an agricultural enterprise.

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REFERENCES

[1]Abesinova, O.K., 2015, Analysis of personnel turnover, as an integral part of the general concept of steady development of the organizational structure of the enterprise. Young Scientist, 2(17): 44-48.

[2] Agriculture of Ukraine 2017: Statistical Statistical Collection - K .: State Statistics Committee of Ukraine, 2017 - 370 pp.

[3]Belenkova, O. Yu., Serdyuchenko, N.B., Antropov, Yu.V., 2011, Estimation of Financial

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PRINT ISSN 2284-7995, E-ISSN 2285-3952

Stability of Small Construction Companies of Ukraine in 2000-2008. Economy and the State, 1: 56-60.

[4]Berganir, I.A, Gvozdie, N.I., Ulyanych, Yu.V., 2015, Profitability as the main indicator of enterprise activity evaluation. Problems and prospects of entrepreneurship development, 1(2): 58-62.

[5]Blank, I.A., 2004, Financial strategy of the enterprise. Kyiv: Nika-Center: Elga.

[6]Boehlje, M., Gray, A., Dobbins, C., 2004, Strategy Development For The Farm Business: Options And Analysis Tools. Department of Agricultural Economics, Purdue University. West Lafayette.

[7]Bunda, O.M., Perova, O.M., 2015, Methodical aspects of the analysis of the financial state of the enterprise. Bulletin of the Kiev National University of Technology and Design, 2: 99-107.

[8]Chi-Lin Yang, Min-Hsien Chiang, Chien-Wei Chen, 2018, Financial leverage and competitive strategy of cross-listing firms. Australian Journal of Management, http://journals.sagepub.com/doi/full/10.1177/03128962 18792967, Accessed July.26, 2019.

[9]Chorna, R.M., 2013, Labor productivity in agriculture as the main factor determining the scientific and technological progress of the industry. Productivity of agro-industrial production, 23: 126-133.

[10]Dara G. Schniederjans, 2018, Business process innovation on quality and supply chains. Business Process Management Journal, 24(3): 635-651.

[11]Hofstrand, D., 2016, Strategic Planning for Farm Businesses. Iowa State University Extension.

[12]Grigoras, M.A., Popescu, A., Holeab, C., Chedea, V., Merce, E., 2007, Bridging the innovation gap and the management of interdisciplinary project for sustainable development. XXXVII Annual Meeting of European Society for New Methods in Agricultural Research, ESNA, 2007/9/10: 10-14.

[13]Jahanshahi, A., Nawaser, K., Brem, A., 2018, Corporate entrepreneurship strategy: an analysis of top management teams in SMEs. Baltic Journal of Management, 13(4): 528-543.

[14]Kosteckiy, Ya., 2012, Factor analysis of profitability of agricultural enterprises. Economic analysis, 10(4): 179-181.

[15]Melnychuk, L.S., 2015, Efficiency of land use of agricultural enterprises. Sustainable development of the economy, 1: 135-140.

[16]Mulik, Ya.I., 2017, Liquidity of enterprises as an element of financial security management: methodological and informational support. Economics. Finances. Management: topical issues of science and practice, 4: 42-51.

[17]Oleksandrenko, I.V., 2014, Diagnostics of liquidity and solvency of the enterprise. Current problems of the economy, 6(156): 419-426.

[18]Polishchuk, N.V., Gordiets, L.I., 2014, Influence of land ownership on the effective use of land in agriculture. Economy and the state. Economics, 7: 28-31.

[19]Ridler, N., Wowchuk, M., Robinson, B., Barrington, K., Chopin, T., Robinson, S., Page, F., Reid, G., Szemerda, M., Sewuster, J., Boyne-Travis, S., 2017, Integrated multi – trophic aquaculture (imta): a potential strategic choice for farmers. Aquaculture Economics & Management, 11(1): 99-110.

[20]Shaomin Li, Seung Ho Park, David Duden Selover, 2017, The cultural dividend: a hidden source of economic growth in emerging countries. Cross Cultural & Strategic Management, 24(4): 590-616.

[21]The EU will assist Ukraine in implementing the agricultural development strategy Retrieved July 9, 2015,

http://ucab.ua/ua/pres_sluzhba/novosti/es_dopomozhe_ ukraini_v_implementatsii_strategii_rozvitku_silskogo_ gospodarstva/, Accessed July.26, 2019.

[22]Yakubiv, V., Polujk, M., 2019, Innovative methodologies for estimating the personnel of agricultural enterprises in Ukraine. Scientific Papers. Series "Management, Economic Engineering in Agriculture and Rural Development", Vol. 19(1):617-624,

http://managementjournal.usamv.ro/pdf/vol.19_1/volu me_19_1_2019.pdf, Accessed July.26, 2019.

[23]Yakubiv, V.M., Horohotska, N.I., Yakubiv, R.D., 2015, Administrative model of ensuring the development of agricultural enterprises through diversification processes implementation", Actual Problems in Economics, Vol. 170:58-65.