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### ASSESSMENT OF ECONOMIC ACTIVITY OF ENTERPRISE BASED ON THE BALANCED SCORECARD

**Abstract.** Assessment of the economic activity of the enterprise in modern business relations requires the necessity of addition of non-financial components to the traditional tool of assessing the financial performance of the enterprise. The purpose of the article was using BSC as a methodological tool for assessing and transforming an enterprise's mission into short-term tasks and indicators. This allows the authors to identify the most relevant reserves for improving the economic activity of the enterprise. Correlation-regression analysis of the parameters is included in the assessment of the economic activity of the enterprise by basic perspectives. This allows us to make a detailed analysis of internal business processes and external possibilities of enterprise. Division of all researched indicators into key performance indicators (KPI) and auxiliary indicators, depending on the degree of influence on enterprise development has been made. The key performance indicators that have the greatest correlation with others are as follows: net revenue, balance sheet, current assets, fixed funds, raw materials, finished products, cash. It has been established, that the key reserves for the successful development of the enterprise are concentrated mainly in internal processes and the financial perspective of enterprise development. This makes it possible to optimize the process of making managerial decisions in conditions of limited economic resources and uncertainty. Auxiliary indicators are more likely to be parameters supporting the required level of certain KPI in the long term perspective. Using the full range of indicators in the assessment of economic activity of enterprise will allow balancing the direction of sustainable development of enterprise.

**Keywords:** assessment, economic activity, balanced scorecard (BSC), key performance indicator (KPI), correlation and regression analysis.

**JEL Classification** C61, D25

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## ОЦІНКА ЕКОНОМІЧНОЇ ДІЯЛЬНОСТІ ПІДПРИЄМСТВА НА ОСНОВІ ЗБАЛАНСОВАНОЇ СИСТЕМИ ПОКАЗНИКІВ

**Анотація.** Оцінка економічної діяльності підприємства в сучасних ділових відносинах передбачає необхідність доповнення нефінансовими складовими традиційного інструментарію оцінювання фінансових показників діяльності підприємства. Метою статті є використання ЗСП як методичного інструментарію оцінки і трансформації місії підприємства у короткострокові завдання і показники. Це дозволяє виявити найбільш актуальні резерви поліпшення економічної діяльності підприємства. Кореляційно-регресійний аналіз параметрів включено в оцінку економічної діяльності підприємства за базовими перспективами. Це дозволяє провести детальний аналіз внутрішніх бізнес-процесів підприємства і зовнішніх можливостей підприємства. Проведено розподіл усіх досліджуваних показників на ключові показники ефективності (КПЕ) і допоміжні показники залежно від ступеня їхнього впливу на розвиток підприємства. Ключовими показниками ефективності, які мають найбільшу кореляцію з іншими за результатами дослідження, є: чиста виручка, підсумок балансу, оборотні фонди, основні фонди, сировина і матеріали, готова продукція, грошові кошти. Установлено, що ключові резерви успішного розвитку підприємства зосереджені переважно у внутрішніх процесах і фінансовій перспективі розвитку підприємства. Це дозволяє оптимізувати процес ухвалення управлінських рішень в умовах обмежених економічних ресурсів і невизначеності. Допоміжні показники здебільшого є параметрами підтримки потрібного рівня визначених КПЕ в довгостроковій перспективі. Використання всього комплексу визначених показників в оцінці економічної діяльності підприємства дозволить збалансувати напрями забезпечення стійкого економічного розвитку підприємства.

**Ключові слова:** оцінка, економічна діяльність, збалансована система показників (ЗСП), ключовий показник ефективності (КПЕ), кореляційно-регресійний аналіз.

**JEL Classification** C61, D25

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**Introduction.** In recent years, Western economic literature has increasingly seen criticism of traditional methodological approaches to assessing financial indicators as the basis for making managerial decisions, the source of which is the accounting and financial reporting system. This criticism is aimed at the retrospective nature of these indicators and the narrow focus of methodological approaches to assessing the material component of the enterprise. This significantly reduces their value for making managerial decisions in the long term, where the intangible, symbolic assets of the enterprise are significant. Today, competitive advantages are much more difficult to create only through effective management of the financial assets of the enterprise and investment in physical assets. The company's ability to mobilize and use intangible assets is becoming a more significant factor in conditions of competition. The key areas for ensuring the economic growth of the enterprise are as follows: balanced management system, effectiveness of business processes, the capital of the enterprise embodied in the knowledge and qualifications of employees, the ability to retain and attract new customers, corporate culture that affects innovation and organizational change, investment in information technology.

The contradiction between the efforts of the enterprise aimed at creating competitive advantages and the inflexible model of financial and accounting reporting resulted in the formation of a synthesized phenomenon: balanced scorecard (BSC), which is an effective tool that ensures the interrelation of strategic prospects with the tactical goals and tasks of the enterprise. In this regard the research of the assessment of economic activity of enterprise based on the balanced scorecard is important and determines the relevance of the chosen topic and feasibility of conducting the research.

**Literature review and problem statement.** The significance of balanced scorecard in economic activity of enterprise was studied in the works of a lot of scientists such as Krylov Y., Korovina V., Ivlev A., Kunitsyn S., Malyarets L., Chudaiva I., Us H., Martynova O., Chernyak A., Chursin A., Vlasov Y., Makarov Y. The attention to balanced scorecard (BSC) was drawn in the works of foreign scientists, such as Figge F., Schaltegger S., Hahn T., Wagner M., Sislian L., Jaegler A., Rampersad H. K., Tuominen K., Nils-Göran O., Roy J., Wetter M. and other authors. The purpose of the article is to substantiate the necessity to implement BSC as a methodological tool for assessing and transforming the enterprise's mission into short-term tasks and indicators.

**Methodology and methods of research.** Correlation-regression analysis method was used to assess significance of KPI and auxiliary indicators by Student criterion.

**Research results.** BSC preserves traditional financial parameters that reflect the historical aspect of the enterprise activity, which was important for enterprises of the industrial era. This is confirmed by the works of B. S. Chakravarthy, J. Dearden, J. M. Juran, K. Merchant [1—4]. In their opinion, an excessive emphasis on achieving and maintaining short-term financial results may lead to excessive investment in the process of solving short-term problems. In addition, this will lead to insufficient investment in the formation of long-term values, especially in intangible assets that contribute to the development of the enterprise in the future. Investments in long-term potential opportunities and relationships with customers were not decisive in terms of success for these enterprises. However, in the conditions of the technogenic information environment BSC acquires new characteristics. BSC aims to create value by investing in customers, suppliers, workers, production, technology and innovative projects [5]. BSC broadens the horizon of goals of each enterprise far beyond financial indicators. Thus, the manager has the opportunity to determine how the company works to create value for current and attracted customers, and what needs to be done to expand internal capabilities and increase investments in personnel, business systems and procedures in order to improve future activities. BSC combines the assessing characteristic of the activity of stakeholders of the value creation process with financial prospects of both short-term projects and long-term projects.

One of the principles of BSC is the condition of its information accessibility for employees at all levels. First-line managers must understand the financial consequences of their decisions and actions, top managers must be fully aware of what will ensure long-term financial success for the company. The goal of the BSC is to transform the mission of the enterprise into specific tasks and indicators. These indicators represent a balance between external reporting data for stakeholders and customers and internal characteristics of the most significant business processes, innovations, learning and growth. This secures the balance between indicators of results of the current activity of enterprise and its future growth.

BSC complements the system of enterprise performance of financial indicators with the system of perspective assessment. Tasks and indicators allow us to consider the activities of the enterprise in four perspectives: financial, customer, internal business processes, and learning and growth [6], which were subsequently revised and supplemented by BSC researchers in accordance with modern business requirements [7; 8]. Financial perspective is gradually changing to a stewardship perspective, which is determined by the complication of the business content and the impossibility to assess its performance by financial indicators. The customer perspective is expediently supplemented by the stakeholder perspective as the circle of stakeholders, one way or another connected with the business, is gradually expanding. The internal processes of enterprise, key and auxiliary, remain important for business, what changes the name of this perspective to

internal process. The perspective of learning and growth is expanding significantly. In modern conditions, it significantly increases and takes the name organizational capacity, which provides for the formation of a comprehensive internal potential for ensuring the success of the enterprise in the long-term. Four perspectives of BSC allow you to achieve a balance between long-term perspectives and short-term goals of the enterprise, between the desired results and factors of their achievement, as well as between hard objective criteria and softer subjective indicators. At first glance, the multifaceted BSC may seem rather complicated and confusing, however, in fact, all indicators are aimed at implementing the enterprise strategy [6].

Strategic goals, indicators and strategic perspectives are interconnected. In BSC, strategic perspectives are interconnected by a cause- and- effect chain in the form of the so-called «Strategy maps». R. S. Kaplan and D. P. Norton suggested calling cause-and-effect relationship between individual elements of an enterprise's strategy using the term «strategy maps» [6]. Cause-and-effect relationship depicts graphically the logic of strategy implementation — how the implementation of one goal will contribute to the achievement of others in the BSC. The identification of goals and the reflection of the relationship between them are the basic principles for the formation of the BSC. Only the presence of relationship between the individual goals of the enterprise allows us to fully describe the strategy. *Fig. 1* shows an example of a strategy map for an enterprise under research focused on increasing sales.

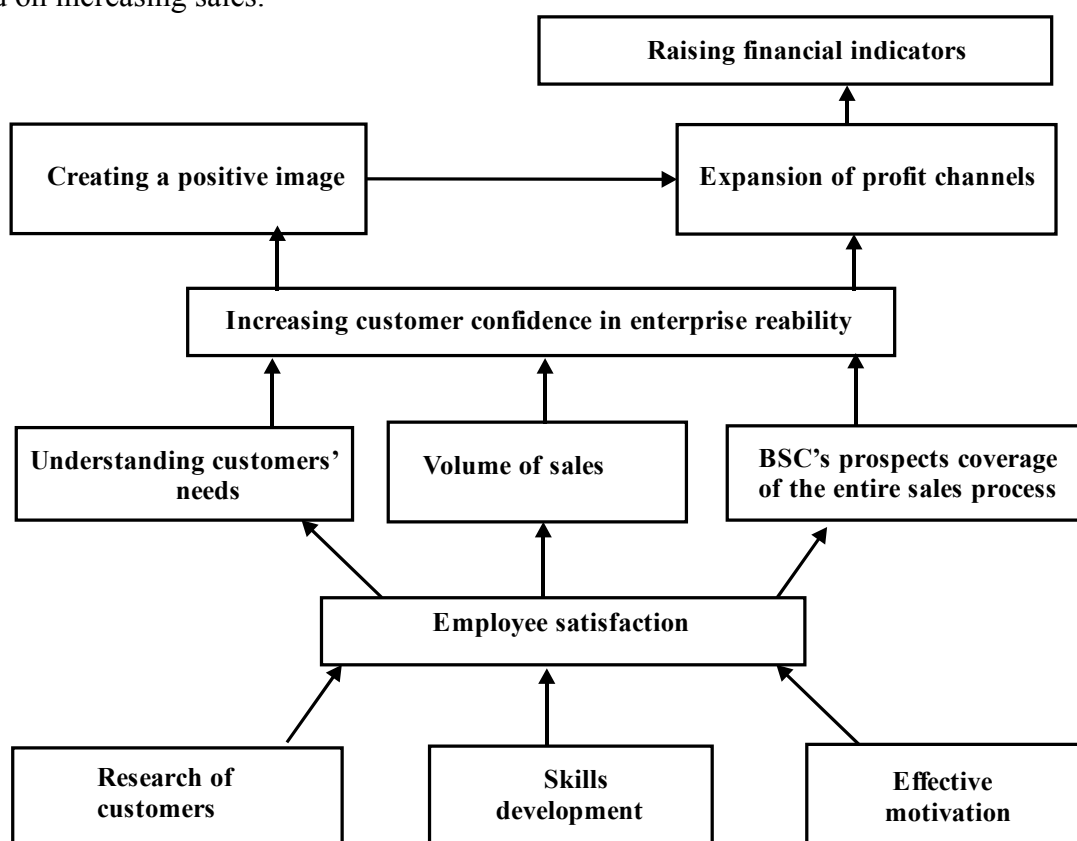


Fig. 1. Strategy map of increase of enterprise sales

BSC is a new enterprise performance assessment tool that incorporates enterprise strategic development indicators in the assessment process. Keeping financial parameters, BSC introduces new assessing characteristics of future financial activities. Customers, internal business process, learning and growth — all these areas of assessment are the result of the transformation of the enterprise strategy into the plane of real tasks and indicators. Innovative enterprises use BSC as a central tool of interaction between subsystems of tactical and strategic management. At the initial stages, an enterprise can develop a BSC with a rather narrow set of tasks. But as the involvement of the enterprise into external business processes increases, BSC can be used to: clearly formulate a strategy; coordinate the goals and tasks of the enterprise and each employee; identify strategic

perspectives with long-term goals and annual budgets; identify and systematize strategic initiatives; periodically and systematically review progress achieved; create feedback, receive information and timely change the strategy if necessary.

Thus, the BSC provides a feedback function between the strategy and indicators of economic activity of the enterprise. The implementation of BSC ensures the achievement of long-term leadership and is based on successive passing through several stages, the implementation of which allows you to gradually adapt the enterprise management system to new methods of monitoring the effectiveness of the economic activity of the enterprise.

Formation of an enterprise BSC is aimed at establishing and assessing the dependence of an economic indicator on one or some other elements of the system. Obviously, any economic indicators are influenced by random factors, and therefore, from a mathematical point of view, they are interpreted as random values. It is known from probability theory [9] that random values can be related by functional or statistical dependence or, in general, can be independent. In this research, the relationship between independent variables is not considered. Strict functional dependence has no systemic implementation in the economy. More often statistical dependence is observed. In some cases, the statistical dependence is characterized by the fact that with a change in one value, the average value of another changes. Such dependence is called correlation [9; 10].

The most widely used methods of economic analysis are pair and multiple correlations. Using these methods, it is possible to determine not a functional, but a stochastic cause- and- effect dependence between economic phenomena, that is, a study of the action of factors that have a tendentious effect on the object of study. In this case, the probability of factor influence is determined by the density interaction of factors with the assumed generalizing economic characteristic. Density interaction is measured by the value of the correlation coefficient, which ranges from zero to one. When the value of the correlation coefficient exceeds 0.5, then the relationships between the factors and the generalizing indicator of the object of the research are rather dense, which makes it possible to measure their influence with sufficient reliability. For this, it is necessary, first of all, to build a factorial economic and mathematical model. In the case of using the method of pair correlation in the analytical study, the factor economic-mathematical model provides for the possibility of measuring the action of only one factor on the object of the research and has the following form [9]

$$Y = a + bX, \quad (1)$$

where  $Y$  — the indicator value, which characterizes the object of the research;

$X$  — the value of the factor index;

$a, b$  — the regression coefficients.

If the value of index « $X$ » and indicator « $Y$ » are variables, then the coefficients « $a$ » and « $b$ » are constants by which the correspondence between the variables is established. So, each deviation in the factor index ( $X$ ) will correspond to a certain deviation in the generalizing indicator ( $Y$ ).

The application of the economic-mathematical model of multivariate correlation analysis significantly increases the ability to search for additional reserves to increase the efficiency of the enterprise. Using the economic-mathematical method of multiple correlations, scientists determine the dependence of a certain generalized indicator, which characterizes the object of study, from changes in the values of factor indices. It is advisable to select these indices for the correlation model based on the use of analytical groupings, by comparing parallel and dynamic series, line graphs, and also in the process of solving correlation analysis problems based on the assessment of their significance by Student criterion. The mathematical model of multiple correlation dependence used in the analytical study has the following form [9]:

$$Y = a + b_1 X_1 + b_2 X_2 + \dots + b_n X_n, \quad (2)$$

where  $Y$  is the value of the generalized indicator, which characterizes the object of study;

$X_1, X_2, \dots, X_n$  — the value of factorial indices;

$a, b_1, b_2, \dots, b_n$  are constant regression coefficients.

In this study, the statistical analysis program STATISTICA was used to analyze indicators.

To generate key performance indicators (KPI) of BSC indicators, you need to use the Basic Statistics / Table module and its Correlation matrices function. After receiving the results, a table of indicators with the highest correlation index is formed. Further, these data are used to highlight the most significant indicators for the enterprise and implement the strategy. However, you need to know the indicators that correlate with the minimum number of others. This will allow us to identify the least effective areas of development of the enterprise and these indicators cannot be used as KPI in the construction of BSC.

In general, four strategy maps are being built for the development of each perspective — financial, customer, internal business processes, and learning and growth. In each strategy maps, which are formed from all indicators of the enterprise, KPI are allocated, the dependence between which is established using factor analysis. Each map includes a visual display of the interaction of the selected indicators and their elements, which is necessary for the last stage of the implementation of the BSC introduction process at the enterprise.

Determination of KPI based on correlation and regression analysis. Ensuring long-term positive economic growth of the enterprise needs the development of appropriate methodological tools for determining KPI [11—13]. After analyzing the data of quarterly forms 1—3 of the chemical industry enterprise and other internal reporting, a table of primary data (25 most important indicators for the enterprise) was formed for the period of 12 quarters from 2017 to 2019. All data are presented in *Table 1*.

Table 1

**Primary data of chemical industry enterprise used for correlation-regression analysis**

Index	2017				2018				2019			
	1 q.	2 q.	3 q.	4 q.	1 q.	2 q.	3 q.	4 q.	1 q.	2 q.	3 q.	4 q.
Net revenue	4691	5034	4854,2	4250	6271	6630	6490	6158	7750	8405	8310	8211
Balance sheet total	1754,3	2303	2130	1735,5	2154	2470	2324	1900	2300	35670	23300	23300
Current assets	1065	1532	1350	1111,5	1346	1743	1506	1416	1650	2043	1985	2136
Fixed assets	690	710	705	687	680	705	700	686	675	710	690	600
Raw materials	382	470	453,5	434,4	835	769	650	729	640	690	530	187
Unfinished production	5	7	6	5,1	3	3	2	2	3	4	3	1
Finished products	4,8	6,2	6	4,6	3	6	4	3	4	7	6	6
Accounts receivable	255	310	296,3	281,8	160	250	320	144	175	275	250	305
Cash	275	325,4	304,5	291	360	433	395	328	470	740	637	570
Other current assets	12	1	5	13	13,9	16	21	18	25	52	46	57
Loan capital	27	43,2	25	31,5	0,5	2,5	1	0	12	35	32	33
Net profit	27	34,8	32	29	287	336	315	292	275	265	232	153
Cost price	3534,6	4105,3	3756,2	3428	4500	4860	4750	4695	5140	7204	6502	6144
Non-negotiable assets	710,2	720	715	715	707	733	725	672	1500	28600	27605	19048
Own funds	1117,6	1432	1744	1843	1598	1840	1925	1815	18900	19700	21205	22239
Customer satisfaction index	0,7	0,74	0,76	0,79	0,83	0,85	0,84	0,79	0,75	0,74	0,71	0,74
Share of substances	0,7	0,72	0,72	0,71	0,73	0,75	0,75	0,76	0,78	0,79	0,78	0,8
Consumer loyalty	0,62	0,64	0,65	0,62	0,68	0,73	0,74	0,73	0,71	0,65	0,63	0,63
Number of workers	256	258	257	257	254	254	251	250	247	247	245	244
Number of administration	51	52	52	52	51	51	50	49	47	47	47	47
Average wage	875	880	884	892	947	1043	1157	1262	1325	1430	1504	1534
Marketing expenses	115	125	123	120,8	147	160	210	218	220	206	200	194
Monthly average labor productivity	1325	1287	1376	1342	1450	1740	1732	1882	1935	2105	2026	2084
Sales volume	4576	4853	4847	5279	5626	6930	7272	6971	7532	8230	8743	9335
Repair and modernization expenses	185,4	194,2	207	235,1	338,3	448	432	326,2	314	329	340	360,5

*Source:* compiled by the authors on the basis of primary data of State Plant for Chemical Reagents Scientific and Technological Complex «Institute for Single Crystals» of National Academy of Sciences of Ukraine.

Primary data of chemical industry enterprise are used for correlation-regression analysis. These indicators were selected for several reasons. Firstly, at industrial enterprises, to which the

enterprise under research belongs, one of the most important factors for increasing the volume of production is the availability of fixed assets, their more complete and efficient use. Secondly, the share of working capital in the structure of total assets in 2018 amounted to 66%. As soon as in 2019, the share of working capital fell to 14.8%, the efficiency of the enterprise activity immediately decreased significantly. Therefore, to identify the impact of current assets, which include raw materials, unfinished production, finished products, accounts receivable, cash and other current assets, these indicators were selected by the experts. The enterprise almost does not use borrowed capital in 2019, operates only with its own. Therefore, it becomes interesting how big the own funds of the enterprise are and how significant the influence of the presence of a large share of borrowed capital is. It is necessary to analyze separately some indicators from report of financial results such as: net profit, cost, sales, net revenue — because they are the resulting indicators.

Thirdly, almost all of the indicators listed are related to the perspective of internal processes, some to financial perspective, but there are also other perspectives. That is why customers' satisfaction index and their loyalty were added to the customer perspective analysis, and the number of employees and administration, average wages, monthly average labor productivity — to the learning and growth perspective. These and other indicators were taken from the internal reporting of the enterprise.

Further, using the analytical and statistical program STATISTICA, correlation indices were calculated for all pairs of indicators that reflect the degree of mutual influence. The data is repeated, mirroring from the axis, which is characterized by the values of «1.0000», so you need to analyze only one part.

Next, you need to choose those pairs whose correlation is the strongest. In statistical practice, this value belongs to the set:  $(-1; -0.5) \cup (0.5; 1)$ , that is, less than -0.5, but greater than -1, and greater than 0.5, but less than 1. The value «1» is not taken into account, because in this case it means the correlation of indicator with itself, which is always equal to 1. To identify more significant relationships, the value of the limit correlation index was increased to 0.7, that is, the set that was used for the filter in this research, is as follows:  $(-1; -0.7) \cup (0.7; 1)$ .

This allowed us to almost halve the amount of data that needs to be processed. According to the theory of analysis of the strategy map, it is necessary to highlight those indicators that correlate with the maximum number of others using the filter given above. The results of this sample are presented in *Table 2*.

Table 2

**Representation of indicators, which correlate with maximum number  
of other indicators of chemical industry enterprise**

	Net revenue	Balance sheet	Working capital	Fixed assets	Raw materials	Finished goods	Cash
Balance sheet	0,7480	-	-	-	-	-	-
Current assets	0,9044	0,8078	-	-	-	-	-
Cash	0,9144	0,9256	0,9075	-	-	-	-
Other current assets	0,8668	0,9359	0,9127	0,9295	-	-	-
Own capital	0,8675	0,8085	0,8255	0,8770	0,9048	-	-
Cost price	0,9499	0,8980	0,9251	0,9796	0,9272	0,8524	-
Non-negotiable assets	0,7575	0,9764	0,8006	0,9208	0,9246	0,8314	0,8929
Share of substances	0,9578	0,7187	0,9049	0,8605	0,8687	0,8595	0,9129
Number of workers	-0,9371	-0,7075	-0,8061	-0,8225	-0,8599	-0,8859	-0,8743
Number of administration	-0,9225	-0,7264	-0,7778	-0,8372	-0,8414	-0,9166	-0,8748
Average wage	0,9287	0,7602	0,8523	0,8540	0,8925	0,8874	0,9050
Marketing expenses	0,8173	-	-	-	-	-	0,7304
Monthly average labor productivity	0,9432	0,7217	0,8717	0,8584	0,8482	0,8232	0,9161
Sales volume	0,9365	0,7213	0,8840	0,8504	0,8843	0,8328	0,8953
Number of coincidences	14	12	11	10	9	8	8

*Source:* compiled by the authors on the basis of data of State Plant for Chemical Reagents Scientific and Technological Complex «Institute for Single Crystals» of National Academy of Sciences of Ukraine.

The «-» sign in some cells indicates that the data does not match the filter, which after exporting the correlation index values from the program STATISTICA into Microsoft Office Excel 2007 for further processing will be:

$$= \text{if} / \text{or} (B2 > 0.7; B2 < -0.7); B2; \llcorner\text{-}\gg) \quad (3)$$

where if () and or () — function Excel; B2 — a cell with the value of the correlation indices; «-» — a symbol that will be substituted if the filter does not match.

KPI are selected according to the maximum value of the correlation coefficient. If the maximum values of the correlation index are used to build the BSC, then the minimum ones are used to identify the least influential indicators, which should not be emphasized in the formation of the enterprise strategy. These indicators only complement the enterprise development model; it is the basis for managing the more important indicators of the enterprise. *Table 3* presents indicators that have the lowest correlation (the filter was taken with an index value of less than 0.5).

Table 3

**Representation of indicators, which correlate with minimum number of other indicators  
of chemical industry enterprise**

Indexes	Balance sheet total	Fixed assets	Raw materials	Finished products	Accounts receivable	Borrowed capital
Fixed assets	-0,2486	-	-	-	-	-
Raw materials	-0,1768	-	-	-	-	-
Unfinished production	-0,2618	-	-0,1949	-	-	-
Finished products	-	0,0926	-0,4082	-	-	-
Accounts receivable	0,2388	0,0292	-	-	-	-
Cash	-	-0,2021	0,0454	-	0,0992	-
Other current assets	-	-	-0,2438	-	0,1896	-
Borrowed capital	0,4842	-0,0796	-	-	-	-
Owned capital	-	-0,4890	-0,2447	0,4003	0,0245	0,3682
Net profit	0,1708	0,0151	-	-0,2997	-0,4762	-
Cost price	-	-0,2469	0,1066	0,4168	0,0016	0,1572
Non-negotiable assets	-	-0,2312	-0,1848	-	0,2033	0,4869
Customer satisfaction index	-0,4404	0,1728	-	-0,4366	-0,1655	-
Share of substances	-	-0,4549	0,0595	0,2251	-0,1103	-0,0160
Consumer loyalty	-0,3706	0,2033	-	-0,4922	-0,4083	-
Number of workers	-	-	0,0279	-0,1005	0,1648	0,0143
Number of administration	-	0,4490	0,0200	-0,1396	0,2028	-0,0683
Average wage	-	-0,4803	-0,0523	0,2012	-0,0937	0,0669
Marketing expenses	0,4362	-0,2453	0,3131	-0,1525	-0,3021	-0,3408
Average monthly productivity of labor	-	-0,3727	0,1042	0,2097	-0,1364	-0,0481
Volume of sales	-	-0,4930	-0,0023	0,2136	-0,0215	-0,0266
Repair and modernization costs	0,2223	-0,1741	0,4800	-0,1131	-0,1286	-
Number of coincidences	10	17	15	13	14	10

*Source:* compiled by the authors on the basis of primary data of State Plant for Chemical Reagents Scientific and Technological Complex «Institute for Single Crystals» of National Academy of Sciences of Ukraine.

Analysis of economic indicators of enterprise activity, which correlate with maximum number of other indicators and discovery of their logical relationship with original data of enterprise allow the authors to divide KPI and basic auxiliary indicators. Dividing of KPI and basic indicators according perspectives of BSC is in *Fig. 2*.



<p><b>Finance / Stewardship</b></p> <p><b>Net revenue</b> } <b>KPI</b></p> <p>Sales volume }          Cost price } auxiliary indicators          Net profit }</p>	<p><b>Internal Business Processes / Internal Process</b></p> <p><b>Balance sheet</b> }  <b>Fixed funds</b> } <b>KPI</b>  <b>Current assets</b> }  <b>Raw materials</b> }  <b>Finished products</b> }  <b>Cash</b> }</p> <p>Unfinished production }          Accounts receivable } auxiliary indicators          Other current assets }          Share of substances }          Borrowed capital }          Marketing expenses }</p>
<p><b>Customer/ Customer and Stakeholder</b></p> <p>Customer satisfaction }          index } auxiliary indicators          Consumer loyalty }</p>	<p><b>Learning and Growth / Organizational capacity</b></p> <p>Number of workers }          Number of administration } auxiliary indicators          Average wage }          Monthly average labor }          productivity }          Repair and modernization costs }</p>

Fig. 2. KPI and basic auxiliary indicators on the basis of belonging to the perspectives of BSC

On the basis of analysis of data it is possible to state that KPI are in the financial and internal processes perspectives. But perspectives customer and stakeholder and organizational capacity are important stimuli of their formation and development.

**Conclusions.** Analysis of economic activity of enterprise on the basis of BSC allows the authors to conduct the comprehensive research of indicators, influencing the sustainable development of enterprise in the long-term perspective. BSC allows the authors to conduct complex assessment of activity of enterprise by transforming the mission of enterprise into concrete tasks and indicators according to four basic perspectives. According to the results of the research these indicators represent a balance between external characteristics of enterprise, important for customers and stakeholders and internal indicators of the most significant business processes, innovations, learning and growth. This ensures a balance between indicators of the current activity of the enterprise and the structure of future economic growth. As a result of a comprehensive analysis of the enterprise, the most important indicators of its activity were divided into two categories: KPI and basic auxiliary indicators.

As KPI of the enterprise, which was the object of the analysis, were identified (net revenue, balance sheet, current assets, fixed funds, raw materials, finished products, cash), they were recommended to be used by the enterprise to build strategy maps and as a basis for the enterprise strategy development. Basic auxiliary indicators are parameters, which influence directly the level of KPI. Thus, dividing indicators of economic activity into KPI and basic auxiliary indicators according to perspectives of BSC, allows us to concentrate attention of management on the main business processes and characteristics of enterprise. It is especially relevant in the conditions of limited economic resources and uncertainty. Preparation of appropriate software is important for further database research formed on the basis of KPI and basic auxiliary indicators which means the economic development of enterprise.

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