

## SYSTEMATIC APPROACH TO STRATEGIC ANALYSIS OF COSTS, REVENUES AND FINANCIAL PERFORMANCE OF A COMPANY

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The article emphasizes the need for a systematic approach to conduct strategic analysis of costs, revenues and financial performance of the company. Analyzed financial chain "expenses – income – income". Used the method of factor analysis of profit. The role of strategic analysis of costs, revenues, financial results of the assessment system of the company. The basic negative changes in the enterprise for the period.

**Keywords:** strategic analysis, system approach, dynamics, revenues, expenses, income, factor models.

**Formulation of the problem.** At this stage the development of Ukraine's economy is characterized by different types of ownership, abrupt changes in the economic environment caused by economic crises. These factors increased the role of the systematic approach of strategic cost analysis, revenue and financial results.

**Analysis of recent research and publications.** Strategic analysis is a tool of an enterprise to achieve the intended results, the strategy defines the ways to achieve them. In order to define a strategy, it is necessary to study and analyze the internal state of the company and external factors affecting it.

Taking into account the above mentioned, the current research is devoted to the tasks for achieving the goals, strengthening the position in the industry, preserve and enhance long-term competitive position on the market.

It should be noted that the analysis of the problems that have developed in the strategic analysis of costs, revenues and financial results, has attracted the attention of many foreign scholars, namely – Hovindaradzhan V., Porter M., Strickland A., Thompson A., Shank J, etc. . In Soviet literature, these issues have been considered by such scholars as Volodkin M., Golovko T., Kravchenko O., Lyehostayeva A., Mishchenko A., Sagova S., Shubina S.

**Remaining part of the problem.** Ukrainian scientists have different highlight and explore issues

related to the strategic analysis of financial results, which often leads to a blurring of subject boundaries. The lack of a clearly defined place for strategic analysis among other tools and features of management system slows the research. The common and problematic issues are:

– some scientists believe the strategic analysis to be the first stage of strategic management, while the other argue that it can be used at any stage of the latter;

– other researchers consider strategic analysis as a part of economic analysis, often equating it with promising or preliminary economic analysis.

So; strategic analysis of costs, revenues, financial results can be defined as components of the strategic analysis of the company.

**The aim** is to ground a systematic approach to the strategic analysis of the financial performance of the company. It is also advisable to pay attention to the analysis of the financial chain "expenses – income – income" as a component of the complex structure of the company .

**The main results of the study.** Strategic analysis is a tool that enables company managers to formulate strategies to achieve their goals, such as improving financial performance and financial statement. To use the tool efficiently it is necessary to study and analyze the place of the company on the market taking into consideration its features and internal and external influences.

Table 1

The analysis of the income («Kharkiv brush Networks»), Th. UAH

Index	2011		2012		Rejection	
	Σ	%	Σ	%	Absolute	Relative, %
Proceeds from sales	2459,6	84,8	2615,3	84,9	+155,7	106,3
Other operating income	437,8	15,2	463,8	15,1	+26	105,9
Total	2897,4	100	3079,1	100	+181,7	X

Source: authors' elaboration

Table 2

The analysis of the cost structure («Kharkiv brush Networks»), Th. UAH

Index	2011 p.		2012 p.		Rejection	
	Σ	%	Σ	%	Absolute	Relative, %
Cost of sales	1506,8	58,2	1332,4	50,5	-174,4	88,4
Other expenses	-	-	3,8	0,1	3,8	100
Other operations. costs	1035,0	40	1286,4	48,8	251,4	124,3
Income tax	45,3	1,8	13,7	0,6	-31,6	30,2
Total expenses and deductions	2587,1	100	2636,3	100	49,2	X

Source: authors' elaboration

Evaluation of financial performance traditionally begins with the analysis of the dynamics and structure of income and expenses, which allows to obtain the most general idea of the factors that had an impact on their formation. Next step is to analyze the dynamics of business income. The analysis is performed by comparing the actual data for the reporting period from the data reported for the previous period (Table. 1).

The data in Table 1 show that the income received from operating activities, including revenue from sales is 84.8 and 84.9% takes the largest share in the previous and reporting year.

In the reporting year we can observe the tendency of increasing total revenues to UAH 181.7 thousand. The revenue increase to UAH.155.7 thousand. can be the main reason. The analysis also showed an increase in other operational income.

The next stage of the analysis is to study the dynamics and structure of expenses (Table. 2)

As can be seen from Table 2, the cost value of the sold goods has the largest specific gravity. Its amount decreased by UAH. 174.4 thousand. But it can not be considered a positive tendency because the cost value reduce caused the decline in sales. Other operating expenses increased by UAH 251.4 thousand.

Return ratios are fundamental in evaluating the profitability of a business functioning in every field: industrial, commercial, financial and investment. In other words profit accumulates production and sales of products (works, services), their quality and range, efficiency of production and financial resources, the results of business partnership and production and financial management [8, p. 13]. So the next step in the analysis is the study of profit and profitability.

The calculated returns on equity ratios that show the performance of the enterprise as a whole and its ability to cover expenditure are presented below.

Return on equity (assets) by net income:

$$R_A = \text{Net income} / \text{Net income} \quad (1)$$

$$R_{A_{2011}} = -99/1895,2 = -0,05$$

$$R_{A_{2012}} = 7,2/1902,7 = 0,003$$

This ratio shows the net profit per unit of the investment in funds. This ratio is rising so the company efficient use its assets efficiently.

Return on equity:

$$R_e = \text{Net Income} / \text{Shareholders' equity} \quad (2)$$

$$R_{e_{2011}} = -99/1591,9 = -0,06$$

$$R_{e_{2012}} = 7,2/1611,0 = 0,004$$

Ratio shows the net profit is falling per unit of equity. At this company, the figure tends to decrease in 2012 compared with the previous year, that means the inefficient use of equity as a main source of forming enterprise assets.

Return on sales for the net profit:

$$R_n = \text{Net Income} / \text{Cost of sales} \quad (3)$$

$$R_{n_{2011}} = -99/2459,6 = -0,04$$

$$R_{n_{2012}} = 7,2/2615,3 = 0,002$$

Ratio shows the net profit per unit of revenue is falling. In this case, the figure dropped that took place due to decrease in net profit of the enterprise.

Return on assets:

$$R_a = \text{Net income} / \text{production assets} \quad (4)$$

$$R_{a_{2011}} = -99/99,2 = -0,99$$

$$R_{a_{2012}} = 7,2/95,8 = 0,07$$

Ratio shows the net profit is falling per unit of assets. It was nearly 0,07 net income per unit of assets in 2012, that means there have been positive changes in production facilities.

Strategic analysis methods for the chain "expenses – income – income" is not limited by the above calculations, the main objective of this analysis lies

both in the comprehensive study of the economic and financial activity of a business within the system of parameters and prediction of activity in the future.

Qualitative forecast for the financial performance of the company in connection with a comprehensive analysis of the data is reliable information basis for the senior management of the enterprise for a current and strategic decisions. The ability to make the most comprehensive approach to this issue provides a method of forecasting financial statements, including the development of the forecast balance sheet and financial results. In result of its use both single indicators (eg, sales) and all the other significant results of the company can be predicted. The accuracy and effectiveness of the constructed model predictions are directly dependent on the correct selection of the data volume statistical information on performance for previous periods and the degree of incorporation of environmental factors that directly or indirectly affect the company.

Factor analysis of the financial results allows to improve the results obtained within the overall analysis. It aims at a quantitative assessment of the impact of various factors on the change in the financial performance of the company. The factor analysis comprises the use of methodological procedure of elimination, which allows to separate the impact of each factor on productivity ratio.

Factor analysis is an important part of the study for the management the financial results, as it allows to identify direct and indirect effects on the income, to assess the extent of their influence and determine what should be changed in the enterprise performance and how to improve its financial results.

For factor analysis of the net profit we will choose a method of elimination i. e. chain substitutions. The indicators' relationship can be shown with a formula below:

$$NP = \Delta P \times CA \times r_{ca} \times P_{net} \times As \times A \times Pr \quad (5)$$

where  $\Delta P$  (CA),  $\Delta P$  (r CA),  $\Delta P$  (Pnet),  $\Delta P$  (As),  $\Delta P$  (A),  $\Delta P$  (Pr) – absolute change in net income due to changes in the relevant factors;

$CA_0, CA_1$  – average balance of current assets, respectively, in the baseline and reporting years;

$r CA_0, r CA_1$  – turnover of current assets, respectively, in the baseline and reporting years;

$P_{net_0}, P_{net_1}$  – net profitability in respectively the base and reported years;

$As_0, As_1$  – assets for baseline and reporting years;

$A_0, A_1$  – assets (funds provided) for baseline and reporting years;

$Pr_0, Pr_1$  – productivity of labour, respectively, in the baseline and reporting years.

Table 3

**Indicator calculation for the «Kharkov brush Networks» for the years 2011-2012**

Index	Formula	Calculation	Result
CA <sub>0</sub>	Net proceeds from sales / average assets	(949,5+891,1)/360	5,11
CA <sub>1</sub>	Net proceeds from sales / average assets	(891,1+906,1)/360	4,99
rca <sub>0</sub>	Net proceeds from sales / average value of current assets	1506,8/5,11	294,87
rca <sub>1</sub>	Net proceeds from sales / average value of current assets	1332,4/4,99	267,01
Pnet <sub>0</sub>	Net profit / net sales	(-99/2459,6)* 100	-4,02
Pnet <sub>1</sub>		(7,2/2615,3)*100	0,27
As <sub>0</sub>	Value of output in value / average value of fixed assets	2050,3/991,8	2,06
As <sub>1</sub>	Value of output in value / average value of fixed assets	2179,7/971	2,86

A <sub>0</sub>	The average cost of fixed assets / cost of output	991,8/2050,3	0,48
A <sub>1</sub>		971/2179,7	0,45
Pr <sub>0</sub>	Output / production staff list	2459,6/41	59,99
Pr <sub>1</sub>		2615,3/33	79,25

Source: authors' elaboration

Using the method of chain substitutions one can determine the impact of each factor on the level of net income in the general form:

$$\Delta P_{(CA)} = ((CA_1 \times r_{CA0} \times P_{net0} \times AS_0 \times A_0) / Pr_0) - ((CA_0 \times r_{CA0} \times P_{net0} \times AS_0 \times A_0) / Pr_0) \quad (6)$$

$$\Delta P_{(r_{CA})} = ((CA_1 \times r_{CA1} \times P_{net0} \times AS_0 \times A_0) / Pr_0) - ((CA_1 \times r_{CA0} \times P_{net0} \times AS_0 \times A_0) / Pr_0) \quad (7)$$

$$\Delta P_{(P_{net})} = ((CA_1 \times r_{CA1} \times P_{net1} \times AS_0 \times A_0) / Pr_0) - ((CA_1 \times r_{CA1} \times P_{net0} \times AS_0 \times A_0) / Pr_0) \quad (8)$$

$$\Delta P_{(As)} = ((CA_1 \times r_{CA1} \times P_{net1} \times AS_1 \times A_0) / Pr_0) - ((CA_1 \times r_{CA1} \times P_{net0} \times AS_0 \times A_0) / Pr_0) \quad (9)$$

$$\Delta P_{(A)} = ((CA_1 \times r_{CA1} \times P_{net1} \times AS_1 \times A_1) / Pr_0) - ((CA_1 \times r_{CA1} \times P_{net1} \times AS_1 \times A_0) / Pr_0) \quad (10)$$

$$\Delta P_{(Pr)} = ((CA_1 \times r_{CA1} \times P_{net1} \times AS_1 \times A_1) / Pr_1) - ((CA_1 \times r_{CA1} \times P_{net1} \times AS_1 \times A_1) / Pr_0)$$

Factor model for net profit calculation for "Kharkiv brush Networks" is as follows (UAH th.):

$$\Delta P (CA) = ((4,99 \times 294,87 \times (-4,02) \times 2,06 \times 0,48) / 59,99) - ((5,11 \times 294,87 \times (-4,02) \times 2,06 \times 0,48) / 59,99) = -97,5 + 99,8 = 2,3$$

$$\Delta P (r_{CA}) = ((4,99 \times 267,01 \times (-4,02) \times 2,06 \times 0,48) / 59,99) - ((4,99 \times 294,87 \times (-4,02) \times 2,06 \times 0,48) / 59,99) = -88,28 + 97,5 = 9,22$$

$$\Delta P (P_{net}) = ((4,99 \times 267,01 \times 0,27 \times 2,06 \times 0,48) / 59,99) - ((4,99 \times 267,01 \times (-4,02) \times 2,06 \times 0,48) / 59,99) = 75,92 + 111,42 = 117,34$$

$$\Delta P (As) = ((4,99 \times 267,01 \times 0,27 \times 2,86 \times 0,48) / 59,99) - ((4,99 \times 267,01 \times (0,27 \times 2,06 \times 0,48) / 59,99) = 8,23 - 3,73 = 4,5$$

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$$\Delta P (A) = ((4,99 \times 267,01 \times 0,27 \times 2,86 \times 0,45) / 59,99) - ((4,99 \times 267,01 \times 0,27 \times 2,86 \times 0,48) / 59,99) = 7,72 - 8,23 = -0,51$$

$$\Delta P (Pr) = ((4,99 \times 267,01 \times 0,27 \times 2,86 \times 0,45) / 79,25) - ((4,99 \times 267,01 \times (0,27 \times 2,86 \times 0,45) / 59,99) = 6,07 - 7,71 = -1,64$$

The above model allows to explore the influence of the indicators describing: the economic potential of the company (average balances of current assets), efficient use of resources (capital productivity and labour productivity), business activity (reversibility current assets), return on financial and economic activities (net return), qualitative state of assets (fund providing) on the enterprise's net profit. Thus, the most significant positive factor of this model is pure profitability (the ratio of income to net income); the negative factors are: changes in such parameters as fund providing (the ratio of fixed assets to the average number of employees) and labor productivity (the ratio of output to the average number of employees). These negative factors are the sources for the net income increase in the future.

**Conclusions and suggestions.** Any enterprise is a complex system with a "cost – income – income." chain. The analysis of such a chain is impossible without a systematic approach using the factor analysis, which further helps the company to improve its financial position and foothold on the market.

Almost all the indicators of the financial condition of the company (profitability of its operations, efficiency) were examined that made possible to quantify qualitative assessment of the relationship between them as elements of a system. This model can be considered adaptive to the current requirements of the strategic analysis of the company, the main principles of which are systemic and integrated approach.

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## **СИСТЕМНИЙ ПІДХІД В СТРАТЕГІЧНОМУ АНАЛІЗІ ВИТРАТ, ДОХОДІВ ТА ФІНАНСОВИХ РЕЗУЛЬТАТІВ ДІЯЛЬНОСТІ ПІДПРИЄМСТВА**

### **Анотація**

У статті обґрунтовано необхідність використання системного підходу щодо проведення стратегічного аналізу витрат, доходів та фінансових результатів діяльності підприємства. Проаналізовано фінансовий ланцюжок «витрати – доходи – фінансові результати». Використано методику факторного аналізу прибутку. Визначено роль стратегічного аналізу витрат, доходів, фінансових результатів в системі оцінок діяльності підприємства. Виявлено основні негативні зміни в діяльності підприємства за певний період.

**Ключові слова:** стратегічний аналіз, системний підхід, динаміка змін, доходи, витрати, фінансові результати, факторна модель.

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## **СИСТЕМНЫЙ ПОДХОД В СТРАТЕГИЧЕСКОМ АНАЛИЗЕ РАСХОДОВ, ДОХОДОВ И ФИНАНСОВИХ РЕЗУЛЬТАТОВ ДЕЯТЕЛЬНОСТИ ПРЕДПРИЯТИЯ**

### **Аннотация**

В статье обоснована необходимость использования системного подхода к проведению стратегического анализа затрат, доходов и финансовых результатов деятельности предприятия. Проанализировано финансовую цепочку «расходы – доходы – финансовые результаты». Использована методика факторного анализа прибыли. Определена роль стратегического анализа затрат, доходов, финансовых результатов в системе оценок деятельности предприятия. Выявлены основные негативные изменения в деятельности предприятия за определенный период.

**Ключевые слова:** стратегический анализ, системный подход, динамика изменений, доходы, расходы, финансовые результаты, факторная модель.