Evaluating of Effectiveness of Financial and Economic Activity of The Integrated Structures

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Abstract—**The article presents a new form of management of trade organizations in the form of a group of interrelated trading companies (Group of companies). The evaluation of the efficiency of the financial and economic activities of the Group of companies at each level of its organizational structure is given, which shows that there is no methodological tool for assessing the effective-ness of financial and economic activities of the Group of companies, which does not allow objec-tively reliably assess the effectiveness of each level of the organizational structure, does not fully reflect interests of beneficial owners, in order to enhance their management decisions, including rational distribution of money-capital, which is expected the greatest return on investment. The methodical approach providing an estimation of efficiency of financial and economic activity of the Group of companies, taking into account features of each its level of management is offered. A hierarchical scheme is recommended, which can be implemented using group accounting of arguments.**

Keywords— Effectiveness, Group of companies, Beneficial owner, Management Company, Rating assessment, Integrated structure, Conceptual scheme.

I. INTRODUCTION

Terms of uncertainty and intense competition in the Russian and international markets, with currently significantly complicate the operational management of trade organizations and requires a modern approach to evaluating the effectiveness of their financial and economic activity and development on the basis of its quality management decisions in the aspect of economic globalization challenges [1]. Several recent studies [2, 3] have suggested that trade organizations prefer to form a Groups of related trading companies (hereinafter – Group of companies) are engaged not only in various activities (such as wholesale and retail trade), but can also be tailored to various forms of foreign economic activities (export, import), external or internal market for minimize the risks of activity.

According to some authors [4, 5], integrated management organization structure of the Group of companies usually built as follows (see Fig. 1).
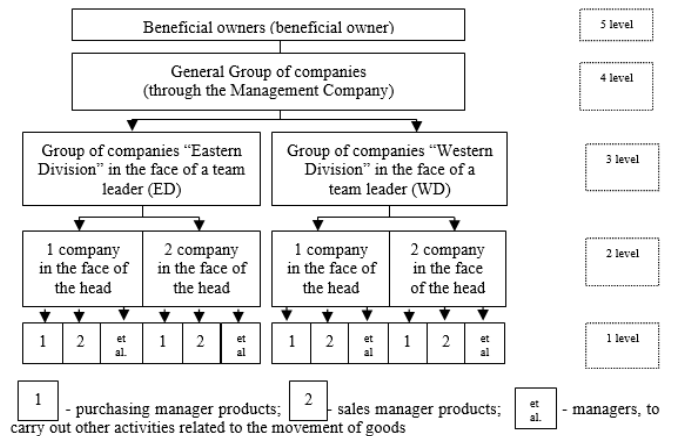

Fig.1. Integrated management structure of the Group of companies

Several recent studies [6, 7, 8, 9] have suggested that methodological tools for evaluating their financial activities not objectively and reliably evaluate the effectiveness of each level of the organizational structure does not reflect, the full extent of the beneficial owners of interests [10, 11, 12, 13], that ultimately affects the decrease of the adequacy of administrative decisions taken including, and rational distribution of financial capital, which is expected from the greatest return on investment [14, 15, 16, 17]. Thus, the development of modern methodical approach to evaluating the effectiveness of financial and economic activity of the integrated structures in the form of a Group of companies in the aspect of economic globalization challenges at different

levels of their organizational structure management is an urgent task.

II. THE MAIN PART OF THE ARTICLE

In assessing the effectiveness of financial and economic activities of trade organiza-tions in the form of a Group of companies in the aspect of economic globalization challenges, in our opinion, it is important to determine their effectiveness at each level of integrated management subsystem. In this case, the efficiency of financial and economic activities at each level of management, in our opinion, has its own charac-teristics.

The first and second levels of the system, it is appropriate to assess the effectiveness of financial and economic activities of companies, depending on their type of activ-ity, apart from the traditional coefficient method, have suggested [18, 19]. This is due to the fact that the efficiency of financial and economic activity of the companies affected by various internal and external factors, depending on the type of economic activity. Thus, under the assessment of efficiency of financial and economic activity, according to some economists [20, 21, 22], understand how evaluation of economic activities at each level of the integrated system, and analysis of financial condition at certain levels of the system.

At the first level of integrated management structure of the company should evaluate the work of managers, the functional which is associated with the movement of goods each trade organization of Groups (on purchasing manager, sales manager, and others). In our opinion, the evaluation of their performance is sufficient to de-termine the indicators of economic efficiency through applying the widely used ap-proach is the cost approach and net profitability. Thus, to assess the effectiveness of the manager on purchasing enough, in our view, to expect such factors as: the coeffi-cient buying capacity (or purchase capacity), defined as the ratio of cost of sales to sales revenue and profitability procurement, estimated ratio of gross income to cost of sales; to assess the economic efficiency of the sales manager – indicators of mar-ginal profitability equal to the ratio of gross income to sales revenue and working capital turnover ratio, which is calculated as a ratio of sales revenue to the average working capital. The information base for the calculation of the above parameters on the level of management must be a management reporting.

The second level management structure of the Group of companies made evaluation of the efficiency of financial and economic activity of each trading company, which is part of the Group to manage its operational head of the organization, through eco-nomic and financial indicators. Evaluation of the effectiveness of a trading company performed using indicators of the cost approach (performance capacity) approach on net return (profitability) and financial (capital) approach (financial performance) based on financial (accounting) and management reporting organization. Traditional methods involve the calculations of profitability of assets, profitability of current assets, profitability of return on equity to use as a dividend to net income, income before tax. In our view, for the calculation of return on assets and capital elements must be used in the numerator of retained earnings as net profit and

profit before tax characterize the activity of the current period, and retained earnings includes profit for the whole period of activity of the company. In addition, the use of net income does not allow take into account the relationship between indicators of economic efficiency of the company's activity and performance indicators of capital alloca-tion. In our opinion, such a relationship can be traced in the event that we take when calculating the profitability retained (reinvested) profit organization is recognized in the balance sheet.

Effectiveness of the Group's third-level control of the integrated system, which in-cludes a Group of companies, or so-called divisions (see Fig. 1), in our opinion, should be assessed using an aggregated approach, the essence of which consists in the appli-cation of the rating parameters of trading companies at the level of each division. In practice, there are different methods of rating the financial and economic activities of the companies. The most common is the comparison with the reference organiza-tion in the best value for all parameters that is the standard comparisons are not sub-jective assumptions of experts in the form of rules, criteria, and exiting in a real mar-ket economy, the highest results. We use the methodology proposed by A.D. Shere-met [23], where comparative ranking score may be represented as the following operations:

1. Baseline data are presented in the form of a matrix (a_{ij}), that is, the table where the rows are recorded number of indicators $(i = 1,2,3,...n)$, and on the posts – number of organizations $(j = 1,2,3...m)$.

2. For each indicator, there is a maximum value, and is entered in the column of the conditional standard organization $(m+1)$.

3. Baseline values of the matrix are standardized with respect to the corresponding indicator of the standard organization by the formula:

$$x_{ij} = \left(a_{ij} / \left(\max a_{ij}\right)\right), \qquad (1)$$

where x_{ij} – standardized indicators j organization.

4. For each organization, its rated value determined by the formula:

$$R_j = \sqrt{\left(1 - x_{1j}\right)^2 + \left(1 - x_{2j}\right)^2 + ... + \left(1 - x_{nj}\right)^2} \qquad (2)$$

where R_j – rating assessment for j organization; $x_{1j}, x_{2j,...} x_{nj}$ – standardized indicators j organization.

5. Organizations are ordered (ranked) in descending order of rating. The highest rating is the organization with the minimum value R. For the application of this algorithm in practice, no quantity limitations compared indicators and organizations not provided.

By this method we are ranked trade organizations, united in a Group of companies involved in wholesale trade "NS" (hereinafter referred to "NS") of the Eastern (ED) and Western (WD) divisions (geographically separated). Results of rating the effectiveness of the financial and economic activities of the organizations of the Group "NS" in the context of the Eastern and Western divisions for 2014-2017 are presented in the table 1.

TABLE I. RESULTS OF RATING THE EFFECTIVENESS OF THE FINANCIAL AND ECONOMIC ACTIVITIES OF THE ORGANIZATIONS OF THE GROUP "NS" IN THE CONTEXT OF THE EASTERN AND WESTERN DIVISIONS (FOR 2014-2017)

Indicators	Investigated trading companies						Standard value
	1_ED	2_ED	3_ED	1_WD	2_WD	3_WD	
Salary capacity	0,013	0,010	0,026	0,015	0,014	0,021	0,010
Amortization capacity	0,006	0,005	0,018	0,007	0,021	0,008	0,005
Capacity of other expenses	0,078	0,067	0,088	0,221	0,075	0,233	0,067
Profitability of assets	0,009	0,019	0,052	0,013	0,017	0,038	0,052
Profitability of current assets	0,010	0,019	0,058	0,013	0,017	0,039	0,058
Profitability of return on equity	0,822	0,646	0,954	0,994	0,968	0,994	0,994
Profitability of sales	0,040	0,013	0,042	0,026	0,038	0,025	0,042
Factor of financial stability	0,004	0,030	0,081	0,012	0,014	0,030	0,081
Current ratio	1,818	1,031	1,282	1,280	1,014	0,856	1,818
Rating	1,569	1,428	3,083	2,619	3,372	2,809	

According to table 1, it can be concluded that now the priority of the three included in this Group is a Company # 2 ED (the rating 1,428), further Company # 1 ED (the rating 1,569) and Company # 3 ED (the rating 3,083); the Western division, the priori-ty is a Company # 1 WD (the rating 2,619), further Company # 3 WD (the rating 2,809) and Company # 2 WD (the rating 3,372) (table 2).

TABLE II. RATING OF GROUP OF COMPANIES "NS" ON FINANCIAL AND ECONOMIC ACTIVITY IN THE CONTEXT EASTERN AND WESTERN DIVISIONS FOR 2014-2017

Rating		Company
Location	Points	
Eastern division		
1	1,428	# 2
2	1,569	# 1
3	3,083	# 3
Western division		
1	2,619	# 1
2	2,809	# 3
3	3,372	# 2

Thus, from the head of the Eastern division, when deciding on the distribution of current assets (cash) between Group companies, in order to improve the efficiency of financial and economic activity of each trading company in the Group, should note that in the first place, you need to send money funds for the Company # 2 ED, in the second place – for the development of the Company # 1 ED and in the last instance – for the development of the Company # 3 ED. From the head of the Western divi-sion, respectively, the Company initially # 1 WD, in the second place – for the devel-opment of the Company # 3 WD and in the last instance – for the development of the Company # 2 WD.

The fourth level of the integrated structure represented by the Management Compa-ny, which produces a limited management Groups of companies, including imple-menting a rational distribution of current assets in the context of divisions and capital gains at the expense of profits for the achievement of beneficial owners (beneficial owner). Based on the results obtained in the rating the effectiveness of the financial and economic activities of the two divisions (table 2), to make decision on the alloca-tion of working capital Management Company between divisions, it follows that, in the first place, it is necessary to send the funds for the development of Eastern divi-sion, and then to the development of the Western division.

The fifth level of the integrated structure of the Group of companies is presented in the form of beneficial owners (beneficial owner). To achieve these goals the benefi-cial owners, their implementation of strategic management, we recommended that a comprehensive evaluation of the overall effectiveness of financial and economic activity created by them in the form of the integrated structure of the Group of com-panies [24, 25, 26, 27].

Evaluation is made by means of the concept presented below with a conceptual framework implementing the five-level hierarchical scheme, developed by us based on the study of economic sources [28, 29, 30, 31]. Taking symbols for the following levels: 5 level - (manager), 4 level - (company), 3 level - (group of com-panies), 2 level - (general group), 1 level - (owners, beneficiaries); , where 1,2 – Eastern division and Western division, obtain the following system of interrelat-ed functions, where the levels and their relationship with the parameters will be repre-sented as follows

5 level: connection fifth level with parameters

$$M_j^{1,2} = f(x_{ij}),$$

(3)

where $f(x_{ij})$ - function determining the effectiveness of manager's job;

j - number of manager;

i - number of the parameter.

If $x_{ij} \leq \alpha$, it $M_j = 0$ (indicator of fifth level eliminated from consideration).

4 level: connection fourth level with the fifth level

$$C_j^{1,2} = \varphi(M_{ij}, Y_{ij}) \tag{4}$$

where $\varphi(M_{ij}, Y_{ij})$ - function, determining the effectiveness of work company;

j - number of company;

i - number of the parameter, determining $\rightarrow C$.

Connection fourth level with the parameters $\varphi(f(X_{ij}, Y_{ij})$

$$\begin{cases} M_{\varphi j} \leq C_{cr} \\ Y \leq Y_{cr} \end{cases}$$

at , it $Y_{cr} -$ eliminated from consideration.

3 level: connection third level with the fourth level

$$G_{ij}^{1,2} = \gamma(C_{ij}, Z_{ij}) \tag{5}$$

where $\gamma(C_{ij}, Z_{ij})$ - function, determines the efficiency of the Group of companies;

connection third level with the fifth level $\gamma(\varphi(M_{ij}, Y_{ij}), Z_{ij})$

Connection third level with original parameters

$$\rightarrow \gamma\{\varphi[f(x_{ij}), Y_{ij}], Z_{ij}\},$$

where $\varphi - 1,2$ Eastern and Western division

$\downarrow$

plus the corresponding limited conditions

$$G \leq G_{cr}$$

2 level: connection second level with the third level

$$O_j = \mu(G_{ij}^{1,2}, \rho_{ij}), \tag{6}$$

where $\mu(G_{ij}^{1,2}, \rho_{ij})$ - function, determines the efficiency of general group work

ρ_i - additional factors affecting O_i

connection second level with the fourth level $O_j = \mu_i\{\gamma_{ij}^{1,2}(C_{ij}^{1,2}, Z_{ij})\} \rightarrow$

connection second level with the fifth level $Q_j \rightarrow \mu_i\{\gamma_{iji}^{1,2}[\varphi^{1,2}(M_{ij}, Y_{il}), Z_{ij}]\} \rightarrow$

connection second level with the original parameters

$$\rightarrow \mu_i\{\gamma_{iji}^{1,2}[\varphi_{ij}^{1,2}(f_{ij}^{1,2}(X_{ij}), Y_{ij}], Z_{ij}\} \rightarrow$$

1 level: $$B_j = F_j(\mu_j) + \varepsilon_j \tag{7}$$

III. CONCLUSION

Proposed a hierarchical scheme can be implemented using as suggested by some economists, as the method of group registration arguments.

Thus, the proposed methodological approach to assessing the effectiveness of the financial and economic activities of organizations integrated structures in the form of a Group of interconnected companies will at every level of the organizational structure to take the necessary and reasonable management decisions, namely:

- at the first level – asses the individual contribution of each manager, so-called corporate significance;

- at the second level – make operational management decisions related to the current activities of the company;

- at the third level – reallocate resources if necessary, among the companies within the group;

- at the fourth level – make strategic decisions about the allocation of cross-flow capital;

- at the fifth level – assess the effectiveness of the financial and economic activities of the Group companies in the dynamic, identify trends and modeling prospects.

This methodical approach to evaluating the effectiveness of financial and economic activities of organizations in the form of a Group of companies in the aspect of economic globalization challenges, in our opinion, will provide objective and timely information about the need to redistribution of resources between different areas of their activities..

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