# Diagnostics of Effective Risk Management Strategies on the Basis of Synergetic Effect Evaluation

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# Abstract

In this article we develop a hypothesis that there are risk management strategies, which yield to monitoring on the basis of synergetic effect evaluation. The technique of synergic effect evaluation suggested by authors is described. On the basis of financial accounting of JSOC "Bashneft" and JSC "Sberbank Rossii" the consistency of hypothesis of synergetic effect indicator applying for monitoring of such risk management strategies as M&A deals and economic activities spheres clustering is confirmed.

Keywords: cluster, risk management, synergetic effect evaluation, cost-effectiveness, net profit, Russia

# 1. Introduction

The process of national markets, technologies and corporate formations integration providing an opportunity for managers, workers and corporations to act in more effective, faster and cheaper way is being one of the main trends in the world economy. These integration processes are characterized with origin of both—positive and negative synergetic effects. Due to this reason it is very important to understand the nature of these effects (Haken, 1985; Matthews, 2000).

Today corporate structures (commercial and other ones) have a trend of functioning upon the conditions of hardening of external and internal order uncertainty. Making decisions by companies in uncertain environment (external and internal) leads to the occurrence of various external and internal risks in their activities, while the hardening of this environment's uncertainty leads to consistent hardening of overall risk within their activities.

The development of a company is performed through the risk management in its activities - thus, at the heart of some company development there is a specific set of risk management strategies.

To diminish the problem of uncertainty (of changes' hardening and complication) in the activities of a company one should develop various risk management strategies and perform mergers and acquisitions (M&A) deals (Rid & Lageau, 2004). The understanding of importance of the fact that the target company delivers its risks linked with serious changes in external environment, and the acquiring company obtains additional opportunities in changing external environment, gives us an opportunity of proper recognizing the resulting additional risks in the activities of both these companies. We should either take into account that during the performance of merging and acquisition procedures the internal environments of target and acquiring companies are also transformed.

As the biggest deals on merging and acquisition aimed at reduction of risks in companies' activities we should set such deals, as presented in electronic resource. Thus, in 2009 Pfizer purchased Wyeth for 64.5 bln. \$, Merck purchased Schering-Plough for 46 bln. \$, MTN purchased Bharti for 23 bln. \$. That year was characterized with serious changes in external environment caused by global financial crisis of 2008. The biggest deal of that period, in which Russian companies had participated, was the merging of Vimpelcom and Kievstar (the cost of the second one is valued at about 6 bln. \$). Other big deals of that year include such examples as deal closing on getting control in "Russneft" (valued at 3.1 bln. \$) and purchase of minority fraction in "NOVATEK" (valued at 2 bln. \$). We should also note the deals of Pfizer and Merck, the sum of which exceeded 100 bln. \$, as the market of medicine was subjected to changes to a lesser degree and, subsequently, pharmaceutical companies were subjected to lower risks. Another one big deal was made in 2013—when Microsoft purchased the mobile division of Nokia (Devices and Services) for 7.17 bln. \$ (5.44 bln. Euro-3.79 bln. for the company itself and 1.65

bln. for patent portfolio). Microsoft paid for Nokia and all its patents less than for Skype in 2011 (8.5 bln. \$), what was also the result of risk level decrease in activities of Nokia.

The task of improvement of quantitative evaluation methods for economic efficiency of risk management in companies' activities, stated in Tsakaev, 2011, preserves its actuality either in regard of using of synergetic effect indicator as risk management indicator at applying the strategy based on M&A deals.

We offer to use the synergetic effect indicator as risk management indicator of acquiring company in case of M&A deal performance. Evaluation of such indicator gives us opportunity of following the efficiency level of risk management in company's activities regarding the strategy of performing M&A deal. The selection of synergetic effect indicators as risk management indicators will allow proper evaluating, rejecting and controlling M&A deals admissible for a company.

The effective functioning of a company depends on the quality of corporate management (that provides protection of interests of stakeholders) and the quality of business processes management (providing accumulation of investments and increase of cost (value) of a company).

As the alternative to M&A at providing companies integration the world and domestic experience offers clustering that gives opportunities of fair competition development and getting additional effects in the form of synergy, putting the lagging ones to the level of leading ones, and also providing solution of problems on improving conditions of region's population life activities and more effective activity of each cluster subject. However, all of these are the economic entity's risk management tools of higher order presented by legal public formations (municipal entity, RF subdivision and the Russian Federation). Surely, the clustering of economy of municipal entity, region and country as a whole is being quite effective risk management strategy in activities of legal public formations.

However, at territorial clusters formation in regions of Russia we should also consider the synergetic effect of the company that forms that cluster. In such a case the formation of such territorial cluster can be performed on the basis of M&A transactions. The problems of cluster-based policy in Russia are described to quite a full extent, particularly in Markov, 2007.

#### 2. Materials and Methods

The aim of forming and functioning of territorial cluster of a region as one of the forms of corporate structure is organizing of interface management process (by business units being its part) providing maximization of positive synergetic effect of all its units interactions.

To evaluate the synergetic effect of territorial cluster forming and functioning on the basis of M&A deals we will examine two approaches: cost and informational ones.

#### 2.1 Cost Approach

Cost approach implies using of all the three basic methods of company value calculation. Let's review each of them separately.

a) profitable method is based on getting synergetic effect linked with exceeding cost of territorial cluster over total cost of all the business units being its part (as if they function independently). As the instrument of evaluation we can use such an indicator as net present value;

We offer the following technique of cluster synergetic effect financial estimate evaluation (Rober & Rodriges, 2001):

$$NPV_{CL} = \sum_{i=1}^{N} NPV_i + O_{SE} \quad (1)$$

where NPV<sub>CL</sub>—net present value of cluster;

NPV<sub>i</sub>—net present value of the 1<sup>st</sup> business unit prior to integration;

O<sub>SE</sub>—estimation of cluster forming synergetic effect.

$$NPV_{CL} = -\mathcal{I}_{CL} + \sum_{t=1}^{T} \frac{C_{tCL}}{(1+r_{CL})^{t}}, \quad (2)$$

where  $\mathcal{I}_{CL}$ —market cost of the formed cluster;

Ct CL — money flow of the formed cluster at (t) period;

r<sub>CL</sub>—adequate discounting rate of cluster upon the project;

T—a forecast period, during the process of which gaining of the effect due to cluster formation is expected. For business units:

$$NPV_i = -\sum_{i=1}^{N} \mathcal{I}_i + \sum_{i=1}^{N} \sum_{t=1}^{T} \frac{C_{ti}}{(1+r_{ti})^t}, \qquad (3)$$

where  $\mathcal{I}_i$ —market cost of the 1<sup>st</sup> business unit prior to integration;

C<sub>ti</sub>—money flow of the 1<sup>st</sup> business unit prior to integration at (t) period;

rti-adequate discounting rate of business unit upon the project;

T—a forecast period, during the process of which gaining of the effect due to business unit pre-integration functioning is expected.

$$\mathcal{I}_{\rm CL} = \sum_{i=1}^{n} \mathcal{I}_i + p_r, \qquad (4)$$

where p<sub>r</sub>—premium, paid at acquiring by forming cluster company to owners of target company (as to business unit prior to integration.

As a result we get:

$$\begin{aligned} \Im_{\rm SE} &= -\Im_{\rm CL} + \sum_{t=1}^{T} \frac{\mathcal{C}_{t\rm CL}}{(1 + {\rm WACC_{\rm CL}})^t} + \sum_{i=1}^{N} \Im_i - \sum_{i=1}^{N} \sum_{t=1}^{T} \frac{\mathcal{C}_{ti}}{(1 + {\rm WACC}_i)^t} = \\ &= -(\sum_{i=1}^{n} \Im_i + p_r) + \sum_{i=1}^{n} \Im_i + \sum_{t=1}^{T} \frac{\mathcal{C}_{t\rm CL}(1 + {\rm WACC}_i)^t - \mathcal{C}_{ti}(1 + {\rm WACC}_{\rm CL})^t}{(1 + {\rm WACC}_{\rm CL})^t (1 + {\rm WACC}_i)^t} \\ &= -p_r + \sum_{t=1}^{T} \frac{\mathcal{C}_{t\rm CL}(1 + {\rm WACC}_i)^t - \mathcal{C}_{ti}(1 + {\rm WACC}_{\rm CL})^t}{(1 + {\rm WACC}_{\rm CL})^t (1 + {\rm WACC}_i)^t} \end{aligned}$$
(5)

where  $WACC_{CL}$ ,  $WACC_i$  – average weighted cost of capital cluster and first business unit prior to integration correspondingly.

δ) due to expenses-based method one can consider the impact of production and administrative factors on assets' cost change, estimate the level of technologies development taking into account the degree of assets' depreciation; get sound results, as the basic data for report is presented with financial and accounting documents.

In case of performing this method we suggest using of calculation formula for operational profit gained prior to taxation and payment of interest on loaned means (EBIT – Earnings Before Interest and Taxes) (Teplova, 2000):

$$EBIT = QP - Qv - F, \qquad (6)$$

where Q – quantity of production sold for a year (in pieces);

P-cost of production unit;

v-variable expenses per production unit;

F-constant expenses for a year.

For cluster:

 $EBIT_{CL} = Q_{CL} P_i - Q_i v_i - F_{CL}; \qquad (7)$ 

where Q<sub>CL</sub>—quantity of production sold for a year of cluster production;

P<sub>i</sub>—cost of production unit of the 1<sup>st</sup> business unit;

V<sub>i</sub>-variable expenses per production unit of the 1<sup>st</sup> business unit;

F<sub>CL</sub>—variable expenses of cluster, for a year.

For pre-integration business unit:

 $\Sigma EBIT_{i} = \Sigma Q_{i} P_{i} - \Sigma Q_{i} v_{i} - \Sigma F_{i}, \qquad (8)$ 

where  $\Sigma F_i$ —constant expenses of the 1<sup>st</sup> business unit a year prior to integration.

Render it:

 $Q_{CL} = \Sigma Q_i + \Delta Q, \qquad (9)$ 

where  $\Sigma Q_i$  – quantity of production sold for a year of production of the 1<sup>st</sup> business unit prior to its entrance into cluster;

 $\Delta Q$ —increase of produced and sold output by the means of additional loading for facilities, which in the period prior to integration of the 1<sup>st</sup> business unit were idle and used not to the full extent of their power

$$F_{\rm CL} = \Sigma F_{\rm I} - \Delta F, \qquad (10)$$

where  $\Delta F$ —change (lowering) of constant expenses as a result of administrative and technical measures.

The value of synergetic effect can be estimated with the following formula:

 $O_{SE} = EBIT_{CL} - \Sigma EBIT_{i}.$  (11)

Having added the assessment of operational profit, we will get:

 $O_{SE} = [(\Sigma Q_i + \Delta Q) P_i - (\Sigma Q_i + \Delta Q) v_i - (\Sigma F_i - \Delta F)] - (\Sigma Q_i P_i - \Sigma Q_i v_i - \Sigma F_i) = P_i \Delta Q - v_i \Delta Q + \Delta F = (P_i - v_i) \Delta Q + \Delta F.$ (12)

b) the comparative (market) method provides forecasting increase for integration companies' market cost of shares, allows evaluating synergetic effect due to the merging of companies as intangible benefit: by changing profit for a stock as for the owners of acquiring and target companies, changing P/E indicator (price/earnings per stock); and also evaluating difference in returns of integrated companies as well as cluster's market return.

#### 2.2 Informational Approach

Informational approach constitutes in representing work groups of territorial production complex as corporate structures in the form of discrete model, informational estimation of definite factors being basic components of synergetic effect. Using this method we can estimate the negentropy of refraction as the measure of informational interrelation within the complexity of these two factors, by means of which we calculate synergetic effect of work groups (Musaev, 2013).

The use of value and information approaches to assess the synergistic effect of formation and functioning of the territorial cluster-based mergers and acquisitions shows that there are two approaches in the evaluation methodology of synergies and it is the theoretical basis for our further empirical researches.

The subject of our research will be presented with JSOC "Bashneft" and JSC "Sberbank Rossii", through the comparison of which we will be able to evaluate the efficiency of M&A management decisions made by top-managers.

JSOC "Bashneft" is being a vertically-integrated oil company formed on the basis of the biggest enterprises of fuel and energy complex of the Republic of Bashkortostan. Present business society enters top 10 of Russian enterprises on oil production volume, and top 5 - on oil processing. The production of JSCO "Bashneft" is being sold within the internal market of Russia, and exported to the states of Eastern and Western Europe and Central Asia. The main types of activity are presented with three basic blocks: extraction of raw materials, processing and sale oil products sale.

In 2009 JSOC "Bashneft" purchased control packets of shares of the following enterprises: JSC "Ufimsky oil refinery plant", JSC (Novo-Ufimsky oil refinery plant" ("Novoil"), JSC "Ufaneftekhim", JSC "Ufaorgsitez" and JSC "Bashkirnefteproduct"; and had become the management company of new oil holding. The close collaboration in all the fields of work will provide flexibility of applying technological process and achieving synergetic effect.

The main type of "Ufaneftekhim", "Ufaorgsitez", "Ufimsky oil refinery plant" and "Novoil" production is presented with rendering services on oil processing.

The main administrative activity of JSC "Bashkirnefteproduct" is presented with wholesale and retail oil products trade.

The main type of LLC "Geoneft" activity is being extraction of raw oil and associated gas.

Let's estimate the financial value of synergetic effect from acquiring LLC "Geoneft" by parent company JSOC "Bashneft".

In 2011 the production activity of LLC "Geoneft" was performed with attraction of staff and assets of LLC "Bashneft-Extraction" in the framework of operational contract.

In 2012 the procedure of reorganization in the form of connection of LLC "Geoneft" to LLC "Bashneft-Extraction", being a subsidiary undertaking of JSOC "Bashneft", was set in motion.

Main financial indicators of JSOC "Bashneft" and incoming companies in 2009-2012 are presented in table 1.

Parametres	JSOC "Bashneft			JSC "Ufaneftekhim"		JSC "Ufaorgsitez "		JSC "Ufimsky oil refinery plant"		JSC "Novoil"		JSC "Bashkirnefteproduct"		LLC "Geoneft"		
Years																
	2009	2010	2011	2012	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010	2011	2012
$\sum A$ , thous. rbs.																
	93 865 865	169 547 393	272 648 544	339 572 310	30 238 200	28 649 634	6381136	7400384	20 381 165	19 926 896	17 558 815	15 982 884	7 655 411	9 217 165	1471 005	1488 330
Π <sub>operationa</sub> , thous. rbs.	20 333 628	52 513 680	44 686 082	57 242 729	3 477 341	7 116 234	907 880	1 183 553	2 573 574	3 674 072	1 529 257	4 027 775	1 665 011	1 693 623	379 475	324 579
$\Pi_{\rm net},$ thous. rbs.	16 199 718	44 019 553	34 468 802	46 509 871	2 593 777	5 419 514	680 948	902 337	1 934 058	2 438 760	915 376	2 590 237	1 267 971	1 299 503	302 011	254 081
E, thous. rbs.	80 203 892	93 401 859	101 038 319	155 484 032	21 403 219	23 996 996	5530375	6367029	15 061 255	17 024 604	12 544 297	13 459 673	5 403 574	6 670 098	1 312 886	1 321 978

Table 1. Main financial indicators of JSOC "Bashneft" and incoming companies during 2009-2012

JSC "Sberbank Rossii" is one of the biggest commercial banks of Russia that provides wide range of banking services.

Main financial indicators of JSC "Sberbank Rossii" and incoming companies in 2011-2012 are presented in table 2.

Parametres	JSC "Sbert	oank Rossii	CJSC "Bank Dialog"	k Troyka	CJSC "Den Moskva"	izbank	LLP PS "Yandex.Money"	
Years	2011	2012	2011	2012	2011	2012	2012	
$\sum A$ , thous. rbs.	10 835,1	15 097,4	8594976	5714469	9271,987	11987,915	1 139 895	
Π <sub>operationa</sub> , thous. rbs.	395,7	447,9	110239	684857	303,137	389,808	27 670	
Π <sub>net</sub> , thous. rbs.	315,9	347,9	-4553	547450	222,065	311,275	21 663	
E, thous. rbs.	1 267,971	1 623,8	5067635	5615085	1649,764	1971,280	39 663	

Table 2. Main financial indicators of JSC "Sberbank Ro	sii" and incoming c	ompanies during 2011-2012

In December 2011, in accordance with obligatory documentation signed in May 2011, JSC "Sberbank Rossii" attained control over operational and financial policy of "Troika Dialog" group of companies. As of 31.12.2011 the Company was completely consolidated as 100% subsidiary undertaking of JSC "Sberbank Rossii".

Due to the agreement of sale and purchase signed in June 2012 between JSC "Sberbank Rossii" and stockholders of "Deniz Bank" AS, Dexia NV/SA and Dexia Participation Belgique companies (all together—"Dexia"), in September 2012 the Bank had closed the deal on purchasing 99,85% of "DenizBank" shares. "DenizBank" takes the 6<sup>th</sup> position among banks of Turkey and the 9<sup>th</sup> position among banks of the country on the volume of total consolidated assets. The deal is being an important step in JSC "Sberbank Rossii" strategy underway and results in entrance to the fast-growing banking market of Turkey.

In July 2013 JSC "Sberbank Rossii" and Russian internet-company "Yandex" had closed the deal on purchasing by JSC "Sberbank Rossii" of fraction of 75,0% minus one ruble in capital stock of LLC "PS Yandex-Money".

LLC non-bank credit organization "Yandex Money" was established in 2012 for the purpose of activities on electronic funds transfer meet the Law 161-F3.

There are several main electronic funds operators in Russia: "Yandex Money", "Visa QIWI Wallet", "Web Money". Their total income in 2012 according to J'son & Partners Consulting made up 281 bln. rbs. Such a high profit is linked with relatively low competition on the Russian market of electronic funds.

Following the approach chosen due to analysis of the activity of oil companies, we discussed various activities in credit institutions too. It has an impact on the choice of different strategies: product diversification, geographic diversification and innovation (operations with electronic money).

The acquisition of "Troika Dialog" allowed JSC "Sberbank of Russia" to pursue a strategy of product diversification for corporate business, small businesses and retail customers. Being one of the leading investment companies that operate in the CIS, "Troika Dialog" is engaged in trading operations with securities, investment banking, asset management and private equity, retail operations and alternative investments.

The acquisition of CJSC "Denizbank Moscow" allowed JSC "Sberbank of Russia" to enter the fast-growing banking market in Turkey (the strategy of geographic diversification).

Acquisition LLC "PS Yandex-Money" allowed JSC "Sberbank of Russia" to start activities on electronic funds transfer, which was definite innovation for the Russian credit institutions (innovation strategy).

Due to the fact that in case of "Bashneft" in mergers and acquisitions for each segment: production, processing and marketing a number of companies took part, we had to carry out calculations in each direction. In credit institutions, i.e. in OJSC "Sberbank of Russia" in mergers and acquisitions only one company took part in each direction. In this connection we made calculations for each of the target company. These calculations gave us the opportunity to assess the state of three studied segments or three strategies.

As a basic indicator, by which we will judge the synergetic effect, we'll take

a) basic earning power (BEP) that is being resumptive indicator of economical effect; allows evaluating profitability of investments from the perspective of all the interested parties, characterized with an ability to generate incomes from assets and shows how many rubles of operational profit are for each ruble invested into the assets of present company (Tikhomirov, 2009).

BEP is being a modification of resource productivity indicator, calculated not through the volume of sales, but by the means of operational profit. It will allow us to estimate corporate economical efficiency of using cumulative resources of commercial organization with help of the indicator of profit prior to interest and taxes deduction, and can be calculated with the formula,

$$BEP = \frac{\Pi_{\text{operational}}}{\sum A} \qquad (13)$$

where  $\Pi_{\text{operational}}$ —operational profit (with no interest and taxes deduction);

 $\sum A$ —cost estimate of total assets (the result of netto-balance per asset) of the company.

 $\delta$ ) the profit ratio of overall capital or the return on assets (ROA) that from the perspective of investors characterizes the level of return on assets, into which the overall capital had been invested. The ratio allows matching the value of net profit with the value of assets, and can be calculated with formula:

$$ROA = \frac{\Pi_{\text{net}}}{\sum A},$$
 (14)

Where  $\Pi_{net}$ —the value of company's net profit.

b) the profit ratio of equity capital or return on equity (ROE) that allows evaluating profitability from the perspective of shareholder - the owners of enterprise. Can be calculated with formula:

$$ROE = \frac{\Pi_{\text{net}}}{E}$$
(15)

where E—owner's equity (the result of "Capital and reserves" section).

To our mind, the risk management efficiency level indicator being used in regard of M&A transaction strategy (in the form of financial estimate of synergetic effect,  $O_{SE}$ ) can be presented as difference of BEP, ROA and ROE profit ratios between acquiring and target companies:

$$O_{SE} = BEP_{acq} - \sum BEP_{TC}$$
(16)  

$$O_{SE} = ROA_{acq} - \sum ROA_{TC}$$
(17)  

$$O_{SE} = ROE_{acq} - \sum ROE_{TC}$$
(18)

where BEP acq M BEP<sub>TC</sub>—basic earning power for the acquiring company and the target company respectively;

 $ROA_{acq} \mu ROA_{TC}$ —the profit ratio of overall capital or the return on assets for the acquiring company and the target company respectively;

 $ROE_{acq} \ \mu \ ROE_{TC}$ —the profit ratio of equity capital or return on equity for the acquiring company and the target company respectively.

The application of  $O_{SE}$  on BEP, ROA and ROE indicators depends on the state in which the companies are in each specific situation.

If the companies are in financially stable state, then it is necessary to apply the  $O_{SE}$  on ROA and ROE indicators.

When companies are in financially unstable state the O<sub>SE</sub> on BEP indicator is applied.

Each of the expressions of  $O_{SE}$  on BEP, ROA and ROE in the oil company we used for each segment: production, processing and marketing. For the acquirer, i.e. for "ANK" Bashneft ", the results were as follows: all three expressions were positive.

When using these expressions for credit institutions the results of using BEP, ROA and ROE for joining JSC "Denizbank Moscow" in 2011 are positive; in 2012: BEP and ROA are negative, and ROE is positive. By joining Ltd. PS "Yandex.Money": BEP and ROA are positive and ROE is negative, that suggests insufficient development of this company for integration.

Consequently, the expressions of evaluation of synergistic effect on BEP, ROA and ROE can be used for each segment of the absorbing company, and the obtained results depend on the financial condition of each situation.

Positive  $O_{SE}$  on BEP, ROA and ROE means minimizing risks for risk management of absorbing company, negative OSE on BEP, ROA and ROE mean high risks for risk management, zero value of the  $O_{SE}$  on BEP,

ROA and ROE means no risk. Possible combinations:  $O_{SE}$  on BEP and ROA are positive and  $O_{SE}$  on ROE is negative, it also indicates high risks for the acquirer.

## 3. Results

For each evaluation of  $O_{SE}$  on BEP, ROA and ROE we used the calculation of synergy effects before and after integration. The obtained results of evaluation of  $O_{SE}$  on BEP, ROA and ROE for JSC "ANK" Bashneft and "OJSC" Sberbank of Russia before and after the integration are presented in table 3.

Table 3. Estimates of synergistic effects on BEP, ROA and ROE for JSC "ANK" Bashneft and "OJSC" Sberbank of Russia before and after integration during 2009-2012

Parametres	JSOC "Bashneft" segment " Processing "		JSOC "Bashneft" segment " Sales "		JSOC "Bashneft" segment " Extraction "		JSC "Sberbank of Russia" (product diversification)		JSC "Sberbank of Russia" (geographical diversification)		JSC "Sberbank of Russia" (innovation strategy)	
Years	2009	2010	2009	2010	2011	2012	2011	2012	2011	2012	2012	
$O_{\text{SE}}$ по BEP	0,0989	0.0986	- 0,0009	0,1260	- 0,0941	- 0,0495	0,0237	- 0,0901	0,0038	- 0,0028	0,0057	
O <sub>SE</sub> по ROA	0,0878	0,1107	0,007	0,1186	- 0,0789	- 0,0338	0,0297	- 0,0728	0,0053	- 0,0029	0,004	
O <sub>SE</sub> по ROE	0,0906	0,2955	- 0,0327	0,2765	0,1111	10,69	0,2500	0,1165	0,1145	0,0561	- 0,332	

Subsequently, the BEP, ROA and ROE indicators in "processing" segment are positive in both—prior to integration and after-integration periods—with the with predominance concerning post-integration period. In "sale" segment the BEP, ROA and ROE indicators are generally negative prior to integration, and positive - after it.

As we can see, as a result of reorganization at attribution of enterprise to the "processing" and "sale" segment we get significant economical efficiency.

Subsequently, the BEP, ROA indicators in "extraction" segment are negative, while the ROE indicators are positive, what gives evidence of high cost of using assets on the Russian market.

## 4. Conclusions

Due to the fact that the cost of risk is the product of possible damage (losses) from the manifestation of risk in the organization's activities on the probability of the risk in the activities of such organization [Tsakaev, p. 25] and on the basis that:

1) in transactions of joining JSC "Ufa Oil Refinery", JSC "Novo-Ufa Oil Refinery", JSC "Ufaneftekhim", JSC "Ufaorgsintez" and JSC "Bashkirnefteproduct" to the "Bashneft" the  $O_{SE}$  evaluation results for BEP, ROA and ROE were positive, indicating the reduction of possible damage (losses) and, therefore, reducing the risks for joining company (ANK "Bashneft");

2) in acquisitions of such companies as: JSC "Bank Troika Dialog", JSC "Denizbank Moscow" and OOO PS "Yandex.Money" by JSC "Sberbank of Russia" the OSE on BEP, ROA and ROE were negative, indicating the increase of possible damage (losses) and, consequently, the high risks of risk management for the acquirer (OJSC "Sberbank of Russia"), we concluded that there is a relationship between the ratio of the synergetic effect and efficiency of risk management: positive values of synergetic characteristics correspond to low synergistic performance risks, whereas negative indicators of synergetic effect correspond to high risks for the acquired company.

It gives evidence of that fact that the M&A deals can't be applied as the risk management strategy of acquiring company, in this case—of JSC "Sberbank Rossii".

Subsequently, the synergetic effect indicator can be used in risk management in companies' activities as the indicator of M&A deal making: the positive values of synergetic effect show the deals will be made with minimal risk for acquiring company, while its negative values indicate the deals will have higher risk and due to this reason they should not be made at all.

The suggested technique of synergetic effect evaluation allows evaluating its practicability and increasing level of competitive ability of corporate formations based on M&A deals. We can also use this technique as the mechanism of methodical support for risk management at forming and development of territorial clusters.

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