ESTIMATION OF A COMPANY'S BUSINESS STANDING (GOODWILL) VIA SYNERGETIC MODEL

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It has been demonstrated that via synergetic model it is possible to estimate quantitatively not only the main technical and economic indices of the company, but also its business reputation, to forecast the goodwill value in the medium term, and consider parameter dependence of the company's technical and economic performance on its business reputation.

In the context of the market economy a company's value increase becomes one of the primary goals of a successfully developing company. It is especially topical for economic entities, wishing to enter the international financial markets or working in the sphere of trade or services. High value of a company is directly connected with its business standing - goodwill, which influences stability of market positions and quotations of securities, obtaining of long-term cheap loans, availability of the broad spectrum of reliable counterparts and regular customers[1].

Goodwill is a totality of intangible assets of a company, which stimulate its customers to use the goods and services of the given company.

These intangible assets can be nominally divided into three groups:

1. Intangible assets integral of the company: availability of the trained personnel; an effective company management system; availability of regular customers; steady market position; good reputation of the company's goods; the company's image firmly established on the basis of awareness of customers, suppliers, the public about reliability of the company, services quality, financial stability;

2. Intangible assets inseparable from a company's employees: professional merits and reputation of a company's owners, directors and personnel;

3. Intangible assets, which can be separated from a company: trade mark or brand; copyrights; licenses; patents; contracts; clients databases and other[2].

It's impossible to assign, sell or grant the first two groups of intangible assets of goodwill. They cannot be independent objects of transaction since they do not belong to a company on the basis of the proprietary rights. They are inherent in the whole company and inseparable from it. It is the main distinction of inseparable characteristics of goodwill from other intangible assets.

Formally, from the accounting point of view, goodwill can be shown up only at the moment of sale of business. Auditors calculate it as a difference between selling price and cost of net assets of the acquired company[3].

However, those companies, which have never been sold or purchased, have goodwill, too. For example, a real-estate agency with widely promoted brand can generate the far higher income than a similar but little-known one. On the other hand, the strong brand (in individual industries it is the basic component of goodwill) is a certain guarantee of the stable income in the future[1].

Now the role of intangible and tangible assets in the common framework of company's assets has essentially changed. If in the eighties of the last century the share of tangible assets accounted for about 60%, and intangible assets - 40%, then since the year of 2000 this ratio has already been approximately 15% and 85%, respectively[4].

Under the analysis of the financial statements and capitalization of the leading foreign companies, the following regularity is observed: excess of company's capitalization over cost of its net assets by 2-3 times. The share of goodwill in cost of business accounts for 50-67 %, and on case-by-case basis this parameter reaches 90%[5].

At that, it is necessary to pay attention to the fact of existence of negative goodwill, as

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well. It is often called as badwill - unprofitable purchase or destroyed image. Negative goodwill often appears in connection with depreciation of securities when market cost of an organization's shares becomes below their book value, or due to loss of company's reputation in the market.

The idea of goodwill for the Russian economic reality is new and under researched as yet. The estimation of goodwill consists in determination of totality of those business elements or personnel merits, which stimulate customers to address to the given enterprise (company), not to another one.

All the above confirms the importance and topicality of estimation of a company's business reputation in the current context.

The purpose of the given article is an application of synergetic model for estimation of the company's goodwill as one of possible variants.

Earlier in our works [6] we demonstrated that under making of medium-term forecasts of technical and economic performance of an enterprise (company) the basic control parameter was *integral index SA - the system activeness*. This aggregate index represents quantitative and qualitative characteristics of an enterprise's activities, has dimension of the cost of production, but can

rameters of the enterprise's activities for the period coming before the forecast.

From our point of view, the *integral index SA represents the sum of the cost price of production and business reputation of the company*. Therefore, having determined the quantitative value of SA via synergetic model and knowing amount of the cost of production it is possible to calculate its parameter influence on the main technical and economic indices of the company.

Let's estimate goodwill of the company by means of synergetic model as exemplified by OAO "Nizhnekamskshina".

The given production company is the largest manufacturer of tyres for automobiles, trucks, light motor vehicles, agricultural machinery and buses in Russia. It provides with its production approximately 30% of the domestic market and exports about 20%.

Technical and economic performance of the company for 2002-2007 is presented in Table 1.

The data of the above table demonstrates that for the considered period the economy of the company was on the rise. Commercial output in kind increased from year to year, however, the revenues from products sale were dramatically reduced in 2006 and 2007 against 2005. It resulted due to the company switched

Table 1

OAO "Nizhnekamskshina" technical and economic performance for 2002 - 2007

Index	Unit	2002	2003	2004	2005	2006	2007
Commercial output	Million pcs.	9,8	10,7	11,2	11,4	12,2	12,4
Revenues from commercial output sale, including:	RUR billion	8,3	10,3	12,4	14,9	5,4	6,3
- on domestic market;	RUR billion	7,0	8,6	10,4	12,5	4,6	5,1
- on foreign market	RUR billion	1,3	1,7	2,0	2,4	0,8	1,2
Output costs	RUR billion	8,1	9,7	11,8	14,3	4,9	5,0
Gross margin	RUR billion	0,2	0,6	0,6	0,6	0,5	0,5
Products sale profitability	%	2,5	5,5	5,1	3,9	9,3	7,9
Personnel	Thousand persons	15,2	14,1	13,2	11,7	10,8	10,6
Monthly average wages	RUR thousand	4,5	5,5	6,5	8,2	10,9	13,4

Source: OAO "Nizhnekamskshina" Annual Report for 2002-2007.

be less, equal or by many times exceed amount of the cost of production i.e. it is different for each company and reflects information-entropy process of activity of the company's development. This index is sorted out by variation method based on the coordination of calculated and projected pa-

to tolling scheme of raw material processing; therefore comparison of some technical and economic indices for 2006 and 2007 with similar ones of the previous periods is incorrect.

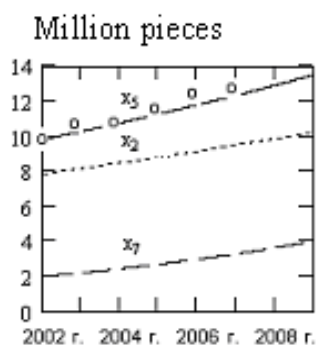We took up the company's performance indices for the year of 2002 as the entry condi-

Fig.1. Dynamics of commodity output

Fig.2. Dynamics of main indices of the company

tions for calculation of goodwill, the forecasting period - seven years. Results of the analysis are presented on the below Figures.

On Fig. 1 and 2 data on verification of synergetic model are shown.

On Fig. 1 dynamics of commodity output x_5 and the commodity sale on domestic x_2 and foreign x_7 markets is shown.

The good compliance of data on the commodity output, obtained via synergetic model, with results of the statistical data marked by rings is observed.

On Fig. 2 dynamics of revenues from sale x_0, production costs x_4 and gross margin x_{12} for the research period is presented. Here we also see the good concurrence of data on revenues from sale obtained by means of synergetic model with statistical data of the company, marked by symbols, for the period from the year of 2002 through the year of 2005. There are some variances on expenses and gross margin, and nonoccurrence of data for 2006 and 2007.
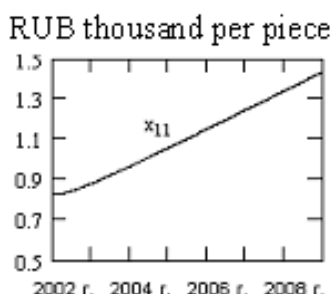
parison of actual results of the company's performance with those ones, which are shown in statistics, is not correct. Nevertheless, synergetic model allows seeing and estimating actual state of play in tyre production.

Dynamics of the cost of production and industrial system activeness is presented on Fig. 3 and 4.

As Fig. 3 demonstrates, dynamics of the cost of production is positive. The cost price of a unit of production has increased for the period of research from RUR 820 in the year of 2002 up to RUR 1250 in the year of 2007 or by RUR 430. It is connected with increase in cost of feedstock, power and human resources.

Dynamics of the industrial system activeness is negative. It has decreased for the period of research from RUR 4520 in 2002 up to RUR 4250 in 2007 or by RUR 270 per a unit of production. Drop of activeness (decrease in entropy) of industrial system speaks for the company's switch to higher organization-information level as an open system. The difference

Fig.3. Cost of production dynamics

Fig.4. Dynamics of industrial system activeness

As we noted earlier, the above has occurred due to the company switched to tolling scheme of feedstock processing, and, therefore, com-
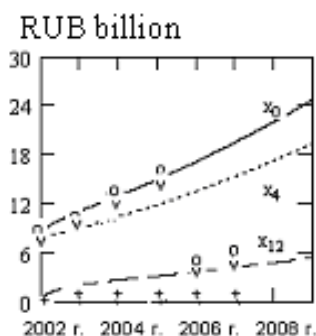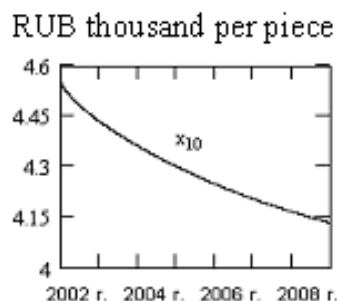
between the industrial system activeness and the cost of production of OAO "Nizhnekam-skshina" is displayed in Table 2.

Dynamics of OAO "Nizhnekamskshina" industrial system activeness, cost of production and goodwill

Description	Measurement unit	2002 actual	2003 actual	2005 actual	2006 actual	2007 actual	2008 forecast	2009 forecast
System activeness	RUR thousand per piece	4,52	4,48	4,38	4,33	4,25	4,18	4,10
Cost of production	RUR thousand per piece	0,82	0,89	1,02	1,15	1,25	1,32	1,42
Goodwill of company	RUR thousand per piece	3,70	3,59	3,36	3,18	3,00	2,86	2,68

As you can see from the Table 2 dynamics of goodwill is negative. It is due to those intangible assets, as well as any organization resource, are spent during the production, and i.e. amortized, providing in such a way a higher level of the production engineering (growth of gross margin).

Let's calculate value of the company's goodwill for the year of 2007 multiplied value of a unit of production goodwill (RUR 3000) by production volume equal to 12,4 million tyres. Cost of business reputation of OAO "Nizhnekamskshina" in 2007 was equal to RUR 37,2 billion.

However, capitalization of the company in 2007, according to the annual report of the company[7], was equal to about RUR 2,2 billion, and average cost of assets - RUR 4,4 billion, hence, the company's goodwill, or rather badwill, amounted to minus RUR 2,2 billion according to the accepted calculation procedure[2], i.e. the business standing of OAO "Nizhnekamskshina" has been underestimated.

It is illustrative of the whole Russian economy as privatization process was carried out in a rush, and state property (when there was practically no any private property), was on sale at well below market prices[1].

The ratio of OAO "Nizhnekamskshina" tangible and intangible assets, according to the synergetic model, changes tangible assets upwards. If in the year of 2002 this ratio was equal to 18/82 in percentage terms, then in 2007 it already became 29/71. The ratio was close to literary data, but dynamics of tangible and intangible assets is opposite to what foreign analysts write about.

As to underestimation of the analyzed company's goodwill, heavy reliance of OAO "Nizhnekamskshina" on the parent company OAO "Tatneft" in the field of implementation of independent industrial and financial policy probably appears in this case, i.e. the business reputation of the tyre company is swallowed up by more powerful goodwill of OAO "Tatneft".

On Fig. 5 and 6, parameter dependence of technical and economic indices of OAO "Nizhnekamskshina" on the industrial system activeness, or rather on its business standing, is demonstrated.

In spite of the fact that activeness of industrial system decreases in dynamics (decrease in entropy of the company occurs due to relations with OAO "Tatneft ", as well), all technical and economic indicators of the company look up.
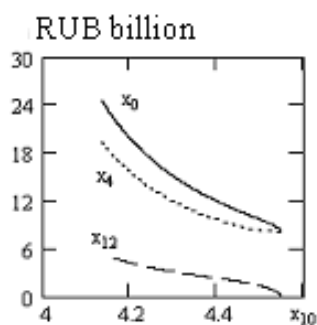

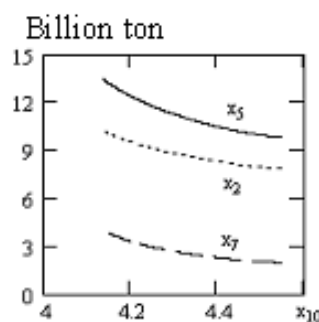Fig. 5. Dependence of performance indicators on the system activeness

Fig. 6. Dependence of amount of production and sales on the system activeness

The volume of output x_5 and sales on domestic x_2 and foreign x_7 markets, the company revenues x_0, expenses x_4 and gross margin x_{12} increase.

Thus, we have demonstrated that via synergetic model it is possible to calculate and estimate not only the main technical and economic indices of the company, but also its business standing; to anticipate goodwill value and consider parameter dependence of technical and economic performance of the company on its business reputation.

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