Business Activity of Orenburg Region Engineering Plants:
Practical Results and Problems

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Abstract. The business activity of an industrial company manifests itself in the dynamics of its development, achieving the set goals and efficient use of industrial potential as well as expanding product target markets. The relevance of improving the procedure for evaluating the company’s business activity and the underdeveloped problem of selection and optimal calculation of the method applied to obtain the indicators pre-determined the authors’ choice of the research scope. In the article the authors suggest their own method for analyzing and evaluating the business activity of an industrial company on the basis of the interaction between such business activity and “Golden rule of the company’s economics”. Further, the authors appraised the proposed method applied for the business activity evaluation by the example of engineering plants in the Orenburg region. The authors obtained practical results and identified the problems in their business activity. On the basis of research results the authors determined the main strategic ways for developing engineering complex in the Orenburg region.

1. Introduction
Investments to the national economy are hindered because of the absence of a system comprising unbiased indicators for evaluating both the state of the national industrial economy in general and the business activity of industrial companies, in particular, engineering ones.

The flaws of the existing methodology applied for studying the business activity of the companies predetermined the need to develop new methodological approaches corresponding to contemporary requirements set for the development of economic analysis as a management function.

2. Materials and methods
The global economic practice uses a range of examples of the method application for evaluating the company’s business activity which could be also applied by the national economy.

There are known effective scientific research [8, 10, 11, 12] which provide for the business activity evaluation and the development of tools for improving analytical support of management solutions. In addition, there are also scientific papers [6, 13] providing a broad overview of the economic state of Orenburg engineering companies on the basis of the analysis of large-scale statistical data.

The types of reporting adopted in the Russian Federation do not stipulate for identifying business activity indicators. That is why it is not possible to present and analyze the efficiency of management of a company, area, economy in general. This defines the existence of methodological problems in terms of establishing a system of business activity indicators, its unbiased evaluation as well as the formation of authentic and sufficient information base. [7]
The purpose of business activity analysis is the evaluation of the company’s management quality, i.e., management efficiency evaluation. That is why it is important to have a system of business activity indicators and their evaluation criteria. Business activity is evaluated on the basis of qualitative and quantitative criteria. The business activity qualitative evaluation can be obtained by means of comparing the activity of several companies similar in terms of capital application. Qualitative criteria are the following: scale of sales markets, availability of products supplied for export, company’s goodwill, etc.

The quantitative characteristics of a business activity comprise:
1) the value of a useful effect of a commercial activity for a period as well as sustainable growth rates of this indicator from one period to another;
2) generalized indicators of the efficiency of a financial-economic activity, in particular, the factors of source and loss productivity;
3) indicators of efficient use of various types of resources.

The important specification to the method of business activity analysis is developing a unique approach to the definition of the interconnection between business activity indicators on the basis of “Golden rule of the company’s economics”.

“The golden rule of the company’s economics” stipulates for one of the most important conditions the observance of which provides for expanded reproduction, sustainable position at the market and, correspondingly, commercial organization development. This implies the change of profit, return and assets in the course of time. Non-observance of the “golden rule of economics” is possible at reconstruction and expansion of production, renewal of product range, new technology introduction, etc, until the invested capital is paid off.

3. Results
The engineering complex of the Orenburg region includes approximately forty large and medium-sized companies. As the research objects the authors selected the leading engineering companies of the Orenburg region.

Table 1. Evaluation of the ratio of indicators on the criteria “Golden rule of the company’s economics”.

| Indicators | Chain growth rates, % | Average annual Correspondence / growth rates for non-correspondence of 2013 – 2016, % | Correspondence / non-correspondence of actual ratio “growth rate - reference ratio” |
|------------|----------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Drilling Equipment Plant, JSC, Orenburg. | 85.77 to 157.10 to 103.00 to 117.8 | 2014 to 2015 to 2016 to 2015 | 2014 to 2013 to 2015 to 2016 |
| Return | 120.7 to 160.53 to 131.05 to 159.3 | 2014 to 2015 to 2016 to 2015 | 2014 to 2013 to 2015 to 2016 |
| Sales profit | 43.49 by 2.792 times to 153.78 to 136.6 | 2014 to 2015 to 2016 to 2015 | 2014 to 2013 to 2015 to 2016 |
| Net profit | 102 to 108.17 to 140.51 to 124.5 | 2014 to 2015 to 2016 to 2015 | 2014 to 2013 to 2015 to 2016 |
| Average annual value of the property | 72.14 to 123.11 to 127.5 to 106.4 | 2014 to 2015 to 2016 to 2015 | 2014 to 2013 to 2015 to 2016 |
| JSC Heavy Engineering ORMETO-YUMZ, Orsk | Loss in 2014. in 149.2 in - in - | 2014 to 2015 to 2016 to 2015 | 2014 to 2013 to 2015 to 2016 |

Does not correspond

Loss in 2014.
| Company Name | Net Profit 2019 | Annual Value 2019 | Return 2019 | Sales Profit 2019 |
|--------------|-----------------|------------------|------------|------------------|
| Plant “Inventor”, JSC, Orenburg. | 93.19  | 102.67  | 86.48  | 181.42  |
| “Hydropress”, JSC, Orenburg. | 181.42  | 100.25  | 118.1  | 49.4  |
| JSC “ORSTAN”, Orsk | 94.2 | 147.1  | 118.1  | 49.4  |
| JSC “Production Association “Strela”, Orenburg. | 148.7 | 106.0 | 148.7 | 93.31 |

Judging by the data in Table 1, virtually all companies, except for JSC “PA”Strela”, one can observe non-correspondence of ratios on the criteria “Golden rule of the company’s economics”. Comparing the dynamics indices of the crucial indicators showed non-correspondence with the criteria of the “golden rule of economics”.

The research results show the decrease in the economic activity scope, slowing down the asset turnover, increase in sales profitability and assets profitability. Dynamics indices showed that the eco-
nomic activity scope decreased, and engineering plants have been developing in the extensive way. However, the economic activity profitability increased. Taking into account the aforementioned, the authors are capable of providing only a primary evaluation of business activity of engineering companies. Note that the final conclusion on the evaluation stipulates for additional research on the indicators of source and loss productivity.

4. Conclusion
In general, the regional engineering complex is characterized by a low business activity. The companies working in the value formation chains on producing the articles for oil&gas companies as well as defense plants accomplishing government orders are characterized by a higher business activity comparing with other engineering companies.

It is aggravated by the following problems: absence of high-tech and science-intensive production; significant wear and inefficient structure of main business assets; high energy - and material intensity; inefficient company management.

Therefore, the conducted research demonstrated insufficient business activity of the regional engineering complex. As it follows from the provided results of theoretical research and practical evaluation of the business activity of industrial companies, it is caused by low adaptation of industrial companies to the changeable and complex environment as well as by negative impact of external environment factors on the activity of the regional industrial companies. The identified unfavorable trends define the necessity of developing adaptive management of the industrial complex of the Orenburg region.

The purpose of the further development of the industrial sector in the Orenburg region should be the formation of a diversified industrial structure capable of easily adapting to the changes in the global market conditions. In addition, it is necessary to increase competitiveness and maximize the added value in traditional areas (metallurgical production, engineering, chemical production) as well as the formation of the industrial innovative sector.

References
[1] Romanova L E 2011 Economic analysis (St. Petersburg: Peter) 336 p ISBN 978-5-49807-892-2
[2] Kovalev V V 2013 Balance analysis: or how to understand balance 3rd ed. reslave. and add (Moscow: Prospect) 784 p ISBN 978-5-392-07584-3
[3] Chernova A G Analysis of the company in accordance with the "golden rule of the economy of the enterprise" http://science-bsea.narod.ru/2011/ekonom_2011_1/chernova_analiz.htm
[4] 2017 Statistical Yearbook of the Orenburg Region 2017: Statsb (Orenburg) 508 p
[5] Voronina V M 2013 The use of the “golden rule of economics” in the management of industrial enterprises Management in Russia and abroad 1 pp 75-82
[6] Voronin V M 2017 Dynamics of the volume of production of the main types of products of Russian engineering as a characteristic of the state of the industry Intellect Innovation Investments 5 pp 10-15
[7] Grebnev G D 2005 Indicators of business activity of the enterprise in the system of integrated economic analysis: abstract for the degree of candidate of economic sciences, specialty 08.00.12 185 p
[8] Kutsenko E I 2017 Information support for analysis and diagnosis of the economic condition of the enterprise Youth science in the development of regina 2 pp 182-185
[9] http://orenstat.gks.ru/wps/wcm/connect/rosstat_ts/orenstat/resources/0a83e6804f1c71e6b8a3b8 149d0ea7d8/n60.pdf
[10] Mikhailova O P 2017 Marketing diagnostics in the management of an industrial enterprise: monograph (Orenburg)
[11] Smirnova E V 2009 Toolkit of a comprehensive economic analysis of sustainable development of an enterprise Economic analysis: theory and practice 9(138) pp 31-37
[12] Fedorishcheva O V 2017 Improving the management system of an industrial enterprise:
theoretical views and methodological aspects *Economics and Entrepreneurship* 10-1(87) pp 829-834

[13] Tsypin A P 2016 Comparison of growth rates (decrease) in industrial production of Russia and the USA in 1970-2010 Intellect *Innovation Investments* 1 pp 41-45

[14] The development strategy of the Orenburg region until 2020 and for the period until 2030 http://docs.cntd.ru/document/952013291

[15] http://www.ormeto-yumz.ru/

[16] http://zbo.ru/

[17] http://www.orstan.ru/

[18] http://www.sbp-invertor.ru/

[19] https://www.pa-strela.com/

[20] http://hydropress.su/