

THE ENTERPRISE AS A FRACTAL FORMATION: SELF-IDENTIFICATION AND DEVELOPMENT

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The sustainable development issue encompasses a wide range of important economic, social and ecological problems. Their complexity, multi-level and interconnection require appropriate conceptual and methodological approaches.

Author's work is based on a system-synergetic approach towards research and transformation of different systems. An ambiguous concept of «sustainable development» (following thoughts of Professor Melnyk L. [1]) should be noted within the framework of this approach. The concept contradicts to the essence of two evolutionary mechanism classes – adaptive and bifurcational.

Fractal method is one of the methodological tools within system-synergetic approach.

The fractal picture of the world induces to a non-traditional view on known things. It rebuilds perception and understanding, opens up new perspectives for creating and managing the systems that operate based on the same principles as the natural system. Let's learn from Nature!

Here it's necessary to make a remark: the discussion won't touch fractals with strict self-similarity which are obtained by setting the generation rule and executing a sequence of iterations (Sierpinski triangle is an indicative example of such fractals). Instead, in this paper only fractals with non-strict self-similarity will be considered. The founder of fractal approach, Mandelbrot B. [2], referred to them as to structures consisting of parts that are in some ways similar to the whole. The enterprise formally becomes nothing else but a fractal formation in this context. But to factually become a fractal formation, certain organizational and management efforts are required.

First of all, the company as a whole and its key business units need to address such initial questions: Why do we exist? What are we doing? How are we doing?

The first question can be addressed by enterprise mission if it was previously formulated. In case it wasn't, which in reality is very common, then it should be defined.

An adequate answer to the second question is extremely important. It is underlined by the famous quote: «Many organizations that seemed to know what they were doing have disappeared from the scene» [3].

Finally, when addressing the third question, we must remember the famous words of P. Drucker: «To produce something as good as others currently is not enough» [4].

After conducting enterprise analysis and self-identification, it is necessary

to ensure the autonomy of the structural units as fractals and provide their integration into the initial self-managing «alive» whole. This integration is based on a continuous informational and communicational interaction.

The obtained formation is more than a simple sum of parts. It is a fractal enterprise where foundations, functioning and management are based on the concept of organized synergy.

It should also be emphasized that efficient interaction of the enterprise with such global fractal formation as market is important to reach success. In other words, a coherent solution for internal and external entrepreneurial tasks is required. It may be able to provide additional synergetic effect.

1. Melnyk, L. Economics of Development. Sumy: University Book, 2006. – 662 p.

2. Mandelbrot, B. The Fractal Geometry of Nature. San Francisco: W. H. Freeman & Co, 1982. – 468 p.

3. King, W., Cleland, D. Strategic Planning and Policy. New York: Van Nostrand Reinhold Company, 1978. – 374 p.

4. Drucker, P. Management Challenges for the 21st Century. New York: Harper Business, 1999. – 207 p.

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