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VISIONARY MANAGEMENT IN THE DIAGNOSTIC AND PROGNOSTIC INNOVATION MODEL

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Abstract:

The ability to perceive the world emergently is of particular importance. The vision of the ideal system considered as the analysis method, is widely used. Its indisputable advantage is that it does not require significant investments to carry out the analysis of a current situation, but nevertheless it is undoubtedly a difficult method demanding the high ability of predictive thinking.

Keywords:

management, decision making process, modelling, Nadler's triangle

INTRODUCTION

In the world dominated by organizational systems and occurring within them processes of the flow of matter, energy and information, the ability to perceive the world emergently is of particular importance. Emergence is understood as a departure from deterministic perception of the surrounding reality based on the search for infinitesimal elements of the structure of matter and the move towards the widest possible vertical and horizontal way of perception of the reality and distinguishing within it components with new features and properties. This study is an attempt to assess the impact of the possibility of shaping the structure of the material world by human with

the use of cognitive abilities to perceive and interpret future tangible and intangible states of affairs.

1. COMPANY VISION AND ITS COMPONENTS AND FUNCTIONS

When defining the term "vision", its characteristic features should be distinguished, i.e. determinants including: a vision, a provision or a virtual image that concretizes all areas of human functioning. Finally, a vision is understood as an image created in someone's imagination. The Vision of Ezra - one of numerous Christian apocryphal works submitted under the name of Ezra[1] is considered the earliest visions reported in the literature.

In the era of strong industrialization and globalization characterized by the cross-border movement of people, goods and services, the institutional, functional and instrumental dimensions of management constitute the system environment for a vision. The company vision is understood as a hazy depiction, the image of a company in the future (directional company vision) or a specific one (global company vision). In the management nomenclature the directional company vision is the mission statement. Overall, it is a long-term vision of the future state, the position of an enterprise. It constitutes a general intention that the owners or the management attribute to the functioning of an enterprise. The directional vision (mission statement) is commonly referred to the value of moral nature and the concept of the continuity of an organization [8] The mission operates at three levels (Figure 1). The level of intentions relates to the real plans of the company management, not publicly declared, the level of declarations - to the values expressed in messages to shareholders, customers, employees, authorities and other stakeholders, and the level of facts – to the actual activities, convergent or divergent with declarations and intentions.

The comprehensive company vision is the crystallized view of the future of the company, at the utmost degree detailed "photograph" of its condition and the situation at the specified point in the future.

2. COMPONENTS OF THE VISION

The directional company vision (mission statement) may, whereas the comprehensive company vision must, consist of five, as precise as possible visualized components. In P. Dwojacki's concept the components are concentrated in the so-called DOSKO [4] model, where the first two items relate to the core area of business specialization. These are, consecutively, the so-called the business domain and the sensitivity of a company to the needs and requirements of stakeholders and priorities in their implementation, that is responsibility. The subsequent components of the model include:

[1] The preserved Latin text dates back to the period between the fourth and sixth centuries. The Vision of Ezra describes the journey of the prophet in the company of seven angels around the depths of hell, where he sees torments of the damned. The stories contained in the Vision of Ezra influenced the medieval literature, especially the twelfth-century Vision of Alberic and the Divine Comedy, source: M. Starowieyski, ed., Apokryfy Nowego Testamentu *(The New Testament Apocrypha),* Vol. 3. Listy i apokalipsy chrześcijańskie *(Christian letters and apocalypses),* WAM Publishing House, Kraków 2003, p. 190-191.

the standards of success, i.e. measures of the long-term success, expressed as specifically as possible in the areas of finance, market and marketing and others, key competences (key success factors) expressing skills and technologies for achieving success. The last element concerns the structure, in particular the hierarchy, human resource management and other rules applicable in a company, often established in its culture, tradition and internal folklore.

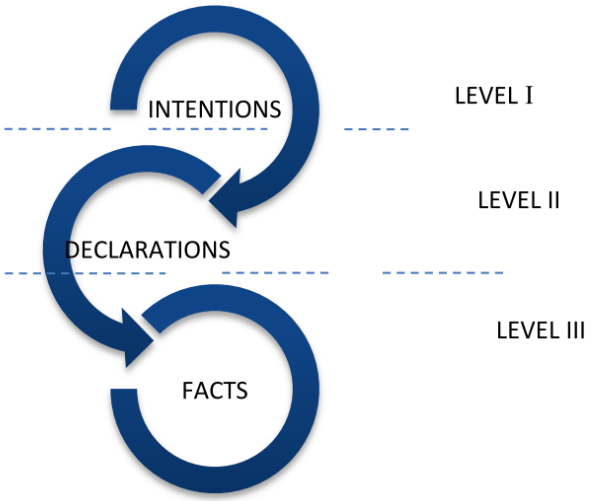

Fig.1. Levels of mission statement

Source: own study

3. VISIONARY MANAGEMENT IN THE NADLER MODEL

The management philosophy is based on a vision, it means a way of thinking challenging a current state, deviating from the stereotyped rules of conduct, business models, management; this is often an outline of action without a clarified and chosen set of supporting instruments. Fitting into the framework of ex ante[2] combined with heuristic analytical techniques for, most often, organizing information (SWOT analysis[3]) it is a management philosophy based on the prognostic approach to organizations and systems in accordance with the Nadler model. The prognostic approach assumes that the starting point for a planning process is the concept of an ideal system, not taking the current state into account; only then "cutting their coats according to their cloth" and searching for methods to fill the strategy gap, that is the space between what "I can" and what "I want". In the diagnostic approach the philosophy assumes that plans are built based on the assessment of current resources and solutions, and next a project of improvements is developed on such a foundation. In accordance with the prognostic

[2] ex-ante - the economic term meaning the analysis undertaken to determine (evaluate) the need for specific action carried out prior to its implementation; the ex-ante evaluation as an estimation tool is widely used in the construction of, among others, state regional policy. The ex-ante evaluation is the basis for the formulation of a long-term development strategy since it analyzes strengths, weaknesses, opportunities and threats to a given region, municipality or city.

[3] SWOT (Strengths, Weaknesses, Opportunities, Threats) - one of the most popular, universal tools of the first stage of the strategic analysis in economic sciences, used to analyze the internal and external environment of an organization (e.g. a company), a project, a business solution, etc.

approach (radical changes), as opposed to diagnostic "moving ahead" (incremental changes), a company vision is based on disposable resources in the strategic planning.

The method proposed by Nadler is called the "model-based (template) method" and, unlike the "improving method" - suggested by the classics - founded on the basis of current observations and analyzes, is aimed at the shift from the ideal system, followed by a gradual approach to the concept, which fulfills imposed restrictive conditions expressing the essence of a particular process (Figure 2).

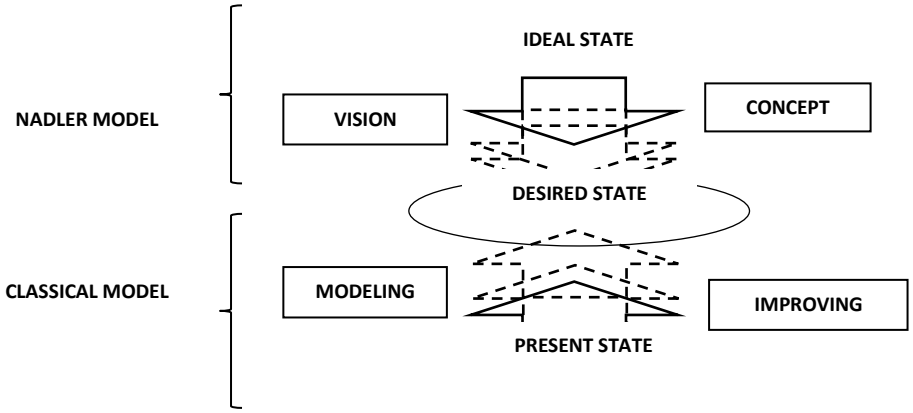

Fig.2. The general scheme of "modeling" and "improving"

Source: own study

In the Nadler's approach it is not essential to seek respective improvement options, but is looking for a comprehensive concept of the process in question. The general characteristics of the system according to Nadler includes the indication of: inputs function, process, environment, equipment and quantity of human resources (Figure 3).

In line with the concept, such an approach to a system makes it possible to transform input streams, e.g. materials, information and people, into the formulation of specific products or services. The existence of a system is seen as its function recognized in the category of an objective, which is to be served by a particular system. Moreover, Nadler defines the system environment as all the physical (e.g. temperature or light), economic (e.g. the level of prices), and sociological (relationships) factors, which together create the environment of an organizational system.

The considerations are based on the analysis of the unit cost of production. In this case, the ideal system is such a state of the system where the unit cost is zero. The system is positioned at the apex of the triangle and is called the theoretical ideal system. In practice, this situation is difficult to imagine (it is hard to consider the system of zero costs and / or outputs), however, outlining such an ideal concept is to be a reference to the possibilities offered by different variants of solutions, which (as in this particular case) should seek to minimize the unit cost. Furthermore, in the particular case, Nadler defines an ideal system as a system, which can be eliminated without any consequences for the functioning of the whole entity.

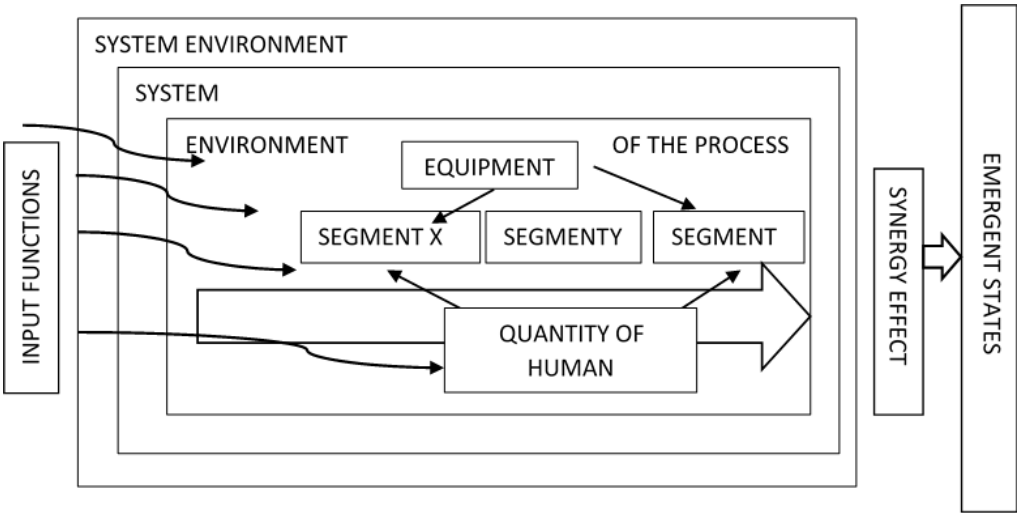

Fig.3. The general characteristics of the system according to Nadler

Source: own study

In the absence of such a possibility, the ideal system is designed in a perspective way. It assumes ideal conditions of its functioning based on the latest achievements of science and technology. The next stages of this method are designed to "materialize" the ideal system (vision). In this point the level of the ideal system is distinguished, which is realized using technology, founded on the basis of already implemented solutions in organizational and technical spheres showing high efficiency (its construction results from the frequent lack of the possibility of applying the most effective organizational methods in a particular company).

The last stage is to go to the proposed system (which includes all conditions resulting from the environment and the interior of an organization and emphasis specific changes and directions of these – assumed as effective - changes). The existing system is underpinning the presented triangle.

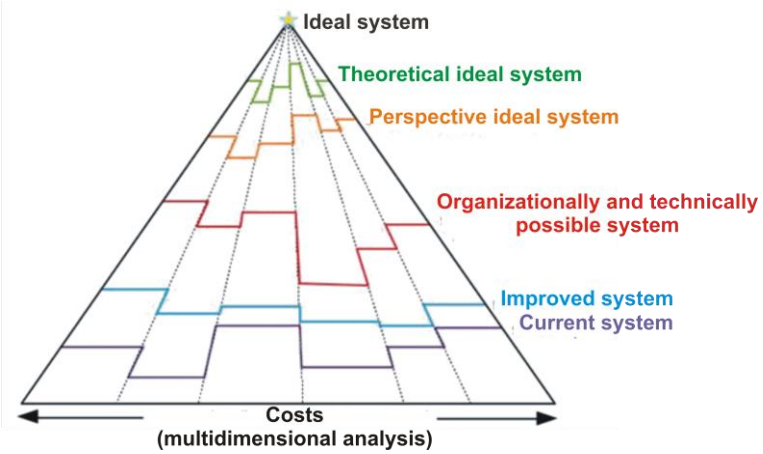

Fig.4. Nadler's Triangle (vision of ideal system)

Source: [online] Available on the Internet: http://mfiles.pl/pl/index.php/Koncepcja systemu idealnego według G._Nadlera after: Z. Martyniak, Organizacja i zarządzanie. 50 problemów teorii i praktyki, Edition III, Książka i wiedza Publishing House, Warsaw 1986

4. PROGNOSTIC AND DIAGNOSTIC PERCEPTION IN CREATING A VISION

The vision of the ideal system (Nadler's Triangle – Figure 4), considered as the analysis method, is widely used. Its indisputable advantage is that it does not require significant investments to carry out the analysis of a current situation, but nevertheless it is undoubtedly a difficult method demanding the high ability of predictive thinking.

What is more, as Nadler claimed, this method is much more efficient (because it verifies individual solutions) than the concept of "the improved system", which is developed by diagnosis, i.e. "bottom-up".

In the theory of heuristics a lot of space is devoted to capacities of the human mind and the ability to collect, process and interpret external phenomena. In the aspect of cognitive science, mental abilities refer to the observation and analysis of activity of senses (brain and mind), in particular, their modeling. These abilities arise from perceptual ones, and these (as well as the term of perception) relate to organization and interpretation of sensory impressions, in order to understand processes occurring in the environment.

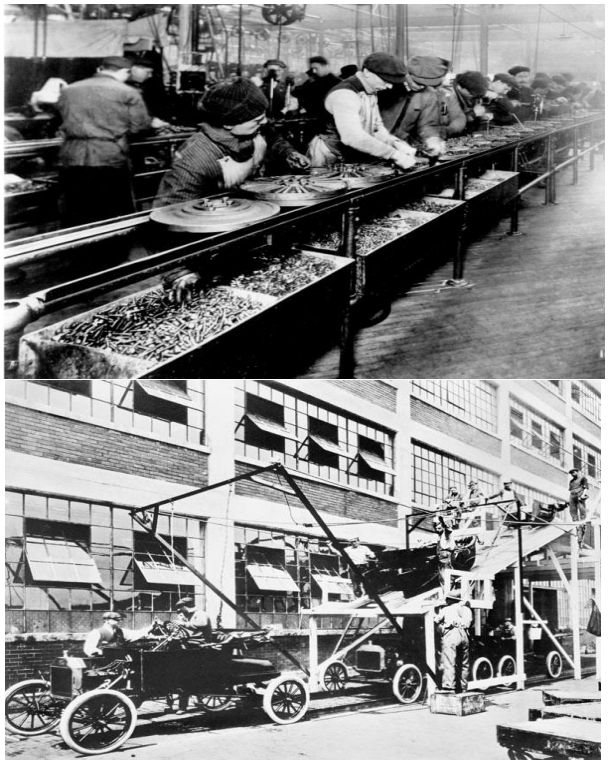

Fig.5. The assembly line of Ford T (on the left) and the first assembly lever (for mounting enameled car bodies)

Source: [online] [access 23.06.2015] Available on the Internet: http://www.americaslibrary.gov

Perception means perceiving; the conscious reaction of sensory organs to external stimuli; a way of response, receiving impressions. Perception is a feature assigned to an individual and has a direct impact on perceiving reality, also in relation to the future (creating a vision).

Two types of cognitive structures can be distinguished:

- related to imagination - the received sensory impressions are usually deformed by expectations, needs, feelings and defense mechanisms, triggered by the subconsciousness;
- related to intelligence - it adjusts sensations recorded in our imagination.

The innovative approach is a common characteristic for both of the methods. In the classical meaning by J.A. Schumpeter, innovations are interpreted as discontinuous projects of new combinations of production factors relating to the five cases [2]:

- the introduction of a new product, unknown to consumers (a new kind or variety);
- a new method of production, which has not yet been tested in practice of a particular branch;
- opening up a new market in which the branch was not yet present;
- gaining a new source of raw materials or semi-finished products;
- carrying out the new organization of business processes both in production and circulation of processes.

Referring to Ford's activities it can be noted that not all innovations were immediately introduced or adapted in production processes (Figure 5). These innovations, which held monopoly and the application of which in their own factories would entail incurring license fees and thereby the increase of prices of a final product, were not accepted immediately (e.g. hydraulic brakes invented and patented by Lockheed were not initially installed in Ford vehicles, but only after the expiration of the license).

The vision of changes in the nineteenth and twentieth centuries referred to innovations in industrial enterprises, which constituted the industrial driving force in the economy at the time. The innovative activity proposed by Schumpeter is related to a vision of changes and refers to the so-called concept of creative destruction (Schopferische Zerstörung), which consists in destruction of old structures and constant development of new, more effective ones. Over the years the innovative thinking in the technical field extended its range with new methods of organization and management.

In the approach model the uptake of innovations is characterized by a path that initiates an invention, then the process of implementation begins, further an innovation is dealt with (in the areas described by Schumpeter). The diffusion of innovation is the last stage of this model.

The diffusion of innovation is the "dissemination of innovation through market and non-market channels, from first implementation anywhere in the world" and "the way innovations are disseminated through market and non-market channels, from the first implementation for contacts with various consumers, to the presence in different countries, regions, sectors, markets and companies. The diffusion of innovation is based on the PZNTO model, which assumes its dependence on the following factors:

"(P) - relative advantage over previous solutions, (Z) - compliance with experiences and values of potential buyers, (N) - low complexity, (T) - testability and (O) – observability" [7].

It should be stressed that a great number of inventions in the history of mankind have not been implemented, and therefore they have not passed to the phase of innovation. The same applies to innovations, many of them does not stem directly from inventions [1].

It is even more difficult than implementing innovations to build an institution based on timeless values, an objective of which goes beyond making money, an institution that will continue over time and renew itself internally.

This incentive mechanism is observed not only in regard to people managing large organizations, but also small and medium-sized enterprises. Organizations established by pioneers such as David Packard, George Merck, Walt Disney, Masaru Ibuka (Sony), Paul Galvin (Motorola) and William McKnight (3M) have set such high standards that many other "company constructors" feel the deep need to catch up with them. Packard and people like him began not as corporate giants, but as small entrepreneurs. They were characterized by dialectical thinking based on a vision regardless of whether it was the elenctic method (often leading to absurd theses or those contradictory with the existing axioms) or the maieutic one (involving the investigation of truth through skilled questioning). All of the aforementioned persons thoroughly sought concepts that would withstand the test of time. As a rule, they rejected temporarily trendy wisdoms of managers riding the wave of good economic situation and leaving the market as soon as the time of prosperity set the scene for a crisis. They always searched for concepts leading to the so-called productive changes that did not damage the existing foundations of an enterprise (except for situations in which the foundations were to be built – Figure 6).

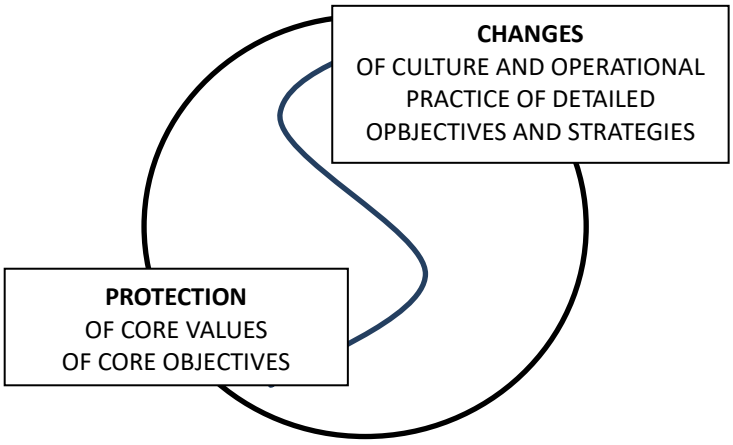

Fig.6. Stability and changes in visionary organizations

Source: [3]

Visionary organizations differentiate their core timeless values and core objectives (these elements should never change) from their operational practices and strategies (they should evolve in line with the progress of civilization) [3].

5. VISION AND THE DIALECTIC THOUGHT

Based on the concept of Occam's Razor, the essence of contemporary management is the quest for the simplest theoretical solutions, adopting the least possible number of assumptions, as these are considered to be the best. The theory is a useful tool to create theoretical models and a general guideline that allows to determine which of the proposed theories is most likely to be closer to reality in the future. Referring to the spectacular example in the history of management, i.e. the concept of building a passenger car (Ford T) the simplicity of the structure resulting directly from the simplicity of the design proved to be a key to success.

In order to illustrate the visionary management model it should be mentioned that often only colors functioned in Ford's vision (Figure 7). It turns out that Ford's projects were based on the global vision - emergence, the final projection of the status of the whole, the compact system, a final product (a target) to the achievement of which all the possible tools available and techniques based on the then technical expertise and organizational culture were subordinated, as well as the whole spectrum of instruments [8].

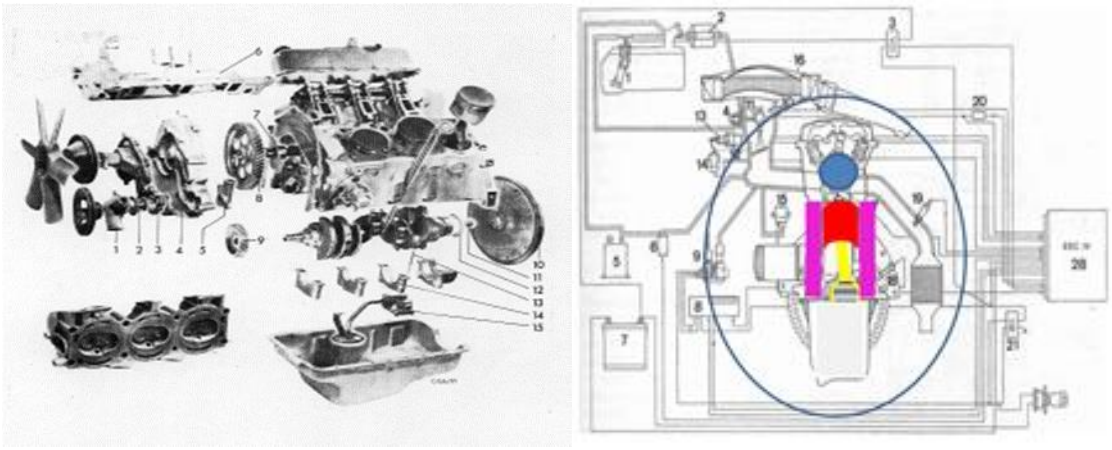

Fig. 7. Ford's vision (perception of changes in the engine construction) as an example of dialectic thought

Source: own elaboration based on: www.donherron.com

Similar changes in the structure of an organization are an intuitive vision of the subordination of structures (cross-organizational subjection and dependence) to demands of fast production (assembly line production) based on low costs with a target product meeting creator's assumptions; the competitive asset of the product was to be the purchase unit price, ease of use and repairs and general availability of spare parts and access to knowledge in the field of self-repair.

The engine block made as a single cast (individual cylinders in the then engines were usually separately cast), equipped with an electric generator, an innovative ignition system and an electric starter instead of the commonly used crank, may be indicative of modern design of the drive unit. The drive was transmitted to the rear axle via a two-speed planetary gear [10].

CONCLUSIONS

There are a lot of visionary organizations in the world that have found their own successful development philosophies. Commonly known companies, such as Coca-Cola, L.L. Bean, Levi Strauss, McDonald's, McKinsey and State Farm are almost certainly listed among visionary organizations. The informal division into Icarus companies and the other is purely mechanistic and often detrimental, since it draws the attention to companies that are either still working their way up or already falling abruptly down. It does not alter the fact that the creation of company vision is a process that emerges from the cognitive capacities of the human mind. According to G.M. Edelman, scientists' minds (and thus consciousness), in which the process of awakening new knowledge takes place, are their real laboratory [5]. In many cases, visionary activities are supported by human intuition, which is knowledge obtainable without rational thinking and coming from the core of consciousness. It is therefore the holistic awareness establishing the synergy effect, which by its very nature is irrational, since it encompasses more than the logical sum of rational components.

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