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# PARAMETRIC STRATEGIC MANAGEMENT: GENESIS & PRAXIS

## ABSTRACT

The author's concept of parametric strategic management is correlated with well-established notions of strategic management. At the same time, attempts are made in the article to justify the use of qualitative comparative analysis as a relevant method of empirical verification and to build a one-dimensional model for ensuring the employee's labor participation as a practical application of the author's concept.

## KEYWORDS

PARAMETRIC STRATEGIC MANAGEMENT, SIMPLE RULES, MANAGED SELF-ORGANIZATION, CONTROL OF CONDUCT OF THE CONTRACTOR

## COMPARATIVE ANALYSIS

### Targeting (purposefulness)

The essence of parametric strategic management lies in striving to achieve target attractors – stable conditions and modes of functioning of economic systems, in particular, economic organizations [Obydenov A. Yu., 2016a]. Targeting and attainment of attractors are provided through formal institutions.

Strategic management as a form of management must inherit its generic attributes. In particular, such a sign is the desire to achieve certain objectives; organizational objectives are the central aspect of the management theory [Linder S., Foss N. J., 2018].

"The strategy is the establishment of main long-term objectives and tasks of an enterprise and development of an action program and allocation of resources necessary to achieve these objectives" [Chandler A. D., Jr., 1962, p. 16]. Strategic management can have different objectives, in particular, different from objective of maximizing company's profit (for example, creating a sustainable competitive advantage or maximizing utility of stakeholders). The economic efficiency of the organization (the ratio of costs and results) and effectiveness of achieving these objectives was shared by Barnard Ch. I., 1938, too.

P. F. Dracker proposed delineating tactical and strategic decisions. He called all decisions concerning objectives of business and means to achieve them as strategic ones. As it is known, it

was P. F. Drucker who developed the concept of management by objectives [Drucker P. F., 2010]. Results management is one of most commonly used management models [Roberts M. J., 1999]. Since 1960s, the concept of strategy includes strategic objective-setting [Katkalo V. S., 2006].

Setting strategic objectives ("desired final conditions") is an essential element of strategic management and, in general, strategic processes [Barry D., 1987]. R. L. Ackoff defines strategic planning as a "long-term complex planning focused on final results" [Ackoff R. L., 1970]. As empirical studies have shown, purposeful activities and objective-setting (in the form of setting strategic objectives) were an essential aspect of activities and development of Russian enterprises already in 2000s [Gurkov I. B., 2007]. Let's pay attention to the fact that purposefulness and motivation are inherent in complex systems as a whole [Bertalanffy L., 1962; Mesarovich M. D., 1969; Ackoff, R. L., Emery F. E., 1972]. In particular, in "live" systems, among which are economic ones, objectives are set and development proceeds in accordance with these objectives, i. e., expedient [Chernavskiy D. S., Chernavskaya N. M., 2009].

Targeting an attractor is one of key elements of parametric strategic management. For targeting, attractor is chosen from a set among attractors peculiar to the system corresponding to interests of management. In contrast to usual targeting of any long-term objective, targeting an attractor involves the desire to achieve a steady condition. In connection with this, the

issue of ensuring sustainability of an economic organization in management deserves special attention. The approach closest to the concept of parametric strategic management determines stability of economic system as "the ability of the system to preserve a certain condition (or some set of permissible conditions) under influence of external influences" [Chistyakov V. V., 2015]. At same time, sustainable development, which is also the result of strategic management, occurs through transitions between these permissible conditions.

The ratio of attractors to equilibria in the game theory is also interesting. According to "people's theorem", attractors (asymptotically stable conditions) correspond to Nash rigorous equilibria in evolutionary game within framework of replication dynamics [Cressman R., 2003].

### Duration

The long-term horizon of taken decisions as an essential feature of strategic management is common to different models and approaches to strategic management (see, for example: [Chandler A. D. Jr., 1962; Ansoff H. I., 1979]). In addition, it can be regarded as one of signs that distinguish between strategic and operational management. The planning horizon of a long-term objective is approximately equal to five years, for technologically advanced companies – more [Steiner G.A., 1969]. In most cases, a short-term objective is one of organization's plans, which should be performed within a year. For medium-term objectives, the planning horizon makes from one to five years.

If we talk about parametric strategic management, which in essence is the self-organization management, then durability is required in order to establish its stable condition or mode of operation in managed system. In general, slowly relaxed degrees of freedom respond to self-organization and stabilization, which ensure evolution of the system to a new stable condition [Blumenfeld L. A., 1977].

### Inverse orientation

The inverse orientation from the future to the present [Ansoff H. I., 1965] accompanies formation of image of the future condition of the control object (for example, in "Growth Strategy for Russia" [Titov B., Shirov A., 2017]) and its projection into the present. As an option, orientation from the future to the present is an assessment of today's actions in terms of achieving future objectives.

If we talk about effectiveness of management within this mode, then the inverse orientation is inherent to our brain as a whole. The brain "can predict which sequence of commands sent to muscles will produce movement that we want to perform. This prediction is called the inverse model, because brain must reason in opposite direction, starting from what should be the result of motor system of our body ... to what must be at the beginning (of the command sent to muscles). " "To act in present, it is necessary to "jump ahead a little into the future"" [Kryuchkov V. N., 2015, p. 94]. Inverse orientation is inherent in various models within the variety of management techniques. So, within the framework of the concept of neurolinguistic programming, the technique of "glance from the future" is applied, in which the orientation from the future to the present is also realized. The actor creates an image of himself in the future and evaluates and recognizes the current situation relying on it, looks for ways and means of getting out of it.

Similarly, within the framework of parametric strategic management approach, the structure of future stable conditions, attractors, appears as a result of building a model of a managed organization. The target attractor selected from the set of potential future targets and recognized by a manager indicates through an analytical model, which game rules should be set today

### Uncertainty

Uncertainty characterizes not only external environment, but also internal nature (of various) systems, it can be attributed to the systems concept. There are classical studies on classification of types of uncertainty:

- *risk situations* (a certain probability can be assigned to each expected event);
- *parametric uncertainty* (future events are so unique that they can not be attributed any probability);
- *structural, or radical, uncertainty* (multiple future events are open) [Knight F. H., 1971; Langlois, R. N., 1990; van der Heijden K., 1996].

In the context of risk, it is advisable to use risk management; use of scenario planning is appropriate within the framework of parametric uncertainty [Ringland G., 1998], and use of invariants under conditions of uncertainty (radical uncertainty) is possible.

Note that scenario planning relies on identification of predetermined elements in the environment already [Schwartz P., 1991]. Predefined elements are either invariant in their nature, or can fulfill their role. For example, the maximum number of teenagers in 10 years (in general, this may be upper limit of number of persons of a certain age category at a certain point in time), as an invariant, allows estimating capacity of demand, particularly, for children's books. These estimates can be very important, because at certain moments there are dips or booms of fertility, as a result of which there are recessions and rising consumption, which should be taken into account.

Invariant strategic measures in conditions of uncertainty can be "safe steps", (practically) suitable for any variant of development of events [Courtney H., Kirkland J., Viguerie P., 1997]. Particular examples of such steps are measures to reduce costs or to collect information about competitors.

In framework of parametric strategic management, invariance takes place under structural stability of phase portrait of a controlled system with respect to changes, particularly in external environment [Arnold V. I., 2002]. A phase portrait of a controlled system is said to be structurally stable if attractors attracting stable invariant manifolds do not disappear and do not appear, but position of attractors can vary. Thus, phase portraits of system remain topologically equivalent to themselves [Psiola Z. G., Rozendorn E. R., Trofimov V. V., 1997].

Thus, changes can occur in the external environment. However, if the phase portrait of a managed economic system remains topologically equivalent to the original one, then decisions on effective management of economic system remain in force as they are decisions on merits and not on targeting the exact value. In fact, we are talking about transition to desired discrete stable conditions and modes of operation, exact characteristics of which are not of fundamental importance. So, for example, you can consider the task of managing an entrepreneurial start as a transition from position of zero production to a condition with a production volume different from zero [Usdenov A. Yu., 2017]. For a better in-

Table 1

Comparative characteristics of traditional approaches to strategic management and parametric strategic management		
Characteristics of strategic management	Traditional approaches to strategic management	Parametric strategic management
Targeting	Objectives	Attractor (steady condition or mode of operation)
Duration	From 5 years	The relaxation time to new attractor
Inverse orientation from the future to the present	A glance from the company's future image on current actions	The definition of a rule based on the structure of attractors
Management in conditions of uncertainty	Risk management, scenario approach, safe steps.	Invariants, structural stability of phase portrait

vestigation of the company's environment it is useful to structure or discretize external environment in a different way [Morgan G., 1988]. For example, in case of scenario planning, the interest rate can be discretized, when characteristics "high", "medium" and "low" are used for its description<sup>1</sup>.

As if developing the idea of discrete alternatives, G. A. Simon notes the increasing role of qualitative analysis, where "discrete alternative structures" are contrasted in comparison with quantitative economic studies based on continuously varying quantities [Simon G. A., 1993, p. 24]. Below we will consider methods of empirical verification of results of such a qualitative analysis.

Institutional tools can act as discrete structural alternatives. Their main functions include eliminating uncertainty of the future through formation of stable rules of game [Dietl H., 1993]. As will be shown below, rules can be applied not only to reduce degree of uncertainty, but also to optimize the production of the company. Some generalization of this section is Tab. 1.

## RULES OF THE GAME AND SELF-ORGANIZATION

### Conventional images

The use of formal rules as a control tool is an essential feature of parametric strategic management. Let's find out what role the management plays with the help of rules in traditional strategic management. There are different approaches to strategic management, in particular, strategy can consist of only one rule, in fact. For example, "execute orders according to the principle: came first – served first", "do not let any competitors to be able to interfere with lower prices for products "[Ackoff R. L., 1970]. H.I. Ansoff defines the strategy as "a set of rules for taking decisions that are guided by economic agents in their activities," and identifies four groups of rules:

- rules on which relations and procedures are established within the company;
- rules on which relations of the company with external environment develop;
- The rules by which company conducts its daily activities, are called basic, operational methods;

The rule can serve to consolidate and formalize some principle (model) of behavior or special reception (maneuver) in competition, which are also types of strategies [Mintzberg G., Alstrend B., Lampel J., 2000]. Modern researchers of management also emphasize the rules [Trenev N. N., 2001]. Analysis of business models can be performed at several levels, including the rule level, where basic principles of management are formulated [Morris M., Schindehutte M., Allen J., 2005]. As an example of application of a simple rule from Russian business practices, we can cite history of development of Paterson network of supermarkets in Moscow, where formula of

"saving customers' time" was chosen as a condition for ensuring a competitive advantage [A. Baverman, V. Tsvetkov, 2002].

### Theories of complexity

Some representatives of leading business schools go further and propose to formalize strategy in the form of a set of simple rules of five types:

- "how" rules;
- rules of limits;
- priority rules;
- rules of timing;
- exit rules [Eisenhardt K. M., Sull D., 2001].

According to authors, when business becomes complicated, the strategy should be simple. Within the framework of this concept, three approaches to the strategy can be distinguished:

- position (Where should we come to? What is our target desired condition?);
- resources (What do we need to achieve the target condition?);
- simple rules (How should we proceed? What is our direct strategy? How do we define it within the framework of developed approach?) (Table 2).

The most striking example of application of simple rules is the company Yahoo!, which entirely used the strategy as a set of simple rules. "Since its founding in 1994, Yahoo! turned into one of "blue chips" (companies with high-yielding shares) of new economy. As the leading Internet portal of Yahoo! demonstrated amazing results of more than 100 million visits per day, annual sales growth rates approaching 200%, and market capitalization that exceeds that one of the Walt Disney Company [Eisenhardt K. M., Sull. D., 2001].

It is believed that the company's ascent can not be attributed to favorable structure of industry. It is also impossible to link the success of Yahoo! with uniqueness or value of resources.

Yahoo! Managers were guided by rules:

- to know priority of each product under development;
- to ensure possibility of each engineer working on each product;
- to maintain a company-specific user interface;
- to launch products without attracting everyone's attention.

"By observing these rules, employees could generally do anything: to come to work at any time, wear any clothes, bring their dogs with them, etc. "[Eisenhardt K. M., Sull. D., 2001].

Within the theory of complexity it is considered that the optimal number of rules is from 2 to 7. In a predictable environment there are more rules, in unpredictable environments there are fewer rules to ensure flexibility. Often rules exist generally in an implicit form. They only need to be shown and consolidated. In the context of strategic management, it is permissible to use the strategic principle:

Table 2

The Code of simple rules [Eisenhardt K. M., Sull. D., 2001]

Type	Task	Example
"How" rules	Define the specifics and main ways of implementing strategic processes	Akamai rules for the customer service process: staff must include technical specialists; any question should be answered by first call or by e-mail; rotation of specialists for services of various types should be ensured
Rules of limits	Serves as a guide for assessing and selecting opportunities within and outside acceptable limits	The Cisco rule: there should be no more than 75 employees in acquired companies, and among them - 75% of engineering and technical specialists
Priority rules	Help to rank opportunities accepted as objectives	Intel's rule for allocating resources: capacities are distributed according to the criterion of gross profit
Timing Rules	Synchronize actions of managers and various divisions of the company with dynamics of opportunities	Nortel's rules regarding product development policies: design teams must know deadlines for delivery of product to the main consumer; product development period should not exceed 18 months
Exit rules	Help to take decisions about rejecting to use outdated features	Oticon's rule of closing projects: The project closes if the leading developer transfers to another project

- a memorable and effective phrase that expresses the unique essence of corporate strategy in a concise form, and brings it to all workers of organization;
- the strategic principle supports the company's focus on implementing the chosen strategy, and at same time stimulates employees to a flexible approach [Gadish O., Gilbert J., 2007].

The strategic principle is the expression of the essence of strategy, which can guide the adoption of corporate decisions both at the highest level and at other steps of organizational hierarchy. For example, the strategic principle of Bain & Company can be given: "The product of a consulting company should be not a report, but results of a customer." Other examples of strategic principles of companies are given in Table. 3.

An effective strategic principle:

- helps to make a choice between competing resource requirements;
- examines the strategic validity of specific actions;
- establishes clear boundaries within which workers must act, and at the same time provides freedom for experiments, taking into account these limitations.

The choice between competing resource requirements as a function of strategic principle is further considered as the main element of self-organization in the company.

In general, the beginning of the study of rules as a management tool was laid down in writings by F. Taylor (1911) and H. Fayol (Fayol H., 1930) devoted to creation of the concept of scientific management. In particular, depending on different types of organizational culture (culture of ownership, culture of role, culture of individual), it is recommended to apply different ways of motivating employees: compulsory motivation, stimulation, career development program, socio-psychological motivation.

The rules are the driver of strategic evolution [Salvato C., 2003]. Institutions as rules are the embodiment of previous experi-

ence of community of people and form the structure within which economic entities exercise their choice [Whittington R., 2002].

As an example of functioning of rules, we note that complex adaptive systems consist of a large number of agents that behave in accordance with certain rules [Gell-Mann M., 1994; Holland J., 1998; Kauffman S.A., 1995; Langton, C. G., 1996]. Complex adaptive systems are studied via computer simulation. For example, with well-known Boids computer simulating of behavior of a swarm of birds, three simple rules are enough:

- keep a minimum distance with other birds;
- maintain own speed in accordance with speed of other birds in environment;
- move toward the center of pack [Reynolds C. W., 1987].

These three rules are enough to simulate the behavior of a real pack. Limitation of this Reynolds model is that it describes behavior of homogeneous agents and does not allow describing transition of the system to another attractor [Stacey R. D., 2011]. Finally, this model remains the only formal model within the framework of complexity theory [Burnes B., 2005].

And yet, these "studies of living systems allowed us to make the following key discovery: order can be born from the general dynamics without centralized management. But this also requires some structuring. In the Boids program, three are simple rules set by a developer. In the approach proposed by authors of the Harvard Business Review, rules derive from the deep study of markets, customers and staff. In the HealthEast, these are basic principles reflected on the map "Journey to Quality", which allowed us to set the right direction for individual initiatives "[Sibbet D., 2015].

### Managed self-organization

An important aspect of the concept of simple rules is the reliance on self-organization. While the theory of self-organization is rarely used in management, its possibilities are far from exhausted, while practice of business already based on self-organization

Table 3

All in one phrase [Gadish O., Gilbert J., 2007]

The Company	The strategic principle
America online	Providing communication with the customer first (at any time and place)
Dell	Direct sales to final consumers
ebay	Focus on trade communities
General Electric	To be a company number one or number two in every industry in which we compete, or leave it
Southwest Airlines	To satisfy need of customers for flights over short distances at rates that can compete with cost of an automobile trip
Vanguard	Incomparable benefits for an investor-owner
wal-Mart	Low prices every day

<sup>1</sup> If necessary, these discrete qualitative indicators can be quantified [Efimov, E. N., 2017].



makes this theory meaningful from a practical point of view [Hai P., Jian-dong H., 2011].

As an example of a self-organizing company, Visa can be taken as an example. When Di Hawk created Visa, he offered small banks a set of simple rules. Visa was founded in 1970 and since then has grown by 10,000%, operates in 200 countries and has more than half a billion consumers. Visa is a decentralized, non-hierarchical, evolving, self-organizing and self-regulating company.

In context of self-organization, the concept of holacracy was proclaimed – organization's management system based on self-organization [Robertson B., 2007]. However, rules and algorithms of work set forth in constituent documents play a certain important role in management of the company [Denning S., 2014].

Self-organization is what parametric strategic management relies on. At enterprise, it occurs in accordance with the theorem of Coase as an exchange of powers (powers and duties) between members of the organization (see, for example: [Obydenov A. Yu., 2016a]). Such an exchange between employees is inherent, for example, to "turquoise" organizations according to the classification of F. Lalux [Lalux F., 2014]. In Russian practice, such a self-organizing exchange took place in the Dial company [Mitin I., 2015].

The role of rules in management is also noted in the framework of local government tools in Australia developed by the Australian Institute of Local Government (toolkit.aigi.com.au). The result of self-organization is the achievement of some attractor, steady condition or mode of functioning by the system [Marion R., 1999]. Special attention should be paid to relationship between parametric strategic management and the concept of the managed self-organization. In first approximation, it can be said that parametric strategic management is a special case of self-organization management. The control effect is carried out by establishing and enforcing the rules of the game and leads to the desired of the wished as one of possible stable conditions and modes of functioning of the organization. Rudiments of this concept are laid into the original approach to managing large-scale projects. It is assumed that implementation of project is based on self-organization, for management of which meta-rules are introduced (general rules for projects of different nature and in different contexts). An audit consists of monitoring how project participants follow these rules [Jolivet F., Navarre C., 1996]. Such a system was successfully mastered in the framework of a research project using 17 meta-rules (5 organizational and 12 governing principles) implemented by Spie-Batignolles in France and in Canada in 1980s [Navarre C., Schaan JL, 1988]. In recent decades, the number of projects submitted by self-organization managed using meta-rules, is growing steadily, it is becoming urgent to develop a unified concept of the managed self-organization. We can say that within the framework of this concept, management of an economic organization is carried out not through individual control over each member of organization, but through managing parameters.

Within the framework of concept of parametric strategic management it is assumed that self-organization arises due to formation and development of horizontal links between members of organization [Trenew N. N., 2001], which is confirmed empirically [Shadid W. K., 2018]. As a part of our approach, self-organization occurs through the exchange of property rights between members of an organization, which can be represented by its units (for example, divisions). Such a self-organization is also possible within the framework of a relative contract between owners of specific resources

competing for use of limited general-purpose resources or as part of a large-scale project between units of the design team. Self-organization assumes that members of an organization must have freedom in regarding self-organization, which is realized through local interaction as a necessary condition [Burnes B., 2005].

In support of our interpretation, distribution of resources is presented as the basis of self-organization within the framework of strategic management [Dolan S. L., Garcia S., Auerbach A., 2003]. The direct distribution of resources between production of various products within the organization is also modeled on market principles. Thus, the organizational structure is in continuous process of change and at each given moment, an organizational structure that is optimally adapted to current situation, is realized [Wiendahl H.-P., Harms Th., 2004]. Through negotiations between agents, the most cost-effective allocation of resources is carried out on the basis of cost-benefit analysis. One way to implement self-organization is to create temporary teams [Shadid W. K., 2018].

A "bridge" to the concept of dynamic capabilities of an organization deserves attention, one of dimensions of which are processes aimed at coordinating and integrating available resources, as well as their reconfiguration [Teece J. D., 2007]. It is believed that new combinations of resources should be continuously created within the company [Dyer G. H., Singh H., 2009]. Directive redistribution of resources involves simultaneous study of many possible options for action, the alternative one is the concept of managed self-organization. These redistribution options are coordinated by a small set of simple rules, which makes the concept of dynamic abilities related to the concept of parametric strategic management. However, due to reliance on self-organization within the framework of parametric strategic management, the result will not depend on intuition of those who take decisions, both within the framework of the concept of dynamic abilities [Dyer G. H., Singh H., 2009]. Considering this approach to the concept of dynamic abilities, K. Eisenhardt and J. Martin point out that a set of rules that is clearly defined, can prevent organization from becoming chaotic and decaying, and must function on an ongoing basis [Eisenhardt K. M., Martin J., 2000].

So, previously there was no approach, justifying application of rules of the game as a whole in the quality of management tools in practice. Such a rationale can be useful in case if something went wrong to answer questions: where exactly is the error? Why did rules stop working as efficiently as they did before? In addition, the approach can be useful for autonomous, distributed and remote organizations, and, in general, for organizations where use of directive and manual control is inefficient.

Within the framework of the concept of parametric management, established rules ensure evolution of a managed economic organization to a target attractor through self-organization in the company through exchange of powers between members of the organization.

## CHALLENGES TO FURTHER STUDIES

### *An empirical test*

The development of the proposed approach to strategic management necessitates an empirical test of effectiveness of approach. Within the qualitative analysis of qualitative decisions, the qualitative comparative analysis can prove to be an adequate tool for an empirical test [Ragin C. C., 1987], which is one of tools of comparative sociology. Qualitative comparative analysis

occupies an intermediate position between qualitative and quantitative methods and is suitable for use in studies with a scale of small and medium size (5-50 objects), where the aggregate is too large to investigate all cases, but too small for application of most statistical methods [Comparative sociology, 2015]. This method was used to assess competitive advantages of the company [Levina A. M., 2017]. To solve the problem of verification of models constructed within the framework of the concept developed by us, it is supposed to establish whether there is a causal connection between presence or absence of a set of rules in organization and achievement of a certain expected result-attractor in the company's activity: sustainable competitive advantage, stable positive production output, etc. Qualitative comparative analysis is one of effective tools for verifying truths of proposed hypothesis theories and individual assumptions [Rihoux B., Lobe B., 2009]. Methods of data collection, based on which it is possible to obtain results of such an empirical study, certainly deserve special study, but they are mainly of technical nature. It is worth mentioning Delphi method, which is permissible to use, among other things, to test influence of governing principles on effectiveness and efficiency of organization's activities [Shadid W. K., 2018].

### *Practical use*

Another important point is introduction of management techniques based on the concept of parametric strategic management. The author has previously considered the solution of various strategic management tasks within the framework of the concept of parametric strategic management, such as adjustment of strategic management in the company [A. Yu. Obydenov, 2009], transition to a positive production volume [A. Yu. Obydenov, 2017], creation of a sustainable competitive advantage [Obydenov A. Yu., 2016b].

Within the framework of this article, we will consider the simplest<sup>2</sup> one-dimensional model from the point of view of dimension, within which the distribution of one limited resource – time of labor participation of an economic agent – is analyzed. In first approximation, this participation can characterize the degree of agent's labor efforts. Thus, the task of distributing employee's time resource between different activities will be solved.

In general, it is necessary to determine whether we control employee's labor efforts or results of his work activity, and to consider what problems arise in each case.

The problem of stimulating an employee to achieve a certain result is considered, for example, within the framework of economic theory of contracts in the management model of conduct of a contractor [Furubotn E. G., Richter R., 1997, p. 179-264; Iz-malkov S., Sonin K., 2017]. One way to encourage an employee to make optimal use of time is material reward. It is assumed that a pledger (manager) is not able to observe labor participation of a contractor (employee). In conditions of uncertain result, asymmetric distribution of information and evasion of employee from a risk, an equity contract is optimal one, according to which the employee receives a fixed remuneration and a part of residual income (participation in the profit). An effective incentive scheme allows to ensure optimal labor participation of a contractor. However, such an effective scheme requires knowledge of many characteristics of an employee, in real terms their definition may be associated with prohibitively high costs. In addition, it is essential that the first best result in this case is unattainable. An obstacle

to achieving an effective result may also be difficulty in separating contribution of this employee from contributions of other members of the organization to overall result. If you try to control not the result, but labor participation of an employee (time spent on labor), then inevitably there arises a problem of controlling a controller, prerequisites for fundamental solution of which are possible only within the framework of the institute of self-regulation [Obydenov A. Yu., 2003]. On one hand, self-regulation (or self-government) scheme involves use of a certain set of rules of the game and in this sense it is a particular case of the concept of parametric strategic management. On the other hand, self-regulation scheme is not suitable for all tasks of economic activity within the framework of functioning of economic organizations.

Existing needs theories [Maslow A. H., 1943; Alderfer C. P., 1969; McClelland D., 1988] indicate that effective labor participation of an employee significantly stimulates intangible incentives aimed at satisfying his needs at various levels. The intangible part of incentive also requires knowledge of characteristics of an employee, definition of which can be associated with significant (or even prohibitively high) costs.

It is possible to create complex models of staff management, for example, a rational model of labor relations, allegedly developed specifically for Russian business practices [Bovykin V. I., 2004], which regulates labor relations through a set of rules and thereby solves staff motivation issues, in particular formation of an accompanying organizational culture. This model, in fact, is also a form of implementation of the concept of parametric strategic management.

It is difficult to predict accurately how many attractors should be expected in a given one-dimensional model, but as results of modeling various managed systems suggest, most likely there will be two attractors<sup>3</sup>. The first attractor corresponds to zero employee participation in company's activities, the second one – to positive amount of participation. And in this sense, it is possible to use contractual approach of Sh. Sander within the framework of the concept of parametric strategic management. The condition (restriction) of participation, consisting in exceeding expected benefits from such a labor participation over corresponding alternative costs (reserve wages) [Sunder Sh., 2004], is a condition for non-zero labor participation of an employee in activities of an organization.

Accordingly, the task is transformed into the task of ensuring a stable involvement of an employee in the work process from target match of a specific value of temporary labor costs of an employee. As follows from the analysis mentioned above, precise target match under uncertainty conditions is devoid of a methodological and theoretical basis and is practically difficult to implement (with exception of self-regulation, where employees are also managers). This conclusion is well correlated, for example, with the management system within the framework of the concept of simple rules in the company Yahoo!, where employees determine their work activity themselves, taking into account some external constraints.

Management efforts should be aimed at reducing costs of obtaining data on characteristics of an employee: alternative costs of his labor participation in functioning of the company, in particular the importance of free time for an employee, his unmet needs, degree of risk aversion, etc. Such a management model is called "Context Management" [Roberts M. J., 1999], it is used if it is difficult to assess or measure desired results of an employee's work; employees are mostly trained professionals. Key tools for imple-

<sup>2</sup> Some authors believe that complex basic models are not needed for complex systems [Chernavsky D. S., Chernavskaya N. M., 2009].

<sup>3</sup> Bistable, in particular trigger systems, are most often found in the framework of a synergetic approach to management

mentation of this approach are assessment and selection of staff, promotion and development of employees, creation of organizational mechanisms for resolving conflicts within the company, and all of the mentioned above corresponds to a relative contract.

Models mentioned above (concepts of simple rules and controlled self-organization, models for managing behavior of a contractor and rational labor relations), preceding the formation of the concept of parametric strategic management, presuppose or allow the use of rules of the game as control actions on economic entities. The rules of the game are the key management tool also within the framework of the concept of parametric strategic management. It is significant that earlier data of a model and concepts are fragmentary. Thus, before conceptual approach that we are developing, we can set the task of building a single model for efficient distribution of limited resources by employees, determining their effective labor efforts in a certain type of activity.

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