

# Cognitive Mechanisms of Organizational in the Conditions of Sustainable Development

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**Abstract:** Cognitive mechanisms in management, aimed at the sustainable development of the company in accordance with modern economic trends are considered. The managerial position based on the personal cognitive construct used in the zone of successful actions is presented. The focuses of the applicability of the personal cognitive construct are highlighted. Zones of successful actions such as Processes, Projects and Products are considered a priority. Specific events of managerial reality for which the use of this construct would be most useful are described. The need to consider the cognitive aspects of the formation of the corporate culture of the organization is emphasized to ensure its development through the collective consciousness, the identification of values, attributes and a common knowledge system, rules that determine the appropriate way of the company to the sustainable development.

## 1 INTRODUCTION


Enterprises and organizations as socio-economic systems a priori have such a systemic property as stability. At the same time, major changes in the landscape of economic activity in recent years are large since the nature of business is in rapid dynamics and development. In these conditions of constant acceleration of changes, companies are forced to solve the tasks of sustainable development, that is maintaining both the balance of the external environment and their competitiveness.


In other words, the puzzle lies in the fact that it is necessary to rely on the analysis of sustainability trends, understood as the ability to adapt to the changing conditions of the external and internal environment of the company - on one hand, and on the other, to rely on the existing “window of opportunity» to select management decisions (Kleiner, 2013). The ideas of professionalism and the content of the manager’s activities are also changing while his individual cognitive foundations draw the meaning of specific actions. The accumulation of new breakthrough technologies is changing

communication, production, and exchange processes in all areas of activity. At the same time, managers' notions of administration do not include the systematic management of processes by which knowledge is identified, accumulated, distributed, and applied in the organization for its sustainable development (Vinokurov, 2006). “The end of the twentieth century showed that in the context of the cultural transformation of society into informational one, the knowledge management is not just a central task but the main mode of activity both at the level of an individual manager and at the organization level” (Kudryavtseva, 2013).

The ability to perceive mentally and process quickly external information becomes the main characteristic of a modern manager in these conditions. The cognitive approach to team management, to problem-solving in joint activities, shows the logic of modern management development (Petrova, 2010). Therefore, there is a need to identify the cognitive mechanisms of sustainable development.

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## 2 METHODOLOGY

At the period of the end of the 19th-century - beginning of the 20th-century representatives of cognitive sciences, such as G. Morgan, S. Tietze, L. Cohen, G. Musson, P. Senge, G. Hodgkinson, P. Sparrow, R. Axelrod, and F. Roberts and others developed concepts of the “image of the organization”, the “language of organization”, the “self-learning enterprise”, and the “competent organization”. It was the penetration of the science of management into the cognitive approach and to the study of semi-structured situations. Reynolds, M., Petrova G.I., Stakhovskaya Yu. M., Nobre, F.S., Davenport T., Prusak L. considered this phenomenon as an innovative strategy of an organization, as a systematic approach to change management, as a cognitive view of an unstable situation, as a management of the company's knowledge.

Peter Drucker substantiated the concept of “knowledge worker”, which was not equivalent to the notion of “mental labour worker”. The knowledge worker was identified through the direct operation with knowledge, and this was an integral part of his work. (Drucker, 2002). These views force to rethink and describe the activities of managers, not as individual members in the process, not as typical representatives of certain professional communities, but as builders and participants in activities located in the internal space of the organization. Moreover, ensuring the sustainable development of a company becomes possible only by considering the social relations and cognitive characteristics of people, which allows acting concertedly, sharing values, thereby providing the organization with opportunities for survival and adaptation in an unstable environment.

But the speed of action depends not only on the speed of thinking of the person who makes decisions on adjustments to individual programs and changes in technological processes but also on the reaction of the economic environment. This contradiction between the actions of people to coordinate strategic decisions and the reaction of partners, markets, distribution channels, etc. gives rise to a strategic paradox (Raynor, 2016). One of the aspects of this paradox is highlighted at the development of the strategy that does not remain only the setting of long-term goals in modern conditions but becomes the answer to the question of how the company will achieve its goals. Thus, the main management principle of a modern organization's sustainable development is not so much setting goals that the company must achieve in each period but determining the zones of successful

actions and developing mechanisms for achieving an advance in them. The cognitive construct understood as a special classification and assessment template from the point of view of achieving the parameters of sustainable development is applied in the area of successful actions and has a focus on applicability. The focus of the construct's applicability covers those specific events for which the use of this construct would be most beneficial (Kelly, 2000).

The focus of applicability is “proactivity” and understanding that in the 21st century every employee is an engineer of his processes, a product or customer relationship designer, and the head is not the one who oversees but also who works as a “designer” - a designer of a business system, of communication politics, etc. Leaders who understand the meaning of proactivity purposefully seek to hire people who possess this property. The ability to be proactive, to understand the proactivity is included in the competency profile of such companies and is reflected in the package of accompanying corporate documents.

We use the methodology of cognitive constructs not only to establish the focus of applicability but also to determine the tools with which this methodology will be able to substantiate the mechanisms of sustainable development of the socio-economic system in a new turbulent environment.

An important focus of the application of the manager's cognitive construct is the use of prototyping philosophies:

- The concept of Minimally Viable Product (MVP) (Shestakov, 2016).
- The concept of Design Thinking (Shilekhina, 2013).
- The concept of HADI cycles (Deputatova, 2016).

These philosophies express the following meanings: a proactive manager values time, the result is important for him, he wants to be able to evaluate whether he is moving in the right direction as soon as possible and make the correction of the way. Therefore, he works in short iterations where a result appears quickly, albeit worked out with different depths, but informative. If he is destined to make mistakes it is better to make them as soon as possible, while they are not much expensive. Cognitive supports act as reference points when the manager resolves the contradiction “differentiation - integration” in the improvement of processes, team building, product production.

### 3 RESEARCH RESULTS

As for processes, the constant striving for expedient simplification, reduction in cost, acceleration, and increase in their transparency leads to the adaptation of the organizational structure, tools, and resources to support sustainable development. In this model, there is an opportunity for the regular audit of internal procedures and subsystems, finding "bottlenecks", duplicating and inappropriate operations, for reflection not only on what needs to be done but also on how to implement it. There is an understanding that a high rate of change (growth, opening branches, introducing new products to the market, introducing new IT systems) must be supported by a high rate of adaptation to changes, which ensures the sustainable development of the company. The development of an adaptation mechanism allows reaching process maturity which, in turn, contributes to the development of certain unique properties of the organization, ensures survival in the external environment, resistance to the negative consequences of the emerging gaps between expectation and reality, and even success in competition in the market (Tab.1).

Table 1: Characteristics of processes for achieving sustainable development.

Quality	Actions
Transparency	Negotiate, commit
Habit	Train performers and internal clients
Optimization	Maintain high values for all metrics

As for the projects implemented in the company the following markers of communications within each of them become important for solving the problem of sustainable development: prevalence; multichannel; focus on the internal customer. And here the focus of applicability is aimed at solving the problems of building a complementary team, since differentiation helps the company to be more sensitive and discerning, develop innovative thinking, and integration provides common goals and expectations for the future.

Personnel management is also considered to be a zone of successful actions, as it is associated with the consciousness and knowledge of a person. The HR department is still the "designer" of HR policy and the "debugger" of HR tools, but the managers of all functional services understand that most of their work is to work with people. That is:

- To provide effective and accurate hiring: full participation in conducting interviews,

preparing, and analyzing a test task, formulating correct feedback for a recruiter.

- To ensure high-quality adaptation when the leader does not only help the newcomer to figure out his immediate work as quickly as possible but also to establish productive social ties; gives feedback that helps to develop; corrects and interrupts the relationship "at an early stage" if he sees any evidence to that.
- To procure the work with subordinates according to the modern concept "70-20-10", which assumes that an employee receives 10% of his experience through attending courses, and masterclasses, 20% - of "social training", i.e., of communication with colleagues, and 70% of his experience is gained directly in the performance of work, provided that it is meaningful and structured. It is the support of subordinates so that they comprehend their working experience, analyzing it, synthesizing new models from it as effective as possible. All this is considered the main work of the leader in the 21st century.

Thus, from the point of view of the cognitive approach, the effectiveness of leaders, solving the problem of a company's sustainable development, is determined by the choice of applying their own cognitive constructs that determine one's competitiveness, high efficiency, and effectiveness. They are:

- The ability to remain proactive always, i.e., not to stop in the "pumping" of work systems, procedures, employees, even if the external environment seems favorable.
- The skill of efficient management, constant striving for expedient simplification, cheapening, acceleration, increasing transparency.
- The ability to think in prototypes, to move by steps ( by iterations), sketching a solution as a sketch, receiving feedback, and adjusting, saving time and resources due to such movement.
- The ability to build a complementary team of people talented in different ways but sharing common sustainable development values to achieve common goals.
- The understanding that the main task of each leader is to work with staff: information, training, involvement, coaching, providing feedback, support in socialization, etc.
- The understanding of the principles of "composite management", according to which a strong organization must learn to combine

spontaneity and coordination, performing discipline and creativity, speed and scrupulousness, transparency, and trust, etc. (Korsakova, 2019).

Another area of application of the cognitive construct is the corporate culture of any organization - an important component of its holistic system, as well as a condition for successful activity and dynamic growth, which supports and provides opportunities for increasing efficiency. The definition of "corporate culture" has not changed too much over the past thirty years. In the 1970-s it looked like "a set of norms, values, beliefs, and patterns of behavior to achieve the goals set for the organization" (Strakhov, 2015). In the 2000-s - it was as "a dynamic system of rules including relationships, values, beliefs, norms, and behavior" (Matsumoto, 2003). Most modern researchers agree that corporate culture is more than a set of elements or a set of rules (Abramova, Kostenchuk, 2007). Culture is a unity of material and mental (cognitive), individual and collective consciousness (Odegov, 2012). Since there are no organizations in which there is no culture, it is necessary to solve the problems of the formation or change the corporate culture by methods that consider cognitive aspects, that include the processes of perception, thinking, cognition, explanation, and understanding, which, in fact, provide a cognitive approach.

As the transition to an innovative economy is an imperative of modern development, it must be stated that knowledge becomes a key value of any business entity and forms the prevailing organizational idea of the values of corporate culture, as common directives, and grounds for operational management (Spivak, 2001).

The formation of corporate culture is a complex process that requires consciously coordinated collective actions. All participants are involved in the continuous creative process of generating the subjective meanings of this process components (Nonaka and Takeuchi, 2011). Cognitive approach to the process of corporate culture formation and development is due to the fact that the inconsistency of the declared ideas and concepts with decisions made in organizations brings the organization significant harm (Myers, 2006). It manifests itself in the divergence of personal beliefs of employees with the adopted organizational rules, in the discrepancy of the information received from the new situation, in the contradictions of the formal and informal cultures, in the replacement of the values of corporate culture by its attributes. This does not allow making

corporate culture an effective, commercially viable tool, but not an "expensive toy".

A successful company should harmonize the external and internal space of its employees and ensure the integrity of its development in a variety of actions in the unity of intellectual, emotional, social experience. Corporate culture is one of the most effective resources to solve this problem. In turn, the emergence and development of cultural forms of activity are determined by an adequate integrating factor - the "foundation" of the company's social space. To implement a system-cognitive approach to the formation and change of the corporate culture of an organization, it is necessary to consider its main elements (Berkovskiy and Tronina, 2019).

Values are a system-forming element of the corporate culture of organizations; they form a complex world of meanings and symbols that underlie individual or collective judgments and actions. It is values that contribute to the stability of the human world and organize targeted human activities and are also criteria for evaluating any cultural phenomenon. Thus, the value of knowledge becomes a key element that affects employees, forms a unity of views and actions, and helps to achieve the goals of sustainable development (Thomsen, 2004). At the stage of formalizing values, it is important to understand that values cannot be "good" or "bad", and the worst that a company can do is to proclaim the fake value "as it should," but in fact not to reflect it in daily work. The honest definition of values is the "center" of the corporate culture. And the choice of attributes of corporate culture - a variety of symbols, ceremonies, myths, metaphorical stories, rituals, role models - should also be consistent with the true values of the organization.

The functioning of the organization as a complex social phenomenon should be considered in the context of the sustainable development of society. The structure, dynamics and culture of modern organizations, their interaction with the external environment, as well as the interactions of organizational structures, can and should change in accordance with external realities and internal strategic goals. The main thing is to maintain the connection between the attributes of corporate culture and its real values: if values are a declaration, then rituals are an annoying burden. It is needed to attract the right people and move away from casual people, and thereby simplify communication between employees, increase their comfort, and reduce staff turnover. It is necessary to create a positive image of the organization and broadcast it outside in order to maintain continuity. It cannot be that there is not any



corporate culture, the only question is how formalized it is and how synchronously formal and informal flows are moving. Corporate culture, like all living things, is described by a life cycle model (Tab. 2).

The main measure of the quantum of knowledge and the degree of mastery at each corporate culture stage is an increase in the level of the company's competence. Precisely all activities are aimed at managing the "knowledgeable" corporate culture. With regard to the tasks and stages of managing the corporate culture, the criteria for evaluating the effectiveness of company management as a whole are radically changing. They become, to a lesser extent, evaluation of profit and, to a greater extent, measuring the state of resources: intellectual capital; investment activity; human resource development; customer satisfaction; the completeness and complexity of the use of information technology; adaptability to a changing environment. It is important to understand that there is not, and there cannot be a uniform, standard approach to the methods and processes of controlling the knowledgeable corporate culture.

Any approach must consider the nature and variety of the most important value - knowledge. There is formalized and non-formalized knowledge, explicit and implicit. There are many other classifications by category of knowledge. In one case, practical, theoretical, and strategic knowledge is highlighted. In another, coded, familiar, scientific, and another knowledge is distinguished. Organizational development requires knowledge of consumers, products, processes, technologies, competitors, laws, finances, and so on. Knowledge can be specific or general to a certain extent.

The perspective importance of the "knowledgeable corporate culture" concept is justified by the urgent need to search, preserve, and stimulate talented people who could generate ideas and bring them to life. If to summarize the accumulated experience, the system of the knowledgeable corporate culture includes such elements as the identification of talents; attraction; retention; organization of their use. Solving these problems can be a huge strategic advantage. Modern organizations are called upon to create a work environment that is filled with creative accomplishments and breakthroughs.

In the organizational space, where the creative intentions of each participant are realized, the product is the result "... containing knowledge ... for its development and maintenance of life" (Raynor, et al, 2020). Christensen, K. M., Scott E., Roth E. Solving the problem of innovation in Business: How to Create

a Growing Business and Successfully Maintain its Growth, Alpina Publisher, 2020, 3rd ed., 290 pp.). We highlight the following parameters for the formation of a "knowledge" product:

- "Gathering" of new knowledge when using non-standard processes to obtain new knowledge (identifying and resolving the contradictions underlying the new world; using intuitive ways to find solutions).
- Management of existing knowledge (transformation of explicit and implicit knowledge of individual employees and the dissemination of this changing knowledge among all others).
- The combination of offline and online learning formats, which allows you to get the necessary knowledge at a crucial moment.
- Consolidation of the acquired knowledge into a certain prototype of a product with sufficient quality, testing, scaling.

## 4 RESULTS AND DISCUSSION

A feature of a modern organization is "incompleteness", openness of architecture for possible restructuring in accordance with the requirements of sustainable development. Highlighting such areas of successful actions as Processes, Projects, and Products, we proposed certain tools that, in our opinion, form a focus of applicability and help the company to be more sensitive and discerning, develop innovative thinking, integrate common goals and expectations for the future.

At the same time, such systemic aspects as awareness of the boundaries of each activity and their identity, the nature of power and relations between employees, communication between levels, the distribution of powers, leadership style, etc. can become sources of barriers for a company to achieve a level of sustainable development:

- Slowing down the pace in the implementation of the quantitative goals of the organization due to the temporary priority of the qualitative ones.
- Increased stress levels when dealing with change.
- Difficulty developing skills for dealing with change.
- Management turnover.
- Difficulty choosing a communication channel.
- Additional costs for training high-quality communication.

- Expensive work with mistrust and sabotage of staff.

It is given that the speed of change in the modern world has reached unprecedented values, the lifestyle of consumers has changed dramatically, companies are forced to change their programs, production elements, processes, and taken earlier decisions. And it all takes the company a lot of time and energy. And the lack of an instant reaction from the external environment does not make it clear whether they are moving in the right direction. A contradiction arises between the accelerating changes in the external environment and the company's strategy aimed at sustainable development. In order to assess the

general state of the company, which has developed as a result of the use of a cognitive construct in the zones of successful actions, a certain "Influence Map" is suggested. In the absence of quantitative relationships between the factors describing the situation, such a map can serve as a starting point for matching a group view of the situation, followed by a qualitative analysis of important influencing factors (Tab. 2).

With the help of this map, one can imagine on what segment of the path towards sustainable development the company is and consider all the barriers (negative signs of influence), the overcoming of which will determine further development.

Table 2: Influence Map.

Success Zones	Consequences of cognitive construct application	Influence
Processes	Transparency	+1
	Habit	+1
	Internal customer satisfaction	+1
	Cost minimization	+1
	Slowing the pace	-1
Projects	Culture of change	+1
	Increased stress level	-1
	The difficulty of skills for working with changes	-1
	Corporate culture	+1
	Flexibility	+1
	Attractiveness	+1
	Business Goal Orientation	+1
	Balance	+1
	Management turnover	-1
	Communication	+1
	Prevalence	+1
	Multichannel	+1
	Internal customer orientation	+1
	Sufficiency +1	
	Channel selection complexity	-1
Additional training costs	-1	
Culture of change	+1	
Products	Gathering new knowledge	+1
	Lateral thinking	+1
	TRIZ	+1
	"External" knowledge	+1
	Organizational restructuring	-1
	Knowledge Management	+1
	Spiral Management	+1
	Fractional nutrition	+1
	Priorities of personnel policy	-1
	Expensive work with staff mistrust and sabotage	-1

## 5 CONCLUSIONS

The sustainable development of the organization is a holistic process the purpose of which is the continuous improvement of its basic economic and social indicators. The use of cognitive mechanisms is due to the objective need to bring the social practice to organizations with an established management theory that has undergone global changes in modern living conditions.

The methodological aspects of developing cognitive mechanisms are still in the process of formation. There is no clear conceptual framework and specific implementation tools. However, the very concept of a “focus of applicability” of cognitive mechanisms has real prerequisites, and the need for its development is obvious.

The managerial position based on the personal cognitive construct is of particular importance when it is used in the zone of successful actions. By highlighting the applicability focuses of the personal cognitive construct, the leader can ensure the development of specific events of managerial reality in the direction of increasing the stability of the organization. Besides the cognitive mechanisms allow creating the corporate culture of the organization as a semantic system involving employees by highlighting values and symbolic tools, performing representative, directive, and emotional functions that will contribute to sustainable development in modern conditions.

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