

DYNAMICS OF CHANGE OF THE BASIC ELEMENTS OF ENTERPRISE

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Abstract: *New views on elements that make an enterprise and its environment were brought by cybernetics. Every change that happens in any natural or organized system has a destructive character. The intensity of that force depends on resistance emitted toward change. With a new change, the dual action of technical progress manifests. Affirmative (progressive) and devaluating (regressive). Changes under the action of technical progress bring change in the functioning of organizational systems. Balance is at stake with elements that constitute one system as well as with enterprises and their surroundings. Cybernetics identifies the power and dynamics of change and stand to bring things and process into the primary state of equilibrium. Cybernetics must respect events of the environment in which organizational system exists and their influence on happenings in managing systems. Enterprise is not an isolated system but a legal bond of connections between certain parts of inner or outer parts. In this work, we will put an accent on elements that purposely or autonomously create changes. We will symbolically represent the surrounding in which the whole process of enterprise development is taking part, as well as a partial complex of that process which makes: the development of product, the development of market, the development of resources, the development of capacity, and the*

working processes. If the solution to newly created problems made by changes is wanted or known, the algorithm is always possible.

Key words: *enterprise, product, market, capacity, cybernetics, working process*

JEL classification: O33, L11, L15, L16

1. INTRODUCTION

The key factor of success is scientific excellence. The driving force of innovation can be new product or technological change, therefore, there is growing discontinuity. The digitization and Industry 4.0 have selective effects on resource availability, although deficits can be overcome by technology as well as competitive advantages (Todosijevic et al., 2020). The enterprise as an organizational system has a stochastic characteristic. Its functioning depends on the balance level of constitutive elements. These relationships can be based on processing technology and manufacturing technology. The behavior is maintained by functional strategies. Material resources and tools form a symbiosis in the processes of creating any production output. The quality of the input raw material from the aspect of physical, chemical, mechanical, and

technological characteristics will predominantly affect the quality of the object as a result of defined in advance activities. Through the product, the enterprise will fit into its changing environment. From the various elements of the enterprise structure that function in mutually agreed equilibrium relationships, we have singled out four, in our opinion, key areas into which all mutual activities flow, which have the expected result of product development, capacity development, resource development, and market development. We will briefly analyze these four categories from the point of view of changes i.e. mutual coordination, action and influence, and networking on the overall development of the enterprise as a cybernetic system.

2. INITIATORS OF CHANGE

Every business activity and every type of action needs a strategy. The selection of information according to the degree of importance and the forecast duration of the outcome is the most important determinant for the general but also for the following - selectively supplementing strategies. A chip happened to us, a biosensor, we have a rapidly emerging "enormity" embodied in "Big data", the theory of recognition as the basis of artificial intelligence, and we were waiting for a biochip. Data storage in the "cloud" is a consequence of two interrelated trends: unstructured data and its accelerated growth, and immanent to it, the rapid growth of the ability to understand and manage information.

Along with this, the overall work culture is growing and technological literacy is increasing. The fear of the future is reduced. Estimates are that by the end of 2023, more than 60 billion devices will be interconnected and exchange information. It will not be computers, smart mobile video phones, servers, smart cities, highways, medical devices, etc. The isomorphism between technical and biological systems takes on a scientific cybernetic emphasis. By forming integral technical or biological structures, we form new specific laws.

A scientific opinion or attitude cannot be viewed from the position of a short horizon and should not be limited by the time interval for the realization of a scientific problem. Conscious thinking is a limiting factor and is not enough. The incubation period of intense thinking in the development of an idea is the result of the coexistence of the logical and the intuitive. Embryos of change seek identification and position in existing structures and incorporation into the environment. Change management excludes routine and requires the

mobilization of resources in favor of the work being done. A horizontal hierarchy emerges.

Sustainable competitive advantage forms the bulk of an enterprise's strategy. Everything else represents directions for achieving advantages in existing markets. We base our approach on the "strategic compass" as a direct method for exploring options in competitive strategy.

We will start with three main problems and ways of their interpretation, which are important for setting and redefining the development strategy.

1. Price competitiveness in sensitive market segments;
2. Relationships of input dependence, their conversion, and output;
3. Relationship: lowest costs - lowest prices.

Two other practical problems, as a rule, correspond to these strategies:

1. The problem of applying appropriate management to implement the strategy. To be able to manage and control the strategy of the price leader, it is necessary to know the costs of the competition. Experience shows that managers have problems defining their cost position while defining the cost position of competitors is very difficult.
2. Internal orientation and opportunities for reorientation: Most management teams are content to focus their attention on the internal functioning of the organization, considering it a vital strategy activity.

The problems of most enterprises consist of insufficient attention, analysis, characteristics, and trends that arise from the behavior of the environment. Insufficient attention to the market, and consumers in terms of changing needs, competitors, or institutional data, and changes in the geographical-spatial, economic or socio-political sense, can compromise activities in the realization of the strategy. The strategy of fruition in costs justifies the internal focus, but also the behavior of the environment and how it deserves attention because the enterprise's existence is realized in changing environmental conditions (Todosijević, 2010, p. 227).

By defining the output, we do not analyze its components but start from its function. With increasing determinism, the openness and flexibility of the production system in adapting to needs, which arise outside the reach of regulated relations, decreases. The quality of the enterprise output will largely depend on the changes occurring in the production workforce (Marx, 1947, pp. 8 and 249). Historically and

developmentally, it is shown that the two most significant causes of change in organizational systems are technical technological progress and the behavior of the environment. There is action and reaction. In both cases, the feedback loop is affirmed and cybernetic action is confirmed. Technical technological progress leads to the intended changes and the affirmation of its dual effect (Gutenberg, 1968, p. 384). It affirms new products, new capacities, new needs, new technologies, management methods, etc. and at the same time, it devalues existing products, existing techniques, and existing technology... The environment through competition, and the need for adaptability, indicate the processes of adaptation and active feedback. Isomorphism is realized as a mutual one-to-one transformation of one system into another more comprehensive one and vice versa. The growing importance of scientific research and development potentials and wider integration of economic entities promote active carriers of scientific and technical progress and the application of achievements in the material sphere.

Technological change consists of both chance and threat contained due to a strong orientation to the future, which is sure to be uncertain. With objective prognostic methods, forecasts of the future can be reduced to a measure that is permissible and can be controlled as such concerning risk. The consequences of quantum and developmental technological changes are all around us (Todosijević, 2010, p. 530).

As for the environment, globalism is very difficult to avoid. It has understanding only for his initiator and mover. There is no justice and irrational behavior, only interest. Globalization processes do not occur spontaneously but intentionally. With its appearance, and decisions of the previous character, globalism causes changes and achieves its many goals, for the ignorant, through coexistence. It is about power and force, historically acquired by its creators, in exchange for protectionism, and colonialism, through experiments with exchange rates and a promising tomorrow. Monetarism fails as a growth strategy. By strengthening their economic milieu, small countries through their development can resist the new challenges of dependence (Kontic, 2018; Kontic&Domanovic, 2021).

3. ADAPTATION CHALLENGES OF ENTERPRISES

The values of the output, in order not to be devalued, which is inevitable over time, dictate the need for the management to continuously self-design and maintain the process of adapting the business of the enterprise and the elements of the enterprise that constitute it, whose balanced action

produces the output, through which the business of the enterprise is continuously adapting to the operating conditions of the changing environment (Rogers, 2019, p. 220).

Deviations from the results of business activities require turning points, which will differ from the previous concept that brought success and seek new opportunities and planning and programming decisions. Companies with a long tradition have a hard time bearing the processes of breaking the balance and, as a rule, postpone the process of adaptive response. Young, non-traditional branches, which are already producing the most facts of the future, adapt more quickly to changing challenges from the environment. We deliberately do not mention the market as, as some believe, the regulator of relations in economies and the economic international and domestic structure, because digitization will suppress the market, just as the market eliminated feudalism. This process of redefining the role of the market is already underway. The enterprise as a cybernetic system, in the processes of disturbed balance, whose causes can be numerous, promotes a system for "alarming" - the reaction of decision-makers about the acting forces causing the imbalance - crisis.

According to Adžes, companies' attitudes towards change can be inactive, decisive, and planned. In the practice of underdeveloped economies and with undeveloped management, we derive the following characteristics: Passivity and stagnation as well as fear of the unknown, as a rule, compromise possible attitudes about challenges and changes from the future.

All of this requires enterprises to search for new strategies based on redefining the vision, and affirming the strength of flexibility, either by improving the characteristics of the existing output (e.g. quality, price, availability, lending, guarantees, services etc.) or by introducing a new product. We cite an example of a foundry that has gradually differentiated itself on its development path.

First, iron foundries were separated from non-ferrous foundries. This is followed by further differentiation into commercial and machine foundries and steel foundries. Then there were plants for the production of malleable cast iron and modular cast iron. Plants for the production of high-precision castings and the further onset of the differentiation process appear as a response to the internal reaction and adaptation of the enterprise to the changing demands of its environment. Changes are taking place in the mechanization of the manufacturing process, as well as the levels of technical equipment of the work, but also in the mass.

The general decision is: when to stop the production of an existing product and not when to introduce a new one. The introduction of a new product is a natural consequence of the devaluation of the existing one and its damaged relations, either within the enterprise or with the environment.

Today, it appears that new classical macroeconomics seeks to demonstrate the futility of Keynesian demand management policies and instead focuses on supply-side economics (Pearce, 2003, p. 308). The offer, among other elements, represents the most important link in the relationship with the environment. And the onset of globalization, which is characterized by force and power, to last, must function according to cybernetic laws. It is about the appearance of all functioning relationships with the goal of their controlled behavior. It should be emphasized that globalization is also an evolutionary creation, where with the affirmation of development, the technology of its temporal action changes, and limits.

Regardless of whether it refers to actual processes, there is much disagreement as to its interpretation and behavior. It is not neutral. The characteristics of global and individual changes cannot be unambiguously interpreted. The expansion of capital and influence continues after the historical collapse of dominant civilizations with a dominantly different methodological approach. Digitization leads to the reduction of communication costs, which greatly favors the organization of transport and the onset of globalization. The most important challenge for adapting to the challenges of new assumed values is leadership - the bearer of change. As a rule, the identification of the expected facts of the future should be the result of the strategic team of individual companies or more comprehensive systems. The time for action is "now" and not "tomorrow". The time dimension is inherent in business response processes.

"Businesses progress based on assumptions that are overcome at some point. It is the weakness of every company and the opportunity of every startup". (Rogers, 2019, p. 223).

4. INVESTMENTS AND ADAPTABILITY

The creation of value for clients is based on digital technologies, i.e. how it is communicated, created, and connected. The manner of reaction and the result confirm the cybernetic performance, and action. The ways to innovate are increasingly the result of digital technologies. Information appears as a substrate of management. The importance of information, but also the speed of collection,

processing, and distribution shows the interaction between digitization and information.

This reciprocity of digitization and information results in innovations in knowledge and business. Information appears as the first line of wealth in the modern world. The creation of value is confirmed by clients, which allows, through digitization, an unlimited number of simulations in search of the best solution. Digitization and computerization, when it comes to changes, confirm the dynamics of changes: fast, faster, even faster.

Digitization and computerization affect the processes of reshaping attitudes toward customers, suppliers, competition, information, innovation, and values. "Whoever adapts will last, who doesn't adapt will disappear".

Savings, insurance funds, and reserves represent investment incentives. Banks, investment funds, and enterprises should be viewed methodologically from a different angle. In the economic sense, investments lead to the creation through renovation, modernization, reconstruction, new construction, etc., to the increase of additional real capital.

"Even today when a farmer devotes his time to improving his fields instead of sowing and reaping, he is saving and investing at the same time, "saving" because he forgoes current consumption in order to secure greater consumption in the future, the amount of saving being measured by the difference between his pure real income and its consumption. "Investments" form net capital by improving the productive capacity of his farm" (Samuelson, 1951, p. 226).

Digitization and digital business launch new sets of events, opposed to the traditional ways of adapting a stable enterprise with a completely built internal and external infrastructure necessary for its functioning (Kontic&Vidicki, 2018; Kontic, 2021).

5. BASIC ELEMENTS OF ENTERPRISE FUNCTIONING

Investment policy, net capital, development policy, and development opportunities, and management quality, carry with them the message of the future positioning of the enterprise in its existing environment. Changes need to be managed, there are no sensational and elegant models, and *laissez-faire* activities, and *invisible hands* have long since guaranteed neither balance nor success. The inability to adapt reduces the enterprise's chances of defining a business and development policy. Optimal selection of resources and methods of capacity management on the one hand, and current

and potential market positioning, on the other hand, bring with them the ability of an active development and investment policy and promote the output - the product of the enterprise. Functional dependency is dictated by the need to establish a cybernetic balance.

5.1. Capacity

Capacity, as a capital asset of a technical-intellectual nature, most often uses a feedback loop with linear dependence, because it is easy to apply models of linear differential equations to it. Non-linear dependencies increase the degree of complexity, which requires the modeling of appropriate links between management and results. Management processes take place according to certain laws, which means that they have their own algorithm.

We view the capacities of organizational systems, which realize their connection with the environment through products, as a process of development, which is realized:

- along the lines of individual components, in the form of changes in their properties, prices, structures, as well as their organizations that affect capacities,
- according to the level of technology, as well as other work processes, and
- along the line of the level of concentration of factors that determine capacity ratios. (Todosijević, 2010, p. 459).

It follows that the growth and development of production capacities and production is functionally interdependent with the economic category of investments. With investments, we also perform capacity profiling and production profiling. The choice of capacity profile defines the scope and structure of investments as well as the breadth of business cooperation, while profiling the production determines the level of specialization.

5.2. Resources

In the enterprise development, resources have an initial, existing and permanent function, which causes special changes in availability, proportions of individual components, quality, prices, and conditions of security, but also appropriate management activities.

The stimulation of growth and development is particularly influenced by the following resources: raw materials and energy, highly qualified workforce, industrial tradition, technical resources, development of forms of business and production cooperation, business reputation and commercial, financial, infrastructural resources, technological

resources in terms of dominance from the aspect of modernity, and Ph.D. Disposing of certain types of resources, with effective management, it is possible to achieve significant comparative advantages. The disposition and management of dimensions significantly encourage capital intensity. Human resources, ideas as resources, various forms of cooperation and capacities form the paradigm of the knowledge-based economy. When deciding on the allocation of resources, it is necessary to consider and take into account the total net participation of the investment unit in the output, because the cost price depends on it, as well as the overall ability to respond to the price market (Todosijević L. S., et al. 2016, p. 57).

5.3. Product

We view the product development complex, from the customer's point of view, as a process of continuous adjustment of usage properties and product selection to the changing requirements of the main, that is, selected categories of customers, on which the specific enterprise is oriented.

The tone of modern production, in most branches of production, in the market economy, is set, first of all, by the most technically and economically influential producers, who are also the bearers of scientific-technical and business progress in their specialty. On the other hand, just as the market affects product development, there is also a feedback effect of product development on the market, especially when it comes to innovative activities as a form of results and impact, activation of available scientific and technical achievements. Then opportunities are created for development to be realized along the line of creating original-new products and technologies inspired by ideas that emerged within the framework of fundamental and applied research, and along the line of improvement and adaptation in the course of development research, the possibilities of their practical application. Such moves often anticipate the current demand, which, with its positive properties and effects, acts on the restructuring of the previous demand.

The discovery and rational application of original scientific and technical novelties, in the form of attractive new products and procedures, will act not only on the restructuring of the previous demand, but will also act, with the power of its indirect economic influence, on the interest of including new manufacturers, for the production of such originally new products, i.e. , for the acceptance of originally new manufacturing procedures, which in most cases will be reflected in changing the position of traditional products, thus also in the position of their producers, as well

as companies that apply traditional manufacturing procedures (Todosijević, 2010, p. 451).

A high level of achievement along the line of product development and manufacturing procedures, even if they are achieved in a production organization that represents a relatively small production potential, is reflected in the changing characteristics of the supply and very powerful and even the largest organizations, which in capitalist conditions mostly ends by buying progressive small businesses from powerful big enterprises.

5.4. Market

Quite simply, we observe the development of the market, where we emphasize the influence of the main and potential categories of buyers. We emphasize the influence of the conditions of the most economically and technically powerful representatives of producers.

Observed from the position of the cybernetic system and the needs of its functioning, we note that there is a very close relationship of interdependence and action between the development of products, capacities, resources and the market.

CONCLUSION

Changes lead to irreversible processes, which means that it is not possible to return to the starting position - previous state. The consequences of quantum and developmental technological changes are all around us. By strengthening their economic milieu, small countries through their development can resist new challenges of dependence.

Information appears as the first line of wealth of the modern world. It forms our awareness of change, because it is the very basis of any event, and it is negligible whether it is the result of a thought experiment or a material transformation. Value creation is confirmed by the clients, which allows, through digitization, an unlimited number of simulations in search of the best solution. Digitization and informational technologies, when it comes to change, confirm the dynamics of change: fast, faster, the fastest. Digitization and informational technologies affect the processes of reshaping attitudes towards customers, suppliers, competition, information, innovation and values.

“Those who adapt will last, those who do not adapt will disappear.” Digital business is launching new sets of events, opposite to the traditional ways of adaptation of stable enterprise with a fully built internal, and external infrastructure necessary for its functioning. Adaptation to change is a special kind of intelligence of organizational systems. Inability to adapt, reduces the chances of the

system to define business and development policy. Optimal selection of resources and ways of managing the capacities of on one side and current and potential market positioning on the third side, bring with them the ability of active development and investment policy and promote the output - the product of the enterprise. The dynamics of organizational systems is confirmed by inductive deductive action. Changes in individual components that determine the system cause changes in the whole system. Functional dependence is dictated by the need to establish cybernetic balance. The choice of capacity profile defines the scope and structure of investments, but also the breadth of business cooperation, while the profiling of production decides on the level of specialization. It is shown that capacity is a more dynamic category than the production profile, whose dynamism is shown as a derived category.

When deciding on the allocation of resources, it is necessary to consider and take into account the total net share of the investment unit in the output, because it depends on the cost price but also the overall ability of the price market response.

The crisis is the most dangerous cause of change. These changes are irregular, they usually occur suddenly, they are difficult to control and if they produce hopelessness, they devastate the entire management and organizational system as a whole.

Managing change means managing sustainable development. Sustainable development is precondition of survival in turbulent environment.

REFERENCES

- [1] Gutenberg E. (1968). “Grundlagen der Betriebswirtschaftslehre”. Zweiter Band. Der Absatz. 11 Auflage. Springer Verlag, Berlin
- [2] Kontic, Lj. (2018). Innovation Strategies in European Developing Countries. In Strategic Design and Innovative Thinking in Business Operations (pp. 233-251). Springer, Cham.
- [3] Kontić, Lj., & Vidicki, Dj. (2018). Strategy for digital organization: Testing a measurement tool for digital transformation. *Strategic Management*, 23(1), 29-35.
- [4] Kontic, Lj. (2021). Digital transformation of public sector: The case study of Vojvodina government. Economic and Social Development: Book of Proceedings, 291-296.
- [5] Kontić, Lj., & Domanović, V. (2021). Characteristics of Entrepreneurship in the Republic of Serbia and in the Region. PaKSoM 2021, 51.
- [6] Marks.K (1947).. *Kapital I*, Kultura, Beograd, Modifikovano prema str. 8 i 249.
- [7] Pearce W.D., (2005). *Moderna ekonomija*.

- Beograd: Dereta.
- [8] Rodžers L.D.(2019). *Vodič kroz digitalnu transformaciju*, .Finesa Beograd.
- [9] Samuelson P. (1951). *Ekonomija, translated into Serbian*. Beograd: Savremena administracija.
- [10] Todosijevec, L.S., Todosijevec, R., Malesevic, Dj. (2016). Strategy of supply and ascertaining of critical potential of an enterprise, *Нови Економист*, 10 (20), 56-63.
- [11] Todosijević R. (2010a) *Strategijski menadžment Tom 1*. Subotica: Ekonomski fakultet Subotica,
- [12] Todosijević R. (2010b) *Strategijski menadžment, Tom 2*. Subotica: Ekonomski fakultet Subotica,
- [13] Todosijević R., Todosijević L.S. (2020). Krize i razvojni (dis)kontinuiteti – kreacije, imitacije, trajanje, opstanak (In Serbian), *Financing*, 1. Banja Luka.

SUMMARY

Changes lead to irreversible processes, which means that it is not possible to return to the starting position - previous state. The consequences of quantum and developmental technological changes are all around us. By strengthening their own economic milieu, small countries through their own development can resist new challenges of dependence. Information appears as the first line of wealth of the modern world. It forms our awareness of change, because it is the very basis of any event, and it is negligible whether it is the result of a thought experiment or a material transformation. Value creation is confirmed by the clients, which allows, through digitalization, an unlimited number of simulations in search of the best solution. Digitization and informatization, when it comes to change, confirm the dynamics of change: fast, faster, even faster. Digitization and informatization affect the processes of reshaping attitudes towards customers, suppliers, competition, information, innovation and values. "Those who adapt will last, those who do not adapt will disappear." Digitalization and digital business are launching new sets of events, diametrically opposite to the traditional ways of adaptation of stable company with a fully built internal and external infrastructure necessary for its functioning. Adaptation to change is a special kind of intelligence of organizational systems. Inability to adapt, reduces the chances of the system to define business and development policy. Optimal selection of resources and ways of managing the capacities of on one side and current and potential market positioning on the third side, bring with

them the ability of active development and investment policy and promote the output - the product of the company. The dynamics of organizational systems is confirmed by inductive deductive action. Changes in individual components that determine the system cause changes in the whole system. Functional dependence is dictated by the need to establish cybernetic balance. The choice of capacity profile defines the scope and structure of investments, but also the breadth of business cooperation, while the profiling of production decides on the level of specialization. It is shown that capacity is a more dynamic category than the production profile, whose dynamism is shown as a derived category.

When deciding on the allocation of resources, it is necessary to consider and take into account the total net share of the investment unit in the output, because it depends on the cost price but also the overall ability of the price market response.

The crisis is the most dangerous cause of change. These changes are irregular, they usually occur suddenly, they are difficult to control and if they produce hopelessness, they devastate the entire management and organizational system as a whole.

Managing change means managing development, with survival and duration