Supersystem as the Main Vector of Development of Strategic Business Positioning Methods

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Abstract: For the long-term functioning of the organization, it needs to act rationally, namely, the decisions that are made in the organization should pursue a clear goal, which in turn should be determined on the basis of a long-term vision of the organization's place in the external environment, otherwise decisions will be made aimlessly, such decisions taken "at random" have an unpredictable effect. The growth of the dynamics of world change, trends and the acceleration of information accumulation creates uncertainty as the biggest problem of modern management. It is overcoming uncertainty that is an obstacle in the process of building a rational strategy of the organization. Considering the steps as elements of building an organization's strategy clearly opens up gaps in the process of determining a rational strategy. The existing positioning methods are built without taking into account the uncertainty factor as the main characteristic of the external environment. The methods of strategic positioning in the existing form are not able to overcome uncertainty, since the nature of the factors requiring consideration is not only changeable, but also has the property of fuzziness. Determining the strategic position of a business in a limited coordinate system in modern business conditions is not able to reveal the advantages and disadvantages of the organization, since quantitative assessment of environmental factors is ineffective in modern conditions characterized by uncertainty and emergence. Overcoming uncertainty as the main challenge of the 21st century in strategic management lies in determining the position of business in the external environment, which in turn has the properties of a supersystem, the main characteristic of which is that the sum of the properties of subsystems is not equal to the property of the system itself. It is the position of the organization in the external supersystem, and not in coordinate planes, that can reflect the objective strategic position of the organization among competitors and determine the most rational ways of developing the organization among the many risks and challenges of the external environment.

1 INTRODUCTION

The existence of any organization presupposes development, the process of moving the resources of an organization from one functional specificity to another. The peculiarity lies in the fact that the movement and distribution of the organization's resources does not happen for nothing, any movement pursues a goal, for example: the expansion of the assortment implies the achievement of the goal of capturing new markets and expanding the audience of consumers. Expanding the audience of consumers implies a goal: getting more profit. Getting more profit implies a goal: to take a more profitable competitive position in the market. Initially, the position of the organization in the future is chosen, which management considers the most profitable and rational, that is, management chooses the point, the qualitative and quantitative characteristics that it wants to achieve, this point can be called a strategic goal. As an axiom in this process, there is always a provision that the strategic goal (the desired position of the organization in the future) will always be aimed at improving the situation (achieving greater profits, gaining new customers, gaining more market share), and will never be aimed at weakening the existing position. After the desired position in the future is determined, it is necessary to find out what position

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the organization is in now, relative to the desired coordinates. It is advisable to use the same metrics that were used in determining the desired position. After the desired and current positions are determined, planning is assumed, which is designed to lead the organization from the current point to the desired one. But the key feature and the need for positioning and planning is that the existing positions are considered in a dynamic environment, which with the growth of technology and the amount of information is characterized by a high variability of events. The sooner an organization adjusts to a particular change, the less costs it will incur. As for the desired position of the organization in the future, with a high level of forecasting of future positions, it is possible to track those moments when the organization should restructure its vision of the desired position, from the point of view of rationality, it is necessary to reduce the intervals between the time stages of reflection of the organization between the current position and the desired position (in the future). It can be concluded that the process of predicting future positions on the coordinate system is necessary in any method of strategic positioning.

2 MATERIALS AND METHODS

To substantiate the use of supersystems as a method of assessing the strategic positioning of a business, theoretical methods were used, such as a systematic approach, analysis, experimental methods-comparisons, observation, description. It is this set of methods that contributes to solving the following tasks: To determine the nature of economic changes, to assess the existing uncertainty in the context of dynamic environmental conditions, to justify the need to use supersystems in the process of strategic positioning of business. To substantiate the acceleration of the dynamics of the external environment, the method of comparative analysis was used, it contributed to the visual acquisition of the difference in information accumulations.

3 RESULTS

The 1980-1990 years of consumer development differ from the previous ones in that during this period the demand for innovative products began to grow. Different requirements are imposed on one product name, each product name tends to have more originality in contrast to competitors. The competitiveness of the product is reflected in its distinctive features from the analog product. This approach gives rise to organizations in the 1980s and 1990s to ensure innovation in production technologies and in the approach to management, not only the product should be innovative, but also the processes during which it is created, and most importantly, such processes should be continuous. Rationalization of production and management potential becomes impossible without mathematically justified actions. Innovation permeates every organization and every process, whether it is a production or management process. The characteristics of a product that is likely to be in demand during this period can be determined by answering the question whether this product is "new or improved". At this time, business pays special attention not to the ability to quickly adapt to changing demand, but to anticipate it. This provision applies to both goods and services. It was the need for innovation that prompted businesses to invest substantial amounts in R&D, in the period from 1980-1990. By the end of the 80s, the share of business spending on R&D in the United States increased 30 times compared to 1960 (over the next 30 years, the share of business spending on R&D in the United States increased less than 5 times). It was during the period from 1980-1990 that the opinion was confirmed that a high level of development of the innovation sphere leads to rapid economic growth, and scientific and technological progress has a directly proportional effect on the structure and scale of production, the growth in the expansion of knowledge-intensive production and services in developed countries caused the rapid development of national economies of the late 20th century. The period of 1980-1990 was the beginning of the innovation race, during this period such fundamentally new and widely accessible inventions as a CD, a mobile phone, a personal computer were created. Strategically advantageous position of business 1980-1990 was determined by the extent to which the organization is able to master the achievements of scientific and technological progress and what is its level of innovation potential.

The demand for innovative technologies continued after 1990, and the excitement reached its highest level in the late 1990s. The Internet appeared

on the market, the shares of many Internet companies grew hundreds of times, the innovative organization was characterized by the presence of the "Internet" factor in business processes. By 2000, the world had reached a point where the participation of the Internet in organizations was rethought, there was a dot-com crisis. Organizations using the Internet aroused enormous interest among investors, but the use of the Internet in itself is not an independent business process, but only complements it. This substitution of concepts has led to the formation of one of the largest economic bubbles. The size of venture investments has decreased by several times:

This has led to a rethinking of the innovation factor and a more complex definition of it. A significant advantage was not just the presence of innovation, but its ability to solve real problems and existing consumer needs.

Technological trends that need to be taken into account in the strategic positioning of the business. The 21st century can be safely called the age of information, since only in 2017 the amount of data received exceeded the data collected for all the previous 5,000 years combined. About 5 million people use the Internet, and over 40 billion digital devices generate 2.5 quintillion bytes of data every day. From the point of view of technology, a breakthrough technology will be considered that will be able to process ever-growing amounts of data, but it's no secret that it took a few years from the need for big data processing to the creation of tools for their processing. From the birth of the trade we are familiar with to the introduction of the ubiquitous principle of mass production, more than 7000 years have passed, from the appearance of the Internet in people's everyday life, to the penetration of the Internet into all spheres of human life, about 10 years have passed. Less than a few years have passed from the need to structure and operate with big data to the appearance of appropriate tools. Moreover, the development of artificial intelligence and the development of productive capacities will make data processing faster by more than 150 million times. By the way, the largest technology companies in the world have already announced their computers capable of conducting quantum computing (the release of the IBM quantum computer is announced for 2023). The ability to analyze and calculate the various states of such computers will give a significant leap in all fields of science, be it biology, physics, economics. For 10 years, it can be said with accuracy that in the first quarter of a century, humanity has overcome at least 3 challenges: data growth, data development, and is approaching ahead of data development. Cloud technologies will allow you to have access to such technologies almost instantly. According to the participants of the World Economic Forum, the danger of the development of such technologies will consist in an increase in the growth of cybercrime, since artificial intelligence and quantum computing, for example, can pick up any password in seconds. Zurich insurance group, together with the Atlantic Council analytical center, noted the future exponential growth of cybercrime. Experts of the Russian Sberbank agree with this forecast, in their opinion, artificial intelligence will be one of the main reasons, and legal norms will adapt following the need to assess responsibility for decisions made by artificial intelligence. It is obvious that from a technological point of view, taking into account the availability of computing technologies to the masses, one of the factors of the advantageous strategic position of the business is already the ability to withstand cyber threats, as well as the overall level of data security in the organization.

Economic trends that need to be taken into account in the strategic positioning of the business.

The beginning transition in the late 20th - early 21st century from the "economy of atoms" to the economy of bits carried out a reassessment of the importance of information. In the current age of big data information, a tangible flash card for $1 can store information worth $1 billion. Digitalization has penetrated into all spheres of the economy. The level of introduction of computer technology continues to grow, the introduction of computer technology is noticeable even in those activities that are considered the most dependent on human abilities (Kolesnichenko, Radyukova, Pakhomov, 2019; Garnov, Zvyagin, Sviridova, 2019).

In a large number of countries, the "economy" is an economy based on digital technologies, which in turn use data collection, storage, transmission and analysis. An economy focused on the export of natural resources has a detrimental effect on the innovative activity of the organization (Auzan, Komissarov, Bahtigaraeva, 2019).

The share of the "economy of atoms" is decreasing due to an increase in the share of the "economy of bits" this trend will continue. The penetration of digital technologies into industrial sectors allows economists to talk about the so-called

"fourth industrial revolution" or as it is also called the "Internet of Things". The Internet of Things is a network of physical devices that are connected to other devices and services via the Internet or another network and exchange data with them. Currently, there are more than a billion connected devices in the world, and every year there are more of them. A study conducted by MTS shows that in 2020, the share of companies using the Internet of Things increased by 20% and amounted to 60%. In addition to the Internet of Things, economists are interested in such a phenomenon as a sharing economy and trends towards decentralization. The trend in the development of the sharing economy is changing the idea of traditional mechanisms of market trade, for example, the growth of the sharing economy shows a rapid pace of development: In Russia, sharing services are developing at a rapid pace: in 2020, the volume of transactions of sites amounted to 1.07 trillion rubles (+39% by 2019). In 2019 – 769.5 billion rubles (+50% by 2020). In 2018 – 511 billion rubles (+39% by 2017). 2017 – 392 billion rubles. In addition to markets, digital technologies transform entire business models by simplifying market relations between counterparties. For example, in a traditional economy, there may be a long time interval between counterparties, for example, a long search for a seller of the products we need. The digital economy is characterized in part by the possibility of a fully platform-based business model. For example, with counterparties in the digital economy, the relationship between counterparties is organized within the framework of a platform on which both sellers and buyers are accumulated. The current economy is smoothly transitioning into an economy of "interconnections". More and more organizations are choosing a platform business model.

The platform business model is ahead of the linear business in terms of cost, for example, in Asia, 31 out of 36 unicorn companies are platforms.

If you look at the S&P 500, companies with a clean platform or companies for which the platform is a significant part of their business have an average income multiple of 8.9. On the contrary, linear enterprises are valued on average two to four times higher than revenue, depending on their business model. However, the dynamics of the growth of the number of small companies and the almost constant number of large companies suggests that with the help of interconnections, small companies can compete with large organizations by reducing costs. The work of small companies through an established platform company reduces both the number of processes of a small company and the cost of delivering goods to the end consumer, due to which small manufacturers' goods are able to withstand the commodity competition of large manufacturers' goods. The strategically advantageous position of business in the modern economy is provided by the number of relationships formed, and the prospects for further growth in the number of relationships.

Social factors that require an assessment of the strategic positioning of the business.

The factor of the "sharing" economy and the "gig economy" lies not only in the rationalization of consumer actions. The sharing economy appeared in response to the changing behavior of the consumer, now it is important for him to be able to use, and not to possess an object. The development of the sharing economy also justifies the great development of the platform model of doing business. With short-term age needs (for example, video games), when buying a console, the child used it for a certain amount of time and after losing the need for it simply refused. Now you can save money on a console by renting it on a platform with many consoles, satisfy your demand, and then return it back, the console will not stand idle, but will continue to satisfy the demand of other tenants. Consider the advantages of the sharing economy: at first glance, the benefits for the environment are evident (since 1 console will satisfy the demand of several people, not one), but that's not all. The rental platform thus reduces the price of meeting consumer demand, but that's not all, due to the significantly reduced price of meeting demand, it also reduces inequality.

Inequality is growing and is one of the most discussed topics in the world, it concerns not only the income of the population and the share of the economy, but also access to technology. For example, with the cost of a console of 10 units and a rental value of 2 units, a person with an income of 100 units and 5 units will be able to afford it. As we can see, the sharing economy and its characteristic platform business models solve not only the consumer's need, but also contribute to solving and reducing growing socio-political problems (inequality, ecology). Consumer awareness is also growing only among Russians, according to a study by the Higher School of Economics, 51% takes into account the social responsibility of an organization before buying its goods.

The growth of urbanization has generated a lot of research on the level of ecology and methods of combating it, and has given a new impetus to the trend of fighting for ecology.

Already in 2007, the number of urban residents equaled the number of rural population, the trend of increasing the proportion of urban population continues to increase. According to the forecasts of Stephen Griffiths, Vice President for Research at Khalifa University and Science, by 2050 the share of the urban population will increase to 70%. With the growth of urbanization, there is a threat of environmental pollution, for example, one of the key topics of the World Economic Forum is the fight against pollution.

Urbanization brings huge economic benefits, reducing the level of urbanization at the moment is not a key topic of discussion, much more important is the discussion of reducing the level of environmental pollution. The tendency of politicians and the public to resist environmental pollution leads to an increase in the requirements for emissions of harmful substances into the environment, as the growth of urbanization continues, and the growth of pollution will continue, which means that measures to combat pollution will improve and take an increasing place in the legislation of countries. The most rational measures to combat pollution have yet to be developed, but what can be confirmed for sure is that the role of environmental cleanliness will be one of the key areas for attracting investment to the regions, respectively, rational management decisions and the strategy of companies will be only if it does not contradict the main environmental trends of society and states. But what should organizations that work exclusively with tangible goods do? They bear the main risks of tightening environmental legislation, for example, in Russia, 40% of all energy consumption is accounted for by industry (Bashmakov, 2011). Although non-material areas, such as information technology, will come under risks, since they significantly increase the growth of electricity consumption, which in turn is produced by power plants using coal, oil and gas in overwhelming numbers.

Hence, it becomes necessary to divide advantageous strategic positions by industries producing tangible goods and industries producing intangible goods. But we should also not forget the organizations that produce this very energy, and the need to divide their strategic positioning into those that produce the energy itself and those that extract resources for their consumption. The key trends can also be seen in the fact that each industry faces significantly different tasks. If in the 20th century the main emphasis was placed on ways to reduce the cost of production and increase production and maximize profits in different ways (automation, increasing mass production, innovation) and their strategic attractiveness was assessed at different times precisely by mastering the very automation and innovation (everything was done in order to please the needs of the consumer, who was less aware of future social and environmental issues and whose awareness has greatly increased in recent years). Now the business faces the task of satisfying the demand of the consumer, whose portrait is the most diverse and cannot be generalized. That is why business faces the task not only to assess its changed innovative and technological potential, but also to assess its impact on emerging and existing political and social trends. In general, the need for business to satisfy consumer demand is now also the need to contribute to the solution and prevention of existing socio-political environmental and other problems, thanks to the increased awareness of the consumer, the available variety of goods, the desire to solve and prevent such problems will also be highly appreciated by the consumer. Thanks to the sharing economy, previously inaccessible goods have become available to consumers, their discrimination in alternatives has also increased, and more and more consumers are choosing products from socially responsible companies. The increased uncertainty regarding the emergence and actions of competitors forces, when building an organization's strategy, to take into account the possible irrationality of managers' behavior, such irrationality is often associated with a new kind of uncertainty - indefiniteness of the future and the inability to determine the options for the development of certain events, since they had no analogues in the past. The origin of irrationality in human behavior was studied by Simon Herbert (Simon, 1978), Daniel Kahneman (Kahneman, Tversky, 1979), Thorstein Veblen (Veblen, 1994).

Uncertainty changes the focus from competitors to socio-economic trends, the growth of living standards remains the main indicator of the transformation of the socio-economic system (Andersson, Schwaag-Serger, Sorvik, Hansson, 2004), encourages more focus on environmental factors that directly affect consumer behavior, this

partly simplifies positioning due to the availability of information about economic, social and environmental indicators, but at the same time it is greatly complicated by the need to jointly consider them. New trends, such as the sharing economy, gig economy are the product of the development of new social, environmental, political and technological aspects, but within these factors there are many sub-factors that should also be taken into account when positioning a business. Clustering is also one of the features of the modern economy, in many ways it increases productivity and increases the growth rate of the region's economy (Kuah, 2002; Porter, 1998), but at the same time it is worth thinking about what is happening beyond the line where the cluster border ends. The division into clusters shows the unevenness between it and the adjacent area.

Therefore, when assessing a strategic position, it is worth considering not only the ability to meet the needs of the consumer, but also to satisfy the need to solve the problems of trends that concern the consumer. The problems of trends, in turn, may lie not only in the plane of any direction, but also combine them, for example, the discrepancy between the growth rate of the problem and the growth rate of the response to these problems: the growth of CO2 pollution is not included in the five-year horizon of concern of the state, while such a problem gives rise to concern for the consumer already today. The change in the approach to business positioning is the need to take into account the interdependent, but emergent environmental factors (technological, social, political, environmental). The dynamics of the development of strategic positioning, which was previously built within the framework of the system, now needs to be built within the framework of a supersystem, among many elements, which in turn have many sub-factors. In the final calculation by classical methods, the positioning of the business will not reflect reality, since a lot of factors that have appeared that require consideration, as well as their direct and indirect impact on other factors, will give rise to emergence properties, the key to deciphering which is modern trends and the development of tools for overcoming uncertainty.

4 CONCLUSION

A change in the approach to business positioning is the need for a set of interdependent environmental factors (technological, social, political, environmental), which in turn have many sub-factors. In the final calculation by classical methods, the positioning of the business will not reflect reality, since many factors that have appeared that require consideration, as well as their direct and indirect impact on other sub-factors, will give rise to emergence properties, the key to deciphering which are modern trends.

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