DESIGN THINKING AS A CONDITION OF CREATIVITY

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Abstract: According to international experience, in conditions of high competition, commercial organizations need to use the method of design thinking in order to introduce innovative products to the world market and maintain efficiency in the long term. The study proved that design thinking is a promising technique not only for generating and developing innovations, but also for solving important commercial, social and domestic problems.

Key words: design thinking, business, innovation, innovation processes, innovation generation.

INTRODUCTION: In the framework of state programs aimed at ensuring the sustainable growth and development of education and social spheres in the Republic of Uzbekistan, the issues of youth support and cultivation as mature specialist personnel are recognized as important directions in the present day. This in turn can be cited among the current socio-political factors of the development of a culture of research, initiative and entrepreneurship in accordance with the requirements of modern students to work and think in a new way in accordance with the priorities of the president of the Republic of Uzbekistan Shavkat Mirziyoyev, which are aimed at educating citizens of our state in the spirit of national Therefore, by developing the creative abilities of student-youth, it can be seen as an important direction in increasing their activity between education and production.

There has not been so much time in our country that the term "design" is used. Translated from English, "design" means drawing. Prior to this, the design of things was called "Artistic constructionism", and the theory of creating things was called "Technical Aesthetics". The word" design "comes from the concepts of making:" designer " - artist constructor," design – form " - gave rise to the concepts of the appearance of an item, etc.[1.45]

METHODS: In the context of industrial production, manufacturers began to pay special attention to such aspects of the appearance of goods and products as attractiveness, variety, as well as quality and convenience in the use of products. As a result, the need arose for a special specialist who could not only create a product form with an attractive appearance that meets the requirements of the consumer, but also have a good understanding of design issues and machine manufacturing technology. As practice shows, it is possible to create a competitive product only if engineering-technical and artistic issues are solved in a complex way. [2.85]

Creative approach, teamwork, human orientation, curiosity, and optimistic spirit - thinking are components of design, as well as the methodology used to find new solutions to existing problems. The main feature of design thinking, in contrast to analytical thinking, is not critical analysis, but a creative process in which sometimes the most unexpected ideas lead to a better solution to the problem. The principles of thinking design are used in various areas: from the treatment of childhood obesity to the Prevention of crime, from the rocket industry to climate change. The design of thinking is no longer limited to the creation of new material products, but concerns various processes and services, as well as interaction, communication and cooperation. In this article, the main focus is on studying the origin, methods and significance of the thinking design process, and in general we hope to assess whether this technique deserves additional scientific attention in the future and propose effective approaches for this. [3.110]

The idea of thinking design was first formulated in 1969 by Herbert Simon, author of "the Sciences of the Artificial". The idea was later developed by scientists at Stanford University and founded the Stanford Institute of design, which pioneered the idea of thinking design. But in the field of business, in particular in its management, the feasibility and expediency of applying the principles and levers used by designers has been activated since the mid-2000s (Boland, 2004). In recent years, "thinking design" has published literature on the subject of popular management [Berger, 2009; Brown, 2009; Esslinger, 2009; Fraser, 2012; Kelley & Littman, 2001; 2005; Liedtka & Ogilvie, 2011; Lockwood, 2009; Martin, 2007; 2009; Verganti, 2009] as well as The Economist, Harvard Business Review, Business Week, The Wall Wall major publishers such as the Street

Journal and the New York Times have an increasing number of expert-scholars publishing illmiy articles. The emergence of the concept of thinking design is associated with Tim Brown, president of the IDEO design agency. He explained that the main reason for the formation of the new concept was the demand for a new innovative solution from entrepreneurs in order to withstand the demands of the world market. According to Brown, thinking design is an approach that can be integrated in all aspects of business and public life [Brown,2009]. Such an approach, on the one hand, requires thinking to put design among the tools of management when developing a long-term business strategy, and on the other hand, the ability of designers to influence changes in society is accepted [Lockwood, 2009]. In fact, in prestigious scientific journals, including the "Journal of Product Innovation Management" and the "Academy of Management Journal" thinking design in innovation [Brown and Katz, 2011; Di Benedetto, 2012; Seidel and Fixson, 2013] and defined as the core concept [Gruber, de Leon, George, and Thompson, 2015] in general management. Also , one of the last scientific works published in the scientific journal" Journal of Product Innovation Management " is devoted to the conceptual analysis of design thinking [Pietro Michele, Sarah J. S. Wilner, Sabeen Hussain Bhatti, Matteo Mura, Michael B. Beverland, 2018]. A number of rosii-born scholars also [Khomutsky D.Yu., Andreev G.S., 2015; Geyderich P.V., 2018; Vasileva Ye.V., 2015; Gusakov A. A., 2019] thinking has shed light on the importance and place of design in business management. [4.255]

This topic is relevant if we take into account the fact that such a way of thinking is used almost everywhere, that is, when planning a trip, renovating an apartment, opening new media, forming innovators-students, opening a business, developing a corporate identity and logo.

From a methodological point of view, Design-Thinking is a heuristic method for studying problems in conditions of uncertainty, that is, solving non - standard problems associated with creative search. Design thinking, which is a specific way of thinking, is a thought process aimed at solving problems based on a combination of empathy (the ability to look at the world through the eyes of other people, to understand their needs, desires and the tasks that they face). From this research methodology, it represented the movement, from the analysis of scientific and increasingly widespread popular sources to the formation of a working model of design thinking and further its consideration in the design process. [5.185]

The term "thinking design" has different interpretations. The best definition is given by the Interaction Design Foundation: thinking design refers to a multi-step process designed to explore the user's motivation and needs, disprove false assumptions, and find a new solution to the problem. Thinking design (from English. "design thinking") is a technique that helps to find solutions to complex problems that are in the interests of users. This method is based on the principle of anthropocentrism, according to which the purpose of any research and work is not the interests of the enterprise, the leader, Project Managers and bureaucratic structures, but of the individual. The task of Design Thinking is to go beyond the standard methods of solving existing stereotypes and problems. Thus, Design-Thinking is, first of all, a method of product formation. For example, IDEO (an innovative agency in the"Silicon Valley") began to use a design - thinking style in the 2000s. At that time, its main purpose was to combine several elements in the development of a product (service): idea-key, quality, aesthetics and functionality. IDEO director Tim Brown, relying on his professional experience, revealed the essence of this style: "it is based on three pillars, namely empathy, cooperation and testing, a model of thinking that puts people in the center of problem solving".[6.7952]

The thinking design-method consists of six stages: each stage consists of two parts: divergent (lat. divergere-scattering) is the search for many solutions to a single problem and convergent (lat. sonvergere-accumulation) - the exact use of a task solving instruction.

Stage 1-empathy. Human-oriented design-process Center. Empathy is the act of placing oneself in the place of another person and trying to understand his feelings, desires, ideas and actions. For example, it cannot be done without understanding who the product or project is intended for. The designer solves the problems of other people, not his own. To create a good design, it is necessary to care with a person in order to understand what exactly is important for him. A conversation in a tone of confidence will help the designer find the right ways to interact with people and innovative solutions more easily. Empathy helps to look at people and various situations with a fresh look. [7.268]

Stage 2-focusing. The only way to find the right solution is to understand the problem correctly. Focusing plays a very important role in the business process, since it allows you to get a vivid expression of the

problem that needs to be solved, based on the information accumulated about people's lives. The content of focusing is the correct expression of the question related to the problem, which should later become a task. The question posed in this should be aimed precisely at solving the client's problem, and not at illuminating the general problem. If during the empathy phase the client-firm had to work indiviudally, this phase would require teamwork.

Stage 3 - development of ideas . Not a good idea, wide possibilities are important. The development of ideas is the mode in which the main attention should be paid to the work of ideas and solutions. In the case of the thought process, this stage will be seen as branching out into different concepts and results that can be applied as solutions to the problem. Once a sufficient number of ideas have been created, it is possible to narrow the search space, look for rational ideas and move on to choosing the best ideas. [8.250]

Stage 4-the choice of Idea. Until faced with real reality, all ideas will seem amazing. To determine the ideas that will develop, it is necessary to pass them through a "sieve". How to choose ideas? - to express the criterion of choice (the most impressionable, the most unexpected, rational). If the number of criteria is multiple, each criterion must have its own weight. The criteria allow you not to lose the innovative potential accumulated in the process of developing ideas. - voting (the risk of voting may consist of Shunn, if 6 people – "agree" and 4 – "disagree", the condition will be met, but the enthusiasm of about half of the team will be very sluggish). - prototyping. Prototypes allow you to assess the working capacity of ideas. [9.100]

Stage 5-prototyping. A simple prototype will tell about a lot. Prototyping is the creation of iterative layouts that help to find the right solution. At the first stage, prototypes should be maximally simple. With testing and approval of the idea, prototypes become more complex and expensive. What and how to test-two questions that need to be answered before creating a prototype. This will help to break down prototyping and testing into specific stages. [10.440]

Stage 6-testing. Learn more about the solution and about the user. Testing is getting the creator feedback on prototypes. This will help the user understand and penetrate deeply into the problem that is being worked on. The modern management system requires each leader to have a thinking – design. Jack Welch, former CEO of General Electric, comments," 99.9 percent of clerks are always stuck together because they don't know how to think. It is impossible to force people to think, it is only necessary to create conditions for them to think. In this respect, it would be advisable to teach the audience in educational institutions how to think, and not what to think about. [11.57]

Below we provide information from companies that have achieved success using design-thinking technology:

-General Electric: achieved a 30% increase in its revenue with the introduction of design-thinking technology in 2003;

• Philips Lighting: Design-Thinking enabled the company to reach the world market.

• Airbnb: through the introduction of design-thinking technology, simply a startup has become one of the largest portals specializing in housing search and home rental. When the company's employees studied the user experience and found out that there were photos of very low-quality apartments on the site, it was decided to turn to a professional photographer and succeeded. [12.60]

CONCLUSIONS: In summary, the positive aspects of thinking-design include:

1. Problems are solved through an interdisciplinary approach. This makes it possible to take into account the different interests and abilities of people through practice and experience.

2. Design-thinking is a method of creativity, constant movement and experience that is supported first of all.

3. There is also a strategy in design-thinking, but it involves a completely new view of problems. The main part of design-thinking assumes the search for unusual, new styles, avoiding the usual dogmas.

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