DEVELOPMENT OF FUTURE MANAGERS' SKILLS IN USING FORESIGHT TECHNOLOGY

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Abstract: *The article provides information about foresight technology, its history, the importance of foresight in the development of long-term strategic plans, road maps and concepts, foresight methods, technologies for using foresight methods in the educational process. The analysis of foresight methods, quality assessment, quantitative assessment and mixed methods, as well as the analysis of foresight studies conducted abroad to date is described. In Uzbekistan, foresight is based on the fact that technology is a new technology.*

Keywords: *foresight, transnational, foresight methods, technological, market-oriented, socio-economic foresight, quality assessment and quantitative assessment methods.*

One of the most pressing issue today is predicting the future. The world is evolving at an unprecedented rate. Given that socio-economic development is also accelerating, future planning is the foundation of sustainable development. In the current era of globalization, the use of Forsyth methods is the most effective and optimal option in the development of strategic plans, roadmaps and concepts for solving major problems (environmental, economic, etc.) in the world, region, state or economy. A long-term (5 to 30 years) development program or concept of foresight-based development is based on short-term evidence-based data, i.e., a future strategy is planned based on clear, high-level evidence [1]. In developed countries, foresight is also widely used within a particular organization or enterprise, using foresight methods to develop a strategic plan for the future of the

enterprise, identify which technologies need to be improved, develop roadmaps to achieve the goal.

Foresight is a relatively new term.

So far, there is no single definition of Forsyth. Each state, organization, a group of experts involved in foresight technology has recommended their own definitions, which only cover one or another aspect of foresight. [2]

Below is "What is Foresight? Let's look at some definitions of the question:

Foresight is a technology for imagining, thinking, discussing, and developing future strategies. Foresight is a technology aimed at identifying new technologies and strategic directions of research aimed at bringing high socio-economic benefits based on a systematic assessment of the long-term prospects of science, technology, economy and society.

The purpose of the foresight is to identify strategic research and innovative technologies aimed at high profitability, ie to identify a highly profitable future and create a strategy to achieve it [3,4].

Foresight technology was the first used 50 years ago in the process of identifying the future challenges of military technology in the U.S. corporation RAND. By the 1950s, RAND experts had developed the Delphi method after meeting the shortcomings of traditional methods of determining future technologies. In particular, large-scale and systematic research has been conducted in the US Air Force on the basis of this technology. This method is now widely used in foresight research in all fields. Since the 1970s, foresight technologies have also been used in the development of national-level strategies. In the socio-economic field, foresight technology was the first used to identify the most promising areas of science in the late 1960s and early 1970s. By the late 1960s, technological forecasting was accepted in Japan as a potentially useful political mechanism, and the U.S. experience in this regard had been extensively studied by Japanese experts. In 1970, the Japan Science and Technology Agency (STA) developed a 30-year long-term forecasting strategy for the development of

science and technology and ways to achieve it. Since the 1990s, foresight technologies have been widely used in the United States, Europe, Asia, and Latin America to determine the long-term prospects. Based on the results of the foresight projects, large-scale international research programs have been developed, including the budget expenditures of the EU's Sixth and Seventh Research and Technology Development Program at 17.5 and 54 billion euros, respectively euro. Sweden's latest foresight project cost 3.6 million euros, while Turkey spent about 2 million euros. Today, long-term forecasting of technological trends and development scenarios is the main task of any organization, enterprise or corporation that wants to introduce this technology. Forsyth is based on ensuring the integration of research in this area with the problems of production development in the enterprise. Therefore, the rapid changes taking place in the technological, economic, social environment of the world require the abandonment of traditional methods of strategic management and the transition to strategies such as foresight integration and future management techniques [6].

An innovative strategy based on scientific research, regardless of the future of the consumer market, usually leads to technologically rapid growth. The research conducted by research and forecasting teams in Europe, the United States, and Southeast Asia is aimed at creating technological systems and methodologies that enable tracking of technological trends, creating opportunities for new research and development. Therefore, historically in the United States, this activity has been carried out by RAND Sogrogation (visual Researchand Development) and other transnational corporations.

Foresight projects are divided into the following types according to the scale of the project, scope and problems [7]:

1. In terms of problem coverage:

international; nationwide; within economic sectors or ministries, on specific organizational or business issues.

2. On the problems of the field of foresight: field of education; social sphere; economic sphere, political sphere, technological sphere, etc.

3. By different types of problems within the field of research

The following steps are used in the implementation of promising projects based on foresight technologies:

Phase 1-technological foresight:

- A systematic tool for scientific and technological assessment that has a real impact on the development of the economic and social spheres through long-term forecasting

Phase 2 - Market-oriented foresight:

- complete forecasting of business and market economy development. The outcome of such foresight projects will be the basis for developing a business development strategy.

Stage 3 socio-economic foresight:

- used for various socio-economic purposes.

Foresight projects are not direct predictions of this. Several methods are used in the implementation of foresight projects. For example, while the Delphi method is mainly used in Japan, and a combination of several styles in Germany and the United Kingdom, there are experiments to identify critical technologies in the United States and France.

There are currently more than 30 methods of foresight research and they can be divided into the following 3 groups: [8]

1. Methods of quality assessment: retronation, brainstorming, civic panel, conferences and seminars, essay (screenplay), expert panel, prediction, interview, literature analysis, morphological analysis, goal tree (logic scheme), role-playing games, script , reverse scenario, science fiction, simulation games, verification, SWOT-analysis, weak signals (jokers);

2. Methods of quantitative assessment: benchmarking, bibliometry, indicators (analysis of time series), modeling, patent analysis, extrapolation of traditions (spreading or applying the results obtained by observing one part of an object or event to another part of it).

3. Mixed methods: structural analysis, dolphin, basic perspective (critical) technologies, resource interpretation, global trends analysis, numerical scenario creation, roadmap, stakeholder opinion analysis, interaction analysis, resource scanning, testing, future forecasting, games, global trend analysis, modeling, simulation, multicritical analysis, future box, and more.

Today, foresight projects are used as a key technology in creating future strategies in all developed countries. In the assessment of future performance in Europe, universities are actively involved in data collection, the creation of special portals and systems, focusing on the technical aspects of forecasting based on European educational programs. The University of Manchester (UK) is an example of the creation of a foresight system and the prediction of scientific and technical directions.

Another university based on the results of Forsyth research is Sigularity University, which was founded by the American Aerospace Research Agency (NASA) in partnership with multinational corporations such as Soogle, E-rlapet Ventures, Autodesk, Sisco, the Kauffman Foundation and Nokia. Russian higher education institutions have begun to play an important role in the system of identification and forecasting of the main directions of scientific and technological development of the country. In 2011, a regional network of 6 prestigious universities was established to forecast scientific and technological development. Foresight research conducted in the field of education around the world before (Becoming Future Oriented Entrepreneurs in universities and cjmpanies) was analyzed in detail in the project "Training of future entrepreneurs in universities and companies." It provides information on foresight studies conducted by higher education institutions in the United States, Denmark, Poland, Germany, Canada, Australia, the United Kingdom, South Africa, Finland, and Malta. An analysis of foresight research conducted in developed countries proves that it plays an important role in planning the future of higher education institutions.

For example, A. Guraj's research analyzes foresight studies conducted by higher education institutions in Ireland, Malaysia, Turkey, Canada and the United States [13]. The results of J. Jozwiak's (Akademickie Mazowsze 2030) foresight study to predict the future development of Warsaw and the Mazovia region are presented [14]. MBA in Strategic Foresight (California College of Arts, USA), Master of Futures Studies (Freie University Berlin, Germany), Alternative Futures (University of Hawaii, USA), Regional Foresight (Lodz University, Poland), Foresight Knowledge and Methods, (Swinburne University of Technology, Australia).

The Concept of Development of the Higher Education System of the Republic of Uzbekistan until 2030 envisages the individualization of educational processes on the basis of digital technologies, the development of distance learning services and the widespread introduction of online technologies and the establishment of Forsight Centers in higher education. At present, in order to organize the introduction of foresight technologies in sectors of the economy, including higher education, a draft Resolution of the President of the Republic of Uzbekistan ID-3800 "On the establishment of foresight centers in leading higher education institutions of the Republic of Uzbekistan" has been developed and discussed.

The practice of developing long-term strategic plans, concepts and long-term road maps in the economic sectors of Uzbekistan, including education, on the basis of foresight technology has not been established. One of the main problems facing many manufacturing enterprises and organizations in the country is that they carry out the development of high-tech projects without taking into account the development of markets and technological trends.

Due to the lack of development of cooperative processes in the innovation sector, there is a weak approach to the introduction of scientific advances in production and insufficient evaluation of marketing research.

From the above, it can be concluded that the practice of developing strategic plans, road maps, concepts in the sectors of the economy of Uzbekistan have not been established. The wide application is the demand of the time.

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