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# CONCEPTS OF THE DIGITAL ECONOMY IN THE KNOWLEDGE ECONOMY AND THEIR SPECIFIC ASPECTS

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#### ANNOTATION

This article examines the reasons for the development of a "knowledge-based economy", its specific features, forms of existence that can ensure the development of the economy in a new format. The study is based on critical analysis, synthesis, scientific synthesis, content analysis of scientific literature. The article describes the formation of the scientific concept of the "new economy" phenomenon, examines the essence and different views of authors on the definitions of the "new economy". The specific features of the "knowledge economy" are identified, distinguishing it from the preceding socio-economic models. Conclusions based on the results of the study are

KEY WORDS: codified knowledge, information economy, techno-economic paradigm, knowledge economy, intellectualization of labour, new economy.

The development of the modern world economy is directly related to the application of new knowledge, which is the basis of its successful development. The idea of the existence of a knowledge economy is being actively discussed in the scientific literature in connection with the growing role of science as a factor of production, a source of the country's economic growth and increase in labor productivity. The reason is that the transition to a knowledge-based economy remains an urgent issue for many countries on the way to the sixth technological paradigm (technical-economic paradigm, scientific-technical revolution).

From this point of view, the reasons for the development of the "new economy", its characteristics, the research of the existing forms capable of developing the economy in a new form is an urgent issue. ""innovative economy", "informed economy", "knowledgebased economy" and many other terms are used.

In our opinion, the term "knowledge economy" is more suitable for reality, because it meaningfully reveals the large-scale changes taking place in the modern economy. If knowledge has always existed, why is it now being talked about in a new form of economy - "knowledge economy"? It can be considered logical.

It is not appropriate to deny the existence of knowledge in any society, in all socio-economic structures and civilizations. Knowledge has always been important and valued in product development. Even in ancient times, there was practical knowledge that was used, for example in medicine or construction. But only a limited number of people have such knowledge, and in this case it is impossible to talk about a knowledge-based economy. The role of knowledge is noticeably changing in the post-industrial society, where fundamental changes are taking place in the process of reproduction. Along with natural resources, labor and capital, knowledge is becoming the main factor of production, taking on the character of a commodity that can be produced and sold. If natural resources gradually decrease in the production process in the old format models, in the conditions of the new economy - knowledge can be endlessly formed and accumulated and spread very quickly among all participants of the exchange using modern information and communication technologies. Thus, in the new format economy, "knowledge" - it is becoming clear that it is a strategic resource of development and a source of social well-being, from which it is correct to use the term "knowledge economy".

Great interest in the fundamental changes taking place in the economy has led to the emergence of various terms, as well as various ambiguous interpretations of this concept. For example, G. B. Kleiner's knowledge economy- believes that this is an economy in which knowledge is the main factor and commodity of production, while L.M. Gochberg says that "this is an economy based on the intensive and effective use of knowledge"

A number of researchers equate the "knowledge economy" with innovative activity- "this is an economy that provides the process of continuous innovation, that is, the process of continuously transforming new knowledge into new goods and products".- this is an economy in which a large part of the GDP is provided by the activities of production, processing, storage and transmission of information. object- due to the existence of the "knowledge economy", it allows to analyze them in terms of content, note the cognitive compatibility, complementarity and interdependence of different views.



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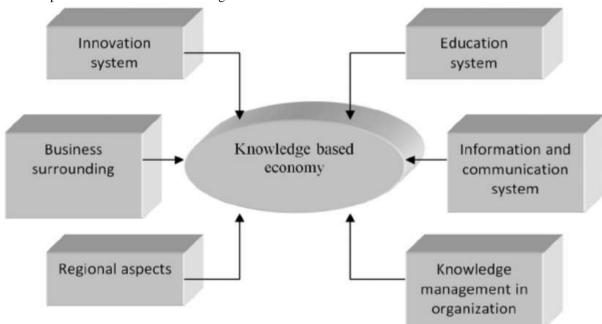
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The initial "information", which is a set of certain data, becomes "knowledge" (codified, structured) under the influence of certain mechanisms. In the scientific literature, there are enough different definitions of "knowledge", which is the result of cognitive activity of a person, which is considered as a subjective image of objective reality in the framework of our research, in the form of acquired ideas, concepts, thoughts, theories of principles.

In the economic sphere, the availability of knowledge appears in different forms: codified (or formalized), materialized (products and services), and personal. With the help of texts, tables, images, easily reproduced - codified knowledge is used to create new knowledge, innovative ideas and materialize them in the form of goods and services. Any information flow contains a certain body of knowledge. The information age, which began in the 70s of the last century, led to the wide spread of modern information and communication technologies and the formation of an information society.

In its turn, the informatization of the society made it possible to create a basis for building network interactions covering all spheres of human activity. Special knowledge (new scientific developments, technologies, etc.) codified with the help of information and communication technologies spreads quickly even over long distances and is open to the whole society, regardless of the level of socio-economic development and the level of technological structures



#### 1-Picture. Knowledge Economy, Its Formation, Characteristics and Measurement

Thus, the creation of knowledge from codified information, which later turns into innovative ideas that form innovative technologies, forms a technological chain of production and use of knowledge in the "knowledge economy". Taking into account the above, the main factor of the economy of knowledge economy is the creation of codified knowledge, their generalization using information and communication technologies and can be defined as distribution to all spheres of activity of the socio-economic system.

One of the important aspects that should be considered during the research is to determine the characteristics of the economy of knowledge that are different from previous socio-economic models. Summarizing the results of a number of studies on the economy of knowledge, it is possible to distinguish the following characteristics:

- The importance and importance of education as a platform that forms highly qualified and intellectual specialists, which is the basis of the knowledge economy. Education is becoming a key element of economic and social success for any society. Scientific and educational superiority leads not only to the increase of scientific and educational potential, but also to the development of fundamental and applied research, the system of professional education, and the training of the intellectual elite. Specialists working in an intellectual society have an increasing need for knowledge, updating it, and constantly improving their personal and professional qualities. This allows them to quickly adapt to changes in the external environment, to be competitive;
  - Which is becoming a central core in the knowledge economy
- A developed scientific field. It ensures the majority of innovations in all areas of production of goods and services. At the same time, the importance of fundamental research as a generator of new ideas, knowledge, and goods, as well as multidisciplinary knowledge, is increasing. Scientific values are communicated to the whole society through information technologies;
- The symbiosis of science and education, which ensures the increase of the scientific and technical potential of mankind, allows to obtain new heuristic and synergistic results;



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- High-speed updating of knowledge and information that ensures the innovative development of the economy, at the same time, knowledge becomes a factor that determines the "face" of modern production. The priority is not only to create new knowledge, but to use it in the production process;
- Intellectualization of work. Employment growth not only in the service sector, but also in the intellectual sectors of the economy. The number of workers in knowledge-producing industries grows at a faster rate than in industries that require physical labor. At the same time, the nature of workers' work changes from executive to intellectual-creative. The value of inventive, highly intellectual and creative specialists increases in society;
- The formation of collective knowledge ("collective intelligence" according to N. Moiiseev ) as a result of the need for people to think and act together with the help of the development of information and communication technologies, as well as increasing the importance of education in society;
- "Softening" of the economy when intangible resources become an important factor in the development of the socio-economic system. The main conditions of such an economy are the high level of spending on science, the intellectualization and innovation of production, the use of new technologies in all industries and sectors.
  - Increasing importance of human capital. Human capital has become the main factor of production and enterprise success.

A person - the owner of knowledge, mind, physical strength and intellectual and creative abilities - is the driving force of all changes in enterprises. Tacit knowledge, which is inseparable from its owner, is of particular importance, which shows the peculiarities of the use of human resources in order to ensure the competitive advantage of enterprises;

- The infrastructure of the knowledge economy expansion and rapid development of information and communication networks. The use of these technologies creates conditions for the dissemination of information for repeated invention, they simplify the systematization of codified knowledge and its transmission over large distances;
- Boundary transformation. The isolation and localization of regions will disappear, international cooperation will increase, the economy will expand internationally due to the emergence of virtual flows due to the intensive use of information and communication technologies. Time consumption is reduced, costs are changed. Production is increasingly international;
  - Branching of the economy.

The rigid hierarchical structures of the past are replaced by flexible network horizontal structures, which are adapted to quickly respond to changes in the external environment (for example, business networks, clusters, outsourcing, etc.). The use of modern information and communication technologies makes it possible to quickly transfer and apply knowledge to the most promising directions of business, displacing the traditional economic relations in society. In the conditions of the rapidly developing "new economy", the transition from the fourth technological paradigm to the fifth and sixth is taking place. At the same time, the forms of combination of labor tools and factors, as well as the labor force in the production process are fundamentally changing

If during the fourth technological paradigm automotive industry, aviation industry, large "chemical" were considered nuclear production industries, then the core of the fifth technological paradigm, which emerged in the last quarter of the 20th century, is the development of electronics and microelectronics, atomic energy, television and information technologies, Internet and mobile communication. is considered to appear. Currently, the stage of formation of the market space for products of the "new economy" based on the technologies of the sixth technological paradigm, characterized by the development of bio and nano-technologies, molecular biology, genetic engineering, membrane and quantum technologies, photonics, micromechanics, fusion energy, etc., is underway.

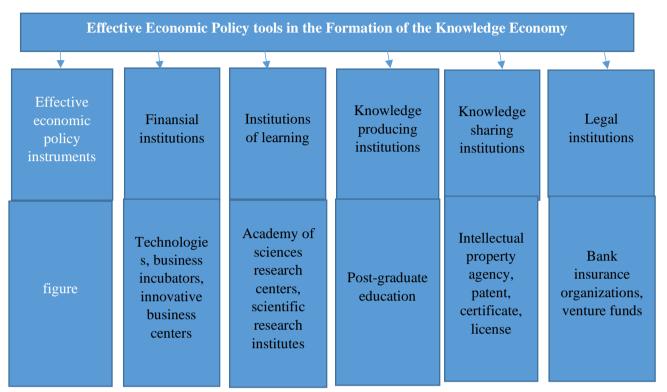
Thus, the distinctive features of the new technological paradigm are the superiority of intellectual networks, continuous innovative development and the demand for continuous improvement of knowledge and skills of employees of many fields. Knowledge can guarantee the rapid development of the economy, the rapid transition to the sixth technological paradigm. The competitiveness of the knowledge-based economy is not only related to technological achievements, inventions, knowledge creation, but also depends on organizational changes that allow the commercialization of the results of scientific and technical developments, as well as marketing innovations. Therefore, in the conditions of rapid changes in the knowledge economy, increasing and developing the competitiveness of socio-economic systems is an effective tool. It is impossible to do this without the integration of science, education, production and business.



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2-Picture. Effective Economic Policy Tools of the Knowledge Economy

We support the views of a number of authors who believe that mobile integrated network structures will be the most effective tool for the development of the knowledge economy, because the process of inventions and the promotion of technological innovations can only take place in self-organizing complexes. Such complexes can be grouped and concentrated in a single area where direct communication between subjects is established and the possibility of constant exchange of information and knowledge is created. In the modern economy, network theory is actively studied by many researchers

The most vivid expression of trends in the modern network economy are clusters. The advantage of clusters is effective cooperation that transfers fundamental knowledge of scientific and educational institutions to practical knowledge, industrial production technologies and commercialization of results. The construction of such mutual cooperation is based on science (as a source of new knowledge, creation of new business ideas, scientific and technical developments), education (as a basis for training the necessary highly qualified specialists), production (as a basis for the production of new products and technological solutions), as well as business. (as a source of commercialization of results) allows to combine. A high level of integration, cross-disciplinary communication and knowledge exchange serve as an effective cooperation platform in the cluster.

In the Republic of Uzbekistan, in recent years, the use of the cluster approach has taken one of the most important places as a strategy for the socio-economic development of certain sectors (mainly agriculture, agro-industry, pharmaceuticals, medicine).

In our opinion, it would be appropriate to study the working conditions and principles of knowledge-based clusters in the future. Thus, the conducted research allows us to draw the following conclusions:

- Currently, the economic value of applying knowledge has increased so much that it leads to systematic and qualitative changes in the working mechanisms of the economy;
- There are different approaches to understanding the ongoing changes, changes in the stages of the development of society, which leads to the use of a wide range of terms that mean them;
- The role and importance of knowledge in increasing the welfare of society has increased in connection with the progress. the use of the term "knowledge economy" seems to us to be the most acceptable and legally correct, as it reflects the nature of changes in the development of society;
- The analysis of features and trends characteristic of the knowledge economy allows to emphasize that mobile integrated network structures, in particular clusters, especially knowledge clusters (cognitive, self-learning) will be an effective tool for its development.



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