Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

The Knowledge Economy as a New Stage of Innovative Development

Khasankhonova Nodira Isametdinovna*

**Senior Lecturer, PhD Department "Economics, management, taxes and insurance" Tashkent Financial Institute, Index100000, Uzbekistan, Tashkent city, A.Temur Street 60A*

*Corresponding Email: *xasanxonova@mail.ru*

Received: 24 October 2021 **Accepted:** 23 January 2022 **Published:** 27 Febuary 2022

Abstract: The digital economy, which has been actively entering human life since the 21st century, has further developed the knowledge economy. In it, he expanded the need to study the concept of knowledge economy, its content and its impact on the socio-economic development of the country. To do this, first of all, it is expedient to study and deeply analyze the category of knowledge economy. The article considers the knowledge economy as a new stage of innovative development. In particular, the article analyzes the essence of the knowledge economy of various economists

Keywords: Human Knowledge, Human Capital, Knowledge, Knowledge Economy, Human Dignity, Institutionalism, Economic Level, Technical Achievements, Network Technologies.

1. INTRODUCTION

At present, economic development has reached a new stage, and the new system has focused on investing in science, research and innovative ideas. Today, the world is gradually entering a new system - the knowledge economy.

The evolutionary formation of the knowledge economy took place in two directions: the separate development of trends in human capital and institutionalism, as well as the unification of the 90s of the twentieth century. The first problems with the human factor were reflected in the views of scholars in the East, such as Beruni, Ibn Sina, Farobi. They spoke about the role of science, knowledge and education in the development of the economy, the level of human knowledge, the important role of man in governing the state. In the West, the first ideas about the human factor were observed in the works of the classics U.Petti, A.Smith, D.Ricardo. Studies in the studies of Clark, J. Mill, U. Rocher. They believed that the development of the state would rise to a new level due to the deep acquisition of human knowledge. In particular, L.Valras believed that the development of the human factor is in the satisfaction of its subjective nafs, and that a person can realize it only through his knowledge.

Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

2. REFERENCES

By the middle of the twentieth century, economists began to think about the level of investment in human capital. In particular, in the 60s of the twentieth century, the concept of the human factor emerged as a result of the practical application of the concept of "investment in human capital" by American economists G.Becker, T.Schultz, J.Mintzer. Expenditures related to education, vocational training, medical care, childbirth and upbringing have come to be referred to as human capital investment. It was said that this direction, which led to the formation of the knowledge economy, was expressed in human expenditures such as education, health, migration costs, and in the future they will contribute to economic growth.

According to G. Becker, one of the Western economists, human capital is a reserve of knowledge, skills and motivations that everyone has. He noted that education, training in production, health, migration, price and income data collection are formed through human investment (long-term capital investment) in the form of expenditures. Indeed, getting an education in practice, gaining experience in production, taking care of one's health is an investment in human capital. Therefore, it serves to improve the quality of the workforce and prolongs the life of a person.

American economist T. Schultz: "In recent years, the idea that capital is only a physiological feature of man has been abandoned. Instead, any asset that serves human physiological growth is seen as an investment in human capital". In this case, the separation of investments from human capital into intellectual capital is reflected in the growth of its future economic level in terms of income.

The second current of the concept of the knowledge economy began to manifest itself with the emergence of a new stream of institutionalism, which operated in the 40-60s of the twentieth century. In our opinion, it would be expedient to consider separately the teachings of scientists working in this area. DJ. K. Gelbright described the first manifestations of postindustrial society in The New Industrial Society and D. Bell in Post-Industrial Society. In particular, DJ.K.Gelbright found that the development of the modern market economy is associated with the activities of large corporations that produce complex equipment. According to him, "... in modern corporations, real economic power is not in the owners or managers of capital, but in those who have knowledge of science and technology. Technological representatives have specific professional knowledge about production and the information needed to make decisions. Of course, making officially important decisions is a separate task of the company's leading managers - the director and his deputies - and is carried out by them. In practice, all decision-making depends almost 100 percent on information. And the information will be "under the control" of the technology".

The American sociologist D. Bell (1919-2011) believes that "... the main driving force and reorganization of the modern social system is the scientific and technological revolution". Under the influence of the scientific and technological revolution, great changes are taking place in economic processes, property relations, and the structure of government. The peculiarity of the system of "post-industrial society" is that it is primarily a service society, and it is assumed that the majority of the population will be employed in this field.

While initial ideas were created with ideas about industrial society, later representatives of modern institutionalism - E. Tofler and F. Perru - created a solid theoretical basis for it. In

Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

their ideas, the ideas of creating a post-industrial, information-technological society were widely promoted, and changes in the development of technology were in the center of attention.

One of the representatives of modern institutionalism, the American economist E. Toffler (1928-2016) in the 70-80s of the twentieth century with his works "Clash of the Future" (1970), "Third Wave" (1980) created a theory of superindustrial society. In The Third Wave, he analyzed the "waves" of social development: the first - agriculture, the second - industry, and the third - the scientific and technological revolution. At the same time, he said, the "third wave" will move from industrial society to a new qualitative stage, which is considered superindustrial, in which "scientific and information changes will lead to the reorganization of social life." Toffler believed that the developed countries of the West were in the first stage of superindustrial society. He noted that the further development of science and technology and information will further increase the pace of life, ie the relationship between them (due to the development of the Internet) will be reduced, career change will become normal, product life cycle will be shortened, disposable goods will increase, services will lead.

According to Toffler, the development of science and technology leads to the emergence of new global and social contradictions. At the same time, the creative forces create changes in the life of society and raise the level of economic development to a new level. Toffler believes that all changes in national economic life will be planned and under state control.

Socio-institutional analysis was continued by the French economist and sociologist F.Perru (1903-1987) through The Economy of the 20th Century (1961). He formulated three economic principles, which he considered to be the next stage of development of the national economy. They are dominant, harmonious and global economies. In his view, the dominant economy is modern capitalism. It has no free production and no competition, only dominant productions. In this economy, aggressive competition (breaking each other, the secret of one being stolen by the other) is gradually overcome through the globalization of economic activity.

3. ANALYSIS AND RESULTS

The contribution of modern institutionalists to the formation and current state of the knowledge economy in general has been significant. They were later able to reveal the place of human capital in postindustrial society. In particular, M.Yu. Shlyakhtin says that the knowledge economy was formed as a result of the merger of the post-industrial and digital-informed post-industrial economies. According to him, "... the digital-information society is based on the intellectual and innovative factor of the economy, which consists of high technology, the latest achievements of scientific research, including network technology, human-machine interface, mobile networks, artificial intelligence and so on".

The knowledge economy is in fact the result of economies based on human capital and postindustrial society, a developed part of it in practice. Human capital and knowledge are its primary basis.

F.Makhlup, the scientist who was the first to introduce the concept of human capital in the knowledge economy, expresses his views on the knowledge economy as follows: “As a result of increasing physical and mental abilities, a person begins to work more efficiently and perfectly. Such improvement constitutes human capital”.

Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

In the modern system of economic relations, knowledge and information are both products and means of production. In this regard, VL Inozemtsev - "Science and education have become a direct productive force, and their carriers are the highest forces that exist in society. The relationship between education and intellectual capital is the essence of human dignity".

A digital-informed post-industrial society is a system in the economy focused on scientific research and scientific achievements, the scientific and technological revolution, and the improvement of education and quality of life. The main factor in the development of a digital-informed postindustrial society is research, science and education. In addition, the main features and effectiveness of this system are high technology, digital economy, nanotechnology, microchips, artificial intelligence.

Historically, 1981 was an important turning point in the development of technology, when scientific and technological progress became the main fundamental source in the development of the social production system. Because in 1981, the American company IBM created the first personal computer. The reason we stopped at the creation of the computer was mainly because it played two roles in the knowledge economy. They led, first, to the acceleration of computer technology, including increased efficiency and data storage capacity in production and services, the development of network technologies, the development of mobile computer applications, and the emergence of new peripherals. Second, we have learned that personal computers are becoming more prevalent in the world and are becoming an important factor in the field of human economic activity. In particular, V. Suprun noted that the post-industrial changes have taken place with the rapid development of information technology. In addition, the new jobs created in the information sector have led to a further rise in developed countries.

In 1994, Business Week editors proposed a new statistical model for the Information Age. According to him, the economy is divided into three sectors: the first - commodity production, including mining; the second is services; the third is the information, advertising, communication, education, computer products sector. Today, such a classification is ambiguous, as components of information, education, and computer products have also penetrated the manufacturing and services sectors. Now, technology, computers are available in almost every field, and due to their functionality and ability to automate many processes, it has facilitated human labor, that is, made it more active. Working with such devices requires only intellectual labor, and they have accordingly led to the general intellectualization of computer labor.

In our opinion, a lot of work done on the computer provides regularity and efficiency, increases intellectual capacity. It can also be added that the personal computer itself has become the engine of new trends in the economy, opened up new areas of industry, developed the technologies that accompany it, including the expansion of network and communication technologies.

Our research has shown that in illuminating the category of knowledge economy, scientists have looked at this concept from different perspectives and given different definitions. The first group of scholars describes the knowledge economy as a new stage of socio-economic development of the country and emphasizes that this stage differs from other

Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

stages by its components. Another group of scholars approaches the knowledge economy as an economic relation. They understand the knowledge economy as a newly formed relationship as a result of the rapid change in science, technology, and information. The third group of scholars views the knowledge economy as a system. Because it includes all the elements inherent in the system, i.e. economic relations, mechanism, policy and technology sequence.

According to foreign scientist S.Berger, "Knowledge economy is an economy in which intellectual capital, scientific potential of employees, scientific and technical achievements of the enterprise and know-how, which are the main resource of strategic development of the enterprise at all stages from production to delivery households and innovations". In this definition, in our view, the knowledge economy is focused on the strategic development of the enterprise and the human-centered economy. The human-centered approach is not an abstract concept, but a system based on increasing labor productivity, reducing retraining costs, and looking for new professionals. It should be noted that the increase in the level of human knowledge in the knowledge economy is accompanied by the introduction of innovative innovations, otherwise it will not be possible to increase it.

In some literatures, the knowledge economy is seen as a stage in which the innovative economy has reached a higher category. This definition provided a scientific basis for us to look at the knowledge economy as a new stage from a historical perspective. However, the analysis of similar definitions showed that the concept of knowledge economy is directly related to the categories of intellectual, information, innovation-information. In particular, M.V. According to Chentsova, the knowledge economy combines the following four economies:

- postindustrial economy. At the same time, the knowledge economy is dominated by services in the post-industrial economy.
- information economy. At the same time, information plays a key role in the knowledge economy and cannot work without it.
- innovative economy. Just as an innovative economy is not without knowledge, a knowledge economy is realized by using innovations to meet the growing needs of society.
- global network economy. Today, the knowledge economy cannot survive without the global Internet. Because it provides long-distance economic relations.

In the analysis of the definitions given to the concept of knowledge economy, we can also see that it is approached as an economic relationship. In particular, Yu.V.Smagin: "... the knowledge economy is a modern economic relationship based on specialists who can bring new technologies. This will create a new relationship in solving local and global problems, as well as the introduction of tomorrow's technologies into the economy" he said. At this point, we can say that the knowledge economy can be considered as an economic relationship when it reflects the process of selling and buying human capital.

At the same time, as we have seen above, investment in human capital contributes to the development of the knowledge economy, where it can take the form of a relationship. Because in order to increase human capital, to keep the innovative economy in balance, it is necessary

Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

to enter into monetary and property relations. In our opinion, it is incorrect to say by Yu.V. Smagin that the knowledge economy is a form of economic relations, because the knowledge economy is based on human behavior and capital. It creates an uninterrupted process that has the property of spontaneous reproduction, not reaction. We can see this in the fundamental features of the knowledge economy, as expressed by L. Lukicheva. They are:

- The knowledge expressed in products and services is the majority of the value created. At the same time, the importance of intellectual property in the growth of high-tech goods and services is high. Because in the development of consumer goods, mining and agriculture, more and more fields of science are being approached;
- Intellectual products and services dominate among the goods sold in international markets. According to experts, the global market for intellectual goods is growing five times faster than the commodity market;
- In the modern economy, the development, storage and transmission of information in any field is becoming increasingly important;
- The superiority of "intellectual workers" over the group of industrial workers is ensured. The pace and scale of technological progress require the mental growth of labor resources;
- Globalization of the market requires the growth of the number of firms and the creation of new technologies that will facilitate access to new markets;
- The conclusion of contracts in the global market and their implementation is accompanied by the expansion of the level of international marketing services0.

These features should, of course, be integrated into the knowledge economy. They play an important role in resource-saving information technologies ("high technologies") that require knowledge in a digital information society. These include, in particular, microelectronics, software, telecommunications, robotics, biotechnology, nanotechnology, artificial intelligence and so on.

We can also consider the efforts of Uzbekistan scientists to study the knowledge economy. In particular, Sh.G.Akramova, L.M.Sharipov, N.M.Koshanova shared their views on human capital. Sh.G.Akramova describes human capital as "the sum of production capacity of a worker, formed and developed by constant investment, which leads to a" sharp "increase in productivity, labor productivity and income". LM Sharipov and NM Koshanova "Human capital in the broadest sense is an intensive productive factor of economic, social and family development, including the knowledge and skilled intellectual part of the workforce, the sum of managerial tools, environment and labor activities" they illuminate. Both of these definitions cover the idea of increasing human productivity as a labor force. But neither has considered the effectiveness of human capital in its contribution to innovation. Academician SS Gulomov for the innovative development of Uzbekistan "Smart Entrepreneur", "Smart Economy", "Smart Medicine", "Smart Education", "Smart Family", "Smart Neighborhood", "Smart Technologies" and "Smart Children" (Competitive) can create a knowledge economy. Of course, it is true that this idea is referred to as “smart” because “smart activity” plays a key role

Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

in the knowledge economy. This definition does not consider only the development of ITTKI (research and development) and the introduction of ICT in all sectors of the economy.

B.Sh.Usmanov said that when approaching the knowledge economy, it is important to pay attention to science and education as a priority. At this point, we know that focusing on science and education as a top priority can lead to a broader economy of knowledge. The shortcoming in this definition is that only science and education are emphasized. This is wrong, through which we only invest in human capital, when in fact the application of the knowledge economy to an innovative economy is necessary. Because through it, we will once again be convinced that education and science will be considered inseparably from the real economy.

The following table discusses the pros and cons of the definitions given to the knowledge economy identified in the research process (Table 1).

Table 1 Scientific-theoretical views on the economics of knowledge

Definition of knowledge economy	**The positive side**	**Disadvantage**
The knowledge economy refers to a system of consumption and production in exchange for intellectual capital.	The definition considers the need to apply scientific discoveries, fundamental and applied research in consumption and production.	In the knowledge economy, attention should be paid to human resources, innovative entrepreneurship, information and communication technologies.
Knowledge economy (or science-based economy) is an economic system in which the production of goods and services on the basis of advanced technical and scientific innovations, rapid innovations.	The main tools of the knowledge economy are innovative ideas, intellectual property, fundamental and applied research.	In this definition, the knowledge economy is not seen as a unit of education and innovation. Education for knowledge economics also teaches the collection, analysis, and synthesis of knowledge.
The knowledge economy is a system based around intellectual capital or mental power.	The tool that drives the knowledge economy is education.	This definition does not state that the knowledge economy should be reflected in innovative activities in the country.
The knowledge economy is the highest stage of development of postindustrial and innovative economy. It is the main driving force of knowledge and human capital development.	Based on the process of development of such an economy, human capital and quality of life will improve, the process of developing high-tech knowledge, investing and using high-	The basic tools of the knowledge economy, such as ideas, research, and development, are not covered.

Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

	quality services will accelerate.	

In analyzing the data in Table 1, we learned that the knowledge economy is a system aimed at accelerating economic growth and based on the intensive and efficient use of science, education and innovation.

By distinguishing the general aspects of the definitions given to the knowledge economy, the following conclusions can be drawn:

- knowledge, science and education are the basis of the knowledge economy;
- in which production is based on high technology and implies to be ahead of its time;
- intellectual product - is its main product;
- new ideas, innovations are created on the basis of collection, analysis and synthesis of knowledge;
- it is a new stage economic system.

Summarizing the study, the author considers the knowledge economy as a high-level postindustrial stage, a digital-informed society, which was formed as a result of the addition of new factors in the field of production and services: information and knowledge (science, intellectual capital). This postindustrial digital-informed society is based on the intensive and effective use of science, education and innovation aimed at accelerating economic growth.

4. CONCLUSIONS AND RECOMMENDATIONS

In general, the knowledge economy, the formation of a knowledge society over the past decade in the top 10 countries in the table is characterized by the production of scientific knowledge, technological innovation, integration of business and higher education, high spending on innovative goods and services.

When we study foreign experience in the development of the concept of knowledge economy and its effective use, we draw the following conclusions:

- The integration of science and education is reflected in innovative activities;
- The main driving force in the formation of the knowledge economy should be the state. It creates a favorable environment for the knowledge economy by strengthening the conditions, the legal framework;
- It is necessary to understand that the key role in the country's economy is also in ICT, information technology;
- It is necessary to strengthen education, science and innovation;
- Public-private partnership leads to the emergence of business incubators, intellectual artificial intelligence, necessary for the knowledge economy.

And at the same time it is necessary to create institutional systems aimed at the formation of a knowledge economy.

Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

5. REFERENCES

1. William Petty (1623-1687). Dictionary of National Biography. London: Smith, Elder & Co. 1885–1900;
2. Ricardo, David (1817) On the Principles of Political Economy and Taxation. Piero Sraffa (Ed.) Works and Correspondence of David Ricardo, Volume I, Cambridge University Press, 1951, p. 11.;
3. Smith, A., 1976, The Wealth of Nations edited by R. H. Campbell and A. S. Skinner, The Glasgow edition of the Works and Correspondence of Adam Smith, vol. 2a, p. 456.;
4. Walras, Léon (1969). Elements of Pure Economics; or, The Theory of Social Wealth. Translated by William Jaffé. New York: A. M. Kelly. p. 457,458.;
5. Clark J.M. Preface to Social Economics. — New York: Farrar & Rinehart, 1936; Милль Дж.С. Система логики. т.т. 1-2. - М., 1914;
6. Moritz Brasch, Wilhelm Roscher und die sozialwissenschaftlichen Strömungen der Gegenwart (Leipzig, 1895);
7. Экономика народного образования. Учебник для студентов педвузов. Под. ред. Костаняна С. Л. 2 – е издание. - М., 1986. - с. 314;
8. Shulz T.W. Human Capital: Policy Issues and Research Opportunities. – In: Human resources. - N.Y., 1975. - p. 5.;
9. Хасанхонова Н. Ўзбекистонда билимлар иқтисодиёти ривожланишининг шарт-шароитлари. «Иқтисодиёт ва инновацион технологиялар» илмий-электрон журнали. №6, ноябрь-декабрь, 2020. 107 - б.;
10. Ташматов Ш., Хасанхонова Н. Иқтисодий таълимотлар тарихи. Ўқув қўлланма. - Т.: Iqtisod-Moliya, 2020. 282 - б.;
11. Шляхтин Ю.М. Структуризация интеллектуального капитала в экономике знаний. Диссертация на соискание учёной степени кандидата наук. Ярасловль, 2009. - с. 8.;
12. Махлуп Ф. Производство и распространение знаний в США. - М.: Прогресс, 1966. - с.23.;
13. Иноземцев В.Л. За пределами экономического общества. Постиндустриальные теории и пост экономические тенденции в современном обществе. - http://vvwvv.postindustrial.net/;
14. Супрун В.А. Интеллектуальный капитал: Главный фактор конкурентоспособности экономики в XXI веке. - М.: КомКнига, 2006. - с. 50.;
15. The spawning of a Third Sector: Information, Business Week, November 7, 1994. - с. 116.;
16. Powell, Walter W.; Snellman, Kaisa (2004). The Knowledge Economy. Annual Review of Sociology. 30 (1): 199–220. doi:10.1146/annurev.soc.29.010202.100037;
17. Корчагин Ю.А. Современная экономика России. – Ростов-на-Дону: Феникс, 2008;
18. Ченцова М.В. Концепция экономики знаний как новое направление формирования современной экономической парадигмы. // Вестник ФА. № 1. 2008. - с. 121;

Journal of Electronics, Computer Networking and Applied Mathematics
ISSN: 2799-1156
Vol: 02, No. 02, Feb – Mar 2022
http://journal.hmjournals.com/index.php/JECNAM
DOI: https://doi.org/10.55529/jecnam.22.11.20

19. Смагин Ю.В. Экономика знаний и реальность. Метиор-Сити. Наука развития. № 4, 2016. - с. 39;
20. The knowledge economy: what it is & what it means for l&d. August 7, 2018. Social Learning, L&D, Online Learning, Updates. https://www.growthengineering.co.uk/the-knowledge-economy-meaning/;
21. Suzanne Berger. A Preview of the MIT Production in the Innovation Economy Report. February 22, 2013. © 2013 Massachusetts Instituteof Technology;
22. Корчагин Ю.А. Циклы развития человеческого капитала как драйверы инновационных волн. – Воронеж: ЦИРЭ, 2010;
23. Ченцова М.В. Концепция экономики знаний как новое направление формирования современной экономической парадигмы. // Вестник ФА. № 1. 2008. - с. 121;
24. Лукичёва Л.И. Управление интеллектуальным капиталом. 2-е изд., стер. – М.: Издательство “Омега-Л”, 2009. - с. 37;
25. Акрамова Ш.Г. Инсон капитали: моҳияти ва уни ўрганишга ёндашувлар. // Иқтисод ва молия. №10, 2011. 53-57- б;
26. Шарипов М.Л., Кошанова Н.М. Инсон капитали моҳияти, унинг давлат ва жамият тараққиётидаги аҳамияти. Academic research in educational sciences volume 2 | ISSUE 4 | 2021. 1259-1268 - б.;Ғуломов С.С. 2017-2021 йилларда харакатлар стратегиясини сифатли амалга оширишда интеллектуал салоҳият ва инновациялар роли. // Иқтисодиёт ва таълим, 2018 й. 7-б.
27. Усмонов Б.Ш. Олий таълимнинг инновацион фаолияти ва унинг иқтисодиёт ривожланишидаги ўрни. // Иқтисодиёт ва таълим, 2018 й. 9-б.
28. Adam Xeyilz. Knowledge economy. https://www.investopedia.com/terms/k/knowledge-economy.asp.
29. Шумихин М.А. Суть и особенности экономики знаний. «Студенческий научный форум 2017» IX международная студенческая конференция. https://scienceforum.ru/2017/article/2017039555.