УДК 338.1;338.24

O. Экономическое развитие, научно-технологический прогресс и рост
O. Economic Development, Innovation, Technological Change, and Growth

УСКОРЕНИЕ ИЗМЕНЕНИЯ МОДЕЛИ ЭКОНОМИЧЕСКОГО РОСТА КИТАЯ ПОД ВЛИЯНИЕМ ЦИФРОВОЙ ЭКОНОМИКИ

ЛИ ЖУН[1)]***, Е. Г. ГОСПОДАРИК***[1)]

[1)]*Белорусский государственный университет, пр. Независимости, 4, 220030, г. Минск, Беларусь*

Под влиянием новой ситуации Китай перешел от традиционной экономической модели к модели цифровой экономики. Анализируются цифровая экономика и динамика экономического развития Китая. Изучается переход от традиционных услуг к современным, от факторов производства к инновациям, от инвестиций к потреблению, от спроса к предложению и от высокоуглеродистой внешней торговли к низкоуглеродистой. Рассматриваются недостатки экономического развития Китая. Исследуется путь оптимизации цифровой экономики для ускорения изменения модели динамики экономического развития Китая.

Ключевые слова: цифровая экономика; экономический рост; китайская экономическая модель; трансформация; рост ВВП.

ACCELERATING THE CHANGE IN CHINA'S ECONOMIC GROWTH MODEL UNDER THE INFLUENCE OF THE DIGITAL ECONOMY

LI RONG[a]***, C. G. GOSPODARIK***[a]

[a]*Belarusian State University, 4 Niezaliežnasci Avenue, Minsk 220030, Belarus*
Corresponding author: C. G. Gospodarik (gospodarik@bsu.by)

Under the influence of the new situation, China has moved from a traditional economic model to a digital economy model. The digital economy and the dynamics of China's economic development are analysed. Transition under study from traditional to modern services, from factors of production to innovation, from investment to consumption, from demand to supply and from high-carbon to low-carbon foreign trade. The shortcomings of China's economic development are considered. The way of optimising the digital economy to accelerate the change in the model of the dynamics of China's economic development is being explored.

Keywords: digital economy; economic growth; Chinese economic model; transformation; GDP growth.

Introduction

The development of China's economy in the new era should gradually move toward a sustainable development power model. From the perspective of fiscal and taxation system reform, the economic development power system can be improved from multiple perspectives, such as innovation-driven and balanced development, respectively. At the same time, it can also actively study new development areas and form new dynamic energy to promote the further development of China's economy through several new modules, such as green

Образец цитирования:
Ли Жун, Господарик ЕГ. Ускорение изменения модели экономического роста Китая под влиянием цифровой экономики. *Журнал Белорусского государственного университета. Экономика*. 2022;2:93–101 (на англ.).

For citation:
Li Rong, Gospodarik CG. Accelerating the change in China's economic growth model under the influence of the digital economy. *Journal of the Belarusian State University. Economics.* 2022;2:93–101.

Авторы:
Ли Жун – аспирант кафедры аналитической экономики и эконометрики экономического факультета.
Екатерина Геннадьевна Господарик – кандидат экономических наук, доцент; заведующий кафедрой аналитической экономики и эконометрики экономического факультета.

Authors:
Li Rong, postgraduate student at the department of analytical economics and econometrics, faculty of economics.
econ.lirong@qq.com
Catherine G. Gospodarik, PhD (economics), docent; head of the department of analytical economics and econometrics, faculty of economics.
gospodarik@bsu.by

and low-carbon, service upgrading and sharing economy. China's economic level cannot be improved without the support of domestic consumption demand and export demand, and further expansion of domestic consumption demand is needed in the future. From the perspective of digital economy, China's economic development power model has ushered in a new change, and also accompanied in many challenges and opportunities, which requires the need to actively explore the connotation and laws of the power change, and make targeted optimisation strategies to achieve further economic growth.

The digital economy and the current state of China's economic development dynamics

Since D. Tapscott introduced the concept of the digital economy in 1995, it has been widely used in the Internet economy and information economy. The COVID-19 epidemic has added to this concept more influence for the global economy. Although the epidemic in China has been effectively controlled, economic growth is slowing down, foreign export demand is declining, employment is facing a severe test, and economic recovery and labour income growth urgently need to find new growth points. China's economy is in a period of attack, with the ultimate goal of achieving high-quality sustainable development. The Chinese government has always put quality at the forefront of its economic development, using supply-side reform as the main support for development to achieve quality and efficiency changes in the economy, and in the process enhancing the economy's competitiveness and innovation. China is in the stage of balanced growth of power to promote sustained economic growth and achieve sustained efficiency improvement, and relevant scholars found through the researches and analysis of economic data that China's economic development strength is in an upward trend, among which precise investment and consumption play an important coordinating role for economic growth [1]. Luo Xiaofang and Wang Susu found out from a study of the China household tracking survey data that although China's digital economy is high in the east and below the national average in the northeast and west. The overall level of development of China's digital economy is still low, but the digital economy can increase labour income and has a catalytic effect on the income growth of different groups, with a greater effect on the improvement of labour income of low-income groups[1].

With the continuous improvement of China's economic growth quality and the continuous transformation of development momentum, the overall economic development trend is in a relatively good state. China's domestic GDP has always been in an upward trend, and macroeconomic indicators have always remained within a reasonable range (fig. 1).

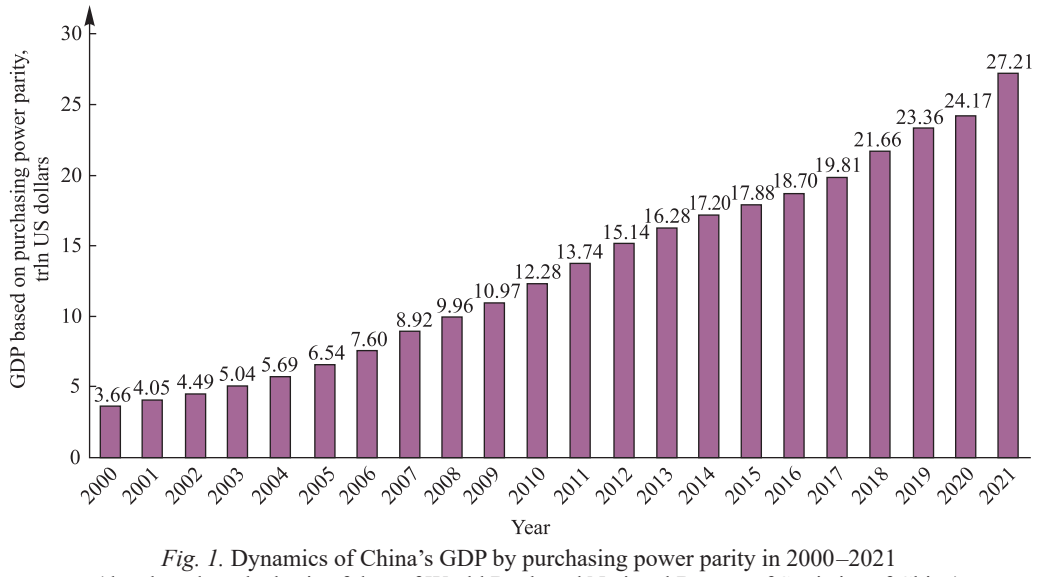

Fig. 1. Dynamics of China's GDP by purchasing power parity in 2000–2021
(developed on the basis of data of World Bank and National Bureau of Statistics of China)

Thus, for 2000–2021, the compound annual growth rate of China's GDP by purchasing power parity was 9.9 %. In the process of promoting the dynamic change of China's economic development, it is affected by a number of problems such as demand-pulling power to be improved, corporate reform to be strengthened, and insufficient innovation drive, and it is still necessary to further optimise the dynamic change model of China's economic development.

[1]The report «Digital economy, employment and labor income growth – an empirical analysis based on China household tracking survey (CFPS) data» by Luo Xiaofang and Wang Susu on the Jianghan Forum – 2021.

China's economic development power change model

Traditional services to modern services transformation. The management concept of the traditional service industry is backward, and the service capacity it can provide is weak, unable to meet the needs of consumers. In the process of promoting the construction of the new industrial system, it should also further promote the innovation and reform of the modern service industry, and gradually promote the extension of the service industry toward specialisation and the high-end of the value chain, and realise the refinement of the living service industry. As early as in the 1990s, the international service industry developed rapidly, and for developed countries, the service industry plays an important driving role in economic growth. At present, Chinese enterprises have realised out of the country and achieved synergistic innovation in the modern service industry, which has become a major force both in China's domestic industry chain and in international enterprises. Among them, new technologies, such as information technology services, have driven the development of new functions even more, making the scale of practitioners expanding, software business exports maintaining growth, and software business maintaining faster growth (fig. 2 and 3).

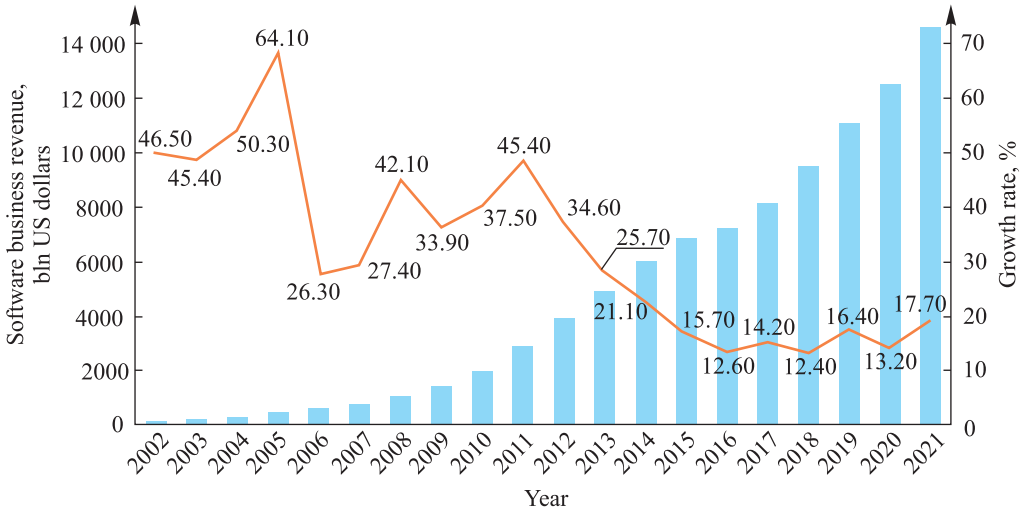

Fig. 2. Software business revenue growth in China in 2002–2021
(developed on the basis of data from the sources [2–5])

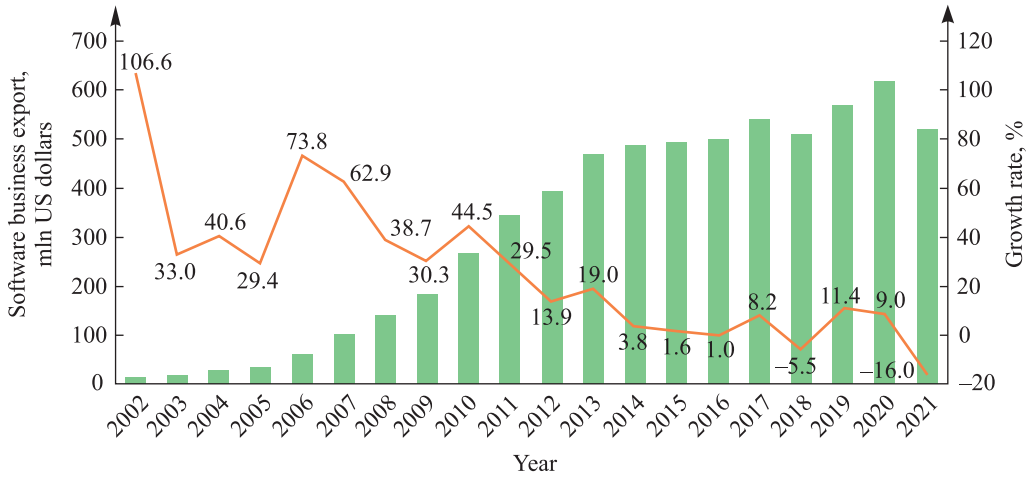

Fig. 3. Software business export growth in China in 2002–2021
(developed on the basis of data from the sources [2–5])

Thus, for 2002–2021, the compound annual growth rate of China's software business revenue growth by purchasing power parity was 26.49 % and the compound annual growth rate of China's software business export growth by purchasing power parity was 19.42 %.

Factor-driven to innovation-driven transformation. The digital economy has realised the flow and sharing of goods and information, and in addition to the exchange with each other within China. It has also realised the exchange of countries around the world, and the international economy has actively followed the trend

of the times to explore new potentials and achieve further economic development through the improvement of business models. Under the guidance of the Belt and Road, people's motivation for innovation and entrepreneurship has been significantly strengthened, and close communication between countries along the route and China has been achieved [6]. Business competition can not be supported by the ability to innovate, and technological progress can be achieved with the impetus of innovation. Highly qualified citizens are the main driving force for achieving technological innovation, which enables not only technological innovation but also effective dissemination of technology, improved resource utilisation and sustainable economic development. According to the 2022 World Intellectual Property Report, human innovation is inevitable. By examining the rate of patent applications over the last century, innovation activity has increased 25-fold overall, and digitalisation is quadrupling in the 20 years to 2022 by changing the objects, types and processes of innovation, with an annual growth rate of 13 %, accounting for 12 % of all patent applications in 2020 [7]. New technologies are being used on a large scale to drive and enable economic development, with 26 176 800 global patent applications in the digital economy by 2020, including China (32.47 % of all patent applications). Japan (33.81 %) and the USA (12.21 %), one of the gaps between China and developed countries lies in the lack of technological innovation, and China needs to introduce innovative technologies and digest advanced technologies in order to gain the corresponding development advantages. China has also proposed to actively improve the innovation and entrepreneurship of the young generation, build a new innovation and entrepreneurship model, and power the innovation drive through the further development of new technologies (fig. 4 and 5).

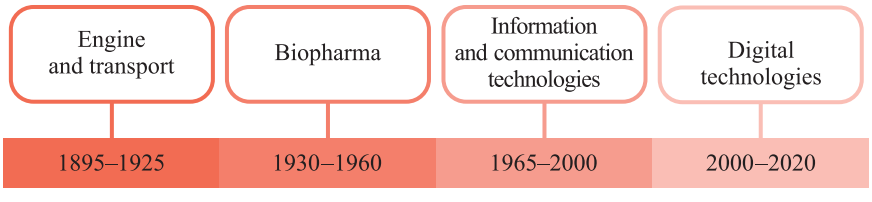

Fig. 4. A series of technologies driving innovation activities in different historical periods

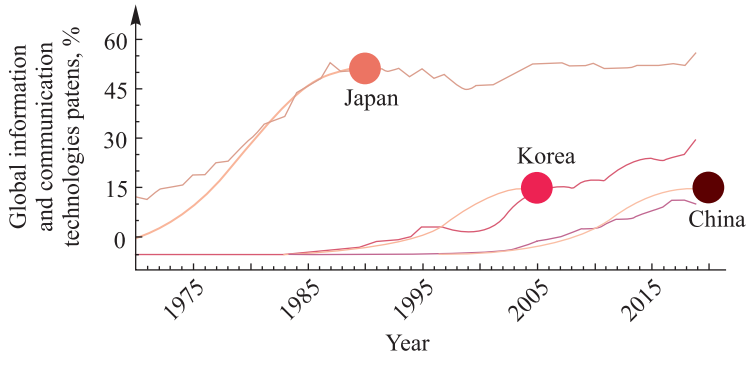

Fig. 5. Global information and communication patent technology in East Asian economies in 1970–2020 (developed on the basis of data from the source [7])

Investment-driven to consumption-driven change. Investment-driven is a traditional economic growth model, and most of its power comes from investment. It is imperative to realise the shift from investment-driven to consumption-driven. Whether in the long term or short term, China's economic development needs to be supported by domestic consumption, and it is highly feasible to drive domestic economic growth through consumption. A study of the growth of mid- and high-end consumption reveals that a consumer economy can reshape the power development system. In the case of China's GDP, the number of contributions provided by consumption is not insignificant and gradually exceeds the contribution provided by investment [8]. This also indicates that consumption has become the main driver of economic development and that China's investment-driven is gradually shifting to a consumption-driven model. Under the influence of COVID-19, Chinese residents' consumption scale continues to expand, the consumption structure gradually upgrades, showing diversification, personalisation, and quality, and the concept of consumption changes from «immediate need» to «enjoyment», and the quality, taste, and aesthetics of consumption are constantly being upgraded [9]. According to the 49th Statistical report on China's Internet development by China Internet Network Information Center, with the significant increase of Internet penetration in rural China, geographic location is no longer an obstacle to the upgrading of consumption in the county rural market [10]. The size of rural Internet users in China has reached 284 mln, the Internet penetration rate in rural areas is 57.6 %, and the size of elderly Internet users aged 60 and above has reached 119 mln, with an Internet penetration rate of 43.2 % (fig. 6 and 7).

Fig. 6. China's Internet users in 2012–2021
(developed on the basis of data from the source [10])

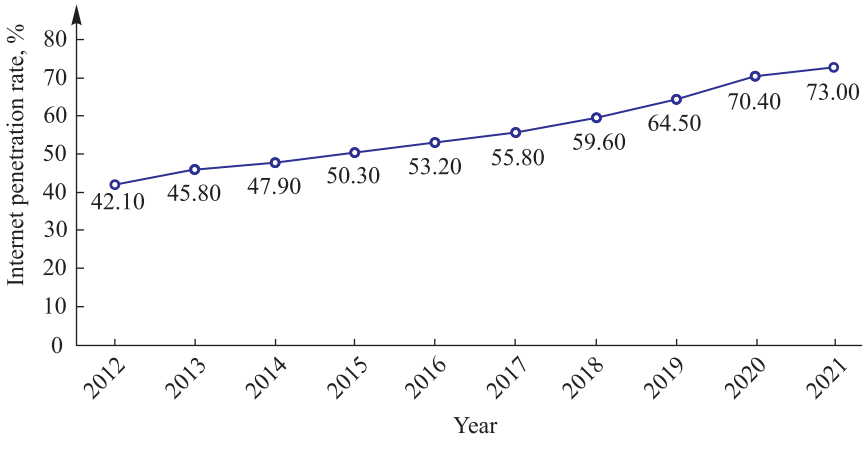

Fig. 7. China's Internet penetration in 2012–2021
(developed on the basis of data from the source [10])

Demand-driven to supply-driven change. Supply-side reform is an inevitable way to liberate social productivity. Promoting supply-side reform can effectively avoid low-end supply and ineffective supply so that the middle and high-end supply can be expanded and the flexibility of the supply structure can be further enhanced. The country has also formulated a strategy for supply-side reform to guide the development of supply-side reform. The real purpose of supply-side reform is to solve the problem of inefficient demand creation caused by the aging supply-side structure, to upgrade the supply in combination with structural reform, and to further improve the social and economic development momentum. New supply-side economics puts forward the new supply economic cycle as a macro basis and shows that the main force of economic cycle fluctuations comes from changes in the ability of supply to create demand. It points out that the main reason for the current slow development of China's economy is related to the aging of the supply structure and puts forward the theoretical requirement of supply-driven transformation.

High-carbon foreign trade to low-carbon foreign trade transformation. China's traditional economic growth is inseparable from commodity trade exports, while traditional export trade is mainly goods-based, selling cheap Chinese products through made in China, but such products require large consumption of China's domestic resources such as minerals, forests, and land to obtain market competition with the advantage of cheap labour prices, which has brought great contribution to the reform and opening up. With the decreasing birth rate and the threat of an aging population society, the demographic structure has changed dramatically and the advantage of labour prices has gradually disappeared. In addition, under the rough growth of high-carbon economy, all kinds of environmental pollution problems have gradually broken out, and in order to achieve green and sustainable economic development should gradually shift to low-carbon foreign trade economy [8]. In the context of the development of the new information age, China's exports are gradually improving service trade and technology trade, focusing on the development of finance, technology, education and training modules under the advantage of the Belt and Road channel, building a low-carbon, sustainable foreign trade growth model, digitalisation and intelligence, double carbon targets and greening, internal cycle construction and supply chain reconstruction, will provide reliable support for China's economic growth, and the green transformation will give a strong momentum to economic growth in various fields.

Problems of China's economic development power model

Since the reform and opening up, the Chinese government, driven by its strong will to achieve high economic growth, has used its strong ability to stimulate economic growth by promoting investment expansion. The government's strong will to promote high economic growth stems from the fact that economic growth is fundamental to improving the living standards of the population and the strength of the country, and is a strong guarantee of the ruling party's governing base and legitimacy. After a long period of rapid development, China now has the characteristics of a large digital economy. From 2011 to 2020, the digital economy development index of five countries (China, Japan, South Korea, Brunei, and Cambodia) has been increasing year by year, and the upward trend is getting bigger and bigger [11]. The proportion of digital economy in each country is increasing, and each country attaches importance to the development of their digital economy year by year, and the development of digital economy has a positive impact on economic growth. Under the influence of the epidemic and the international situation, China's export-oriented strategy will not be sustainable, and the scale of exports will not be able to continue to expand at a high rate, and the role of the government in promoting economic growth will probably be weakened. The serious livelihood problems in the future can no longer be solved by economic growth alone, and the reform of the economic development model will be the major trend of China's future development.

Insufficient demand momentum. In terms of GDP, China's demand pull is at a low level, which is mainly due to the fact that the population is in a negative growth trend, which makes it difficult to meet the total demand for social development, while the lack of urbanisation leads to the gradual expansion of the population with weaker consumption ability, and the wide gap between the rich and the poor in urban and rural areas causes the low consumption willingness of low-income people, which prevents them from improving their consumption ability. The main reasons for the lack of demand power include factors such as high cost of education, high cost of retirement, high cost of medical care, and cost of house prices. Although China has fully implemented a 9-year compulsory education system, school in-rolls have led to increased costs for extracurricular tuition, and parents are under greater educational pressure. China's current pension system is not yet complete, and the level of basic pension protection is low. The cost of medical care is a stereotyped issue, and the phenomenon of returning to poverty due to illness is causing many people to live in hardship. High housing prices have resulted in the consumption power of the middle class being swallowed up. If China wants to achieve a comprehensive transformation to service-based consumption, it should adapt to the new consumption structure, follow the new trends brought by the consumption structure, enhance internal demand, and keep the consumption rate in a reasonable range.

Supply-side reform backlog. Traditional low-end supply is difficult to meet the demand for high-quality services, under the interference of a number of external factors, resulting in the development of low-end supply spurt, unable to orderly exit in the current market. Innovation and entrepreneurship and other technical fields, most of which are compatible with the demand for high-end personalised supply, such fields not only have strong development advantages, the internal demand of enterprises is more robust, with high development profits, can effectively drive social development and solve the employment problem. The main reasons for the contradiction between supply and demand are related to the development system, such as high industry thresholds, household registration hinders the flow of talent, the development of regions is too uneven, state-owned enterprises can not exit, etc. The main purpose of supply-side reform is to achieve technological and product innovation, and continuously improve the quality of labour, promote product renewal through commitment, improve service quality and service quality, and then meet the personalised and quality development needs of the times, achieve institutional efficiency gains in economic development, optimise the supply-side structure, and improve the competitiveness of enterprises.

Insufficient internal strength of low-carbon economy. High-carbon foreign trade should be gradually converted towards low-carbon foreign trade and productivity should be improved through technological innovation. The Belt and Road policy proposed by China is in full swing under the promotion of the government, but the number of enterprises going out is limited, mainly due to the lack of technological innovation strength of enterprises. On the one hand, the development of domestic low-carbon foreign trade is relatively slow, lacking the necessary support and cost. To achieve the transformation, it is necessary to have the support of technology, but many traditional trade industries lack the necessary talent support and technical support, and their own innovation capacity is insufficient to support the transfer of low-carbon foreign trade to high-carbon foreign trade [12]. On the other hand, the existing international environment is not conducive to promoting the development of low-carbon trade. Although China's *Huawei* 5G technology, *Beidou* system and high-speed rail are in the world's leading position, they are subject to political interference from Western capitalist countries, which undermines the new situation of China's high-tech development and makes China's economic growth

seriously hindered, and the share of service trade and technology trade in foreign trade in the international market gradually decreases and its development is restricted.

Insufficient innovation-driven connotation. During the first and second industrial revolutions, China missed many development opportunities, resulting in lagging behind developed countries in backward technological fields, and there are still many gaps between the overall development and developed countries, and the country is lagging behind in terms of innovation conditions. For example, the term sharing economy was introduced in the 1970s, and China started to develop the sharing economy around 2015, which has been widely recognised and exploded in the initial development stage. China's sharing economy development continues to maintain its high growth momentum and potential, with the sharing economy market transaction size of about 3688.1 bln yuan in 2021, up about 9.2 % year-on-year; the direct financing size of about 213.7 bln yuan, up about 80.3 % year-on-year[2]. The sharing economy in the fields of office space, production capacity and knowledge skills has developed faster, and people realised the advantages brought by the sharing economy and scrambled to start imitating into new ones, forming multiple brands of shared bicycles, shared cars, shared rechargeable batteries, etc., through continuous replication, but not all enterprises ushered in the ultimate development advantage and were gradually eliminated by the powerful ones. For example, ofo small yellow car rose overnight and collapsed overnight, leaving a long journey of refunding deposits. The main reason for this situation is due to the lack of original innovation in the country, the understanding of innovation-driven is not enough perfect.

Empowering modern service. The world is currently developing mainly toward the Internet and artificial intelligence and bringing many development opportunities, while many industry sectors such as industrial innovation and design, information technology research and development occupy the middle and high-end industries. In the process of developing the economy, China is affected by a number of factors such as monopoly, which leads to imperfect protection system and distortion of service prices, which hinders the further development of modern service industry and makes it more difficult for some enterprises to expand their scale and improve their production efficiency. One of the most influential is the improvement of the efficiency of modern services, which concerns the improvement of several module contents such as industry competition, enterprise competitiveness and social coordination. Combining economic trends and decomposing national economic growth rates, it is possible to learn that the greatest contribution is produced by the change in the share of industries and the efficiency of industrial sectors in each country. If the share of services is increased and the share of manufacturing is decreased, but the change in the efficiency of manufacturing far exceeds the change in the efficiency of services, it will lead to a slowdown in economic growth.

The digital economy to accelerate China's economic development power model optimisation path

Technology innovation-driven development model. Most of China's current technological innovation is limited to imitation innovation, with few original forms of innovation, making China's existing enterprises' mastery of modern core technologies insufficient and their self-sufficiency rate low, often subject to developed countries. Under such a trend, it is necessary to actively promote technological innovation, strengthen originality, safeguard intellectual property rights, actively catch up with international advanced technology, and improve domestic technological development momentum in the context of international technological revolution. The country should actively create an atmosphere of innovation, through the continuous innovation and support of technology, maintenance, feedback and reinvention to form a form of development with Chinese characteristics.

With the advantages of the digital economy, the human capital model is actively improved to further cultivate innovative talents with professional skills to provide a source of power for economic growth [13]. The human factor dominates the productivity, and in the context of the new era, it is necessary to actively cultivate talents with innovative thinking skills, flexibly apply the advantages of human resources in the development process, and create diversified platforms to provide reliable support for technological innovation. In addition, we should also actively optimise the institutional mechanisms. With the rapid development of Internet information technology, remote management is becoming simpler, and decentralised mode has become possible. Under the leadership of Industry 4.0 era, new technology has provided impetus for the change of economic development dynamics, and it is necessary to actively improve the institutions, seise the development opportunities, and break the institutions that hinder economic development with the support of many emerging technologies, such as cloud computing, so as to provide impetus for economic development [14]. China's economic development power change is in a critical period, in addition to innovative development, but also to actively optimise the

[2]China sharing economy development report (2022) [Electronic resource]. URL: http://www.sic.gov.cn/News/568/11277.htm (date of access: 01.05.2022).

hybrid power development model, to achieve the integration of traditional development power and the new era of power, to promote economic transformation.

Conversion of investment demand to consumer demand. Both domestically and externally, there is a need to shift investment demand to consumption demand. Externally, investment can be expanded appropriately. Internally, services that meet people's needs can be actively carried out to drive people's consumption. China has a large investment potential, and with the advantage of digital economy, through the expansion of investment in countries along the Belt and Road, it can achieve the ultimate goal of going global and allow more Chinese enterprises to usher in development opportunities. Internally, we should meet the people's vision of a better life, achieve the goal of people's happy life through product upgrading and service optimisation, give full play to the market advantages of China's economy, and promote sustainable economic growth while meeting the huge domestic market demand, so that China's economic development model is always in a healthy state.

Demand-driven conversion of supply-side reform. With the support of the digital economy, the service systems of education, medical care, and elderly care should be further improved in many aspects, so that all the people can get the services they need inside. For the service contents of education, medical care and pension, we should focus on optimising their products and provide more stable products and services for the general public, taking into account the national conditions, so as to realise the stable development of society. At the same time, under the guidance of China's development goal of achieving a well-off society by 2049, it is necessary to meet the various needs of people for a well-off society and truly realise supply-side reform.

Accelerating the development of modern services. The advent of the Industry 4.0 era has brought many development opportunities for the modern service industry. China is in a critical period of economic transformation and upgrading, and the economic development pattern of the world interacts with each other. To achieve high-quality development of China's economy, it can actively promote the comprehensive integration of advanced manufacturing and modern service industries, provide a reliable carrier for stable economic development, realise the comprehensive upgrade of modern service industries and advanced manufacturing industries, and then gradually transform from the traditional form of rough development to the form of high-quality benefit development. At the same time, it is also necessary to form a form of opening up to the outside world with service trade as the core, increase the proportion of service industry in global trade, actively optimise the form of service, improve the quality of service, realise the upgrading of service products, ensure that the needs of people's life can be met in all social fields, and provide personalised and precise services to the people.

Active development of a low-carbon foreign trade model. China's economic model is in a critical transition period, and the restructuring of the economy means that China must transform its traditional crude production model and gradually move toward quality development, seeking as soon as possible to achieve a critical point of positive correlation between stable economic growth and coordinated environmental development [15]. The key to achieving successful economic transformation lies in green and low-carbon development. The innovation of China's economic development model should achieve the harmony between human and nature, and achieve the ultimate development purpose through the efficient use of resources and the strict protection of the natural environment. Actively implement the UN green and low-carbon sustainable development initiative, and the concept of «clear waters and green mountains are as good as mountains of gold and silver» proposed by China, promote the full implementation of the green and low-carbon concept, transform the core driving force of national development into green productivity, provide high-quality development, and provide for the people of the world. Green and low-carbon services, creating a low-carbon foreign trade model.

Conclusions

To sum up, in the process of power change, China's economy should give full play to the advantages of the digital economy, actively learn from the advanced digital economy development model and accumulate development experience. In this process, we should take innovation as the main development driving force, continuously improve investment efficiency, meet various consumer needs, strengthen service capabilities and promote supply-side reform. At the same time, it is also necessary to actively bring into play the advantages of low-carbon foreign trade, improve the existing economic system, practice the concept of green and low-carbon development, promote the orderly change of China's economic development dynamics, build a perfect economic development model, and provide development vitality for the economy.

References

1. Che Shulin, Wang Qiong. [Power change and path selection of high-quality development of cultural industry in the era of digital economy]. *Academic Exchange*. 2022;1:114–125. Chinese.

2. China statistical yearbook 2021 [Internet; cited 2022 May 20]. Available from: http://www.stats.gov.cn/tjsj/ndsj/2021/indexch.htm. Chinese.

3. Main indicators of the national software and information technology service industry in 2021 [Internet; cited 2022 May 20]. Available from: https://www.miit.gov.cn/gxsj/tjfx/rjy/art/2022/art_dcfd7bbb585e432ea4ff13f7139306c9.html. Chinese.

4. Software industry economic operation express from January to December 2015 [Internet; cited 2022 May 20]. Available from: https://www.miit.gov.cn/gxsj/tjfx/rjy/art/2020/art_970ed71e70e24b9ba9c74aa3f74b4b10.html. Chinese.

5. Economic operation of the software industry from January to November 2014 [Internet; cited 2022 May 20]. Available from: https://www.miit.gov.cn/gxsj/tjfx/rjy/art/2020/art_90715e2af12e4b6cac6efd24ccd7cf7b.html. Chinese.

6. Chen Fuzhong, Jiang Guohai, Wang Wenting. Institutional quality and its impact on the facilitation of foreign direct investment: empirical evidence from the Belt and Road countries. *Journal of Chinese Economic and Foreign Trade Studies*. 2019;12(3):167–188. DOI: 10.1108/JCEFTS-07-2019-0041.

7. World intellectual property report 2022: the direction of innovation [Internet; cited 2022 May 1]. Available from: https://www.wipo.int/publications/en/details.jsp?id=4594.

8. Lei Shen, Xi Zhang, Hongda Liu, Pinbo Yao. Research on the economic development threshold effect of the employment density of the Shanghai consumer goods industry in the context of new manufacturing, based on the experience comparison with international metropolis. *Mathematics*. 2021;9(9):969. DOI: 10.3390/math9090969.

9. Rong Li, Yu Ziqing, Gospodarik CG. Digital economy promotes economic development in the COVID-19 era. *Novaya ekonomika*. 2021;2:249–266.

10. 49th Statistical report on China's Internet development [Internet; cited 2022 May 15]. Available from: https://www.cnnic.com.cn/IDR/ReportDownloads/202204/P020220424336135612575.pdf.

11. Rong Li, Gospodarik CG. The impact of digital economy on economic growth based on Pearson correlation test analysis. In: Jansen BJ, Liang Haibo, Ye Jun, editors. *Proceedings of the International conference on cognitive based information processing and applications; 2021 August 21; Singapore*. Springer: CIPA; 2022. p. 19–27. DOI: 10.1007/978-981-16-5854-9_3.

12. He Lanyin, Cheng Tianting. [Strategic choice of digital economy to promote high-quality economic development]. *Journal of Commercial Economics*. 2021;10:189–192. Chinese.

13. Cai Zhenmei, Zhang Qiangiang. [Digital economy accelerates the change of China's economic development power model]. *Qigihaer daxye xuebao (zhexue shehui kexue ban)*. 2020;11:72–78. Chinese. DOI: 10.13971/j.cnki.cn23-1435/c.2020.11.018.

14. Lan Quingxin. [Digital economy is an important driving force for world economic development]. *Renmin Luntan Xueshu Qianyan*. 2020;8:80–85. Chinese. DOI: 10.16619/j.cnki.rmltxsqy.2020.08.007.

15. Jan Deli. [Cloud computing is a source of power to drive the development of digital economy]. *China Internet*. 2019;1:36–37. Chinese.

Received by editorial board 14.10.2022.