

REVIEW

The Contribution and Prospect of 5G Technology to China's Economic Development

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ABSTRACT

Since the birth of 5G, it has attracted much attention from all countries in the world. The development of 5G industry is particularly important for domestic economic development. 4G changes life, 5G changes society. 5G will not only accelerate the speed of people surfing the Internet, but also bring revolutionary changes to all aspects of social life, making people's lives, work and entertainment more convenient and diverse. The economic impact of the development of the 5G industry on China cannot be underestimated. Nowadays, information and communication technology has increasingly become a new driving force for economic development. 5G technology has already become a key technology pursuit for countries to compete for the status of world power, and it has also become an indispensable part of contemporary economic and social development. We should give full play to the government's guiding role, and work with network giants to build a new platform for cooperation, promote coordinated industrial development, achieve win-win results, and promote economic and social prosperity and development.

1. 5G Applications Accelerate Economic and Social Transformation

In last year's "two sessions", 5G was the focus of attention. At the same time, the operator's 5G signal also appeared in the two sessions for the first time. The full coverage of 5G signals and the 4K high-definition video broadcasted in real time made people feel 5G charm.

5G is a key weapon in the digital transformation of the economy and society. In the future, the deep integration of 5G with cloud computing, big data, artificial intelligence, VR and other technologies will become the key infrastruc-

ture for digital transformation in various industries. On the one hand, 5G will provide users with ultra-high-definition video to bring a super-sensuous service experience to customers, and it will surely promote the upgrade of people's experience. On the other hand, 5G will support massive amounts of machine communication, and APPs and cooperation goals represented by smart cities and smart homes will make mobile communications play a greater role. It is expected that 100 billion devices will access 5G networks. More importantly, 5G will also exist in all aspects of social life and become an integral part of it with its superior performance. Generally speaking, the widespread appli-

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cation of 5G will further deepen people's awareness of innovation, which is conducive to "mass entrepreneurship and innovation for all." In the 21st century, 5G commercialization will occupy a dominant position, and China will become the pioneer and leader of 5G technology, and guide all countries in the world to participate in building a manufacturing power and a network power ^[1].

2. Stimulate Increased Digital Investment in Various Fields and Promote the Steady and Healthy Development of the Macro Economy

Economic growth theory shows that capital accumulation is a key factor in promoting economic growth. Compared with other factors, capital accumulation has a more direct and significant role in driving economic and social development. As an important component of aggregate demand, the increase in investment will directly drive the expansion of aggregate demand, increase aggregate output, and promote economic development. From the perspective of investment fields, the total investment absorbed by 5G will be much higher than that of 4G network construction. The large-scale application of 5G technology and the operator's investment in 5G networks and related supporting facilities will effectively promote the national demand for network equipment. Conducive to the development of related industries. Investment will also form new capital in various forms, promote technological progress and increase production efficiency, and provide inexhaustible power for sustainable development of the economy and society. From the perspective of consumption, 5G's high efficiency and low cost will attract various industries in the national economy to expand 5G investment, which will help improve the digitalization of the industry, and then achieve the purpose of stimulating consumption and promoting economic growth. In terms of exports, the arrival of the 5G era is conducive to exports. Huawei has signed 5G commercial contracts with many countries around the world, ranking first in the world.

3. Promote Industrial Innovation and Stimulate Consumption

At present, China's economic and social development has entered a new era of consumption-led growth. 5G plays an important role in expanding consumption and releasing domestic demand. The application of 5G will effectively promote industry innovation, and enable new information products such as smart homes and wearable devices to effectively serve everyone in the society, so that millions of households can experience the convenience and speed of 5G, increase the awareness of the public and promote

economic development of. At the same time, 5G can even drive "Internet +" related consumption. 5G technology will be able to penetrate into all areas of people's life, and give customers a brand-new fruitful experience in all aspects, effectively promote the development of virtual reality shopping, the Internet and other fields, so that people's consumption is no longer limited by time and place, and real Freedom of consumption ^[2]. In this epidemic, we can know a few things. The supply of vegetables in the supermarket is in short supply, and there are a large number of people who cannot afford fresh vegetables. Moreover, I believe that with the advancement of technology, 5G will make people's lives easier and faster. Therefore, I think the application of 5G will effectively promote the socio-economic development and stimulate consumption.

4. Expand International Market Space and Enhance China's Comprehensive Advantage

Under the conditions of an open economy, the role of international trade and international investment in a country's economic growth has become increasingly significant. The expansion of 5G internationalization has played a significant role in driving China's economy. Despite the obstruction of various parties, Huawei has signed 5G commercial contracts with more than 30 countries around the world. The number of 5G base stations is also increasing. This helps to expand the scale of China's foreign trade, helps China occupy more market shares in the international market, and plays an important role in promoting rapid economic growth and optimizing and upgrading the economic structure. In terms of investment, the rapid development of 5G has promoted the export of communication equipment. We should make full use of and tap foreign resources and foreign markets, increase total net exports, promote domestic demand expansion, and then drive domestic economic growth ^[3].

5G not only means to continue to innovate in the consumer Internet market and bring new service experiences to consumers. It is also more important to open the door to Internet markets in various industries around the world, enabling every industry and industry to implement cloud-based office and help digital Economic development has an irreplaceable acceleration of social and economic development.

5. 5G's Contribution to Employment Growth

The widespread application of 5G will on the one hand improve the working efficiency of enterprises and force some people to leave their jobs. On the other hand, the development of 5G technology will create a large number

of high-skilled employment opportunities. The linkages between them expand the scope of employment.

The deployment of 5G can effectively drive the rapid development of the industrial chain. 5G needs to purchase a large amount of network equipment during the construction process, which will drive China's equipment manufacturing enterprises to research and develop more advanced electronic equipment, master the core technology themselves, and no longer be subject to people. 5G can effectively promote the upgrading of mobile phone terminals, and will promote mobile phone manufacturers to manufacture more advanced and richer products. 5G will also promote the Internet and other related companies to develop more and better APPs, and promote the improvement of the overall information service industry. 5G will create a large number of highly knowledgeable jobs. While 5G will drive employment in the mobile communications industry, it will also spawn a number of new electronic information service positions related to cloud computing and intelligent algorithm development, creating more job opportunities and making it more flexible, convenient and fast.

It is estimated that 5G will create more than 8 million jobs in 2030, and 5G formal commercial use will directly create about 540,000 jobs in 2020. With the expansion of the scope of 5G applications and the deepening of the application field, 5G will provide about 3.5 million employment opportunities in 2025.

6. Prospects for Economic Development in the 5G Era

With the connection of 5G networks, smart factories have become the general trend. The combination of smart factories and many advanced technologies in the future will maximize resource utilization, production efficiency and economic benefits. For example, with the help of 5G high-speed networks, the use of big data and cloud computing technology to integrate information and manage and analyze related data, identify problems and make adjustments in a timely manner. Under the premise of ensuring normal production, the production process, equipment, and energy should be correspondingly handled. Supply and personnel adjustments to minimize costs and maximize returns are the ultimate goals pursued by each enterprise; when managing raw material inventory, when a customer order is placed, the system automatically calculates the required raw materials, and according to the supply. The supplier information calculates the purchase time of raw materials in real time to ensure that the inventory cost is the lowest or even zero while meeting the delivery time. With the ad-

vent of the 5G era, these are no longer heaven and earth, it is helping the realization of the Chinese dream with an unstoppable momentum.

Therefore, smart factories in the 5G era will greatly improve labor conditions, realize mechanization and intelligence, liberate labor, and improve the controllability of the production process. The most important thing is that we should use network tools to make intelligence penetrate all aspects of enterprise development. The realization of all links from design, production, sales and after-sales service is conducive to the integration of resources and maximizes the utilization of resources, thereby further improving the production efficiency and product quality of enterprises^[4].

7. Seizing the Opportunity, China is Leading the New Trend of 5G Industry Development

"China's mobile industry has been led by following in many ways, and the development of 5G is a clear representative of it." China is very advanced in thinking about the economic and social development that 5G will bring, and is leading in the world. Not only is China technologically advanced, it is also very open-minded and is at the forefront. China will be a leader, not a follower, of the mobile communications industry in the future^[5].

7.1 Consolidate the Foundation and Strive to Achieve Full 5G Coverage

Promote the coordinated development of 5G networks and 4G networks, accelerate the construction of 5G infrastructure, achieve effective coverage from urban to rural areas, further strengthen the co-construction and sharing of networks, and strive to build 5G networks with complete coverage, stable quality, and resource conservation. The government cooperates with the public and related enterprises, and focuses on strengthening investment in 5G network infrastructure construction in the central and western regions and rural poor areas.

7.2 Close Integration of Industries to Accelerate Industrial Intelligent Upgrade

The coordinated development of 5G technology and the Internet + breaks traditional manufacturing barriers and promotes the intelligent upgrade of related products. Promote the establishment of enterprise demonstration models and innovation platforms, improve innovation awareness, school-enterprise cooperation, and mutual benefit and win-win. Drive the development of related industries, let machines replace labor, achieve intelligent control, and improve production efficiency^[6].

7.3 Strengthen International Cooperation and Share Global Development

Build an international 5G test platform and promote global unification of 5G standards. Strengthen China's global technology exchanges and build a win-win global 5G industry ecosystem. Seizing the opportunity of historical development, actively fostering the awareness of international cooperation among domestic enterprises, the government has stepped up incentives to promote the global development of 5G technology services for domestic enterprises^[7].

8. Concluding Remarks

In a word, the widespread application of 5G will provide solid support for mass entrepreneurship and innovation, help build a manufacturing power and a network power, and make the new generation of mobile communications a key technology leading the country's digital transformation. It is expected that in the future, 5G will become a key infrastructure for building a digital transformation of the economy and society^[6]. From online to offline and from consumption to production, it will support the rapid development of China's online medical and artificial intelligence industries and promote the development of China's digital economy. Take new steps to continuously promote the emergence of new models and new

industries, and cultivate more new ideas for economic development^[8].

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