



The Impact of 5G on the Sustainable Development of Enterprises

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Abstract. In recent years, the rapid development of 5G technology has brought new technological changes to society, which has attracted extensive attention from all aspects of society. To realize their sustainable development, more and more enterprises begin to apply 5G technology in production and management to achieve their enterprise upgrading. By studying a large number of literature, this paper analysed the advantages of 5G and the impact of the technology and management of the enterprise, this paper reports the different enterprises to all the challenges and opportunities in the change, and large enterprises are analyzed in detail how to use the 5G of automation to upgrade technology and the information revolution of the water in the 5G for corporate advertising and internal management, optimization. This paper analyzes the possible risks and challenges of small enterprises in the future competition, and studies how small enterprises find their development path by using 5G technology in the increasingly competitive market in the future, to upgrade the original industry to achieve sustainable development.

Keywords: 5G · Sustainable development · Enterprises

1 Introduction

The Revolution of science and technology is of great significance to human history, every time a new revolution of science and technology will have a significant impact on society. 5G as a symbol of modern society entered the industrial age of the Internet, one of the vigorous development of 5G represents the arrival of the new technological revolution, 5G will no doubt bring comprehensive change to the development of enterprises, Whether cash-rich big companies or is weak of small businesses, will be significantly affected in the change, 5G not only brings great opportunities, but also requires enterprises to face the challenges of new technologies. Enterprises can seize the opportunity to make rational use of 5G to help enterprises achieve sustainable development, which is one of the main issues that enterprises need to consider at present.

The fifth generation of mobile communication technology, called 5G, has become a high-frequency word in people's lives. It is a new generation of broadband mobile communication technology with high speed, low delay, and large connection characteristics, and is the network infrastructure to realize man-machine interconnection. 5G will have ultra-high spectrum utilization and energy efficiency and improve the transmission rate and resource utilization by an order of magnitude or higher than 4G mobile communication [1]. Its wireless coverage performance, transmission delay, system security, and user experience will also be significantly improved. It takes very little time for the application of 5G network communication technology in the process of file transmission, which plays a very important role in improving work efficiency. Therefore, the application of 5G network communication technology in today's social development will greatly improve the speed of social progress and contribute to the rapid development of human society. Moreover, 5G network communication technology can carry out very stable transmission in different scenarios and adapt to various complex scenarios. Therefore, 5G network communication technology is very practical in the actual application process. The improvement of transmission stability reduces the difficulty of work. When working with 5G network communication technology, the transmission capacity of 5G network communication technology has high stability. Therefore, the transmission time will not be too long or the transmission is not stable due to the complex scene of the working environment, which will greatly improve the staff's work efficiency. Finally, due to the big connection feature, 5G can connect machines and people and realize the interconnection of everything, which will help generate huge business opportunities and employment opportunities.

1.1 The Advantages of 5G

The rapid development of the 5G network drives the improvement of 5G terminals and the industrial integration application ecology. With the increase of 5G enabled vertical industries, diversified and differentiated vertical industry integration application demands promote the evolution and development of 5G network technology, which is a virtuous cycle. Now in the world, all countries are working hard to develop 5G, hoping to promote the development of the country, so 5G is very hot under the general trend, with the continuous development of 5G, shortly, 5G will be applied to all aspects of life. For example, the automation brought by 5G can make enterprises more efficient, and the unmanned driving brought by 5G can make people's travel more convenient and safer. Moreover, the emergence of a smart home and smart city can make people's life more comfortable. For enterprises, 5G can truly realize the interconnection of everything because of its larger broadband. It allows enterprises to connect the Internet, products, and people, creating a truly intelligent era.

2 The Impact of 5G on the Development Prospects of Enterprises

2.1 The Impact of 5G on Enterprise Technology

For enterprises, the development of the 5G gives them a lot of development space, can upgrade on enterprise's original products, can also develop a new product for the enterprise, such as 5G high speed can make electronic commerce industry hotter, especially

in the current outbreak, the emergence of 5G can make businesses more quickly sell their goods directly. And for enterprise employees often away on business, 5G greater broadband is the Gospel of the staff, 4G phone meeting, remote control coordinate are still exist some problems, and 4G wireless transmission is very difficult for large files, will be very slow, it can't make the enterprise to achieve high efficiency, and the emergence of the 5G can perfectly solve the problem of large files wireless transmission, It allows people to transmit wirelessly anywhere, Whereas current systems typically operate with, at most, a few hundred devices per base station, some M2M services might require over 10 connected devices. Examples include metering, sensors, smart grid components, and other enablers of services targeting wide area coverage [2]. In addition, the safety of the 5G is very good, this allows companies to better resist the hacker's attack, at the same time IT also can use 5G of high speed, better hit the hackers, but also can make better use of artificial intelligence to crack down on Internet crime such as fraud, 5G can better maintain the companies on the network safety, ensure their professional and technical not stolen. At the same time, 5G automation facilities will bring a great liberation of productive forces, in what is now under the condition of the high cost of artificial, 5G can help enterprises to save the high costs, and relative to the human, machine, easier to manage, can create more profits, of course, the presence of the 5G will make a lot of people lost their jobs in the future, may cause social unrest, No further assumptions are made here.

2.2 The Impact of 5G on the Way of Thinking

5G plays a huge role in upgrading enterprises' technology and brings new consumption upgrades to enterprises. 5G helps enterprises transform from production thinking to service thinking. 4G era has brought life, Vlog bonuses, for the traditional way of the brand also brought the impact, but the impact is far less to the development of enterprises, and with the development of 5G, brought new consumer upgrades, along with the development of information technology, the requirements of consumers increases, consumers will not only limited to the product requirements but also buy experience judgment standard. Therefore, in addition to ensuring the quality of products, the content and way of service are very important. The focus of enterprise development must be transferred from products to customers. 5G network and content are all centred on customers, so enterprises, whether online or offline channels, Internet companies or terminal manufacturers, need to develop around customers, that is, enterprise thinking to service thinking. For example, in the home furnishing industry, artificial intelligence can be added to make consumers immersive and simulate the home furnishing experience to realize the functions of a smart home and smart city. For example, on the way home, you can use the telephone, computer remote control operation, open-air conditioning, water heater; When you open the door at home, you can automatically open the electronic door lock, light, and curtain through the door magnetic or infrared sensor to welcome you back. Back home, through the remote control of automatic control of various electrical equipment, to create a quiet and comfortable reading, sleeping romantic quiet and another appropriate atmosphere; When cooking, visitors can be viewed by video phone while making phone calls, and visitors can be viewed online when no one is at home by taking photos [3]. People's way of purchase and product selection will be more diverse

and convenient. In addition, every technological change is an important test of thinking. Some enterprises are willing to change their strategy for it, and some enterprises are not willing to change and may fall to a disadvantage in the subsequent development.

2.3 The Impact of 5G on Automation

As others say, in Future automation, all machines are called Machine-To-Machine [4]. The implementation of 5G, with its strong transmission speed and bandwidth capabilities, can make the Internet of vehicles, the Internet of things, telemedicine, and UAV networks a reality. 5G can operate as a cloud server, enabling devices to communicate with other related smart devices, replacing self-driving cars and drones to perform a lot of storage and computing online, saving devices a lot of energy and space [3]. 5G of automation greatly liberated the productive forces, enterprises can let the machine work around the clock, so you can let the equipment can work at night, there is no doubt that corporate profits in the maximum, at the same time, the application of 5G can replace some compare simple repeat manual workers, which help enterprises to save the expensive labour costs, With the money saved, enterprises can better construct infrastructure and construct future ideas. It cannot be denied that the wide application of 5G will undoubtedly make many people lose their jobs while bringing huge profits to enterprises, which will also be a very serious social problem in the future. However, this paper will not elaborate too much here.

3 The Impact of 5G on the Sustainable Development of Different Enterprises

3.1 The Impact of 5G on Big Enterprises

3.1.1 The Impact of 5G on Big Enterprise Technology

The emergence of 5G is a big opportunity for large companies, big companies have enough capital and development based on 5G, they can reasonably use 5G technology to upgrade to the original product, seize market space, expand its influence, A new paradigm is slowly emerging that we might define as anticipatory mobile computing [5]. as Huawei came up with the 5G phones caused a big wave surge, while selling a large number of mobile phones, it has undoubtedly attracted extensive attention from society, which not only enables Huawei to gain a large amount of capital but also makes Huawei become one of the leading enterprises in the mobile phone market. At the same time, for large enterprises, the combination of automation and 5G can let enterprise great liberation of productive forces, with the emergence of 5G and automation, intelligent manufacturing was put forward, although time is not long, smart manufacturing has become a global issue and a national strategic issue, many countries have carried out in the field of intelligent manufacturing planning and deployment, For example, China's "Made in China 2025", Germany's "Industry 4.0 Platform", the US's "Industrial Internet Plan" and so on. For instance, a joint report by the Fraunhofer Institute and the industry association Bitkom said that German gross value can be boosted by a

cumulative 267 billion euros by 2025 after introducing Industry 4.0 [6]. This is undoubtedly good news for large enterprises. Once they have the encouragement and support from the government, their development will be easier. Large enterprises can upgrade production technology. Meaningful information has to be inferred from the data. Currently, there are several tools and methodologies available for the data to information conversion level. In recent years, the extensive focus has been applied to develop these algorithms specifically for prognostics and health management applications [6]. Such as adding intelligent manufacturing technology. Low delay is especially widely used in intelligent manufacturing automation control systems, such as environment-sensitive high-precision manufacturing links, hazardous chemicals production links, etc. In the closed-loop control system of intelligent manufacturing, the information obtained by sensors (such as pressure and temperature, etc.) needs to be transmitted through the network with extremely low delay, and the final data needs to be transmitted to the executive devices of the system (such as Mechanical arms, electronic valves, heaters, etc.) to complete the control of high-precision production operations, and in the whole process requires extremely high reliability of the network to ensure the safety and efficiency of the production process. This can not only improve product technology and produce higher quality products but also reduce the risk of employees' work and reduce the risks in the production process.

3.1.2 The Impact of 5G on Big Enterprise Management

As the next-generation networks, the 5G networks and standard are expected to solve challenges that facing by 4G networks, such as more complicated communication, device computational capabilities, and intelligences, etc., to match the needs in smart environments, industry 4.0, etc. [7]. The emergence of 5G enables enterprises to transform from a traditional model to an information-based model. In the process of information-based reform, enterprises can recognize the shortcomings of their enterprises and optimize and improve them through information-based management software, to help enterprises establish a more perfect management system. Enterprise information management software can also be from clues, business opportunities, orders to payment collection, automatic real-time tracking, sales process automation, and fine management. To business opportunity management, promote overall performance growth. This is undoubtedly of great benefit to the organization and management of enterprises. At the same time, in the 5G era, enterprises are more prone to a mobile office. Enterprise information management software from the area, time limit, because wireless transmission capability, strengthening network meeting, network office will become popular, especially in the current outbreak of COVID—19 of the environment, more tend to be more popular, mobile office and online office can save time, can improve the work efficiency of employees. At the same time, the emergence of 5G can make enterprises better save information in this information age, information is an expensive thing, in the past, save and very costly to extract the information needed at any time, and the 5G can help enterprises properly stored information and extract information at any time, it no doubts for the enterprise provides a great help, in addition to this, 5G-guided enterprise information management software can help enterprises collect and sort out various data. Through data analysis, we can understand various product indicators of enterprises, to formulate a more suitable

strategic policy, use resources to the edge of the edge, and improve enterprise earnings. In addition, the emergence of 5G has changed the requirements for workers and technicians, gradually requiring a large number of knowledgeable and capable employees. In addition, the emergence of 5G has changed the requirements for workers and technicians, gradually requiring a large number of knowledgeable and capable employees. In this case, innovation ability has become the key factor for the survival and development of enterprises, knowledge and technology have become the core of enterprise development, and human resources have become the first resource and the first factor determining enterprise development [8].

3.1.3 The Impact of 5G on the Development Opportunities of Large Enterprises

First, 5G has a great advantage in the claim of corporate advertising. With the development of The Times, it is common for a user to have multiple screens. Therefore, the general trend is establishing the connection between screens, realizing the inter-communication of resources, real-time interaction between users and advertisements, and multi-screen sharing. Smartphones and tablets let us receive information through multiple channels while generating massive amounts of information about us. Data collected from the sensors embedded in smartphones—especially GPS receivers—provide an incredible wealth of information that service providers and applications can collect, store, and analyze in real-time [9]. Past technologies may not have been so easy to do that, but the extreme speed experience of 5G can well solve this problem by reducing the time of interconnection between media to a millisecond level. The combination of different media can enhance the audience's sense of participation and scene-oriented experience, enhance the repetition rate of fragmented information, and make the dissemination of advertising information more optimized. In addition, 5G opens a new road for the development of industry, with the use of 4G, a large number of enterprise development bottlenecks are encountered, and 5G for these enterprises provides development opportunities, and the government on policy support, how to seize the opportunity to complete the enterprise is very important for the transformation and upgrading, can let enterprise to accelerate growth, become the oligarch's enterprise in the industry.

3.2 The Impact of 5G on Small Enterprises

3.2.1 The Impact of 5G on Small Business Risks

The development of 5G is undoubtedly a double-edged sword for small enterprises. 5G is both an opportunity and a challenge. The arrival of 5G brings new opportunities to many small enterprises but also brings huge risks. With the popularization of information technology, big companies will gradually perfect, products and technologies to the business of the coverage will be more and more widely, so cause there will be less and less living space for a small company, it is undoubtedly a huge crisis, for small firms cannot compete with large companies in technology upgrades, so in later development will be faced with great suffering. At the same time, the information technology brought by 5G will make the technology of each enterprise public, so the protection of intellectual property rights will be the top priority, which is undoubtedly bad news for many small companies that learn from other enterprises' technology. In a questionnaire survey of the Sheyang

County SME Industrial Park in Jiangsu Province, 165 enterprises expressed their interest in 5G. Coming worry and insecurity, nearly 80 percent of enterprises consider reducing corporate investment or wait and see [10].

3.2.2 The Impact of 5G on the Development Opportunities of Small Enterprises

5G impact on small business development at the same time, also brought the development opportunity to small businesses, the use of 5G will make the enterprise no longer has limitations, namely small businesses will be able to set foot on a higher platform, can have better communication with the world, for the excellent core technology companies is a very good chance, show its advantages to the world and the market, This can undoubtedly let the development of small businesses on a new level. At the same time, the development of 5G is bound to bring a series of extension products, such as the various components of 5G, the demand is higher, and as a result, the 5G infrastructure will also need more professional components to support the use of base station operation and equipment, it provides a large number of small businesses with the opportunity when compared with large enterprises face the choice of hesitation, the transformation of small businesses tend to be more convenient, Seize the opportunity, occupy a part of the market space, for the sustainable development of enterprises will have great benefits. The enhancement of connectivity in the 5G era also brings the possibility of we-media for everyone. The more users, more fans, and more influence we media have, the faster media advertising will develop. Our media usually use various platforms such as WeChat, Weibo, and short videos to provide content for audiences in the form of video shooting, Vlog production, and live broadcasting. Meanwhile, it is possible to produce and issue advertisements. The self-band flow effect and fan effect of we media promote the development of original advertising [11].

4 Conclusion

The development of 5G technology will bring brand-new changes to the product upgrading and way of thinking of enterprises. With the application of 5G technology, new products will impact the market and huge business opportunities for enterprises. However, the transformation of the thinking mode brought by 5G will gradually change the thinking of enterprises from production to service, and enterprises need to consider the positioning of future development in thinking. Besides, the application of the 5G technology to improve the system of enterprise management also has a vital role, it has good help for the development of the enterprise, and finally, 5G for enterprise to bring the challenge at the same time, also has brought large and small enterprises separate opportunity, companies need to seize the opportunity to complete the transformation and upgrading, ultimately achieve sustainable development.

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