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Digital technologies for economic sustainable development at Chinese enterprises

In the past, there was a lot of traditional enterprises of a great success for a long time, but today, under the rapid development of the social economy, they have to change to cope better with the possibility of the problem, they must be in information technology and digital technology put more money on, they need to combine information technology and management activities. Agriculture is the basis of the sustainable development of the national economy, the necessary demand of human beings, and the basis of human survival. Therefore, the construction and application of information technology have become an important research topic in the new era. Through the research of this paper, we can understand better how to combine digital information technology with enterprise management. The current research applies such analyses as: logical generalization and comparison that include clarifying and simplifying the concepts of digital technology and enterprise management; expert evaluation, statistical analysis, data grouping and summary aiming at the research on enterprise market situation, identification, and development of digital technology; factor comprehensive analysis as the method of improving efficiency and productivity by applying digital technology in management; and economic mathematical modeling competitiveness model analysis.

The application of computer technology can make information digitization. All the information generated in the operation of enterprises, such as enterprise personnel files, enterprise customer resource information, business financial situation, etc., this huge information, if according to the traditional method, will undoubtedly need to consume more human, material, and financial resources, and low efficiency, increase the cost of work. If computer technology is used to process enterprise information, it will be faster and better to digitize information, facilitate information integration and improve work efficiency, and this information will be very easy to be invoked later, avoiding wasting time to search, and greatly saving human resources. The results analyzed and compared by the author are very useful for the empirical evaluation of the survival and development of Chinese enterprises and even the sustainable economic development of the whole country, and can also provide a reference for the future development and transformation of Chinese traditional enterprises. Based on this, the paper puts forward the methods, and the countermeasures of sustainable economic development in the face of the rapid economic development today. The method proposed by the author can achieve the following results: it can better promote the development of China's economy and can provide substantial help for the transformation of traditional enterprises.

Keywords: *sustainable development; digital; technology; digital information; Chinese enterprises.*

Introduction and review of literature. In order to gain a place in the fierce market competition, the traditional enterprise management methods have been unable to meet the faster and more effective development of enterprises, enterprise automation office will become the mainstream in the future. There are many traditional companies that have achieved great success, but to move up the value chain, they have to invest more in information technology and digital technology, and they have to integrate information technology with management activities. Through the analysis of a variety of digital information data over the years, I write this paper, hoping to help traditional enterprises combine with digital technology and investigate how information technology and management activities help enterprises develop together.

With the popularization of computer and the continuous development of computer technology, the importance of computer technology in various industries is increasingly prominent. With the help of computer technology, information can be realized, dynamic, and effectively help the management and storage of resources, greatly saving labor costs, especially in the enterprise management, the application of computer technology is essential. But at present, in the enterprise, the role of computer technology has not been very good application, in the future, there is a lot of space for development. Combined with the current situation into this paper for the computer technology in the enterprise resource management of the application of research line analysis and summary, I research its role in the enterprise to maximize the method. How to strengthen the enterprise risk management ability is the problem that the enterprise pays attention to. Focus of attention. The innovation of modern computer technology has provided a lot of convenience for the operation and management of enterprises.

It can be said that enterprises cannot do without the support of computers in their own risk management. Applying scientific and technological means to enterprise management, establishing scientific and advanced management mode, and giving play to the role of computer in enterprise risk management will avoid being exposed to the risks faced by major enterprises without realizing it, and effectively prevent and resolve the crisis,

thus improving the economic benefits and social competitiveness of enterprises. This paper analyses the main component of the digital economy, and lists the B2C market share in the United States, the potential opportunities and challenges for the digital economy of preparation. The article introduces in detail the concept of cloud computing, big data and intelligence agriculture and operates, through these data and some text, let everybody know to digital information technology in enterprise management and the importance of agriculture.

The digital economy continues to grow at an incredible rate, thanks to people's ability to collect, use and analyze vast amounts of digital data in practice. With the rapid development of digital technology, people's interest in digital economy and its influence on social development are also deepening. The global use of digital technology and its rapid development mean that every field of human activity will undergo serious changes, which will seriously affect the sustainable economic development of some countries. In particular, many works of scientists are devoted to identifying the nature of the digital economy. Digital technologies can promote development and bring economic and social benefits to people, businesses and governments. Digital technology offers opportunities for inclusive and sustainable economic growth across all sectors of the economy. Countries should make structural efforts to create and leverage the benefits of the digital economy, create more jobs, enhance national competitiveness, promote diversity, promote service innovation, and improve the lives of citizens. Objective: In order to gain a place in the fierce market competition, the traditional enterprise management method has been unable to meet the faster and more effective development of enterprises, enterprise automation office will become the mainstream in the future. There are many traditional companies that have achieved great success, but to move up the value chain, they have to invest more in information technology and digital technology, and they have to integrate information technology with management activities. Through the analysis of a variety of digital information data over the years, I write this paper, hoping to help traditional enterprises combine with digital technology and investigate how information technology and management activities help enterprises develop together.

Analysis of recent research and publications on which the author relies. The problems of the digital technologies using at economy and enterprises are quite relevant in the scientific literature. They are reflected in the works of A.Miller, C.Claire [1], D.Bell, J.Galbraith, T.Mesenburg, D.Tapscott, K.Schwab, O.Belarus, Wang Longzhong [5], Hu Jinhua [6], Yu Yao [11] and other scientists. These scientists have proposed different approaches to the definition of this concept, which, according to the author, do not significantly contradict each other.

The purpose of the article. Through the research of this paper, we can understand better how to combine digital information technology with enterprise management. This paper analyses the main component of the digital economy, and lists the B2C market share in the United States, the potential opportunities and challenges for the digital economy of preparation. The article introduces in detail the concept of cloud computing, big data and intelligence agriculture and operates, through these data and some text, let everybody know to digital information technology in enterprise management and the importance of all spheres.

Results and discussion. All transformations are usually carried out in order to increase efficiency, speed or convenience, or other positive results. At the same time, the transformation of existing systems and process changes must be clearly developed. This means that digital transformations are systemic changes, chaos and randomness of transformations are excluded here. Thus, it can be argued that digitalization is a form of systemic transformation. By common definition, the digital economy is an economy based on the production of electronic goods and services by high-tech business structures and the distribution of these products through e-commerce. The advantages of the digital economy, according to the authors, are the following: the lack of physical weight of products, which is replaced by information, lower resource costs for electronic products, much smaller space occupied by products, and almost instantaneous movement of goods over the Internet (we are talking in this case, of course, about specific digital products). According to scientists, the digital economy is a rather complex concept, but we can assume that its development is based on the key components presented in Figure 1:

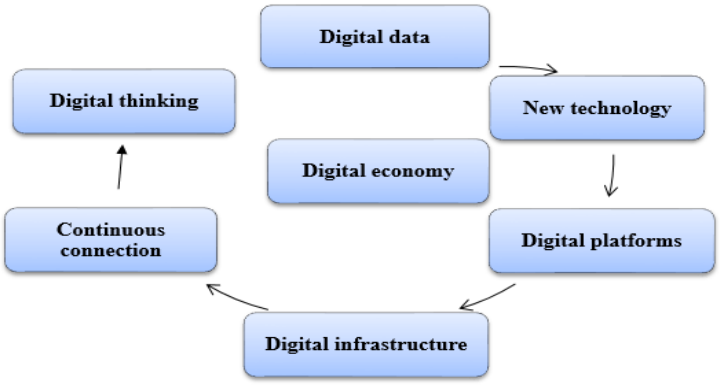
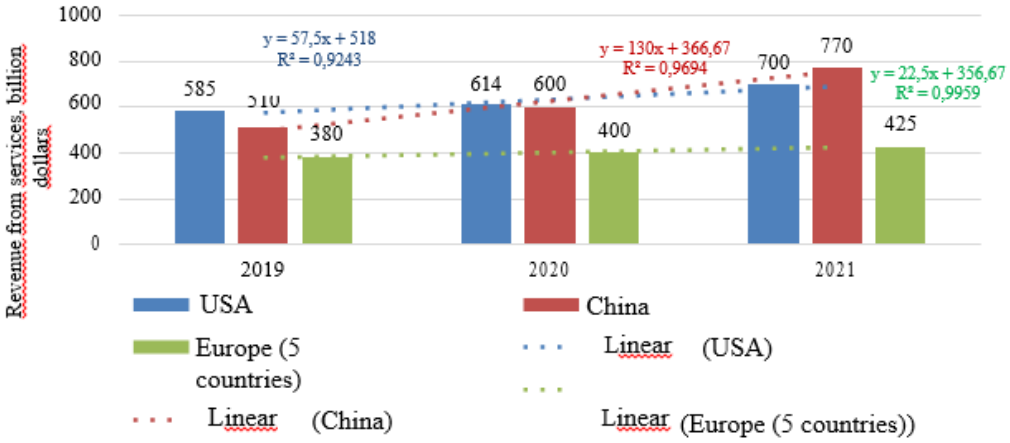


Fig. 1. The main components of the digital economy

Digitalization is not limited to the introduction of new equipment at the enterprise, it involves changes in the management of the organization, corporate culture and external communications. Thus, the usual methods are being replaced by more advanced ones at all levels of production. The result of digitalization is higher productivity, increased customer satisfaction, and most importantly in today's environment, the company becomes more progressive and more efficient, and therefore, more competitive. This is a major factor in development, because competition requires constant progress, the introduction of innovations [13].

The top 10 e-commerce markets are China, the United States, the United Kingdom, Japan, Germany, France, South Korea, Canada, Russia and Brazil [2, 4]. According to the concept of digitalization in a broad sense, the most «digital» economy in the world at the moment is the US economy. In the US economy, a third (33 %) of GDP is affected by digital technologies, and most (60 %) of the US financial sector is digitally switched, making the US financial sector the world leader in digital services. Close to it we find the communications sector, which significantly increases the importance of creating and maintaining a modern sustainable digital platform for its long-term development. However, according to forecasts, in 2021 China may overtake the United States (Fig. 2):



Source: systematized by the authors using site data http://www.ce.cn/

Fig. 2. Forecast of development of digital B2C markets of the world's leading countries, billion dollars USA

Currently, online stores use only traditional payment methods, but the development of this sector requires an innovative approach to this issue. Apple Pay and Google Pay make a big contribution to the development of online retail [5]. They greatly simplify the purchase process, which is of interest to consumers. Digitization allows people to acquire new skills and improve their skills without leaving home. As a result, remote work is becoming increasingly important, entrepreneurship is becoming more accessible, new professions are emerging that take place exclusively in the digital world. Thus, the structure of the labor force changes and there are transformations in the economy. In the age of computer technology, almost everything takes on a digital form. Thus, digitalization determines the formation of the «digital» world, which involves the creation of a common information space. Despite the fact that not all digitization processes are carried out at the moment, we can already highlight some features of the digital world: reducing time, simplifying business processes, the availability of digital technologies to anyone. These characteristics are manifested at the present stage and are of great importance for the development of society [6]. At the same time, countries face new challenges and need to be prepared for them in order to ensure their competitiveness on the world stage (Table 1).

Table 1

The level of readiness of countries for the potential opportunities and challenges of the digital economy

Country	Component (10-point rating scale)							
	Production structure		Production driver					
	Complexity	Scale	Technology and Innovation	Human Capital	Global Trade and investments	Institutional structure	Sustainable resources	Demand
Germany	9,4	7,6	7,2	7,5	7,3	8,2	7,8	7,5
USA	8,6	6,6	8,5	7,9	7,7	8,6	6,7	8,5
UK	8,6	4,7	8,0	7,5	8,3	8,2	7,4	7,1
China	7,1	10,0	5,7	5,6	7,2	4,9	5,5	7,9
South Korea	9,0	8,7	6,6	5,9	6,8	6,9	6,5	6,4
Japan	10,0	7,5	6,6	6,0	6,2	7,8	6,7	7,8
Ukraine	6,0	3,9	3,5	5,8	5,1	3,4	4,6	4,5

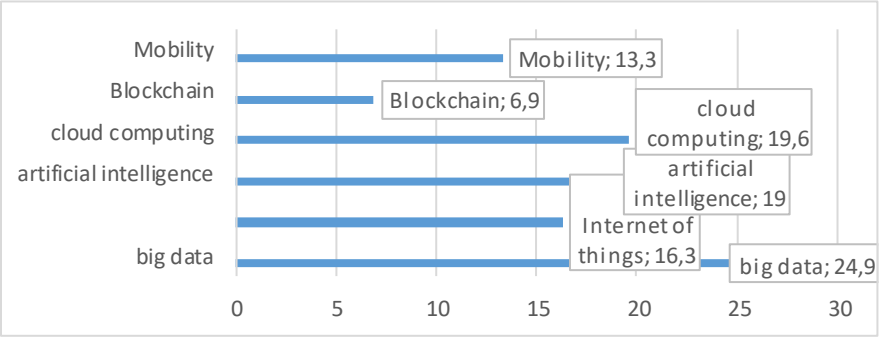
Source: systematized by the authors

Today, the digital economy is a trend that all leading countries are trying to follow. This phenomenon encourages less developed countries to develop. Ukraine will have a positive impact from digitalization at both the state and enterprise levels, but society will have a more positive effect [13]. Undoubtedly, digitalization has many advantages, it is about the numerous multiplier effects of digitalization when all production chains are included in a single information space. The potential positive effects of the digital economy (digital dividends) are provided by powerful analytical campaigns and global forums and, depending on assessment methods, the size of the digital economy is currently estimated at 4,5 to 15,5 % of world GDP [7]. There is a huge potential for further expansion.

However, as with any new complex technological wave, the impact of digitalization on society and the economy is ambiguous: on the one hand, there is economic development at a new level of interaction of all its elements, on the other – destroys the old system of production and distribution. In this sense, it is no coincidence that digital technologies are characterized as *«disruptive»* [8]. It should also be remembered that when it comes to the introduction of new technologies, their assessments are often characterized by excessive optimism. Statistics show that over the past twenty years there has been a steady trend of declining global average productivity growth, the cumulative effect of the use of digital dividends has been weaker than expected. In practice, only 15 % of enterprise digitalization projects have been successful. In addition, the positive effects of the introduction of the digital economy are unevenly distributed. The World Bank research shows that not everyone benefits from the spread of the Internet. Thus, there is an increase in inequality both between countries and among groups within the country. Depending on the right choice of mechanisms for the implementation of digital transformation, for some it is progress, for others – dangerous trends [9]. For example, there is a gap between European countries [3, 4]. Thus, 98,4 % of Internet users in Norway, while in San Marino only 60,2 %. The differences between developed and developing countries are even more significant. Although the fastest growth of Internet users is currently observed in Asia and Africa. Yes, if from 2000 to 2019 in North America, growth was recorded at 203 %, in Europe by 592 %, in Asia by 1,913 %, and in Africa by 11,481 %.

The possibility of establishing general control over citizens with the help of digital technologies is also a matter of serious concern, when it is possible to track every step, every word of a person, and in the future – his thoughts. A few years ago, the information space was blown up by the news: «China is introducing a digital dictatorship» [10]. With such headlines, one could see articles on the revolutionary initiatives of the Chinese leadership, when a tough decision was made to fight corruption throughout society and to restore trust in the society. This will be done with the help of digital technologies of large data arrays (Big Data), which allows you to get an integrated indicator for each individual citizen. The initiative to introduce individual ratings is called «social credit».

Choice of digital technology. Digital transformation needs to make full use of digital technology, which directly drives the development of digital technology and market growth, indirectly drives the demand for products and services, and the growth of intelligent terminal equipment. According to different business scenarios and needs, the application of digital technology will have a variety of combinations. Common digital technologies include cloud computing, big data, artificial intelligence, mobility, Internet of things and blockchain. When answering which digital technologies should be paid more attention to in the coming year, through the analysis of user data, we found that big data accounted for the highest proportion, reaching 24,9 %. Next, cloud computing – 19,6 %; artificial intelligence –19 %; Internet of things – 16,3 %; mobile – 13,3 %; blockchain – 6,9 % (Fig. 3).



Source: systematized by the authors using site data http://www.stats.gov.cn/tjsj/

Fig. 3. Distribution of digital technology selection

Cloud computing has experienced several years of development, and the investment and deployment demand at this stage has become a stable growth trend. With the foundation of cloud computing, enterprises gradually begin to build various applications. With the continuous growth of enterprise data, the value of data needs to be released urgently. Big data technology can help enterprises to mine data value and generate insights

to guide decision-making. At the same time, the integration of artificial intelligence technology in the data analysis system will also bring more imagination for enterprises. The upcoming 5g has obviously increased the attention of mobile and Internet of things. Although the blockchain is in the development stage, it has also gained some users' attention. In the choice of digital technology, enterprises need to choose according to their own situation. According to the survey, business innovation and exploration of new business model accounted for 36,6 %; efficiency improvement accounted for 25,2 %; business stability and reliability improvement accounted for 23,1 %; and customer service improvement accounted for 15,1 % [14].

Cloud computing. Cloud computing is the foundation of digital transformation, and also the most important component. It can not only reduce cost-effectiveness, but also bring innovation and change for business. No matter for industry or enterprise, cloud computing has become a new infrastructure. Big data, artificial intelligence, blockchain and other technologies can play more roles in the cloud. With the popularity and development of cloud computing technology, most enterprises have a clear understanding of enterprise cloud. According to the survey, 43,7 % of the respondents have not started or are planning, and 23,9 % of them are in the process of cloud computing; 19,2 % of them are in the process of cloud computing; 13,2 % of them have completed cloud computing deployment and started to implement hybrid cloud optimization.

At present, the development of cloud computing has entered the harvest period, and 56,3 % of enterprises have started to implement and deploy cloud computing. Due to the needs of business continuity and stability, group and large-scale enterprises mostly develop in hybrid cloud mode, with core business deployed in private cloud, and Internet and emerging business deployed in public cloud. Small enterprises and innovative and entrepreneurial enterprises choose public cloud more because of cost and technical factors. At present, finance, communication, energy and other industries with high degree of informatization have begun to explore cloud computing, and even achieved certain results.

Measures to improve cloud computing:

1. It is reasonably to set access rights to ensure the security of user information.

At present, cloud computer service is provided by the provider. In order to guarantee information security, the supplier should set the corresponding access rights according to the needs of the client, so as to guarantee the safe sharing of information resources. In the open Internet environment, on the one hand, suppliers should do a good job of setting access rights, and strengthen the reasonable sharing and application of resources; On the other hand, to do a good job of encryption, both suppliers and users should strengthen information security protection, pay attention to network security construction, and effectively protect user security. Therefore, the development of cloud computer technology should strengthen the construction of security technology system, and improve the level of information protection in the reasonable setting of access rights.

2. Strengthen the integrity of data information and promote the development of storage technology.

Storage technology is the core of cloud computing technology. How to strengthen the integrity of data information is an important aspect of the development of cloud computing technology. Firstly, cloud computing resources are distributed in the cloud system in a discrete way, so the security protection of data resources in the cloud system should be strengthened and the integrity of data should be ensured, which is conducive to improving the application value of information resources. Secondly, to accelerate the development of storage technology, especially in the era of big data and the development of cloud computing technology, we should pay attention to the innovative construction of storage technology. Thirdly, to optimize the development environment of computer network cloud technology, through technological innovation, concept innovation, further adapt to the new development environment, improve the application value of technology, which is the focus of the development of computer network cloud computer technology in the new era.

3. Establish and improve laws and regulations, improve user safety awareness.

With the continuous development of network information technology, cloud computing has been applied more and more widely. The establishment of perfect laws and regulations is to regulate better the market development, strengthen the regulation and management of suppliers, users and other behaviors, and provide good conditions for the development of computer network cloud computing technology. In addition, the user should improve the awareness of security protection, can in the acquisition of information resources, comply with laws and regulations, standardize the operation, to avoid serious economic losses caused by information security problems. Therefore, the development of computer network cloud computing technology in the new era should proceed from reality and provide a good environment for the development of cloud computer technology through continuous improvement of laws and regulations.

Big data. In the era of big data, data have become the core asset of enterprises, and enterprises have begun to operate and protect data. Through data driven enterprise development has become a visible reality, how to understand customer demand quickly, how to catch up with competitors, all need a lot of data and analysis to support. The decision-making of enterprise management needs the support of data information. Therefore, with the arrival of the era of big data, the management decisions of enterprises will be affected in all aspects. By strengthening the analysis of the impact of big data on enterprise management decisions, we can further understand the role of big data, and then complete the formulation of enterprise management decisions better.

According to the survey on the deployment of enterprises on big data, 62,6 % of enterprises have not planned or just planned; 27,2 % of enterprises have basically completed the deployment of big data platform, and 10,2 % of enterprises have applied widely. Although users pay much more attention to big data than cloud computing, more than 50 % of enterprises have not planned or just planned. Compared with cloud computing, big data are still in their infancy. Therefore, enterprises are clear about the value of big data. At present, there are still a few enterprises implementing big data technology. Big data processing is divided into collection, management, analysis and mining. At present, most enterprises still focus on data collection and management. In the future, enterprises in planning will enter the stage of big data application quickly.

In the field of big data, Intel puts forward the concept of data flood, emphasizes the ability of end-to-end data generation and processing, and provides a full stack solution of intelligent interconnection. Through end-to-end technologies and products, as well as extensive and open ecological cooperation, Intel releases data value and creates value-added effects. From the perspective of big data technology development, enterprises also have the choice of open source and closed source on big data platform. According to the survey, closed source platforms account for 57 %; open source platforms such as Hadoop and spark account for 43 %. Relatively speaking, in the choice of big data open source technology, the proportion of users choosing open source technology is not as high as that of cloud computing. On the one hand, it is due to the legacy of historical IT assets, partly because of the difficulty of technology implementation.

Analysis of the impact of big data on enterprise management decisions:

1. Influence on decision-making subjects.

Fundamentally speaking, the enterprise management decision is put forward by the decision-making subject. And the emergence of big data has brought about an impact on the decision-making body. On the one hand, in the era of big data, the functions of enterprise management decision-making bodies have changed. In the past, the decision-making subject needed to become the decision-making participant, and put forward the management decision by virtue of its own knowledge level, experience, ability and even subjective judgment. However, the emergence of big data technology requires decision makers to complete accurate analysis of data and put forward more accurate decisions based on the analysis results and management experience. In this context, decision-making subjects are not only directly involved in the making of management decisions, but also participate in the analysis of decision-making data, so as to provide effective decision-making information for employees. On the other hand, in the process of using big data to make enterprise management decisions, the status of data analysts is gradually rising. In the past, most organizations did not have data analyst positions, so analysts were not the main body of management decisions. However, in the context of the advent of the era of big data, data analysts are playing an increasingly important role. They will complete the integration of the entire business operations through distributed processing and statistical analysis, and complete the effective transmission of information. Therefore, they will play a vital role in the formulation of management decisions. In addition, the emergence of big data technology has also changed the thinking of enterprise management decision-making subjects. Different from the past, the decision-making subject is more influenced by rational factors in the decision-making process, and tends to use scientific methods to complete the analysis of the relationship behind the data.

2. Influence on decision-making power.

When enterprises make management decisions, centralized and decentralized decision-making modes will have different forms of decision right allocation. Under the former model, decision-making power will be concentrated at the higher levels of the enterprise. In the decentralized decision-making mode, the relatively low level of management will hold the decision-making power, that is, the managers of each department will have a certain degree of autonomy. At present, decentralizing the decision-making power to individuals can complete the accurate assessment of individual factors better, and master more data information, so that the content of rights and knowledge can be better coordinated, so that the decision-making can be better realized. For a long time in the past, the decision-making power of enterprises was relatively centralized. In this stage, enterprise managers can make management decisions by predicting the market environment. So, the allocation of decision-making power will not bring too much impact on the production of enterprise organization. The advent of the era of big data has promoted the decentralized development of decision-making power and enabled more employees to master the decision-making information and rights of enterprises [11]. At present, the market environment is becoming more and more difficult to predict, and enterprise managers need to obtain more data and information from employees so as to make scientific management decisions based on the dynamic changes of the environment. Therefore, the emergence of big data undoubtedly also has an impact on the allocation of enterprise management decision rights.

3. Influence on decision-making environment.

In the era of big data, great changes have taken place in the decision-making environment of enterprises. Unlike the past, the storage units used by enterprises have been improved significantly, rising to the level of TB, EB, etc. Enterprises have more than 15 billion devices connected to the Internet, and the volume of data can increase by more than 50 % every year in the global Internet environment. As for enterprises, they need to obtain

a large amount of data from the market every year, and then use the data to complete the assessment of enterprise development risk, and then get effective management decisions. With the emergence of cloud computing technology, the decision-making environment of enterprises has been further changed, making enterprises need to rely on data-driven to complete the formulation and selection of decision-making programs, in order to ensure the effectiveness of decision-making management. By virtue of the advanced nature of big data, enterprises can better develop the production factors of knowledge economy, so as to effectively play the practical effect of internal management and financial situation of enterprises. Therefore, in the future development environment, big data technology will maximize its value in enterprise management decision making to improve enterprise management decision making and performance. In addition, in the environment of big data development, enterprises need to make management decisions for all employees to cope better with the challenges brought by information development. In order to achieve this goal, enterprise managers need to adhere to the people-oriented concept, optimize the organizational structure and cultural atmosphere of enterprise management, and further improve the quality of enterprise management decision-making information [12]. On this basis, scientific management decisions can be made by combining data with people's subjective initiative. Therefore, from the perspective of decision-making environment, it is obvious that big data also has an important impact on enterprise management decisions.

Digital agriculture. Digital agriculture was formally proposed by the American Academy of Sciences, the Academy of Engineering academicians in 1997. It refers to intensive and informationized agricultural technology supported by geospatial space and information technology. Digital agriculture refers to the remote sensing, geographic information system, global positioning system (GPS), computer technology, communication and network technology, automation technology and other high and new technology and geography, agronomy, ecology, plant physiology, soil science and other basic subjects organically, realize in the process of agricultural production of crops, real-time monitoring of soil from macro to micro, To achieve on crops growth, development, plant diseases and insect pests, water conditions and access to information on a regular basis, the corresponding environment for generating dynamic spatial information system, the phenomenon of agricultural production, and to simulate the process of reasonable utilization of agricultural resources, reduce production cost, improve the ecological environment, improve the quality of agricultural products and purpose.

Information technology promotes the development of modern agricultural production:

1. Information technology has created the application of electronic commerce in modern agriculture. Electronic commerce is a way to carry out trade activities by integrating a variety of information technologies. Its characteristics of high efficiency and high profits make up for the defects of traditional marketing and become the development direction of marketing methods in modern agricultural production and management organizations.

E-commerce reduces the cost of publicity.

Agricultural production and operation organizations may establish their own websites to publicize themselves on the Internet. At the same time, the detailed catalogue of agricultural products, product specifications, photos and the safety of production can be published online. Once these data are electronic, there is no need for printing, packaging, storage and transportation, which saves a lot of marketing costs.

E-commerce can provide consumers with on-the-go services.

The Internet opens 24 hours a day, do not exist holiday or the limitation of business hours, consumer can browse the webpage that agricultural production organizes place to build or website at any moment, send E-mail to undertake inquiry or order to buy to the manufacturer.

2. Information technology helps reduce costs.

Information technology can reduce production cost by optimizing production factors. The laborer uses the information technology, contacts the advanced production idea unceasingly, enhances the science and technology culture quality of oneself, can raise the labor efficiency greatly. Labor tools into computer controlled information, intelligent machine system, can improve production efficiency. Information technology is used as an advanced means of labor in production, so that the production process tends to be scientific, reduce production costs.

Information technology promotes the scale economies and reduces average costs. The introduction of information technology can greatly reduce the internal transaction costs of agricultural production and management organizations to reduce the average cost. First of all, information technology enables enterprises to choose base farmers, can cross the geographical limitations, quick and accurate positioning. Secondly, enterprises can use the network to give farmers "orders", farmers can understand the enterprise's product requirements through the network. The application of information technology also reduces the incidence of disputes and the cost of dispute resolution.

3. Information technology is good for managing risk.

Information technology is good for predicting natural risks. The application of information technology can predict the occurrence of natural disasters to a certain extent, which is conducive to the determination of

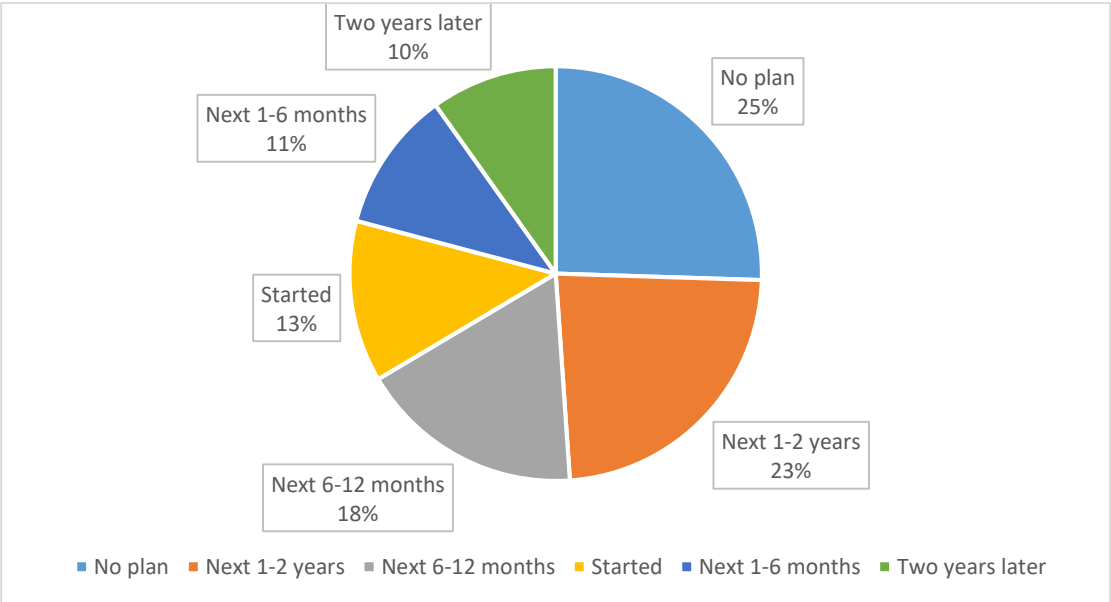
enterprises' production and management decisions. For example, remote sensing technology, geographic information system and global positioning system play an important role in natural prediction.

Information technology helps avoid market risks. China's agricultural products are mostly labor-intensive products, which have a price advantage in the international market. But as tariff barriers have fallen, non-tariff barriers have risen. Using network technology and communication technology, agricultural management organizations can conduct extensive and in-depth market research, make timely responses and product adjustments, and avoid huge losses.

Information technology makes agricultural production and management organizations realize the scale economies.

First of all, information technology promotes the optimization of agricultural production and operation organizations' own factors while promoting the expansion of agricultural production and operation organizations' scale, thus generating internal economy. Secondly, with the expansion of the scale of agricultural production and management organizations and the convenience of information communication, the unity of the whole industry is getting bigger and bigger, which is conducive to the establishment of auxiliary facilities and supporting service system, the improvement of transportation and sales system, and the optimization of investment environment. The improvement of these conditions can improve the production efficiency of agricultural management organizations, reduce the average cost and produce external economy.

Artificial intelligence. It can be said that the development of artificial intelligence has experienced several ups and downs. With the explosion of data and the improvement of computing ability, artificial intelligence has come to the front of the stage again. Especially based on cloud computing and big data, it has greatly promoted the development of artificial intelligence, forming the development mode of combining algorithm with big data. Artificial intelligence is also becoming one of the strategic priorities of enterprise investment. It will improve the performance of solving complex problems, and will discover insights faster, more economically and more accurately. According to the survey, 12,6 % of enterprises have started to implement artificial intelligence, with 11 % planned implementation in the next 1–6 months, 17,6 % in the next 6–12 months, 23,4 % in the next 1–2 years, 9,9 % in the next two years, and 25,5 % in the absence of procurement plans [14] (Fig. 4).



Source: systematized by the authors using site data http://www.stats.gov.cn/tjsj/

Fig. 4. Artificial intelligence planning and distribution of enterprises

Therefore, we find that only a few enterprises have deployed artificial intelligence, and there are still great development opportunities in this field. However, the factors that hinder the application of artificial intelligence in enterprises show that the lack of high-quality data accounts for 33 %; large-scale optimization accounts for 18 %; resources account for 14 %; hardware accelerator coding accounts for 12 %; model training accounts for 9 %; parallelization accounts for 5 %; scalability accounts for 5 %; storage accounts for 3 %; time / speed accounts for 1 %.

Conclusions. The digital world is a completely new way of life that requires people to change their thinking. The person should always be focused on new technologies and methods that the companies remained competitive and constantly developed, it will promote development of economy, and, actually, growth of well-being of the society. So, the innovation of the enterprise's economic management under the new circumstances is

a comprehensive special high and interlocked complex management art, as an enterprise management personnel of economic management of the enterprise knowledge innovation cannot understand simple copy or simply follow blindly, but should be in the economic management of innovation environment combined with the actual enterprise through the renewal of the traditional management concept, improve the various management mechanisms of enterprises to achieve the people-oriented to continuously improve the scientific level of enterprise economic management, promote the sustainable, healthy, rapid and steady development of enterprises.

Enterprise informatization is the most important characteristic of the self-organization evolution or optimization of enterprise system in the information age. It is the best shortcut for enterprises to seize the strategic commanding heights in the world economy and global market. It is a highly educated and diversified strategic platform. The practice has proved that the application of project cost management information platform reduces the workload of employees, improves work efficiency, and enhances the timeliness and accuracy of project accounting data. It is a useful practice of information technology in the field of project cost management, and plays an important role in the standardization of cost management. However, the information management system is only a management tool, management system and execution is also a key link to improve the level of management. Only by combining good management system and management norms with information tools and implementing them strictly, enterprises can really improve their management ability and bring the greatest economic benefits to enterprises. Economic management and modernization cannot be isolated, the modernization of economic management system is an important factor in the development of national economy, and stakeholders must grasp the relationship between the two. However, the modernization of economic management is not an easy thing to achieve, people should grasp the modernization of economic management and all the problems in-depth discussion, in full consideration of their own conditions on the basis of comprehensive, in order to make the modern economic management serve the society and the human better.

Advice:

1. Using computer technology to manage enterprises, one of the most important aspects is that computer technology management of enterprises can not affect the information security of enterprises. This requires full consideration of information security related technology, when using computer technology management enterprise. Specific use of the following means to ensure the security of enterprise management information. The first is encryption technology, the purpose of information encryption is to protect the data, files, passwords and control information in the network, protect the data transmitted on the Internet.
2. Enterprises in the use of computer technology management must give full play to the role of computer technology in the management of enterprises, rather than a mere formality, which requires enterprises in the use of computer technology management of enterprises to carry out related technical training to employees actively.
3. Accelerate application platform construction. Wisdom of carried out experimental zone of agriculture and agricultural science and technology service system of cloud, wisdom of agricultural application base, agricultural machinery, animal husbandry, wisdom of irrigation and comprehensive service system of agricultural production such as construction projects, to carry out the collection of data sharing and business collaboration, application integration, intelligent analysis and shows the wisdom of agricultural big data application engineering construction. The intelligent application of agricultural big data in precision production, quality supervision, situational awareness, comprehensive analysis, early warning and prediction, auxiliary decision-making and other fields will be promoted to build a «smart agricultural brain» in the city.
4. Accelerate the construction of «smart agriculture», realize the sharing of agricultural information resources through the use of big data and cloud computing technology, and ensure the effective development and efficient utilization of agricultural information resources.

References:

1. Miller, A. and Claire, C. (2017), «How Jeanirole's Work Helps Explain the Internet Economy», *The New York Times*, [Online], available at: https://www.nytimes.com/2014/10/15/upshot/how-jeantiroles -work -helps-explain-the-internet-economy.html
2. *Readiness for the Future of Production Report 2018* (2018), Insight Report, in collaboration with Kearney, A.T., World Economic Forum, 266 p. [Online], available at: http://www3.weforum.org/docs/FOP_Readiness_Report_2018.pdf
3. «Digital Transformation Monitor. Key lessons from national industry 4.0 policy initiatives in Europe» (2017), European Commission, [Online], available at: https://ec.europa.eu/growth/toolsdatabases/dem/monitor/sites/default/files/DTM_Policy%20initiative%20comparison%20v1
4. «Europe 2020: a European strategy for smart, sustainable and inclusive growth» (2020), [Online], available at: https://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20%20Europe%202020%20-%20EN%20version.pdf
5. Wang, Longzhong (2015), «Application of computer information management technology in enterprises», *Science and Technology Outlook*, No. 2, pp. 4–6.
6. Hu, Jinhua (2001), «Application of Computer Technology in Enterprise Management-About Enterprise Information Construction Design thinking Shan», *Journal of Hubei Adult Education College*, No. 6.

7. Li, Guohui (2014), «Research on the Implementation Strategy of Economic Management Modernization», *China's new technology and new products*, No. 22.
8. Qian, Ying One (2015), «Modernization of College Governance: Taking the School of Economics and Management of Tsinghua University as an example», *Educational Research of Tsinghua University*, No. 2.
9. Guo, Yongping (2015), «Analysis of economic management problems and countermeasures in agricultural modernization», *Agricultural Economy*, No. 9.
10. Shi, Minghui (2017), «The problems and countermeasures of economic management in the construction of agricultural modernization», *South Agricultural Machinery*, No. 1.
11. Yu, Yao (2016), «Research on the application of large data in enterprise management decision», *Business Management*, No. 14, pp. 143.
12. Zhang, Junjie and Yang, Li (2015), «The Realistic Dilemma and Countermeasures of Enterprise Decision Management in the Context of Big Data», *Journal of Business Economics*, No. 7, pp. 106–107.
13. Lozynska, I., Lukash, S., Maslak, N. and Brychko, A. (2021), «Digitalization, robotics and genomic research in livestock development», *The International Journal of Business Analytics (IJBAN)*, Vol. 8, Issue 2, [Online], available at: https://www.igi-global.com/article/digitalization-robotics-and-genomic-research-in-livestock-development/276445. DOI:10.4018/IJBAN.2021040103
14. «China's digital dictatorship» (2016), [Online], available at: https://www.economist.com/leaders/2016/12/17/chinas-digital-dictatorship

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