

# Development Trend Analysis of Computer Management Information System

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Abstract: Based on the retrospect and analysis of the main points of the development of computer management information system, on the basis of the study of relevant data such as enterprise units, mass media, personal information and information security, and according to the actual situation of our country, this paper intentionally and systematically collects relevant research materials on the role of management information system in the survival and development of enterprises, and aims at one or more merits. To study its impact, this paper focuses on three aspects: application analysis, development direction and implementation strategy, which can provide strong reference and guidance for the application of enterprise computer management system.

**Keywords:** Management information system; Development trend; Realization strategy

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## 1 Research purposes

The continuous development of computer technology in the management information system also involves a lot of content, people's lives have also been greatly changed. The effective improvement of the level of computer management information system has greatly optimized people's lives. Through network technology and computer technology, it can better serve human beings, and the role of computer management information system in social development is also relatively large. Facing the current market competition, the development of enterprises also needs the support of new technologies. The development of management information system can promote the overall progress of enterprises.

#### 2 Problems to be solved

#### 2.1 Research questions

"The key to success or failure in the development and construction of computer management information system is people"<sup>[1]</sup>. To a great extent, people's ideas determine the direction of system construction. The evaluation of the computer management system is mainly based on its management effect and its role in the survival and development of the target enterprise. However, in the process of construction and implementation, the ultimate goal and content of the system are often difficult to determine, the number of equipment is numerous, the management departments, equipment parameters, installation location and many other aspects to be managed, and the rapid development

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of the management system. Iteration makes it difficult for managers to fully determine all content, and there are often many selective difficulties<sup>[1]</sup>.

#### 2.2 Collection and Processing of Information by Enterprises

The application of information management may be questioned by many people. Taking personnel management as an example, we will worry about whether personal information can be input correctly. Will it be repeated? If the system fails, will the information be lost? Will it cause some harm to individuals and even enterprises? Or for financial management, if the management information system has problems, the consequences are even more difficult to imagine and bear. All of these require more reliable and effective management information system in the process of collecting information, using fast system, in order to obtain the most accurate information.

# 2.3 Quantity and Quality of Information in Mass Media

Nowadays, with the rapid development of Internet technology, all kinds of information are overwhelming, and the truth and falsehood are mixed. It is difficult for us to pick out what we need and what we are interested in in in the face of huge and complicated information. And in the process of using, we often find that some unnecessary or even undesirable information pops up in the web pages; in the comments on events and people, in addition to positive energy appeals and propaganda, there are still unhealthy and even reactionary statements<sup>[2]</sup>. These phenomena make the Internet become a tool which is not conducive to human and social development even though it is convenient. This is a great challenge to the management information system.

#### 2.4 Security and Protection of Personal Related Information

Some websites sell and transfer customer information without authorization, so that criminals can take the opportunity to commit crimes against customers. This series of practices and their associated effects have caused great harm to society and individuals. Therefore, the management information system also needs to take corresponding measures. For individuals, there is an urgent need for a system to protect personal identity information and to check the security of the website used when appropriate information is needed for operation.

# **3** Significance of the Study

From the current characteristics of computer management information system in China, the diversity of forms is more prominent, people in the perspective of business management on management information system and computer-aided management has been effectively developed. From the perspective of industrial engineering, flexible production and computer-aided manufacturing have also been developed<sup>[2]</sup>. Thirdly, in the process of application of computer management information system, B/S and C/S coexist, and the former application platform model has not been effectively adapted to the current development, so the development of C/S mode is transiting to B/S mode. The main core of management information system is based on the development of data technology and network technology. The powerful data processing ability provided by database technology has a great role in promoting the development of computer management information system, creating a great space for its further development<sup>[3]</sup>.

# 4 Limitations of the Study

In the process of building management information system, the development level of computer technology is limited, the performance of development is relatively low, and the function is relatively single. In this way, the system can not effectively fulfill the actual needs of management work. Computer management information system is usually a stand-alone operation. Because of the diversity of data formats, it makes the data information between systems can not be shared, thus aggravating the complexity of information management work and so on. Moreover, the performance of the developed system is relatively low, and the function is relatively small, so it is very difficult to meet the higher requirements of management. In view of the above shortcomings, we should be able to carry out optimization strategy for the current computer management information system in combination with the actual situation.

# **5** Introduction

## 5.1 Application Analysis of Computer Management Information System

The application of computer management information

system in actual production and life has become a trend of development, and the scope of application is more extensive, and the enterprise is the most important application area. Whether large enterprises or small and medium-sized enterprises, the wide application of computer management information system makes the related science and technology more complicated. To achieve the goal of efficient management and high-quality production, we must be able to closely integrate all types of systems, so as to achieve the exchange and sharing of data resources. Among the enterprises of computer management information system, the most prominent structure of management is the implementation of open mode, which can effectively integrate information resources and improve management performance in the process of internal department connection<sup>[3]</sup>.

#### 5.1.1 System Function Application

#### 5.1.1.1 Plan function

The application of planning function refers to that enterprises make different kinds of plans according to their own development needs, such as material purchase plan, production plan, marketing plan and management plan, and form complete data reports according to various reports, so as to provide reliable guidance for the implementation of various management work.

#### 5.1.1.2 Control function

The application of control function refers to providing data information for the work of various departments within the enterprise, supervising the implementation of the work of each department, summarizing the information generated from its work content into the management information system, and analyzing whether there are problems in enterprise management. Because of the traditional management mode, each department is in an independent state, which is easy to form an information island, leading to the wrong decision-making of enterprises<sup>[4]</sup>. The practice of control function centralizes all departments together, clarifies the business cross-section of each department, and can carry out all kinds of business according to the unified data information.

#### 5.1.1.3 Prediction function

Forecasting function is to forecast the future development trend of enterprises by means of statistical methods, modern mathematical methods and simulation methods according to the information content obtained by the system.

#### 5.1.1.4 Simple decision-making function

Simple decision-making function refers to mining the value based on data information content, providing reliable information and data support for decision-making, and helping grassroots managers make simple decisions.

#### 5.1.2 System Architecture Application

From the macro level, the operation of management information system needs the support of operation environment and application system. At present, there are two kinds of commonly used operation environment, one is centralized, the other is distributed. The operation environment can be selected according to the function of management information to ensure that it meets the needs of enterprise management. However, the operating environment should reflect the management functions of each management department, and also support the practice of different levels of management functions of enterprises. In terms of the management content of each level and each management department, there are differences in their requirements and characteristics. Therefore, a number of application subsystems have been formed so that the functions of different nature and characteristics can be realized. Specifically, there are three main types of subsystems<sup>[5]</sup>.

#### 5.1.2.1 Execution Control

Execution control subsystem is mainly applicable to the grass-roots management and middle-level management of enterprises. Its realizable functions include financial management, human resources management, production project management, office management, equipment management, raw material management, marketing management and so on. That is to say, the execution control subsystem manages the specific business according to the instructions of the superior management department. In daily management, a great deal of data information processing is needed. It needs to ensure the standardization, standardization and formalization of data information, collect and classify raw data information well, so that it can query data quickly and execute higher-level instructions efficiently.

#### 5.1.2.2 Management Control

Management and control subsystem is mainly

applicable to the middle management of enterprises. It plays a connecting role. It can provide management information on Tactics in the process of management, such as business planning information, enterprise benefit evaluation, management plan and job distribution. This system collects the information transmitted by grassroots management in management, summarizes and processes the information, transmits the information to the superior department according to the operating environment, supervises and controls the management information at the grass-roots level, lets the superior management department understand the execution and execution effect of the enterprise management work systematically, and then passes the new order to the lower department according to the instructions of the superior<sup>[6]</sup>.

#### 5.1.2.3 Decision-making and Planning

Decision-making and planning subsystem is mainly applicable to the top management of enterprises. It holds the power of leading management information system and plays a decisive role in the system operation process. Through the coordinated processing of system information, it ensures that the enterprise leadership can obtain all the required information content in time. According to the in-depth analysis of information content by the leadership, it formulates specific information. According to the actual situation of enterprise development, the paper predicts the problems that may arise in the execution of management work, and guides the grass-roots departments to solve the problems effectively.

#### 5.2 Research on the Development Direction of Computer Management Information System

With the continuous development and progress of China's economy, the development of computer management information system will also move towards a new direction. With the continuous development of communication technology, network technology and database technology, these lay the foundation for the formation of the knowledge system of computer management information system. In the future, the development direction of computer management information system will also move towards the direction of intellectualization. In the application of computer management system, it can not prevent it from developing towards industrialization, which will further strengthen its competitiveness and further enhance the development requirements of enterprises. In the future, the function and process components will be more prominent, and the design and execution of the process will be separated from each other. This will not affect the execution of the work in the process of process optimization design, thus enhancing the efficiency of information management. Its intelligent development can mainly use large-scale and distributed computers as carriers, and then use network neurons as basic components, which is more prominent in the ability of automatic learning and organization. The development of computer management information system will pay more attention to the people-oriented aspect, and there must be scientific development theory to be applied in the development of this field. In the future, peopleoriented will be more prominent. In this research perspective, people-oriented will also be developed to fully mobilize and stimulate people's initiative, so as to promote the activities of computer management information system. Humanized development concept will be implemented in the whole system management activities, and the different needs of customers will be considered in detail. In addition, the development goal of reliability and high performance and security of computer management information system is more important. Information is the most valuable resource. As the center of information distribution and processing, it is more important to ensure reliability in the management information system. If the reliability and security are not effectively guaranteed, the system will collapse and the data security will not be guaranteed, which will bring great losses. Therefore, in the future development process, the security and reliability of computer management information system will become an important development trend. The trend of virtualization and integration of the development of computer management information system is also an important development content in the future. From the development direction of virtualization, under the increasingly complex management activities, more comprehensive and efficient computer management information system is also needed. With the application of cloud computing technology, the efficiency of resource utilization has been improved. In the direction of integration, this is a new method concept, which can realize the integration of information and function, network and so on the basis of complex mechanism and dynamic system technology<sup>[4]</sup>.

#### 5.2.1 Intelligent Development

In today's society, the promotion of computer

information technology, in all areas of life will involve computer information technology, precisely because of these, the competition between companies in all walks of life is becoming more intense, and the challenges enterprises need to face are also very different, so in order to make more accurate and feasible decisions, enterprises need to rationally use the information management department. Unification. Therefore, the development trend of intellectualization will become more and more obvious. There are two main aspects of intellectualization: functions and processes. First, in terms of function, the future development of computer management information system will have a lot of characteristics. It takes computer as the basis and uses the system synthetically to innovate. Secondly, in terms of process design, it should be considered that process design and process execution can not conflict, but should be independent and separate from each other. In this way, enterprises in daily management to find reference information is to be able to see the information more clearly and intuitively. In order to dominate in the fierce competition, we must pay more attention to intellectualization, so as to lay the foundation for computer information management system.

#### 5.2.2 Integration Development

Only when various technologies of computer management information system cooperate with each other can we implement and optimize the computer management information system and improve the shortcomings of the system. Each system operates with each other, develops together and becomes a unified and organic whole. Coordination and cooperation should be implemented in different aspects to enhance the speed of information transmission, and make effective adjustments in the system, standardize the processing, and maximize the utilization rate of data and information combined with the relevant requirements of different personnel in the enterprise.

#### 5.2.3 Network Development

The characteristics of the information age are the rapid development of network technology, information life technology and computer technology, so the development of any technology today is closely related to the Internet, that is to say, the computer management information system also needs to develop according to the Internet. In the era of undeveloped Internet technology, enterprises will spend a lot of manpower and material resources to choose manual copying of information, and the use of the Internet can solve such problems, the information on the Internet is diverse, and more. New is also very timely, in the daily work of enterprises, if the collection and processing of information can be searched by connecting the Internet, it will make the collection of information more accurate, can also greatly reduce the burden of staff, but also can reduce the cost of enterprise information collection. With the help of Internet technology, it can also ensure the security and reliability of computer management information system, shorten the distance between users and enterprises, increase the affinity of enterprises, and enable internal personnel to communicate with the outside in a timely manner, and promote the exchange of information. It plays a significant role in both product purchasing and recruitment of enterprises.

#### 5.2.4 Virtualization Development

The larger the enterprise is, the greater the workload will be. At the same time, it will face the problem of more and more huge information. At this time, the computer management information system is a clear way to deal with too many complicated information. Therefore, according to the continuous improvement of requirements, the enterprise should update the computer management information system technology in time, upgrade the system, and realize the development of virtualization. First, cloud computing platforms can be created, so that different data can be processed using virtualization artifacts in cloud computing platforms. The more skilled the application of virtualization, the better the effect of data processing, the faster the speed, and save the investment of human and financial resources. Secondly, to strengthen the effect of virtualization, we should analyze it from three perspectives, rigorously and scientifically in the creation of the system, and try our best to create a good training environment in the cultivation of highly qualified technical personnel, and establish a sound server. Virtualization has also been widely used in society. In the context of the development of the information age, the integration of UI virtual technology of management information system can make both sides perfect and optimized. The data show that 15% of enterprises have adopted the technology with you. I believe that with the passage of time and the expansion of market competition, more and more enterprises will attach

importance to virtualization technology<sup>[5]</sup>.

#### 5.3 Strategic Analysis of the Implementation of Management Information System

#### 5.3.1 Strengthen Government Supervision and Promote Informatization Construction

With the rapid development of China's social economy, market competition is also increasingly fierce. In order to improve their core competitiveness, enterprises must vigorously promote the construction of information technology. Due to the lack of relevant rules and regulations in China's current information construction, the overall level of information construction is not high. Therefore, the relevant government departments must formulate scientific and reasonable information management laws and regulations and legal forms to ensure the information process, and strengthen the optimization and upgrading of management information systems. In the process of building management information system, corresponding policies should be introduced to support it. Guarantee the comprehensive promotion of management information system, establish the construction project of management information system, and expand investment, widely absorb social funds and social forces, actively broaden the efficiency of information engineering construction, actively promote the special fund of electronic information engineering, provide adequate financial guarantee for promoting the development of information engineering and industry, and should also aim at the future of electronic information industry. The development direction should be planned to promote the perfection of the industrial chain. In the process of building management information system, we should cooperate with other technical departments to optimize and integrate the software network technology of management information system, so as to provide adequate technical support for the construction of management information system<sup>[6]</sup>.

#### 5.3.2 Promoting the Development Environment Construction of Management Information System

In the process of developing management information system, the most important thing is to create a good development environment for management information system, to widely absorb professional and technical personnel, to promote the coordinated development of political, economic, material and cultural industries, and to enhance the attraction of technical personnel. We should also strengthen the cultivation of industry experts in the field of advanced information, which can be combined with local universities and scientific research departments to improve information. Technical personnel training program, so as to provide adequate technical support for enterprises. In addition, enterprises should establish and improve a fair, fair and open talent recruitment development model with the support of the government, especially to expand the recruitment of social talents, to ensure that enterprises have a large number of talent base. Only by constantly absorbing talents, enterprises can form a certain competitiveness and promote. The development vitality within the enterprise.

#### 5.3.3 Management Information System Software Architecture System Optimization

In the process of developing MIS, the most important thing is to ensure that the design of MIS software itself is consistent with the overall structure of the enterprise. The practicability, feasibility, security and reliability of the software are analyzed comprehensively, so that the software structure of MIS is analyzed and screened to avoid the influence of the use and development of follow-up software. In addition, in the process of software system design, it must be fully discussed, and the technical problems that may arise are comprehensively analyzed to reduce the emergence of software design and development. Deficiencies. In order to design a specific scheme which is in line with the internal information management of enterprises, we should also actively strengthen the business processing capabilities of different companies in order to ensure the operation quality of data processing and operation platform of the head office and avoid data flow. In the case of data loss due to poor connectivity, we should also strengthen the daily maintenance and optimization of MIS software system, so as to avoid the failure of the software system and affect the operational efficiency of MIS.

#### 5.3.4 Monitor every link of MIS

In the process of carrying out the work of MIS, it is necessary to clarify the overall goal of the construction of MIS. By transforming the traditional mode of manual transmission of information into the mode of transmission of information through the Internet platform, we can not only collect and process the dispersed and isolated information in a timely manner, but also ensure that all operations can be monitored and monitored throughout the process and promote information management. The overall quality, and in the process of building the information platform, can ensure the comprehensive integration of data and information in the logistics center, strengthen the supervision of feedback results, and improve the overall quality of data feedback information monitoring.

#### 5.3.5 Actively Create Intelligent and Networked Management Information System

Traditional management information system, after installation and debugging, its related functions are relatively fixed, and can not be expanded and upgraded, which will also lead to inefficient application of management information system. Building intelligent and networked management information system and integrating artificial intelligence technology can help management information system to realize automatic learning, aiming at various data information. In-depth mining, so as to improve the efficiency and quality of data management. In addition, in the process of design and development of management information system, information technology can also be used to ensure that the functions of different devices can be transformed to each other and improve the application effect of management information system. In addition, in the actual operation of management information system, it can also be re-designed according to the size of the system. Allocate to ensure the efficiency of equipment.

#### 6 Conclusions

In a word, there is still much room for the development

of computer management information system in China. With the rapid development of technology and the geometric growth of information, as well as the increasingly severe competition situation of enterprises, the development of management information system will be more refined, the professional subdivision will be more obvious, and the system optimization, system security and system virtualization will be more obvious. At the same time, the development environment of computer management information system will continue to optimize. There will be a trend of coordinated development at the government level, enterprise level and individual level, which will further promote the rapid promotion and popularization of management system.

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