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The application of computer hardware and software in enterprise management

Lingjuan Li

University of Northern Arizona, Flagstaff, 100022, USA

Abstract: With the rapid development of information technology, computer hardware and software have been widely used in enterprise management. This paper aims to explore the application of computer hardware and software in enterprise management, first of all, the basic concept of computer hardware and software, and then analyzes the application of computer software and hardware in enterprise management, and then the computer hardware and software system in enterprise management advantage are summarized, including improve management efficiency, improve the quality of management, reduce management cost, etc. And through the commonly used enterprise management software system in enterprise management, the enterprise management, fully understand the depth of the meaning of the article, finally the computer hardware and software system in the enterprise management problems are discussed, and put forward the corresponding suggestions and countermeasures.

Keywords: Computer hardware and software; enterprise management; enterprise management software; impact; differences; existing problems.

1. Introduction

With the continuous development of globalization and the Internet, enterprises are facing increasingly fierce competition and constantly changing market environment. In order to improve the operational efficiency and management level, many enterprises began to introduce computer hardware and software systems and enterprise management systems to optimize the business process and management mode within the enterprise. Through the in-depth analysis and research of the computer hardware and software system and the enterprise management system, it can provide important support and guidance for enterprises to improve their competitiveness, optimize resource allocation and improve management efficiency. This paper will first explain the evolution of computer hardware and software system, then analyze the application of computer hardware and software in enterprise management, and then summarize the influence of computer hardware and software system in enterprise management. Analyze the common problems of computer hardware and software system, and give the implementation and solution method.

2. Evolution of computer hardware and software systems

The evolution of computer hardware and software has been a long and interesting history. Since the 1940s, the computer system has experienced a great transformation from early electronic tubes to modern integrated circuits. At the same time, computer software is constantly evolving with the development of hardware, from the earliest programming language to the current advanced software development tools. With the development of The Times, the computer hardware and software system have been widely used in various enterprises. This chapter describes the evolution of computer hardware and software systems, and introduces the new features of software generated at each stage. And introduces in detail the operating system and database system in the computer software, and their role in the enterprise development[1].

2.1. Evolution process of computer hardware and software

2.1.1. Evolution process of computer hardware

The five major components of a computer hardware system include an operator, a controller, a memory, an input device, and an output device. In the 1940s, the world's first electronic computer was born, which was huge, power-intensive, and complicated to operate. For example, ENIAC and UNIVAC were early computers, used primarily for military and scientific computing. With the development of transistor technology, a second generation of computers appeared in the 1950s, such as IBM's Series 70 computers. These computers use transistors rather than tubes, and thus are much smaller, faster, and less expensive. With the emergence of integrated circuits, the third generation of computers appeared in the 1970s. These computers are smaller, faster, and less. For example, Apple II and IBM PC are representative of this period. The development of The Times, the continuous progress of technology, the modern computer is faster and faster, smaller and smaller, and More and more intelligent. Today, we have a variety of computer devices, from laptops to smartphones, to access the Internet anytime and anywhereAll kinds of tasks[2].

2.1.2. The evolution process of computer software

In the early days of computer development, programmers programmed them using low-level languages, such as assembly languages. These languages were very obscure, but they were the mainstream of the time. When hardware performance improves, people start using more advanced languages, such as Fortran and Cobol. With the development of computer hardware, operating systems gradually become complex and important. From early single-function systems such as DOS to modern multi-task operating systems such as Windows and Linux, operating systems greatly improve computer efficiency and ease of use. The database system in computer software develops with the growth of enterprise data demand. From the earliest file systems to relational databases such as Oracle and SQL Server to non-relational

databases such as MongoDB and Cassandra, database technologies are constantly improving to meet the growing data needs. Modern software development tools and languages greatly improve development efficiency and quality. For example, high-level languages such as Java, Python and C #, as well as development tools such as Eclipse, Visual Studio and IntelliJ, all provide strong support for developers. At the same time, the rise of development methods such as agile development and DevOps also makes software development more efficient and reliable[2].

3. The impact of computer hardware and software system on enterprise management

Computer hardware, including the host machine, peripherals and other physical equipment, is the material basis of the computer system. Software system, including operating system and application software, is a set of instructions running on the basis of hardware. First of all, the development of computer systems has brought a revolutionary impact on enterprise management. The efficient operation of the computer system can improve the production efficiency, reduce the operating cost, and promote the innovation and development of the business. For example, through the electronic computer technology, enterprises can optimize the basic management work, improve the management level, improve the production efficiency, and achieve the goal of automation and information office[3].

Secondly, the application of electronic computer in enterprise management is conducive to solving the problem of the complex information processing. Through a variety of advanced software systems, the complex and difficult data data can be analyzed and studied, providing accurate and effective reference basis for the smooth development of various management work. For example, with the help of computer systems, enterprises can formulate relevant management policies, management planning, financial reports, etc., and guide the correct development direction for the establishment of major projects. This section will classify the influence of computer hardware and software system on enterprise management, and discuss the differences between computer hardware system and computer software system in enterprise management, and analyze the differences between the two from three perspectives of function, function and influence.

3.1. Influence of computer software system on enterprise management

With the continuous development of the computer system, the enterprise management is more and more deeply influenced by the computer software system. The computer software system can improve the production efficiency and management efficiency of enterprises. Through the application of ERP system, OA system and other management software, enterprises can optimize the internal business processes to achieve coordination and unity, and significantly improve the quality and efficiency of enterprise operation. At the same time, the software system can also realize intelligent production, reduce the enterprise labor cost and production cost, improve the enterprise efficiency. With the gradual expansion of enterprise scale, all kinds of data and more and more, the traditional management mode has been unable to adapt to the new management requirements. The application of computer can scientifically process these basic data information, greatly liberate productivity and optimize the management effect. In addition, computer software systems can help enterprises to realize the data storage and retrieval, which is conducive to the data analysis and decision-making of enterprises. Through the data analysis and mining of computer software system, enterprises can better understand customer needs, optimize product design, and improve market competitiveness[4].

3.2. Influence of computer hardware system on enterprise management

Computer hardware system is the foundation of enterprise informatization. If enterprises want to realize information management, they need advanced computer hardware equipment, including servers, computers, network equipment and so on. These hardware devices can provide enterprises with stable and efficient data processing and transmission capacity, and support the operation of various management software, so as to improve the management efficiency of enterprises.

The influence of computer hardware system on enterprise management is mainly reflected in providing information foundation, improving production efficiency and management level, and supporting data analysis and decision-making. With the continuous development of information technology, the computer hardware system will play a greater role in the enterprise management[5].

3.3. Differences between computer hardware system and software system in enterprise management

The difference between computer hardware system and computer software system in enterprise management is mainly reflected in many aspects. From the perspective of functional differences, the computer hardware system is the material basis of the computer system, mainly including the host and peripherals, while the computer software system is a set of instructions running on the basis of hardware, mainly including the operating system, application software, etc. The hardware system is mainly responsible for the data processing and transmission, while the software system is mainly responsible for the implementation of the data processing and application[6].

From the perspective of function difference, computer hardware system is the foundation of enterprise informatization, which provides stable and efficient data processing and transmission capacity for enterprise management, supports the operation of various management software of enterprises, and improves the management efficiency of enterprises. The computer software system can help enterprises to achieve information management and business process optimization, improve the internal work efficiency and collaboration ability, and reduce communication costs.

At the same time, at the level of influence, the performance and stability of the computer hardware system directly affect the information level of the enterprise and the operation efficiency of various management software, which is the foundation of the enterprise information management. The computer software system can help enterprises to realize the automation and intelligence of business process, improve the production efficiency and management level of enterprises, and is the core of enterprise information management[7].

In short, both computer hardware systems and computer software systems both play an important role in enterprise management, but there are obvious differences in their functions, functions and effects. After the continuous iteration of the information technology, the computer hardware system and the software system will play a more and more important role in the enterprise management.

4. Evolution of enterprise management

Enterprise management has gone through many stages, from traditional experience management to scientific management, and then to modern digital and humanized innovative management, the enterprise management mode is constantly evolving to adapt to the increasingly complex and changeable market environment. This section will describe the evolution process of enterprise management, introduce the new features of the system born at each stage, and detail the management software commonly used in enterprise management, such as ERP software, ERP software, CRM software, SCM software, HR software, OA software, and their role in the development of the enterprise.

4.1. Evolution process of enterprise management

Enterprise management has gone through many stages, from the traditional experience management to the scientific management, and then to the modern digital and humanized innovation management, the enterprise management mode is constantly evolving. In the traditional management stage, the management of enterprises mainly depends on the experience and judgment of leaders. The decision-making process lacks data support, and the motivation and assessment of employees are not scientific enough. Although this management model has been successful in some cases, its limitations have become more obvious as the size of the company expands and the market complexity increases.

The scientific management stage emphasizes the standardization and quantification of the work process, and through formulating clear rules and regulations and processes, employees can clarify their responsibilities and tasks. This management mode improves work efficiency and quality, but in response to a highly uncertain market environment, it may be too rigid to adapt to changes.

The modern management stage emphasizes the strategic orientation and the market competition analysis, and pays attention to the interaction between enterprises and the external environment. Enterprises began to pay attention to organizational culture and employee development, and introduced new management methods such as quality circle and employee participation. The modern management stage has improved the competitiveness and adaptability of enterprises, but it is still difficult to fully cope with the increasingly complex and changeable market environment.

The innovation management stage emphasizes the guidance and support of innovation. Enterprises not only pay attention to the existing market and products, but also actively look for new market opportunities and development direction. Innovation management promotes the continuous improvement of enterprises and the ability to adapt to changes, and injects new vitality into the development of enterprises.

To sum up, enterprise management has gone through many stages of evolution, from traditional experience management to scientific management, and then to modern digital and humanized innovation management. These stages are interwoven, forming the process of the continuous development of enterprise management. With the continuous changes of the market and the needs of enterprise development, the future enterprise management will pay more attention to digitalization, humanization and innovation.

4.2. Introduction of the enterprise management software system

The commonly used management software systems in enterprise management include ERP software, CRM software, SCM software, HR software, OA software system and so on. The following types of these software systems will be introduced in detail.

ERP (Enterprise Resource Planning) software system is an integrated and modular enterprise management software, which aims to optimize the business process of enterprises, improve the efficiency of resource utilization, and reduce operating costs. ERP software usually includes financial management, procurement management, sales management, inventory management, production management, human resource management and other modules[8].

The CRM (Customer Relationship Management) software is a software system used to manage customer relationships. It can help enterprises understand customer needs, provide personalized products and services, and improve customer satisfaction and loyalty. CRM, the software usually includes customer information management, sales management, customer service management, marketing management and other modules[8].

SCM (Supply Chain management) software system is a kind of software system used to manage the enterprise supply chain. It can help enterprises to optimize the procurement, inventory, logistics and other links, and improve the efficiency and flexibility of the supply chain. SCM software system usually includes supplier management, purchase management, inventory management and logistics managementModule such as reason[9].

HR (human resources) software is a software system used to manage the enterprise human resources. It can help enterprises in recruitment, training, performance management and other links, and improve the utilization efficiency and management level of human resources. HR software usually includes recruitment management, employee information management, training management, and performance managementAnd so on module[9].

OA (Office automation) software is a software system used to improve the office efficiency of enterprises. It can help enterprises to realize the automation of document flow, approval process, document management and other links, and improve office efficiency and management level. OA software system usually includes document management, approval process management, and documentFile management and other modules[10].

These software are critical to both enterprise management and development to integrate and standardize core business processes. Improve the overall core competitiveness of the enterprise to meet the needs of the sustained and steady business growth.

5. How to solve the problems of computer hardware and software in enterprise management

With the continuous development of information technology, computer hardware and software has become an indispensable part of enterprise management. However, due to various reasons, computer hardware and software in enterprise management has many problems. This paper will solve the problems of computer hardware and software in enterprise management by establishing the software system in time, establishing the professional network security and protection system.

First of all, enterprises need to develop a set of hardware and software maintenance and maintenance system suitable for their own enterprises, including regular inspection of hardware equipment, regular update and upgrade of software system. And timely processing of hardware faults, for the hardware faults, to timely processing. The hardware troubleshooting process can be established, and the responsible person and processing time can be defined to ensure that the fault can be solved in time. For enterprises, hardware resources are limited, so they need to use hardware resources reasonably. Different hardware resources can be allocated according to different business needs to avoid the waste of resources. Enterprises should establish a perfect software system, including the operating system, office software, antivirus software, etc., to ensure the stability and security of the software. Regular system backup to avoid important data loss caused by system failure. Update the software system timely to ensure the security and stability of the system, and also improve the system performance. The establishment of a professional network security protection system can protect the information security of enterprises and avoid the losses caused by network security problems. Strengthening staff training and improving employees' understanding and operation level of computer hardware and software can reduce the hardware and software problems caused by human factors[11].

6. Conclusion

Computer hardware and software systems have a far-reaching impact on enterprise management. For enterprises, through computer hardware and software systems, enterprises can optimize business processes, improve operational efficiency, reduce costs, and gain competitive advantages[12]. This paper first expounds the basic concept of computer hardware and software, then analyzes the application of computer hardware and software in enterprise management, and then summarizes the influence advantages of computer hardware and software system in enterprise management, including improving management efficiency, improving management quality, reducing management cost and so on. And through the enterprise management software system commonly used in the enterprise management to understand, the enterprise management elaboration, fully understand the depth of the meaning of the article, and finally to the computer hardware and software system in the enterprise management problems are discussed, and put forward the corresponding suggestions and countermeasures. Through research, I believe that the application of computer hardware and software can improve the efficiency and quality of enterprise management, and promote the sustainable development of enterprises. However, there are also some problems, such as the speed of technology upgrading, security risks and other problems. Therefore, we need to strengthen technology research and development and application practice, constantly improve the application system of computer software and hardware, improve the application effect.

With the continuous development of globalization and the Internet, computer hardware and software systems are moving in the direction of mobile and intelligent, and computer hardware and software systems will pay more attention to enterprise experience and service mode innovation, in order to adapt to the changing market demand[13]. In the future, with the continuous progress of information technology, the computer hardware and software systems will continue to innovate, bringing more different experiences to the management of enterprises.

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