

THE INFLUENCING FACTORS OF EDUCATION MANAGEMENT INFORMATIZATION - A CASE STUDY OF BEIJING TECHNOLOGY AND BUSINESS UNIVERSITY

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AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION GRADUATE SCHOOL OF BUSINESS SIAM UNIVERSITY 2025



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This Independent Study Has Been Approved as a Partial Fulfillment of the Requirements for the Degree of Master of Business Administration

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ABSTRACT

Education informatization is another great change in human society since the emergence of writing and the invention of printing, which is the only way for education in the world to cope with the challenges of the knowledge economy and realize the modernization of education. The objectives of the study were to explore the effect of informatization planning, information resources management, information security, information technology teams, and systems and regulations on the education management informatization of Beijing Technology and Business University.

This study adopted a quantitative research method. In this study, a total of 400 questionnaires were distributed, with 398 valid questionnaires and the validity rate was 99.5%. The research population of this study was the faculty and staff of Beijing Technology and Business University (BGSU). This study found that information planning, information resources management, information security, information technology teams and system and regulations all have a significant positive effect on the education management informatization of Beijing Technology and Business University. Based on the findings, the following suggestions are put forward: (1) Strengthen the informatization planning. (2) Integrate the management information resources. (3) Strengthen the information technology teams.

Keywords: education management informatization, informatization planning, information resources management, information security, information technology teams, systems and regulations

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Feng Hailing



DECLARATION

I, Feng Hailing, hereby certify that the work embodied in this independent study entitled "*The Influencing Factors of Education Management Informatization -A Case Study of Beijing Technology and Business University*" is result of original research and has not been submitted for a higher degree to any other university or institution.



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Chapter 1 Introduction

1.1 Background of the Study

In the 21st century, the rapid development of information technology with network communication technology and multimedia technology as the core has triggered changes in many fields and accelerated the pace of human beings toward the information society. Facing the opportunities provided by the wave of informatization, Chinese government proposed to attach equal importance to informatization and industrialization, promote industrialization with informatization, and realize leap-forward development. In this background, meeting the new challenge of informatization and using the great potential provided by new technologies to build the higher education model in the 21st century is a difficult task (Kornilov, 2020a).

Education informatization is another change in human society since the emergence of writing and the invention of printing, which is the only way for education in the world to cope with the challenges of the knowledge economy and realize the modernization of education (Gong, 2020). At present, China's higher education is experiencing a profound change. On the one hand, the rapidly developing modern information society has put forward higher requirements for talent training and talent quality (Kornilov, 2020a). Institutions of higher learning must cultivate talent to meet the needs of society. On the other hand, higher education breaks through the shackles of traditional education, and towards the modernization of education. Both of these aspects should be supported by educational information (Gong, 2020).

The evaluation index system of higher education informatization is a realistic requirement to promote the development of education informatization. Education informatization is the foundation and propeller, but also the only way to realize the modernization of education. With the continuous development of educational informatization, significant disparities have emerged among developed countries, between universities in the East and the West, between key universities and ordinary universities, and between national and private universities (Liu, 2020). At the same time, all kinds of universities have invested a lot in informatization construction, and have made achievements, but in the process of education informatization level, blind pursuit of new technology. To solve the problem, it is urgent to carry out relevant research. Therefore, how to reliably evaluate and compare the informatization level and achievements of universities, provide a reference for the investment decision and

specific implementation of university informatization construction, and improve the level of university informatization in China is a topic in the research of university informatization at the present stage.

Constructing educational technology that meets the requirements of the information age conforms to the development requirements of The Times. The development of modern education technology, like a sharp unstoppable tide, swept across the world, spread to every corner of life, to update the teaching content, improve the quality of teaching, teaching means and methods of reform, show the artistic charm of information technology, cultivate the students' inquiry ability, innovation ability, practice ability, observation ability, improve their scientific literacy, provides a new heaven and earth. The popularization and application of modern educational technology, and the integration of information technology and curriculum, are conducive to students acquiring knowledge more intuitively and comprehensively and give full play to their position in the teaching process, which is the inevitable trend of educational reform and development (Kornilov, 2020b).

The information construction of universities in China has made a breakthrough in recent years. Competent departments and universities themselves attach great importance to information construction, whether the proportion of human, financial, or material investment is quite large. In 2020, the statistics of the Science and Technology Development Center of the Ministry of Education showed that 92.7% of the universities in China have built their campus network, and of the universities with campus networks, 98.4 percent have realized the office automation and scientific research network. In addition, 90.5 percent of classrooms are connected, and 74.3 percent of student dormitories are connected. It can be seen that the informatization construction of universities in China has begun to take shape, and the way and content of informatization are also increasingly rich (Liu, 2020). In China, Tsinghua University, Shanghai Jiao Tong University, Beijing Normal University, and other universities have set an example for us. Most of the schools have started to start the construction of the second-generation information campus, some of which have completed the construction of the main structure, the rest are building the main structure, and some are also in the planning and demonstration (Kornilov, 2020b).

In recent years, the informatization of Chinese universities has indeed made great progress, especially during the pandemic, many colleges and universities have adopted online teaching, which has promoted the development of college informatization to a certain extent, and the development momentum of college informatization is very rapid. However, there are also many problems in China's information construction. Beijing Technology and Business University has developed rapidly in education informatization management (Bazhenova, 2020), leaders have a weak concept of informatization education and low informatization ability, which seriously restricts the advancement of college informatization. Some teachers at Beijing Technology and Business University do not have a strong sense of information and lack the necessary means of information education, and the teaching mode is still a single multimedia teaching method (Gong, 2020). The information environment construction of Beijing Technology and Business University lacks long-term capital investment, attaches importance to the construction of hardware facilities but neglects the construction of software facilities, and the construction of software and hardware is not coordinated. As the information system of Beijing Technology and Business University lacks a systematic evaluation system, education management informatization is not perfect. Therefore, the improvement of the education informatization level of Beijing Technology and Business University is of great significance to the university (Bazhenova, 2020).

This study examines the informatization level of universities, the deficiencies and advantages, with the aim to improve the informatization level of universities, promote the informatization education ability of the school, establish the teaching and education environment that meets the requirements of the information age and serves the training of qualified talents.

1.2 Questions of the Study

Education informatization through more than ten years of development, early results, the strategic position of education informatization established, the national investment in cloud education and education infrastructure increasing, education products all ecological development pattern basic formation, big data in promoting education teaching, scientific research, and management change play a role of more and more heavy play

Beijing Technology and Business University has the characteristics of closure, lag, and simplicity, and has the disadvantages of single form, insufficient feedback high consumption, and low production, while the education management of big data in universities has the advantages of timeliness, scientificity, and interaction. The informatization will promote the type and upgrading of decision-making, evaluation, teaching, management, service, and evaluation of universities (Bazhenova, 2020). However, Beijing Technology and Business University have problems such as a backward management concept of informatization, a mismatch between information technology and development needs, neglect of safety management, and unreasonable organizational structure. Therefore, the following questions are raised:

(1) Does informatization planning affect the education management informatization of Beijing Technology and Business University?

(2) Does information resources management affect the education management informatization of Beijing Technology and Business University?

(3) Does information security affect the education management information of Beijing Technology and Business University?

(4) Do information technology teams affect the education management informatization of Beijing Technology and Business University?

(5) Do systems and regulations affect the education management information of Beijing Technology and Business University?

1.3 Objectives of the Study

Facing the challenge of the information age, the informatization of teaching management in universities has new characteristics and development directions (Antonyan, 2021). This study hopes to examine the nature of education informatization through the current situation of teaching management informatization, the requirements of innovation, and the trend of development, find the influence of informatization on the teaching management of universities. The main objectives are as follows:

(1) To explore the effect of informatization planning on the education management informatization of Beijing Technology and Business University.

(2) To explore the effect of information resources management on the education management informatization of Beijing Technology and Business University.

(3) To explore the effect of information security on the education management informatization of Beijing Technology and Business University.

(4) To explore the effect of information technology teams on the education

management informatization of Beijing Technology and Business University.

(5) To explore the effect of systems and regulations on the education management informatization of Beijing Technology and Business University.

1.4 Scope of the Study

The research population of this study is the faculty and staff of Beijing Technology and Business University (BGSU). They have worked at BGSU for at least one year and have a good understanding of BGSU's education management information technology. The data collection for this survey was done mainly through the Personnel Office of BGSU, where a list of BGSU faculty and staff was obtained. A list and number of each faculty member were made to ensure that everyone had an equal chance of being selected. Using a random sampling method, 400 teachers were randomly selected from this list to form the study sample. To increase participation, incentives were used, such as offering a commitment to participate in feedback on the results of the study. 400 questionnaires were distributed from September 1, 2023 to December 1, 2023, and 398 questionnaires were collected.

1.5 Significance of the Study

This study delves into the specific practices of educational management informatization at Beijing Technology and Business University, examining the impact of various aspects such as informatization planning, information resource management, information security, information technology teams, and institutional regulations on the informatization process. This not only enriches the theoretical framework of educational management informatization but also provides a valuable theoretical scaffold and analytical perspective for other universities and educational institutions to emulate. By employing quantitative research methods, this study collected and analyzed a vast amount of practical data, revealing the current status and challenges faced by Beijing Technology and Business University in terms of educational management information. This offers invaluable practical insights for the university and other institutions, aiding them in formulating more scientific and reasonable informatization development strategies and implementation plans tailored to their unique circumstances. The exploration of institutional regulations within this study serves as a crucial reference for educational management departments and policymakers. By understanding the influence of institutional regulations on

educational management informatization, relevant departments can more precisely formulate and adjust policies to foster the healthy development of the educational informatization endeavor. Educational management informatization stands as a pivotal factor in enhancing the competitiveness of universities, offering a novel pathway for institutions to bolster their standing. By strengthening informatization construction and management, universities can more efficiently utilize educational resources, and elevate teaching and research standards, thereby augmenting their overall competitiveness.

1.6 Definition of Key Terms

Education management informatization is introducing modern information technologies (such as big data, cloud computing, and artificial intelligence) into education management, optimizing the allocation of educational resources, enhancing management efficiency, and supporting teaching and research innovation through information-based means. In this study, education management informatization is manifested in Beijing Technology and Business University's degree of application, coverage, and application effects of information technology in education management.

Informatization planning refers to the strategic and systematic plan formulated to achieve the goals of education management informatization, implementation steps, resource allocation, and scheduling for the development of information technology and execution force in information construction.

Information resources management is collecting, storing, analyzing, sharing, and utilizing various information resources (such as teaching data, research data, and management data) during the university's informatization process.

Information security is the ability to protect the university's information systems and data resources from unauthorized access, leakage, tampering, and destruction. It involves technical security measures (such as firewalls, and encryption technology) and managerial security strategies (such as permission management, and backup strategies).

Information technology team refers to the professional staff team responsible for planning, implementing, maintaining, and supporting the university's education management information.

Systems and regulations are a series of policies, regulations, and operational procedures formulated to ensure the smooth advancement of education management information.

Chapter 2 Literature Review

2.1 Theoretical Foundation

2.1.1 Education Management Theory

The Education Management Theory constitutes a series of management activities conducted by educational administrators to cultivate talent. Management objects encompass various educational organizations at all levels within their jurisdictions. The Education Management Theory emphasizes the scientific and rational integration of human, material, financial, and information resources in education, guided by national education policies and principles, and by educational laws and management theories. This integration aims to ensure efficient operation, thereby harmonizing relationships among educational organizations, as well as interpersonal, human-material, and teaching-learning dynamics within each educational organization, ultimately achieving educational goals. The Education Management Theory represents an open and complex system for the aggregation, classification, interaction, and transformation of internal and external educational resources (Küçükaydın et al., 2015). University management stands at the core of education management, and the key to improving education management lies in the adoption of professional and advanced management tools and technologies. These enable education management decisions and services to be grounded in comprehensive educational information and scientific data processing, allowing education management to fully tap into and leverage both internal and external resources of the educational system (Connolly et al., 2019).

2.1.2 Digital Governance Theory

The Digital Governance Theory is an emerging public management theory that integrates governance theory with Internet digital technology. It advocates the use of informatization techniques and information systems to achieve reforms in the public sector, facilitate interactions among governments, private sectors, and social organizations, provide intelligent public services, and promote citizen participation. This, in turn, simplifies government functions and public affairs processing procedures, forming a new management mechanism in the public sector—a flat management mechanism, and facilitating power operation under a sharing mechanism to realize governance innovation. The Digital Governance Theory emphasizes the impact of information technology and information systems on public management, with the British scholar Patrick Dunleavy as its representative figure. As scholars' research on the Digital Governance Theory shifts from theoretical to applied research, the theory has garnered widespread attention and recognition from academics. From the perspectives of national emphasis on digital technology and the development of higher education, the integration of higher education management systems with information technology characterized by digitization will drive the development of higher education and the Digital Governance Theory, potentially becoming the mainstream of higher education governance in the coming decades (Marland et al., 2016).

The Digital Governance Theory encompasses four main components:

Value Concept: The Digital Governance Theory emphasizes a shift in governance philosophy, transitioning from a traditional government-centric approach to a citizencentric one. This transformation centers on making the public demand the value pursuit and behavioral orientation of government governance, ensuring that government decisions and actions always prioritize the interests and needs of the populace.

Organizational Structure: At the organizational level, the Digital Governance Theory advocates for institutional restructuring with inter-departmental collaboration as the primary direction. Through restructuring, governments can form more efficient, flexible, and collaborative organizational structures, better adapting to the demands of digital-age governance.

Institutional Mechanism: At the institutional mechanism level, the Digital Governance Theory builds upon the bureaucratic system as its foundational structure, but it does not fully adhere to the traditional bureaucratic model. Instead, it advocates for constructing shared institutional mechanisms on top of the bureaucratic system, achieving information sharing and resource integration within governments and between governments and other social entities through the establishment of sharing platforms and the formulation of sharing rules.

Digital Technology: The core characteristic of the Digital Governance Theory lies in its digitization. This implies that governments need to fully leverage modern information technologies, such as big data, cloud computing, and artificial intelligence, to enhance governance efficiency and effectiveness. Digital technology not only aids governments in rapidly collecting and efficiently processing information but also provides scientific bases and data support for government decision-making.



Figure 2.1 Digital Governance Theory

2.2 Education Management Informatization

2.2.1 Education Informatization

Education informatization refers to the comprehensive use of modern information technology based on computer multimedia and network communication in the process of education to promote the comprehensive reform of education and make it adapt to the new requirements of the coming information society for the development of education (Gong, 2020; Kornilov, 2020b). For the connotation of educational informatization, special attention should be paid to the following three points: First, the application and promotion of information and information technology in education and teaching. Second, the promotion of information technology in education and space restrictions, an organizational form, and the participation of teachers. Teaching is the most important and common form of education. While emphasizing the application and promotion and information technology in education and promotion of information technology in education and promotion of information technology in education and promotion and information. While emphasizing the application and promotion of information technology in education and promotion of information technology in education and promotion of information technology in education and promotion and promotion and information technology in education and promotion of information and information technology in education and promotion and promotion and information technology in education and promotion sector, it must focus on the application and promotion in teaching (Antonyan, 2021; Kornilov, 2020b).

Education informatization refers to the informatization process in the field of education. Education is cultivating people, its product is the specific individual existing as life, which makes educational activities fundamentally different from other material production activities in society. In this sense, education informatization is different from other industries' informatization. Education at the material level of informatization is not very important, and people in education, informatization talent is the core of education (Zhang & Fang, 2020).

2.2.2 Education Management Informatization

(1) Concept of University Management Informatization

The concept of an information campus is the revolution of the university. Information campus is a highly developed computer network as its core technology supports, sharing information and knowledge resources means, to cultivate the acquisition, processing, processing, and utilization of information and knowledge of students as its goal, to campus become the whole social knowledge, the innovation, and dissemination of information (Zhang & Fang, 2020), and the center as its social effect". Some scholars believe that university informatization refers to modern computer technology, information and communication technology, and network technology, fully integrated and applied in the university education system, to a certain extent, realize the education teaching, organization, and management, campus life service activities such as digital, networking, automation, to improve the quality and efficiency of education, eventually formed to meet the requirements of the information society of new education and management mode (Gao, 2011).

Education informationization refers to using modern information technology to develop educational resources and optimize the educational process, cultivate and improve students' information literacy, and promote the modernization of education. According to Li (2011), education informatization is a new educational system based on modern information technology, including a series of reforms and changes, such as educational concept, educational organization, educational content, educational mode, educational technology, educational evaluation, and educational environment. Education informatization is not simply equivalent to computerization, but a systematic project related to education modernization. The results of the reform of information technology for education also emphasized the process of education informatization (Jie, 2011).

University informatization is a dynamic development process, which is not a fixed framework and mode, which requires educators to study and explore. University

informatization is a historical category with the informatization of social informatization, national informatization, and education informatization. University informatization has rich content and profound connotation, and has the following prominent features, namely: the modern education ideology, lifelong education time, network, teaching interactive education space, digital education content, intelligent education technology, education resources sharing, education, education object (Jie, 2011). University informatization is an organic part of education and social modernization, which is bound to be restricted by the level of higher education and economic and social development, synchronized and associated with the latter.

(2) Characteristics of University Education Management Informatization

Under the background of big data, China's education cause is also developing in the direction of informatization, so education informatization has the characteristics of digitalization, intelligence, and network. Digitization has changed the teaching form of outdated teaching equipment and single resources in the past. Intelligence makes teaching work more humanized, and the characteristics of facilitation and networking make the information storage function of teaching resources more secure and reliable (Kim et al., 2019). These three characteristics promote the information of education management (Jie, 2011). The informatization development of education also has the main characteristics of openness, transparency, and sharing, which makes education management more socialized and independent, and more adaptable to the rigid demand of the current society for talents. Sharing is the most essential and core feature of information development. It can promote the dissemination and communication of all educational resources in the society on the information platform, and enhance the communication between teachers and students, students and other people. University informatization is a dynamic development process, which is a process of continuous reform and optimization of traditional educational concepts, educational modes, management systems, organizational structure, and business processes. It is conducive to improving the efficiency and quality of teaching, scientific research, management, service, and other activities. At the same time, it is constantly improved and perfected in dynamic development and injected new connotations (Jie, 2011).

The development of the Internet economy has derived from emerging technologies such as cloud computing and the Internet of Things. Internet education has become the mainstream education mode that influences the information construction of education management in universities. With the progress of science and technology and the renewal of educational means, multimedia technology has become a form of education, changing the traditional teaching method of "blackboard + chalk. In addition, informatization has brought more novel and vivid teaching modes to the current university education. Digital network media, such as cloud classrooms, and MOOCs, enriches classroom teaching activities. The information management mode of education should also pay attention to the teaching information systems and educational function software (Kim et al., 2019), keep pace with the times, and promote the more intelligent development of information systems.

2.3 Informatization Planning

Informatization planning plays a role in the informatization of education management. informatization creates an open and optimized environment for education management. Based on its openness, the information asymmetry corresponding to the traditional education management structure will be replaced by a flat educational data supply relationship, which will have impacts on the decision-making environment. Based on the overall environment, the education management informatization plan will not only use the underlying data of education, such as the raw data of student growth and teacher development but also use a large number of variable and generative social resources and data outside the education system, which may have a certain degree of influence on education management decisions (Connolly et al., 2019). The primitive nature and fast processing characteristics of big data will lead to the fragmented characteristics of education management informatization. In education management and educational activities, object data contains the most real subjects, activities, results, and other original data in the process of education, these data need to be processed immediately, so education management is a fragmented behavior process (Glatter, 1997).

The value density of big data is inversely proportional to the size of the total amount of data, and value is the core feature of big data. In reality, data is invalid or low value. The value of big data lies in mining valuable data from a large number of unrelated and diverse data, predicting and analyzing future trends and patterns. The education management informatization plan is a cloud repository of massive education data and a professional processing platform for education big data. Managers at all levels will follow the requirements of the informatization plan and establish simple data models with core management elements to achieve efficient management objectives. Education management has the dual characteristics of diversification and specialization, which determine the diversity and professionalism of education management behavior. The education management informatization plan should encourage social professional institutions to participate in the education management process as a "third party" and undertake education management activities in professional fields such as education evaluation. "Principal" and "teacher" carry out a "principal responsibility system", information plan is the fundamental symbol of school-based management (Glatter, 1997).

2.4 Information Resources Management

In addition to the personnel within the education system, there are also people involved in education from all aspects of society, who are the sources of education data generation. Collecting, collating, and mining educational data of "people" will be the most complex behavior in the big data education management system. The allocation of educational resources must first classify the resources scientifically and rationally. Perhaps the classification is still relatively rough, but this is the resource allocation of education management: "talent resources" education talents and talents trained by education, which is the core resource. Property resources can be regarded as hardware management (Guimaraes, 1988) or material allocation of education, and financial and material resources are the basic allocation of educational resources. Knowledge resource is educational knowledge, which belongs to broad resources, including educational content, educational theory, educational method, and educational experience. It is a recessive resource in educational resources and resources. Technology resources are productivity resources of big data education management, and educational technology, especially the application of educational information technology, big data and cloud technology for education management bodies to rationally allocate educational resources to meet the needs of educational services (Mcleod, 1995). The goal of big data education management is to build a modern education governance system marked by education: to provide educational resources suitable for everyone and achieve a fair allocation of educational resources; Establish a data-based modern education public service system; Improve the data mining ability of education management subjects and education service objects, realize the fundamental change of education management mode, and promote the intelligent development of education (Guimaraes, 1988).

2.5 Information Security

In education management informatization, the detailed impact of information security is reflected on many levels. Information security ensures the stability of the school management system, and prevents kinds of network attacks and malicious behaviors, to ensure the integrity of the school data and the operation of the organization. This includes protection against unauthorized access, data tampering, and security threats such as denial of service (Navarro, 2001). Information security plays a role in protecting education. Ensure that students and staff's personal information is protected through appropriate security measures to prevent data breaches and misuse. This not only complies with legal and ethical requirements but also builds a relationship of trust between the school and community members. Information security helps to maintain the reputation and credibility of the school. Data breaches or security breaches can result in undesirable social repercussions and damage. By adopting advanced information security measures, schools can convey their commitment to digital governance to the community and increase public trust in schools. Information security is an indispensable part of education management informatization, which is not only related to the stability of system operation but also directly related to the privacy of school community members and the reputation of the school. An effective information security strategy is one of the keys to ensuring the smooth implementation of digital governance (Navarro, 2001).

2.6 Information Technology Teams

The technology team plays a key role in education management. The technology team participates in the reintegration phase and is responsible for integrating digital information technology into the governance process. The technology team plays a professional technology support role in reshaping the service chain, strengthening the central authority, implementing professional procurement, etc., and promoting the efficient operation of the education management system. The technology team plays a key role in holism. The technology team has improved the efficiency of information retrieval and delivery by streamlining the overall management process, establishing flexible and responsive institutions, and optimizing database structures (Peslak, 2006). The participation of technology professionals helps in overall planning, promoting the realization of one-stop services, and providing more efficient support for service objects. The technology workforce drives organizational change and cultural change in the digital process. Through the introduction of information technology, the technology team promotes innovation and collaborative work within the school, moving the institution closer to a "website" of digital governance, achieving a higher level of sustainability and adaptability. In education management, the technology team is not only the promoter of digital transformation, but also the key executor in the overall governance process, which plays an irreplaceable role in improving the efficiency of education management and realizing the goals of digital governance (Shachaf, 2008).

2.7 Systems and Regulations

The perfection of the system is the information of education management. A comprehensive and sound system can help schools reshape service chains, save resources and costs, and strengthen central authority. Good system design can improve the efficiency of education management, make digital information technology organically integrated into governance, and realize the effective integration of resources (Antonyan, 2021). The perfection of regulations directly affects the implementation of holism. Sound rules and regulations can simplify the overall management process and ensure smooth retrieval and delivery. Through clear rules and regulations, and overall planning, based on the service target or its needs, the school can better promote onestop service, optimize the database structure, and improve the ability for sustainable development. In digitization, the perfection of systems and regulations also helps to drive organizational change and cultural change. Clear rules and regulations provide guidelines for digital transformation, making it easier for organizations to adapt to new information technology and change needs. The completeness of the system further ensures that the implementation of digital governance is not merely a complement to traditional administration, but an orderly and sustainable change (Mcleod, 1995; Shachaf, 2008).

2.8 Research Relevant

Education management informatization takes a relatively long time, has formed a relatively perfect construction system, and the development level is relatively high. The United States has always been at the forefront of university quality and has the development of education management information. It is of positive significance to learn from its development model, promote the application of information technology in social aspects, the information technology as an important means of education reform in the new century, for the education level and education management level to provide the material basis (Bazhenova, 2020; Liu, 2020).

Canada has also achieved remarkable results in promoting the informatization of education management. With the help of national data platforms, including Statistics Canada and Education Statistics Council, Canada can more accurately obtain education monitoring data, which provides conditions for the analysis of education development and education evaluation, and provides an important basis for managers to make education decisions (Bazhenova, 2020). At the same time, a sound evaluation system is established to reduce the burden of data providers through reasonable data applicationsharing agreements. The statistical methods are constantly improved through joint research, educational basic information database is attached importance, and comprehensive functions such as educational information management, scientific research, decision support, and social service are assumed. While serving the decisionmaking of various provinces and regions, the analysis results of some evaluation projects also serve the general public.

Japan has taken effective measures such as policy promotion, infrastructure construction promotion, and school information education promotion. Therefore, the development of computer hardware construction and campus networks in Japanese schools have developed very rapidly. Since 1992, Japan has formulated education informatization implementation plans many times, and the government has increased funding for infrastructure construction. In 2010, Japan launched the "Future Campus" project, which provides electronic textbooks and learning resources for all students aged 6-12 through a one-to-one computer application system (Chang et al., 2013; Guimaraes, 1988).

South Korea also attaches great importance to the construction of education management information. At present, schools in South Korea have built a comprehensive information supervision and management system, which facilitates the networked management of school daily affairs, and strengthens the application ability in teacher training and consulting services (Chang et al., 2013).

Digital campus is the expression form and the inevitable result of university education informatization. The development of a digital campus is generally divided into four stages, namely, the construction of campus network infrastructure, the construction of a single application system, the application system of various departments, and the construction of a school comprehensive resource information system. The vast majority of universities are now in the third stage. To realize the circulation of digital information, the information exchange between schools and eliminate the information island is the goal of the next stage of digital campus (Taylor et al., 2017).

The modernization of the digital era has come, and the management theory also needs corresponding changes and the support of new theories. Higher education system in the face of a large number of data and complicated electronic information, must reform innovation of traditional management mode, to meet the needs of teaching, scientific research and daily management, higher education management system will spontaneously seek a way that can solve the above problems, seek process naturally combined with the digital means (Taylor et al., 2017). Digital governance is also the theory that arises with the development trend of information technology and has high adaptation ability to deal with such change. Therefore, digital governance of higher education will inevitably become the core of promoting the modernization of higher education governance.

2.9 Conceptual Framework

Informatization of education management is the development trend of higher education. Based on the analysis of the Digital Governance Theory and the Education Management Theory, informatization planning, information resources management, information security, information technology teams, systems, and regulations are identified as the factors affecting education management informatization. Among them, informatization planning, information resources management, information security, information technology teams, systems, and regulations are independent variables; and education management informatization is the dependent variable. The model framework is shown in Figure 2.2.



Figure 2.2 Conceptual Framework



Chapter 3 Research Methodology

3.1 Research Design

This study adopted the quantitative research method, analyzing the factors that affect the informatization of education management in Beijing Technology and Business University. According to the Digital Governance Theory and the Education Management Theory, it is determined that the factors affecting the informatization of education management include five aspects which are informatization planning, information resources management, information security, information technology teams, and systems and regulations.

3.2 Population and Sample

The research population of this study was the faculty and staff of Beijing Technology and Business University (BGSU). Faculty and staff must have worked at BGSU for at least one year and have a good understanding of BGSU's education management information technology. According to statistics of Beijing Technology and Business University (BGSU), there were 1,665 faculty members in 2024. Therefore, the random sampling method was used for sample selection. The sample size was calculated using the formula:

$$N = \frac{r^2 * \rho(1-\rho)}{\beta^2}$$

The calculation gave the sample size for this study as 399.12, and the number was rounded up to 400.

3.3 Hypothesis

H1: Informatization planning has a significant positive effect on the education management informatization of Beijing Technology and Business University.

H2: Information resources management has a significant positive effect on the education management informatization of Beijing Technology and Business University.

H3: Information security has a significant positive effect on the education

management informatization of Beijing Technology and Business University.

H4: Information technology teams have a significant positive effect on the education management informatization of Beijing Technology and Business University.

H5: Systems and regulations have a significant positive effect on the education management informatization of Beijing Technology and Business University.

The hypothetical model of the influencing factors of education management informatization of Beijing Technology and Business University is constructed and the interrelationships among the variables are confirmed, as shown in Figure 3.1.



Figure 3.1 Hypotheses

3.4 Research Instrument

A questionnaire was designed based on relevant research and theories. A five-point Likert scale was used to measure responses. Informatization planning includes objectives of education management planning, needs and participation of teachers and students, budget, and feedback on implementation (Connolly et al., 2019). The purpose is to assess the quality, feasibility, and effectiveness of informatization planning. See

Table 3.1.

Variables	Measurement Item					
	1. Clear objectives of education management informatization planning	IP1				
	2. Have the long-term goals of educational institutions been fully considered in the informatization planning?					
Informatization Planning	3. The needs and participation of teachers and students are fully considered in the planning.					
	4. Is the budget of education management information reasonable?					
5. Timely adjustment and update during the implementation of the plan?						

Table 3.1 Informatization Planning Measurement Scale

Information resources management consists of 5 questions of information resources, management responsibility and authority, storage of resources, utilization of resources, and periodic evaluation and updating of information resources management strategies (Guimaraes, 1988). The purpose is to assess the various aspects of information resources management, including process efficiency, organizational structure, resource utilization, and strategy effectiveness. See Table 3.2.

Variables	Measurement Item				
Information Resources Management	6. Efficient collection and integration of information resources?	IRM1			
	7. Is there a clear responsibility and authority for information resource management?				
	8. Is the storage and maintenance of information resources in line with best practices?	IRM3			
	9. To what extent does the school utilize information resources?	IRM4			
	10. The school regularly evaluates and updates the information resource management strategy?	IRM5			

Table 3.2 Information Resources Management Measurement Scale

Information security consists of 5 questions including: information security policy, security training measures, information system protection measures, security vulnerability scanning and remediation mechanisms, and emergency response plans (Navarro, 2001). See Table 3.3.

	5					
Variables	Measurement Item					
Information Security	11. Is the school's information security policy clear and widely followed?	IS1				
	12. Are there appropriate safety training measures to enhance the safety awareness of teachers and students?	IS2				
	13. Are the protective measures of the school information system effective?	IS3				
	14. Is there a regular security vulnerability scanning and repair mechanism?	IS4				
	15. Does the school have an emergency response plan for potential information security threats?	IS5				

Table 3.3 Information Security Measurement Scale

Information technology teams covers the following topics: team professionalism, technical issues, communication mechanisms, training and enhancement programs, and work efficiency. See Table 3.4.

	65					
Variables	Measurement Item					
	16. The information technology team has a high level of professionalism.	IT1				
	17. The team can solve technical problems in a timely manner.					
Information Technology Teams	18. The information technology team has an effective communication mechanism to respond to user needs in a timely manner.					
	19. The information technology team has a training plan to ensure that the technical level of the team keeps pace with The Times.	IT4				
	20. Team work processes are efficient to support the IT needs of the school.	IT5				

Table 3.4 Information Technology Teams Measurement Scale

Systems and regulations measurement consists of five key indicators: compliance, transparency, management effectiveness, review mechanism, and remediation mechanism (Antonyan, 2021). See Table 3.5.

Variables	Measurement Item				
Systems and Regulations	21. Does the school's information system comply with relevant regulations and standards?				
	22. Are there transparent rules and policies for the use of information systems?	SR2			
	23. Is the management of system access rights effective?	SR 3			
	24. Is there a regular system audit and inspection mechanism?	SR 4			
	25. Does the school have clear punishments and remedial measures for system failures and violations?	SR 5			

Table 3.5 Systems and Regulations Measurement Scale

Education management informatization consists of six questions that focus on implementation effectiveness, convenience, diversity, and system support (Zhang & Fang, 2020). See Table 3.6.

Variables	Measurement Item						
	26. The overall implementation of education management informatization has achieved good results.						
	27. Does the school have a convenient online education management system?						
Education Management	28. Are the school's online teaching resources adequate and diverse?						
Informatization	29. Students and teachers are highly satisfied with the information technology of education management.						
	30. Does the school have an effective data analysis and decision support system?						
	31. Is there a regular evaluation and update of the education management information strategy?						

Table 3.6 Education Management Informatization Measurement Scale

3.5 Reliability and Validity Analysis of the Scale

3.5.1 Questionnaire Reliability Analysis

This study analyzed the reliability and validity of the data using Cronbach's alpha coefficient. Subsequently, the questions in the questionnaire were employed to ascertain

whether the intended purpose of the survey was achieved, reflecting the validity of this thesis's research. Additionally, it was assessed whether the obtained information and content were reliable. The questionnaire reliability analysis is used to test whether the questions used in this research are stable, reliable. The size of Cronbach's alpha coefficient can reflect the reliability. When the obtained coefficient is greater than 0.8, it indicates that the reliability of the questionnaire meets the standard; if the obtained coefficient is in the range of 0.6-0.8, it indicates that the reliability of the questionnaire is generally acceptable; if the obtained coefficient is less than 0.6, it indicates that the reliability of the questionnaire does not meet the standard. Meanwhile, to ensure the high reliability of the questionnaire.

According to the data analysis, Cronbach's Alpha of informatization planning is 0.901, which indicates that the reliability of informatization planning is good. When analyzing Corrected Item-Total Correlation and Cronbach's Alpha if Item Deleted, the results show that Corrected Item-Total Correlation values are more than 0.5 and Cronbach's Alpha if Item Deleted values are less than Cronbach's Alpha, which indicates the reliability of each question. See Table 3.7. Therefore, from the results, it can be concluded that the reliability of informatization planning meets the criteria.

Tuote 51, The information Flamming Rendering Test					
Informatization Planning	Items	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
	IP1	0.814	0.664	0.866	
	IP2	0.736	0.551	0.884	
	IP3	0.768	0.596	0.877	0.901
	IP4	0.727	0.538	0.886	
	IP5	0.730	0.540	0.885	

Table 3.7 The Informatization Planning Reliability Test

According to the data analysis, the Cronbach's Alpha of information resources management is 0.872, which indicates that the reliability of information resources management is good, when analyzing Corrected Item-Total Correlation and Cronbach's Alpha if Item Deleted, the results show that Corrected Item-Total Correlation values are more than 0.5, and Cronbach's Alpha if Item Deleted values are less than Cronbach's Alpha, which indicates the reliability of each question. See Table 3.8. Therefore, from the results, it can be concluded that the reliability of the questionnaire meets the criteria.

Information	Items	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Cronbach' s Alpha
Resources	IRM1	0.726	0.527	0.839	
Management	IRM2	0.689	0.475	0.848	
Internegentiette	IRM3	0.695	0.488	0.846	0.872
	IRM4	0.706	0.501	0.844	
	IRM5	0.682	0.470	0.850	

Table 3.8 Information Resources Management Reliability Test

According to the data analysis, the Cronbach's Alpha of information security is 0.870, which indicates that the reliability of information security is good. When analyzing Corrected Item-Total Correlation and Cronbach's Alpha if Item Deleted, the results show that Corrected Item-Total Correlation values are more than 0.5 and Cronbach's Alpha if Item Deleted values are less than Cronbach's Alpha, which indicates the reliability of each question item. See Table 3.9. Therefore, from the results, it can be concluded that the reliability of the questionnaire meets the criteria.

	Items	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Information	IS1	0.792	0.630	0.818	
Security	IS2	0.689	0.478	0.844	
	IS3	0.645	0.439	0.855	0.870
	IS4	0.669	0.475	0.849	
	IS5	0.696	0.485	0.843	

 Table 3.9 Information Security Reliability Test

According to the data analysis, the Cronbach's Alpha of information technology teams is 0.868, which indicates that the reliability of information technology teams is good. When analyzing Corrected Item-Total Correlation and the Cronbach's Alpha if Item Deleted, the results show that Corrected Item-Total Correlation values are all more than 0.5, and Cronbach's Alpha if Item Deleted values are all less than Cronbach's Alpha, which indicates the reliability of each question. See Table 3.10. Therefore, from the results, it can be concluded that the reliability of the questionnaire meets the criteria.

Information	Items	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Technology	IT1	0.717	0.520	0.833	
Teams	IT2	0.654	0.434	0.849	
	IT3	0.711	0.513	0.835	0.868
	IT4	0.698	0.497	0.839	
	IT5	0.679	0.466	0.843	

Table 3.10 Information Technology Teams Reliability Test

According to the data analysis, the Cronbach's Alpha of systems and regulations is 0.889, which indicates that the reliability of systems and regulations is good. The Corrected Item-Total Correlation and Cronbach's Alpha if Item Deleted are also analyzed, and the results show that Corrected Item-Total Correlation values are all over 0.5, and Cronbach's Alpha if Item Deleted values are less than Cronbach's Alpha, which indicates the reliability of each question. See Table 3.11. Therefore, from the results, it can be concluded that the reliability of systems and regulations meets the criteria.

	Items	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Systems and	SR1	0.738	0.569	0.852	Y
regulations	SR2	0.738	0.547	0.851	
	SR3	0.726	0.533	0.860	0.889
	SR4	0.716	0.536	0.860	
	SR5	0.723	0.53	0.854	

Table 3.11 Systems and Regulations Reliability Test

According to the data analysis, the Cronbach's Alpha of education management informatization is 0.878, which indicates that the reliability of education management informatization is good. When analyzing the Corrected Item-Total Correlation and Cronbach's Alpha if Item Deleted, the results show that Corrected Item-Total Correlation values are all more than 0.5, and Cronbach's Alpha if Item Deleted values are all less than Cronbach's Alpha, which indicates the reliability of each question. See Table 3.12. Therefore, from the results it can be concluded that the reliability of education management informatization meets the criteria.

	-	Corrected	Squared	Cronbach's	Cronbach'
	Items	Item-Total	Multiple	Alpha if	a Alpha
		Correlation	Correlation	Item Deleted	s Alpha
Education	EMI1	0.747	0.566	0.846	
Management	EMI2	0.689	0.486	0.856	
Informatization	EMI3	0.655	0.453	0.862	0.878
	EMI4	0.721	0.534	0.850	0.878
	EMI5	0.659	0.447	0.861	
	EMI6	0.632	0.405	0.865	

Table 3.12 Education Management Informatization Reliability Test

3.5.2 Questionnaire Validity Analysis

Validity analysis is an analysis done from the perspective of stability of the scale. In order to test whether the items of the scale can accurately respond to the actual situation of the variable being measured, the scale needs to be examined by validity analysis. Validity analysis generally includes methods such as exploratory factor analysis and validation factor analysis. Generally, two indicators are used to test the validity of the questionnaire: KMO and Barltt's ball test KMO is a value between 0 and 1. The larger the KMO value is, the stronger the correlation between the variables, the more suitable the original variables are to be analyzed in factor analysis, and vice versa. According to the KMO criterion, the KMO should be greater than 0.7 for factor analysis.

The validity of the questionnaire was analyzed, and according to the results of the analysis, the validity of the questionnaire is good. The index of validity analysis is Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO). The KMO value is 0.938, which is greater than 0.7, and the Sig. value of Bartlett's Test of Sphericity is less than 0.000, which indicates that it is significant. Therefore, Confirmatory factor analysis (CFA) can be performed based on the above indicators.

Kaiser-Meyer-Olkin Measure of S	0.938	
Bartlett's Test of Sphericity	Approx. Chi-Square	5703.397
	df	300
	Sig.	0.000

Table 3.13 KMO and Bartlett's Test

CFA was performed on the collected data and the data were calculated based on the Maximum Variance Method, which showed that a total of five common factors were extracted, which is in line with the five variables designed in the questionnaire. Meanwhile, according to the calculation results, it can be concluded that the explanation of the dependent variable by the five factors is 68.22%, which is more than 50%, and meets the requirements. See Table 3.14. The calculation results by Rotated Component Matrixa show that the question-item differentiation validity of each factor is good. See Table 3.15.

		_		5	5		
	Initial Eigenvalues		Extraction	n Sums of	Rotation Sums of		
Compo			Squared Loadings		Squared Loadings		
nent	Total	% of Variance	Cumulative %	% of Variance	Cumulat ive %	% of Varian ce	Cumulativ e %
1	9.68	38.71	38.71	38.71	38.71	14.21	14.21
2	2.75	11.02	49.72	11.02	49.72	14.05	28.25
3	1.64	6.57	56.30	6.57	56.30	13.51	41.76
4	1.51	6.04	62.34	6.04	62.34	13.34	55.10
5	1.47	5.88	68.22	5.88	68.22	13.12	68.22
6	0.63	2.53	70.76				
7	0.59	2.35	73.10				
8	0.55	2.20	75.30	5			
9	0.50	2.01	77.31			$\in \mathbb{N}$	
10	0.50	1.99	79.30				
11	0.47	1.87	81.18	- 2			
12	0.43	1.72	82.90	00		////	
13	0.42	1.70	84.60	1.1	6	AO =	
14	0.41	1.64	86.24		5///		
15	0.39	1.56	87.81	VU			
16	0.38	1.51	89.32				
17	0.36	1.46	90.78	70PP			
18	0.35	1.38	92.16				
19	0.33	1.30	93.46				
20	0.32	1.29	94.75				
21	0.31	1.24	95.99				
22	0.28	1.14	97.12				
23	0.26	1.05	98.18				
24	0.24	0.94	99.12				
25	0.22	0.88	100.00				

Table 3.14 Confirmatory Factor Analysis (CFA)

The results of the factor analysis need to be practically meaningful for each factor. Rotating the factor loading matrix makes the relationship between the original variables and the factors more salient, i.e., each variable has a larger loading on only one common factor and a smaller loading on the other common factors. Also, the factors were rotated to be able to better categorize each of the original variables. The rotated formation matrix was performed by the maximum variance method to verify that there is no covariance in the question items measured by each variable and analyzed based on the maximum eigenvalue. Through the results of Table 3.15, it can be learned that a total of five factors were extracted, and each variable has a large loading on only one common factor, while the loadings on the other common factors are small, indicating that each variable has a better but differentiated validity.

Items	1	2	3	4	5
IRM1	0.098	0.795	0.202	0.210	0.253
IRM2	0.093	0.731	0.206	0.190	0.266
IRM3	0.089	0.799	0.176	0.201	0.168
IRM4	0.129	0.758	0.220	0.130	0.185
IRM5	0.137	0.728	0.252	0.216	0.167
IS1	0.149	0.182	0.761	0.176	0.184
IS2	0.056	0.205	0.715	0.233	0.193
IS3	0.062	0.202	0.725	0.199	0.205
IS4	0.076	0.226	0.766	0.175	0.098
IS5	0.161	0.183	0.708	0.166	0.244
IT1	0.139	0.115	0.189	0.823	0.204
IT2	0.076	0.207	0.209	0.709	0.226
IT3	0.088	0.176	0.268	0.689	0.109
IT4	0.174	0.199	0.113	0.730	0.151
IT5	0.102	0.191	0.175	0.738	0.194
SR1	0.146	0.224	0.134	0.126	0.776
SR2	0.158	0.168	0.169	0.242	0.683
SR3	0.112	0.160	0.330	0.229	0.700
SR4	0.078	0.218	0.173	0.145	0.753
SR5	0.110	0.205	0.162	0.183	0.723
EMI1	0.819	0.092	0.087	0.075	0.120
EMI2	0.803	0.123	0.123	0.099	0.144
EMI3	0.812	0.039	0.092	0.106	0.103
EMI4	0.793	0.127	0.048	0.144	0.109
EMI5	0.821	0.070	0.077	0.078	0.037

Table 3.15 Rotated Component Matrixa

3.6 Data Collection

The data collection for this study was done mainly through the Personnel Office of BGSU, where a list of BGSU faculty and staff was obtained. A list and number of

each faculty member were made to ensure that everyone had an equal chance of being selected. Using a random sampling method, 400 faculty members were randomly selected. The selected faculty members were contacted via e-mail to inform them about the purpose of the study, its importance, and the contribution of participation to the study. Clear survey instructions and a confidentiality statement to ensure that the privacy of the participants were provided. To increase participation, incentives were used, such as offering a commitment to participate in feedback on the results of the study. The questionnaires were distributed from September 1, 2023 to December 1, 2023. 400 electronic questionnaires were distributed and 398 were recovered. After screening the questionnaires, 2 questionnaires that were not received were treated as null and void, resulting in 398 valid questionnaires.

3.7 Data Analysis

3.7.1 Descriptive Statistics

The software used in the descriptive statistics included Excel and SPSS, and the statistical analysis on the mean, standard deviation, percentage, normal distribution, kurtosis value, and skewness value were mainly conducted on the demographic characteristics of sample. Descriptive statistics provided basic support for further analysis of the data.

3.7.2 Factor Analysis

Exploratory factor analysis was conducted on the survey data through SPSS to extract common factors and determine the common dimensions of marketing strategy. The reliability and validity of the constructed model were determined, which provided a theoretical basis for the improvement of the marketing strategy system.

3.7.3 Pearson Correlation

This study used Pearson correlation analysis to explore and quantify the role of the independent variables and the degree and direction of their respective influence on the dependent variable.

Chapter 4 Findings and Discussion

4.1 Findings

In this study, data were collected by means of questionnaires and 398 valid questionnaires were collected. The data were analyzed for reliability and validity. It was found that the collected data had reliability and validity and could be analyzed by correlation analysis and descriptive statistics. In this study, descriptive statistical analysis and correlation analysis were performed on the relevant data. The analyses were done to understand the relationship between the variables.

4.1.1 Demographic Characteristics of Participants

In the survey, a total of 398 valid questionnaires were collected from the faculty and staff of Beijing Technology and Business University. For the gender aspect of the sample, it was found that the sample of the study was 206 males, accounting for 51.8%, and 192 females, accounting for 48.2%. Figure 4.1(a). The survey on the age of the sample shows that participants of 18-34 years old is 171 with 43%, participants of 35-44 years old is 27 with 3.9% and participants of 45-54 years old is 100 with 25.1%. Figure 4.1(e).Regarding educational qualification of the sample, the survey shows that participants with a bachelor's degree is 247 (62.1%), the master's degree is 137 (34.4%), and higher than the master's degree is 14 (3.5%). Figure 4.1(b). Regarding job position, operation category is 180, accounting for 45.2%, manager/senior category is 74, accounting for 18.6%, lecturer/instructor category is 47, accounting for 11.8%, and other categories is 97, accounting for 24.4%. Figure 4.1(c). Regarding work experience, participants with less than/or equal to 5 years of tenure is 61, or 15.3%, participants with 6-10 years of tenure is 139, or 34.9%, participants with 11-15 years of tenure is 186, or 46.7%, participants with 16 years and over of tenure is 12, or 3.0%. Figure 4.1(d).

Item	Options	Frequency	Percent%
Male		206	51.8
Genuer	Female		48.2
	Bachelor's degree	247	62.1
Education	Master degree	137	34.4
	Higher than the Master's degree	14	3.5

Table 4.1 Distribution of Characteristics of Sample (N = 398)

	Operation	180	45.2
Desition	Manager/senior	74	18.6
Position	Lecturer/instructor	47	11.8
	Other	97	24.4
T	Less than/or equal to 5	61	15.3
	Between 6-10	139	34.9
Tenure	Between 11–15	186	46.7
	16 and over	12	3.0
	18-34	171	43.0
Age	35-44	127	31.9
	45-54	100	25.1
Total		398	100.0



Figure 4.1 Distribution of Demographic Characteristics of Sample

Descriptive statistics can provide a more intuitive measure of the sample as a whole. The mean and standard deviation are generally two important indicators of descriptive statistics for an overall sample. The standard deviation reflects the relative dispersion of the data in the overall sample, while the mean reflects the concentration of the sample on a particular concept or underlying situation. The means of the five questions of information planning are 3.48, 3.50, 3.54, 3.38, and 3.46. The differences in each question indicate that the measurement of each question was relatively evenly. Based on the analysis, the means for each of the variables-information resources management, information security, information technology teams, and systems and regulations—range from 3.3 to 4.0. This indicates that the measurement of each question is relatively homogeneous. Skewness is used to measure the symmetry of the data distribution. A normal distribution has a skewness of 0. If skewness > 0, it is positively skewed, with the long tail on the right side; if skewness < 0, it is negatively skewed, with the long tail on the left side. Kurtosis represents how densely the data lies on the mean and is used to describe how sharp or flat the data distribution is. A kurtosis > 0 is a high kurtosis, which indicates a steeper, more pointed peak shape than a normal distribution and vice versa. According to the results of the analysis, the mean, skewness, and kurtosis meet the requirements, See Table 4.2. The research data meet the normal distribution and are suitable for correlation analysis.

Items	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
IP1	1	5	3.48	1.206	-0.581	-0.544
IP2	1	5	3.50	1.193	-0.612	-0.374
IP3	1	5	3.54	1.148	-0.539	-0.267
IP4	1	5	3.38	1.073	-0.550	0.107
IP5	1	5	3.46	1.098	-0.476	-0.127
IRM1	1	5	3.47	1.144	-0.436	-0.345
IRM2	1	5	3.59	1.053	-0.650	0.202
IRM3	1	5	3.59	1.154	-0.740	0.012
IRM4	1	5	3.67	1.181	-0.768	-0.035
IRM5	1	5	3.50	1.170	-0.787	-0.066
IS1	1	5	3.60	1.376	-0.608	-0.818
IS2	1	5	3.56	1.207	-0.776	-0.194
IS3	1	5	3.39	1.082	-0.481	-0.127
IS4	1	5	3.54	1.082	-0.643	0.155
IS5	1	5	3.62	1.142	-0.707	-0.219
IT1	1	5	3.57	1.247	-0.592	-0.543
IT2	1	5	3.48	1.155	-0.396	-0.742

Table 4.2 Descriptive Statistics of Variables

IT3	1	5	3.65	1.294	-0.572	-0.806
IT4	1	5	3.47	1.119	-0.554	-0.323
IT5	1	5	3.54	1.191	-0.552	-0.510
SR1	1	5	3.64	0.951	-0.239	-0.323
SR2	1	5	3.66	1.020	-0.226	-1.003
SR3	1	5	3.80	1.327	-0.671	-0.800
SR4	2	5	3.68	0.858	0.136	-0.867
SR5	1	5	3.99	1.187	-0.758	-0.665
EMI1	1	5	3.76	1.113	-0.688	-0.202
EMI2	1	5	3.69	1.085	-0.450	-0.552
EMI3	1	5	3.74	1.138	-0.640	-0.565
EMI4	1	5	3.68	1.154	-0.416	-0.935
EMI5	1	5	3.81	1.119	-0.686	-0.400
EMI6	1	5	3.81	1.062	-0.519	-0.655

4.1.2 Correlation Analysis

If the correlation analysis detects the existence of a dependent relationship between the variables, the direction and degree of correlation between the variables can be further explored as indicators. In order to measure the degree of correlation between the variables, correlation analysis is usually required. Pearson's coefficient is generally used to test the correlation between the variables, the coefficient of the range between -1 and 1 greater than 0 means positive correlation, less than 0 means negative correlation, the absolute value of the closer to 1, that is, the greater the correlation. In the study, the correlation coefficient is usually expressed as r. When the correlation coefficient is less than $r \le 0.3$, it means that there is no linear correlation between the two variables; when the correlation coefficient is $0.3 < r \le 0.5$, it means that the linear correlation between the variables is low; when $0.5 < r \le 0.8$, it means that the correlation between the two variables is significant; when 0.8 < r, it means that the two variables have high linear correlation.

Table 4.3 Correlation Value Standard

	Value	Correlation
Correlation Value (r)	r≤0.3	No linear correlation
	0.3 <r≤0.5< td=""><td>Low linear correlation</td></r≤0.5<>	Low linear correlation
	0.5 <r≤0.8< td=""><td>Significant correlation</td></r≤0.8<>	Significant correlation
	0.8 <r< td=""><td>Highly linear correlation</td></r<>	Highly linear correlation

According to the correlation analysis, it can be seen that the correlation coefficient between the informatization of education management of BITU and informatization planning, information resources management, information security, information technology teams, systems and regulations has a correlation coefficient between 0.295 and 0.568. This indicates that each of the two variables are significantly correlated while P < 0.01. See Table 4.4.

	IP	IRM	IS	IT	SR	EMI
IP	1	.568**	.528**	.568**	.300**	.485**
IRM	.568**	1	.543**	.551**	.295**	.432**
IS	.528**	.543**	1	.535**	.320**	.453**
IT	.568**	.551**	.535**	1	.331**	.475**
SR	.300**	.295**	.320**	.331**	1	.468**
EMI	.485**	.432**	.453**	.475**	.468**	1

Table 4.4 Correlation Between Variables (Pearson Correlation Matrix)

NOTE: *. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed). IP is Informatization Planning. IRM is Information Resources Management. IS is Information Security. IT is Information Technology Teams. SR is Systems and Regulations. EMI is Education Management Informatization

The Pearson correlation coefficient between informatization planning and information resources management is 0.568, and P < 0.01, indicating that there is a correlation between informatization planning and information resources management, and it is a general correlation.

The Pearson correlation coefficient between informatization planning and information security is 0.528, and P < 0.01, indicating that there is a correlation between informatization planning and information security, and it is a general correlation.

The Pearson correlation coefficient between informatization planning and information technology teams is 0.568, and P < 0.01, indicating that there is a correlation between informatization planning and information technology teams, and it is a general correlation.

The Pearson correlation coefficient between informatization planning and systems and regulations is 0.300, and P < 0.01, indicating that there is a correlation between informatization planning and systems and regulations, and it is a general correlation.

The Pearson correlation coefficient between informatization planning and education management informatization is 0.485, and P < 0.01, indicating that there is a correlation between informatization planning and education management

informatization, and it is a general correlation.

The Pearson correlation coefficient between information resources management and information security is 0.543, and P < 0.01, indicating that there is a correlation between information resources management and information security, and it is a general correlation.

The Pearson correlation coefficient between information resources management and information technology teams is 0.551, and P < 0.01, indicating that there is a correlation between information resources management and information technology teams, and it is a general correlation.

The Pearson correlation coefficient between information resources management and systems and regulations is 0.295, and P < 0.01, indicating that there is a correlation between information resources management and systems and regulations, and it is a general correlation.

The Pearson correlation coefficient between information resources management and education management informatization is 0.432, and P < 0.01, indicating that there is a correlation between information resources management and education management informatization, and it is a general correlation.

The Pearson correlation coefficient between information security and information technology teams is 0.535, and P < 0.01, indicating that there is a correlation between information security and information technology teams, and it is a general correlation.

The Pearson correlation coefficient between information security and systems and regulations is 0.320, and P < 0.01, indicating that there is a correlation between information security and systems and regulations, and it is a general correlation.

The Pearson correlation coefficient between information security and education management informatization is 0.535, and P < 0.01, indicating that there is a correlation between information security and education management informatization, and it is a general correlation.

The Pearson correlation coefficient between information technology teams and systems and regulations is 0.331, and P < 0.01, indicating that there is a correlation between information technology teams and systems and regulations, and it is a general correlation.

The Pearson correlation coefficient between information technology teams and education management informatization is 0.475, and P < 0.01, indicating that there is a correlation between information technology teams and education management informatization, and it is a general correlation.

The Pearson correlation coefficient between systems and regulations and education management informatization is 0.468, and P < 0.01, indicating that there is a correlation between systems and regulations and education management informatization, and it is a general correlation.

Therefore, according to the results of data analysis, informatization planning has a significant positive effect on the education management informatization of Beijing Technology and Business University. Hypothesis H1 holds. Information resources management has a significant positive effect on the education management informatization of Beijing Technology and Business University. Hypothesis H2 holds. Information security has a significant positive effect on the education management informatization of Beijing Technology and Business University. Hypothesis H3 holds. Information technology teams have a significant positive effect on the education management informatization of Beijing Technology and Business University. Hypothesis H4 holds. Systems and regulations have a significant positive effect on the education management informatization of Beijing Technology and Business University. Hypothesis H4 holds. Systems and regulations have a significant positive effect on the education management informatization of Beijing Technology and Business University. Hypothesis H5holds.

4.2 Discussion

4.2.1 Informatization Planning has a Significant Positive Effect on Education Management Informatization of Beijing Technology and Business University

The effect of informatization planning on education management informatization was obtained through the study of Pearson correlation coefficient. The Pearson correlation coefficient between informatization planning and education management informatization is 0.485 and P < 0.01, indicating that there is a correlation between informatization planning and education management informatization, and it is a general correlation. Through Pearson correlation, it can be seen that informatization planning has an impact coefficient of 0.485 for education management informatization and the effect is significant. Therefore, it can be concluded that informatization planning

positively influences the education management informatization of Beijing Technology and Business University

4.2.2 Information Resources Management has a Significant Positive Effect on

Education Management Informatization of Beijing Technology and Business

University

By analyzing the data of the study, it was found that information resources management positively influences the education management informatization of Beijing Technology and Business University. The Pearson correlation coefficient between information resources management and education management informatization is 0.432, and P < 0.01, indicating that there is a correlation between information resources management and education management informatization, and it is a general correlation.

4.2.3 Information Security has a Significant Positive Effect on Education

Management Informatization of Beijing Technology and Business University

By analyzing the data of the study, it was found that information security positively influences the education management informatization of Beijing Technology and Business University. The Pearson correlation coefficient between information security and education management informatization is 0.535, and P < 0.01, indicating that there is a correlation between information security and education management information.

4.2.4 Information Technology Teams have a Significant Positive Effect on

Education Management Informatization of Beijing Technology and Business

University

By analyzing the data of the study, it was found that information technology teams positively influence the education management informatization in Beijing Technology and Business. The Pearson correlation coefficient between information technology teams and education management informatization is 0.475, and P < 0.01, indicating that there is a correlation between information technology teams and education management information technology teams and education management informatization.

4.2.5 Systems and Regulations have a Significant Positive Effect on Education

Management Informatization of Beijing Technology and Business University

By analyzing the data of the study, it was found that systems and regulations positively influence the education management informatization of Beijing Technology and Business University. The Pearson correlation coefficient between systems and regulations and education management informatization is 0.468, and P < 0.01, indicating that there is a correlation between systems and regulations and education management informatization.

NO.	Hypothesis	Result
H1	Informatization planning has a significant positive effect on	Established
	the education management informatization of Beijing	
	Technology and Business University.	
H2	Information resources management has a significant positive	Established
	effect on the education management informatization of Beijing	
	Technology and Business University.	
H3	Information security has a significant positive effect on the	Established
	education management informatization of Beijing Technology	
	and Business University.	
H4	Information technology teams have a significant positive	Established
	effect on the education management informatization of Beijing	
	Technology and Business University.	
Н5	Systems and regulations have a significant positive effect on	Established
	the education management informatization of Beijing	
	Technology and Business University.	

Table 4.5 Hypothesis Test Results

Chapter 5 Conclusion and Recommendation

5.1 Conclusion

Based on the governance theory and the Education Management Theory, this study delved into the influencing factors of the education management informatization of Beijing Technology and Business University. Through a literature review, a research model was proposed. Subsequently, data were collected through a questionnaire, with 400 questionnaires distributed and 398 valid responses received. SPSS was used to analyze the relationships between variables. The research results indicate that informatization planning, information resource management, information security, information technology teams, and systems and regulations have effects on education management informatization.

Informatization planning plays a crucial role in education management informatization, with its scientific nature and execution serving as a strategic guide for achieving informatization goals. The effectiveness of information resources management is the foundation of education management informatization, significantly enhancing informatization through resource integration and sharing. Information security provides support for the informatization process, ensuring data security and system stability through technical and managerial measures. The professional competence and organizational coordination ability of the teams influence the implementation effect of informatization construction, reflecting the core role of human resources in informatization. The systems and regulations provide institutional support for education management informatization, promoting the smooth development of informatization work through clear policies, procedures, and behavior.

This study validates all the proposed hypotheses, demonstrating that the key factors influencing education management informatization interact and exhibit synergistic effects. This research provides theoretical support for the informatization practice at Beijing Technology and Business University and offers valuable insights for other universities to advance their education management informatization.

5.2 Recommendation

5.2.1 Strengthen the Informatization Planning

With the introduction of important national documents such as "Education

Informatization 2.0 Action Plan" and "China Education Modernization 2035", as well as the National Education Conference and the National Undergraduate Education Conference, the development of university education informatization is ushering in a once-in-a-century opportunity. Universities should unify the thought, update the idea, deepen the understanding, and always put the information in the strategic position of the school development, and view this problem from a strategic height. Secondly, through the reorganization and process reengineering, the boundary problem of the university information work is clarified, the function positioning of the university information institutions is clarified, and the responsibility and right problems in the information construction are clarified. In addition, it is necessary to clarify the important role of education management informatization in the process of realizing the "modernization of university governance system and governance capacity", take the modernization of university governance as the starting point and foothold, and improve the top-level design of university education management informatization. Universities can strengthen the design at the top level, formulate the university education informatization planning respectively, implement the action plan of deepening education and teaching innovation under the support of information technology, and further clarify the measures to promote the improvement of school education governance ability with education management informatization in the planning and plan.

5.2.2 Integrate the Management Information Resources

(1) Build School-Level Data Standards

Currently, the operational data in most Chinese universities suffer from issues of "non-existence, non-utilization, inaccuracy, and superficial accuracy," making it difficult to ensure the timeliness, effectiveness, authority, and precision of information acquisition. Consequently, the informatization construction of universities necessitates the unification of technical development standards and the establishment of public service platforms to aggregate information resources from various departmental application systems. This will enable orderly data flow and global sharing, thereby guaranteeing data accuracy, completeness, and consistency. By constructing a big data platform to aid decision-making support and reinforcing data-driven approaches, universities have integrated the management of intangible and tangible state-owned assets. This has preliminarily achieved optimal resource allocation and management in terms of resource inventory, circulation, evaluation, service quality, and other aspects.

(2) Organize the Existing Services and Conduct the Process Reengineering

"Informatization" does not lie in the information technology itself, but rather in the reorganization of information and business process reengineering. Business process reengineering involves fundamentally rethinking and thoroughly redesigning an organization's operational processes to achieve significant improvements in effectiveness, efficiency, and productivity, enabling the organization to maximize its adaptability to the modern environment characterized by service recipients, competition, and change. Universities should innovate their administrative service models, strengthen coordination and guidance among departments, enhance the awareness of "service," and simplify and streamline business processes. The informatization construction of education management in universities should be guided by integrated applications, with a core focus on serving teachers and students. By optimizing business processes, it is imperative to fully leverage the leverage value of informatization in education management for the "governance system" of universities.

5.2.3 Strengthen the Information Security Management

To safeguard students from becoming victims of digital memory misuse, university administrators ought to diligently establish and refine a comprehensive data security framework for students. Firstly, during data transmission, universities must ensure that student data is not illegally or unethically collected, shared, or utilized. In the dissemination and utilization of data, universities are compelled to effectively fulfill their obligations of notification, consent, and security. Secondly, universities should establish and enhance policies and regulations governing educational data management, such as stipulating the storage and usage durations for different types of data and establishing dedicated data review bodies to oversee the entire application process of educational data. Thirdly, universities can continuously upgrade traditional data protection technologies (including identity authentication, information encryption, firewalls, virus detection, access thresholds, and anonymous obfuscation processes), while actively researching and developing emerging data protection technologies (such as blockchain technology and data desensitization techniques), thereby safeguarding educational data security from a technological standpoint. Lastly, universities must strengthen penalties for data theft and information leakage, and refer individuals and organizations that illegally sell or trade educational data for improper gain to judicial authorities for legal disposition.

It is worth noting that in the era of big data with the increasingly complex network environment and the increasing difficulty of data security protection, it is difficult to work only by a single protection measures. Only multiple measures and combined joint prevention strategies can achieve practical results. For example, in order to protect students' personal information, Marist University in the United States automatically filters out sensitive information that can identify students during data storage, and uses numbers or codes that have no explicit indication. If a student's data is analyzed and mined due to teaching intervention, university must obtain the electronic security keys provided by three different authorized users before the database decryption, so that no one can access the student's data alone. In addition, the university has also set up a review committee to supervise and review the whole process of the collection, storage, mining and application of student data, so as to further ensure the safety of student data. As can be seen from the above, Marist University has adopted four measures: anonymity, data encryption, multiple co-management and special data review to provide multiple umbrellas for student data security.

5.2.4 Strengthen the Development of Information Technology Teams

(1) Attract High-Quality Talents

The construction of education management informatization needs the support of high-quality talents, so universities need to pay attention to the construction of information education management talents. For the existing education management personnel, universities can form partners through "transmission, help and lead", so that those with rich management experience can guide the experience and lack of skills, help them master the information education management skills, learn new knowledge as soon as possible, and improve the overall level of the management team(Jiang, 2013). Universities should also pay attention to the continuing education of existing educational administrators, pay attention to the training of educational administrators, use their spare time to organize them to visit and study in universities and other schools, and exchange and learn experience with other schools. Universities may encourage and support managers to participate in various professional academic activities and exchange activities, obtain the corresponding technical qualification certificates, and constantly improve the level of vocational skills. Universities can also invite information technology experts and information education management talents from other universities to hold special lectures for further guidance and training to further improve the level of education management team.

(2) Scientific Management of the Talent Team

Scientific management of the education management talent team is of great significance to improve the overall quality of the team and promote the healthy development of the talent team. Therefore, universities should also establish a sound talent management mechanism. On the one hand, universities need to improve the employment system of education management departments and implement the competitive employment system. On the other hand, universities also need to improve the performance appraisal and incentive mechanism of educational managers. In the process of implementing performance management for management personnel, the performance assessment indicators should be designed according to the requirements, characteristics and job responsibilities of education management information construction, and the assessment results of various indicators should be linked with the treatment and evaluation, so as to improve the work enthusiasm of management personnel. The assessment of education management personnel should be determined according to the specific level, job responsibilities, generally from the knowledge, GPA, work attitude, work ability, professional ethics, development ability (team awareness, cooperation, learning awareness, etc.).

(3) Strengthen the Ideology of Education Management Personnel

Both university administrators and educators need to enhance their awareness of big data applications. In the era of big data, the application of modern information technologies such as cloud computing and big data has brought immense convenience to people's work and lives, and the implementation of these advanced technologies in educational endeavors has significantly elevated teaching efficiency. Consequently, both university administrators and educators should fully leverage big data and other technologies to refine educational management information systems, aligning them with educational management efforts. Administrators across various university departments should intensify their research on big data technologies and strengthen communication, fully recognizing the positive impact of big data and other modern information technologies on the informatization of university educational management. University administrators should utilize departmental work meetings, teaching and research seminars, and other activities to promote big data technologies, encouraging educators to place greater emphasis on them. On this foundation, efficient educational administrators must also establish a quality management philosophy, centering on quality and grounded in full participation, to form a scientific, rigorous, and efficient quality management system (Cheng, et al., 2019). University educational administrators need to strengthen their understanding of total quality management principles, realizing the role of these advanced management concepts in driving the informatization of university educational management in the big data era. Meanwhile,

when conducting management tasks, universities should also consider the impact of logistical staff and personnel from other departments on the quality of teaching, continually refining management systems to enhance the informatization level and quality of educational management.

(4) Innovate the Employment Model

In the era of big data, the innovative development of university education management informatization needs the support of high-quality information management team. In view of the problems of unreasonable age and title structure and poor stability of the team, universities should reform the selection, training and assessment and salary management system, so as to create a high-level information education management team.

In recent years, the nation has issued several documents aimed at altering the regulation that only academic qualifications are recognized in higher education. Consequently, in the cultivation and assessment of talents in information education management, universities should also align with the needs of national educational reform, fully considering the uniqueness of information education management positions and the demands of management professional development. In terms of talent cultivation, universities should establish a multidimensional evaluation system encompassing quantitative and qualitative indicators that cover job performance and professional proficiency, enabling the assessment system to better reflect the contribution of educational administrators' comprehensive qualities to information management innovation and school educational endeavors.

5.2.5 Improve the Big Data Education Management Systems and Regulations

(1) Establish and Improve the Big Data System

A scientific and reasonable management system serves as a vital safeguard for the implementation of informatization in university education management. Universities need to develop scientific and reasonable information management systems according to their actual development situations and the specific requirements of educational management, and continuously improve and refine them. Firstly, universities should comprehend and fully grasp the actual state of their informatization development, ensuring that the development of the management system meets the requirements for the development of university education management information systems. Secondly,

universities should attach importance to the existing education management system. Although informatization of education management in the big data environment involves the use of massive data information and related data technologies, it essentially continues the original education management work. The original education management system has its necessity (Chen, 2017). Therefore, while building new education management information systems, universities should optimize and improve the original education management system to adapt to the development of education management information in the big data environment and effectively integrate it with the new education management information system, thereby promoting the effective implementation of informatization in university education management. In the process of advancing the informatization of education management, universities should innovate the education management system and mechanism by reconstructing the management system, innovating the overall funding mechanism, establishing incentive and restraint mechanisms, and other measures, to strengthen the in-depth application of informatization in school business management, enabling informatization to elevate the level of school management.

(2) Establish an Accurate and Timely Evaluation System

Universities should create an accurate and efficient evaluation system to assess the level of informatization construction in an impartial and objective way. Higher education institutions must establish clear evaluation objectives and criteria, ensuring that all indicators are specific and measurable. Additionally, universities should employ diversified evaluation methodologies, encompassing student feedback, instructional audits, and peer reviews, among others. A mechanism for periodic evaluations coupled with immediate feedback should be instituted to guarantee that assessment outcomes are swiftly translated into corrective measures.

5.3 Further Study

While this study has revealed the significant impacts of informatization planning, information resource management, information security, the information technology team, and systems and regulations on education management informatization through questionnaire surveys and data analysis, it still has some limitations. Firstly, the study focused solely on Beijing Technology and Business University, resulting in a relatively homogeneous sample source, which may limit the external applicability of the conclusions. Secondly, the study used cross-sectional data for analysis, failing to dynamically examine the long-term changes in the development of education management informatization and the evolutionary trends of its influencing factors.

Additionally, data collection primarily relied on questionnaire surveys, and the subjective judgments of respondents may introduce some bias.

In future research, the scope can be expanded to include different types of institutions (such as vocational colleges, key universities, etc.) to enhance the universal applicability of the conclusions. It is recommended to adopt a longitudinal research design to track the dynamic of education management informatization and explore its long-term impacts and potential causal relationships. The study should further explore other factors in informatization construction, such as cultural atmosphere and technological innovation capability, to improve the understanding of the influence mechanism of education management informatization. Through more comprehensive and in-depth research, more practically valuable theoretical support and practical guidance can be provided for the informatization development of universities.



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Appendix

Dear Sir/Madam,

Thank you for your participation in this questionnaire survey. The survey will be conducted anonymously, and your relevant information will be kept confidential. Thank you again for your cooperation.

Part I :					
1. Gender	□Male	□ Female			
2. Age A 18-3	B 35-44 C 45-	-54 D abo	we 54		
3. Education	1. Bachelor's degree		2. Master degree		
	3. Higher than the Maste	er's degree	4. Other		
4. Position	1. Operation		2. Manager/senior		
	3. Lecturer/instructor		4. Other		
5. Tenure in current position (year)					
	1. Less than/or equal to :	5 🗆	2. Between 6-10		
	3. Between 11–15		4. 16 and over		

Part II: Please judge to what extent you agree with the following statement, please choose the most appropriate option, and mark the corresponding number " $\sqrt{}$ ". The questionnaire used Likert scale, ranging from 1 to 5 in which 1 indicates strongly disagree (or strongly disagree), 2 indicates relatively disagree (or relatively disagree), 3 indicates neutral, 4 indicates relatively agree (or relatively agree), and 5 indicates strongly agree (or strongly agree)

Measuring item	Strongly	Disagree	Neutral	Agree	Strongly
	Disagree				Agree
Informatization Planning					
1. Clear objectives of education					
management informatization planning					
2. Have the long-term goals of					
educational institutions been fully					
considered in the informatization					
planning?					

	-			 -
3. The needs and participation of				
teachers and students are fully				
considered in the planning.				
4. Is the budget of education				
management information reasonable?				
5. Timely adjustment and update during				
the implementation of the plan?				
Information Resources				
Management				
6. Efficient collection and integration				
of information resources?				
7. Is there a clear responsibility and				
authority for information resource				
management?		0		
8. Is the storage and maintenance of				
information resources in line with best	2178	0.		
practices?		446		
9. To what extent does the school utilize	12		7/ 0.	
information resources?				
10. The school regularly evaluates and	-	20		
updates the information resource			69	
management strategy?	2			
Information Security				
11. Is the school's information security	<u>-6 00</u>	1		
policy clear and widely followed?		1		
12. Are there appropriate safety training		10120		
measures to enhance the safety		06		
awareness of teachers and students?		100		
13. Are the protective measures of the	NIV		20	
school information system effective?				
14. Is there a regular security	7777	TOP -		
vulnerability scanning and repair				
mechanism?				
15. Does the school have an emergency				
response plan for potential information				
security threats?				
Information Technology Teams				
16. The information technology team				
has a high level of professionalism				
17. The team can solve technical				
problems in a timely manner.				
<u> </u>	I	1	1	I

			1	1	
18. The information technology team					
has an effective communication					
mechanism to respond to user needs in					
a timely manner.					
19. The information technology team					
has a training plan to ensure that the					
technical level of the team keeps pace					
with The Times.					
20. Team work processes are efficient					
to support the 11 needs of the school.					
Systems and regulations					
21. Does the school's information					
system comply with relevant					
regulations and standards?	dan dan dan s				
22. Are there transparent rules and					
policies for the use of information	216	V 20			
systems?	(D)				
23. Is the management of system access	P		<u>.</u>		
rights effective?					
24. Is there a regular system audit and					
inspection mechanism?					
25. Does the school have clear	E				
punishments and remedial measures for			>>		
system failures and violations?					
Education Management		-	F		
Informatization		4404			
26. The overall implementation of		e le) -	
education management informatization		685			
has achieved good results	N I V				
27. Does the school have a convenient					
online education management system?	777				
28. Are the school's online teaching					
resources adequate and diverse?					
29. Students and teachers are highly					
satisfied with the information					
technology of education management					
30. Does the school have an effective					
data analysis and decision support					
system?					
31. Is there a regular evaluation and					
update of the education management					
information strategy?					