Analysis of the Governance Mode Optimization and the Digital Transformation Path of Chinese Universities

Ning Wei
Gachon University, Seongnam City, Gyeonggi Province, South Korea
DOI: 10.32629/jher.v5i6.3407

Abstract: This paper analyzes the challenges of Chinese university governance model under the new normal of global competition and economic development, and discusses how digital transformation provides new ideas for university governance. The research highlights that traditional Chinese university governance faces issues like lack of transparency in decision-making and inefficient management, while digital transformation offers solutions to optimize resource allocation and enhance decision-making efficiency By leveraging big data analysis and cloud computing technologies, we aim to enhance information openness and transparency. This paper puts forward specific strategies, including the construction of digital governance model framework to adapt to the characteristics of Chinese universities, and through the case analysis of digital transformation of many universities, summarizes the successful factors and model innovation points of digital transformation, providing theoretical support and practical reference for the modernization of governance and digital transformation of Chinese universities.
***Keywords*:** university governance, digital transformation, information technology application, governance optimization

1. Introduction

As education rapidly evolves, the governance system of colleges and universities undergoes significant transformation, rendering the traditional governance model inadequate in meeting the stringent standards of efficiency, transparency, and academic autonomy demanded by the new era. As an emerging governance strategy, digital transformation provides a new perspective and solution for university governance. This paper intends to conduct a thorough analysis of the current state of university governance modelsel in China, discuss how the digital transformation can provide new ideas for the university governance, and build a digital governance model framework adapted to the characteristics of Chinese universities.

While the president responsibility system, implemented under the leadership of the Party committee in Chinese universities, has generally contributed positively to the stable development of colleges and universities, it also reveals issues, such as insufficient transparency in the decision-making process and inefficiencies in management operations. Given the increasingly complex internal and external environments of universities, the traditional governance methods struggle to quickly adapt to changes and make informed, scientific decisions. Furthermore, universities urgently require greater autonomy in academic affairs to foster a thriving academic environment. Digital transformation provides new possibilities for university governance reform through big data analysis, artificial intelligence and other technological means. These technologies can not only optimize resource allocation, enhance decision-making efficiency, and strengthen performance evaluation, but also enhance overall university governance.ance information openness and transparency, and promote the formation of a more democratic, inclusive and mutual-trust governance ecosystem[1].

In the research and discussion section of this paper, we will comprehensively analyze the current situation of university governance model in China, introduce the concept of digital transformation, explore its potential impact on the optimization of university governance model and construct a theoretical framework. Through the combination of quantitative and qualitative methods, research in China's well-known universities as cases, conducting an in-depth analysis of the representative governance digital transformationIn this case study, we compare digital projects among different universities, refine the success factors, and explore model innovation. Based on these results, we propose a digital governance model tailored to the characteristics of Chinese universities, encompassing an information standardization system and the establishment of a data analysis mechanism. Finally, combined with theoretical research and empirical analysis, a comprehensive digital governance model is proposed, aiming to provide theoretical support and practical reference for the governance modernization and digital transformation of Chinese universities.

2. Case Analysis and Path Analysis

When exploring the optimization of the governance model and the digital transformation path of the Chinese university, it is inevitable to involve the digital practice of the governance of each university. First of all, universities need to establish clear digital transformation goals when promoting digital governance practices. Guided by the goal-oriented principle, the transformation aims to enhance governance efficiency, optimize service experiences, and strengthen decision support.rt capabilities. These goals are measured by quantified indicators for follow-up and evaluation. Subsequently, the detailed analysis of the existing governance model provides the basis for the design of digital solutions. This link needs to combine the path of digital transformation, that is, to analyze the bottleneck of traditional governance in universities and the application potential of digital technology, so as to find the innovation points of the model. Digital transformation case comparison table (table 1) to provide empirical basis for this study, by comparing various core technologies in digital projects, highlighting their main achievements, challenges, and so forth, we aim to extract the success factors and model innovations, presenting the similarities and differences in the digital transformation of various colleges and universities, we will guide schools to identify their strengths and weaknesses, thereby aligning with their unique characteristics in developing digital implementation paths.

Table 1. Comparison table of digital transformation cases

Digital case	Affiliated colleges and universities	Implementation year	core technology	The main results	Challenges encountered	Success factors	Mode innovation point
Construction of a smart campus platform	Tsinghua University	2018	Big data analysis, cloud computing	Integrated management information system to improve the campus service efficiency	Data integration is difficult, and the information security is challenging	Advanced IT infrastructure, and a strong faculty team	Build a unified digital service platform and highlight the personalized learning path
Digital resource sharing project	Peking University	2019	Blockchain, the Internet of Things technology	Digital resource sharing degree has been greatly improved	Standardization of data sharing technology across campuses	University alliance cooperation and policy support	Alliance-type digital resource database to guarantee intellectual property rights
Online education curriculum development	Zhejiang University	2017	Artificial intelligence, machine learning	Diversified online courses, covering the different needs of students	High-quality online content production and management	Powerful online education platform, rich course resources	Personalized teaching content recommendation system
Academic research data platform	Shanghai Jiao Tong University	2021	Data mining, and the knowledge graph	Promote scientific research collaboration and knowledge discovery	Professional data processing and analysis capabilities are highly required	And interdisciplinary teamwork, school support	With data as the core and promote interdisciplinary research

3. Research and Discussion

The application of digital technology in university governance has heightened transparency and oversight by enhancing standardization and scientific management. The establishment of data sharing platforms in colleges and universities has achieved openness and transparency in data, and improved the efficacy of information disclosure via network platform publicity. In addition, digitization also enhances the transparency of governance, through the information system. Therefore, colleges and universities ought to establish and refine the system and norms for transparent governance, making clear the content, time frame, and method of disclosure, while enhancing information security protection measures[2].

Digital technology has also improved the decision-making efficiency of the university administrative system. The incorporation of big data analysis tools offers robust data backing for informed decision-making. For example, the "three Education" big data platform of C University has significantly shortened the decision-making time. Emerging technologies such as blockchain and artificial intelligence have a potential for application in smart contract execution and solution evaluation and optimization, improving the level of decision-making automation and intelligence[3].

Digital technology, with its decentralized and connective capabilities, has not only bolstered academic autonomy but also opened up new avenues for scholarly innovation and interdisciplinary collaboration, as seen in its application in fields such as dentistry and energy. Leveraging blockchain technology, a decentralized academic credit system can be established, ensuring data integrity and transparency. This approach aligns with the decentralized nature of blockchain, which prevents data tampering and central control issues. Moreover, the integration of artificial intelligence and big data analytics can significantly enhance research productivity and spur innovation, as these technologies can process vast amounts of data to

uncover insights and trends that drive progress.Colleges and universities need to establish tto adapt to the digital technology management mechanism, grant academic personnel greater autonomy, and encourage them to explore new research directions and teaching modes, establish an open, transparent, and inclusive academic ecosystem, strengthen academic integrity and ethics, to guard against new risks, stimulate academic innovation and improve the quality of talent training and scientific research[4].

4. Conclusion

The innovative development of Chinese universities hinges on the successful execution of their digital transformation initiatives. Universities need to evaluate their own strengths and weaknesses in digital infrastructure, data resources and talents, and set strategic goals for improving teaching quality, optimizing management services, and promoting innovation and entrepreneurship. Specific implementation should encompass developing meticulous plans, clarifying key areas and timelines, and establishing robust organizational structures.upport mechanisms. At the same time, universities should establish an open digital ecosystem, cooperate with external institutions, integrate resources, and expand application scenarios.

Digital transformation is not only the application of technology, but also involves concept renewal and institutional change.Colleges and universities should open up for cooperation, learn from experience, explore diversified transformation paths, pay attention to risk prevention, and ensure data security and ethical norms. With the transformation, China's university governance system will provide strong support for national development and education modernization.

References

[1] Zhao Shuang, Jing Weimin. Evolution of Chinese university governance model and characteristics of The Times [J]. Nankai Journal (Philosophy and Social Sciences edition), 2021:10.

[2] Xie Youngru, Qiu Yi, Zhang Rui, etc. Digital transformation enables the implementation path and evaluation innovation of ideological and political courses in university courses [J]. Audio-visual Education in China, 2022.

[3] Y Zhang, J Wang. Research on influencing factors and path of digital transformation of manufacturing enterprises[D]. Kybernetes the International Journal of Systems & Cybernetics, 2024.

[4] Chang Liang. Progress, comments and Prospect of research on Governance Modernization in China [J]. Education Review, 2021:9.

Author Bio

Ning Wei (1990.08-), Male, Wuhan, Hubei Province, China. Doctor in Gachon University. PhD student in education.