

GOVERNANCE REFORM OF COLLEGES AND DEPARTMENTS IN CHINESE UNIVERSITIES IN THE INTERNET PLUS ERA

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ABSTRACT

The purpose of this study is to investigate how the technology application in the Internet Plus Era could impact the governance reforms of Chinese universities. The study takes a qualitative approach by collecting research data through personal interviews with twenty-six educational leaders from fifteen top research universities in China. The data of the study were analyzed by examining the common codes and emerging themes from the interview data to generate the answers to the research questions. The findings of the study indicated that the university leaders perceived the rapid development of technology offering great opportunities for the university governance reform. As part of the governance reform effort, programs of different disciplines need to seriously consider for integration in sharing a big dataset. In the technological development era, the university leaders also urged for practically implementing the authority decentralization policy and the close collaboration between administrative and academic staffs. Recommendations are offered by the researchers to foster university governance reforms in the Internet Plus Era.

INTRODUCTION

“Internet Plus” is a concept first brought up in the Chinese Government Work Report of March, 2015. The Chinese Government made it as a proposal to promote the integration of Internet technology with traditional businesses and industries with the support and encouragement of the Chinese Government. The purpose was to take full advantage of the rapid technology development to booster the growth of businesses and industries to catch up with the world standard. This technological movement as described by the Chinese Government as the “Internet Plus Era” has swept through all levels of higher education in China. With the rapid development and in-depth application of social informatization, internationalization of higher education and organization networking in the Internet Plus Era, profound changes have taken place in higher education in the management and organization of discipline construction, personnel training and scientific research innovation. As a result, industries, universities and research units have worked together collaboratively to educate high caliber talents to meet the social needs. Some universities have started to usher in a new stage of colleges and departments governance to promote the integration of disciplines (Allen & Mintrom, 2010; Birnbaum, & Edelson, 1989). In recent years, Chinese universities have taken the initiative to adapt to the changes in internal and external situations and actively promoted the reform and innovation of colleges and departments governance to meet the challenges of the Internet Plus Era (Xiao, 2017). Centering on the reform measures of “promoting the decentralization of authorities in university governance” and “pluralistic and co-governance”, many universities in China have experienced some initial success while at the same time faced many difficulties and challenges (King, 2013; Xiao, 2017). Therefore, China’s high-level research universities have taken the lead in the reform of their governance systems particularly at the college and the department levels. This study is intended to investigate the practices of college and department governance reforms in China’s first-class universities, the challenges facing them and their ways of overcoming the difficulties in an Internet Plus Era.

REVIEW OF LITERATURE

Governance and Stakeholders of Chinese Universities

Yuan (2012) declared that the charters and the rules of Chinese universities need to be straightly followed and supported by establishing an effective governance system. To reflect on the same point, Liu (2015) and Qin (2013) also claimed that the direction of the governance activities needs to be developed to achieve the university goals. In developing the university governance system, it is essential to stipulate the assignment of responsibilities and the procedures of stakeholders' participation in administrative and academic decision-making (Ouyang, 2008).

Zhao and Yan (2012) stated that the university stakeholders consisting of the administrative staff, faculty members, students and the university cooperative partners need to develop good interaction among themselves for the governance system to be effective. Student participation in decision-making on matters of students' vital interest is an essential part of the university governance (Chen & Chen, 2013). Furthermore, the deans' role in faculty governance, their administrative decisions and their leadership styles have impact on how the university governance works in China (Ren, 2009).

University Governance Reform through Decentralization of Authority

Many universities in the world have recognized the significance of the faculty role in the university governance and have taken essential steps in the decentralization of authorities to the faculty level. The faculty members and their associated schools and departments are highly respected in the governance organization (Schoorman 2013; Tuchman, 2015). Academic committees and administrative task forces have reserved rooms for faculty participation (Maassen, 2000; Schaeffer, 1991). In her study of university governance, Glass (1980) concluded that faculty members, particularly females and non-tenured faculty members, desired to participate in the decision-making processes. However, Han and Xu (2019) observed that the underlying governance logics of Chinese universities were moving from direct to indirect controls and that despite the increasing university autonomy and academic freedom in some areas, the process of decentralization of authorities within the university governance needed to move faster.

Administrative versus Academic Authorities in Higher Education

For every level of university governance, there exist the conflicts between the teaching staff and the administrative staff. However, the two groups of staff understand well that they need to work collaboratively to achieve high efficiency and effectiveness of the governance unit they serve (Allen & Mintrom, 2010; Birnbaum & Edelson, 1989; Brubacher, 1982). The cooperation between faculty members and administrators on university governance is a significant factor contributing to the success of the governance (Del Favero, 2003; King, 2013). The core of the university governance is the rational allocation of responsibilities and effective operation of diversified entities (Corson, 1960; Wang, 2002; Yuan, 2000). Academic staff are held responsible for academic program development and instructional strategies with specific responsibilities to manage academic matters such as student admission, student evaluation and student graduation requirements (Brubacher, 1982; Jaspers, 1960). On the other hand, administrative staff are specialized in their areas of policy and business expertise such as personnel matters, resources, financial and environmental issues.

Big Data and Discipline Integration

Big data are large or complex datasets that cannot be handled by traditional data-processing application software. They contain information assets characterized by a high volume, velocity,

and variety that require specific technology and analytical methods to be transformed to valuable use (Sagiroglu & Sinanc, 2013). Big data currently have a wide array of uses such as finance, education, research, and business analysis. Specifically in the field of education, Baig, Shuib and Yadegaridehkordi (2020) discovered that researchers have been making use of big data to conduct research in the areas of learner's behavior and performance, modelling and educational data warehouse, improvement in the educational system, and integration of big data into the curriculum. At the same time, they also found that the use of big data has reasonably pushed the university programs of different disciplines to closer collaboration. Many university programs have reorganized themselves to work together to avoid the data management mess and upgrade this process to be more efficient in serving downstream analytics, data science and machine learning (Gerard, Martine, & Pentland, 2014). This management process includes data collection, processing, governing, sharing and analysis (Databricks, 2023).

RESEARCH QUESTIONS

Major Research Question:

How does the technology application in the Internet Plus Era impact the governance reforms of Chinese universities?

Research Sub-Questions:

1. How does technological development impact the decentralization of authorities in Chinese universities?
2. How does technological development impact the program integration in Chinese universities?
3. How does technological development impact the collaboration of administrative and academic staffs in Chinese universities?
4. How do the Chinese university leaders recommend expediting the governance reform process to meet the challenges of the Internet Plus Era?

SIGNIFICANCE OF THE STUDY

With the fast development of technology, universities worldwide have been working hard to quicken their paces to catch up with other universities so that they can stay in the forefront of this development to be competitive. The leading research universities in China have launched their effort to face the technological challenges by undergoing university governance reforms to ensure their operational efficiencies. This study is designed to analyze the governance reform effort of these Chinese universities and understand what they have achieved in internal governance reorganization and what they plan for the future development in this continuous technology developing era. What these Chinese universities are experiencing would serve as good lessons for other universities that are planning to meet similar technological challenges.

METHODOLOGY

Research Design

'Research studies that investigate the quality of relationships, activities, situations, or materials are frequently referred to as qualitative research.' (Fraendel, Wallen & Hyun, 2012, p. 426). Based on the descriptions of Fraendel, Wallen and Hyun (2012), the researchers selected a qualitative approach for conducting this study. In the process of this study, in-depth interviews with research participants were conducted and significant files of the respective academic units of the participating universities were reviewed. The researchers intend to seek for a good understanding of the governance reform

activities in the situational perspectives of Chinese universities and their relationship between governance reform and technology development.

Participants

A total of thirty-five university party secretaries, presidents, vice presidents and deans of schools from fifteen top research universities in China were invited to participate in interviews in this study to solicit their viewpoints on the reform of university governance in the Internet Plus Era. Twenty-six of these university administrators agreed to participate in personal interviews to be conducted in this study. This is a good response percentage (74) of university administrators accepting the invitation to participate in the study.

Data Collection

Permission was secured from the fifteen participating universities to access their file documents to review their archival data relating to the university's history, organization, governance structure, systematic norms and subject cultures needed for this study. All the interviews with the research participants were semi-structured and completely open. They were invited for personal interviews with the researchers to offer their perceptions of possible and needed reforms in the university governance to meet the technological challenges of the Internet Plus Era. In some cases, follow-up interviews were conducted to fully explore the interviewees' personal experiences on the structure, operation mechanism, characteristic experience, contradictions of the colleges and departments and the relationships between school and university (Bradburn et al, 1979). Conversations during the interviews were audio-recorded. Hand notes were also taken of the questions and answers during the interviews for comparative verification purposes.

Data Analysis

To seek for an understanding of the background of the developmental trend of the different current governance systems used within the participating universities, the researchers examined the relevant archived data of the participating university colleges and departments through a careful documentary analysis (Creswell, 2009). The qualitative data collected during the interviews with the university administrators and scholars were audio-recorded and hand-noted. The hand-noted draft and the audio-recorded draft were carefully compared to check out possible discrepancies. Recurring terms and phrases were systematically coded. Analysis of the interview data involved the careful observation of the emerging themes of the key elements of the interview data. The interview data were triangulated with the archived documentary data to ensure consistency to provide answers to the research questions.

FINDINGS

The selected documentary files of the fifteen participating universities were reviewed with the understanding of their historical developments, their missions and goals of establishment, their trends of development and their community supports. Research participants were invited to personal interviews with the researchers to freely express their perceptions on the issue of university governance reforms in the Internet Plus Era in China. The foci of the conversation were on how rapid technology development has impacted university governance reforms and how Chinese universities need to respond through governance reform to meet the challenges of the Internet Plus Era. The qualitative data cited from the university documents and the interviews were consolidated and itemized for analysis. As a result of data analysis, themes emerged from the interview data

through examination of majority consensus and the understanding of the university backgrounds. The major findings of the study are reported as follows in response to the research questions.

The Impact of Technology Development on University Governance Reform

First, the interviewees agreed that the technology development called for shared responsibilities of the administrative and academic staffs of the university as to the specific roles each of them had to play in support of this rapid development. However, most of the interviewees recognized that the different levels of staff under their supervision were unclear about their roles and responsibilities in support of technology development. Clarification of their specific roles and responsibilities has to be made from the university level.

Second, the Chinese government and the stakeholders of universities have called for universities to reform their governance through decentralization of authorities. (The Chinese term is referring to the “sinking of authorities”.) The intent of this effort is to offer opportunities to staff of colleges and departments to participate in decision making. The understanding is that staff at the colleges and departments levels are the backbones of the university operation and that they are in the forefront to make good decisions including technology development in relation to academic growth. However, according to most of the research participants, the effort of authority decentralization in the university governance has started but much has to be done to move forward to achieve the intended “sinking” level. This provides the answer to Research Sub-Question 1: How does technological development impact the decentralization of authorities in Chinese universities?

Third, the trend of social development has demanded universities to prepare multi-talented graduates who are not only experts of their own fields but also are knowledgeable of work in other related fields. Therefore, colleges and departments of universities have many collaborative opportunities to partner with one another to share in their areas of specializations. The building of the big dataset in technology is simply too big a project for any college or department to handle. It makes good sense for colleges and departments to consider academic program integration and collaboration as an attempt of governance reform. Most of the interviewees have observed signs of cooperation among colleges and departments. However, staffs of different colleges and departments need to be encouraged to move toward increased collaboration. This provides the answer to Research Sub-Question 2: How does technological development impact the program integration in Chinese universities?

Fourth, university governance at any level consists of both administrative and academic staffs. While the administrative staffs are usually in the leadership position to take care of policies, strategic planning and business, the academic staffs concentrate on matters relating to program curriculum and instruction particularly concerns for student learning and success. Conflicting interests sometimes exist between them in the daily operation of their work. Many colleges and departments have tried to put the administrative staffs and the academic staffs to work together to make decisions for a common goal. The interviewees agreed that technology development in this Internet Plus Era has offered a golden opportunity for administrative and academic staffs to work towards completing a big dataset project which facilitates the work of both groups. This provides the answer to Research Sub-Question 3: How does technological development impact the collaboration of administrative and academic staffs in Chinese universities?

University Governance Reforms to Meet the Challenges of the Internet Plus Era

In their interviews with the researchers, the research participants examined the impact of technology development in the Internet Plus Era on university governance reform efforts. They were able to identify the loopholes of the governance reforms and expressed their concerns. They

recommended a quicker pace of university governance reforms to catch up with the rapid technology development. They proposed the following strategies to reform the university governance:

- To re-examine the university goals, charters, rules and regulations at all levels to specifically assign technology responsibilities to staffs of colleges and departments.
- To solidify the procedures of decentralization to empower staffs of colleges and departments to make decisions on technology development for the best benefit of their respective units.
- To seriously consider program integration and collaboration to take the best advantage of big dataset in the Internet Plus era. Discipline barriers need to be overcome.
- To organize technology committees and taskforces at all levels to consist of both administrative and academic staffs in determining the best approach to adopt the latest technology development to facilitate the work of each other.

This provides the answer for Research Sub-Question 4: How do the university leaders recommend expediting the governance reform process to meet the challenges of the Internet Plus era?

In answering the Major Research Question: “How does the technology application in an Internet Plus era impact the governance reforms of Chinese universities?”, the answers to all the Research Sub-Questions are summarized. The interviewees in the study agreed that technological development in the Internet Plus Era had a significant impact on the university governance reform. It has helped to expedite the governance reform process of program integration, decentralization of authorities and collaboration of administrative and academic staffs of all university levels.

DISCUSSION

The analysis of data has yielded significant findings relating to technology development and university governance worthy of discussion. Some of these significant findings do reflect on the findings of previous literature on university governance.

Ouyang (2008) claimed that in developing the university governance system, it is essential to stipulate the assignment of responsibilities and the procedures of stakeholders’ participation in administration and academic fields. The interviewees in this study also recognized that the different levels of staff under their supervision were unclear about their roles and responsibilities in support of technology development. Governance reforms need to be made to clarify their roles and responsibilities in the management of technology.

Han and Xu (2019) pinpointed that even university autonomy and academic freedom in some areas of Chinese universities were increasing, the process of decentralization of authorities within the university governance remained slow. The findings of this study are in agreement with Han and Xu. The consensus of the research participants in this study indicated that the effort of authority decentralization in the university governance needed to move forward to achieve the intended “sinking” level.

Most of the interviewees in this study have observed that staffs of different colleges and departments need to be encouraged to move toward increased collaboration and program integration as part of the university governance reform in the Internet Plus Era. This is in alignment with Baig, Shuib and Yadegaridehkordi (2020) who discovered that the use of big data has reasonably pushed the university programs of different disciplines to closer collaboration. Many university programs have worked together to avoid the data management mess and upgrade this management process to be more efficient (Gerard, Martine, & Pentland, 2014).

The cooperation between faculty members and administrators on university governance is a significant factor contributing to the success of the university (Del Favero, 2003; King, 2013). The findings of this study also agreed that technology development in this Internet Plus Era has offered great opportunities for administrative and academic staffs to work towards completing a big dataset project to benefit the university, the programs and the students.

RECOMMENDATIONS TO FIELD PRACTITIONERS

In order to meet the needs of the Internet Plus and digital era for the modernization of university education, the organizing models of university teaching and research must be reformed. This reform will lead to the reconstruction of multi-dimensional governance systems such as knowledge production, discipline structure, resource allocation, personnel ownership, and soft and hard environment.

It is recommended that big data platforms of interconnection be constructed, opened and shared for different colleges and departments. Furthermore, interdisciplinary organizations with deep integration of different disciplines could be developed to become academic communities with multi-dimensional and extensive interaction among stakeholders and inter-disciplinaries. The big datasets of artificial intelligence could promote the modernization of the colleges and departments governance systems to multi-dimensions and stimulate the development of academic ecology of the university.

The reform of the university governance has been underway for a while. However, the reform process has not been kept up to the speed as anticipated. It is recommended that a supervisory body of independent authority be established within the governance system to check on the reform progress in this Internet Plus Era on a regular time basis and colleges and departments should be held responsible for self-evaluation of the validity and functionality of their innovation mechanism and commitments.

RECOMMENDATIONS FOR FUTURE STUDIES

The impact of technology on the development of higher education is imminent. It offers significant challenges to educational planners of higher education worldwide. Universities could consider reorganizing their internal governance structure to meet the needs of these challenges in the Internet Plus Era. Much research is needed to explore the possibilities to help educational planners for their decision-making.

First, a similar study to explore the impact of technology on university governance can be conducted with participants selected from the teaching and administrative staffs. Since they are in the forefront of the daily operation of the university, they could offer insightful opinions from different perspectives.

Second, preliminary studies can be designed to examine the effects of an experimental reorganization of university governance structure. Observations can be made to how the process of the reorganization works in terms of efficiency and effectiveness.

Third, governance reorganization can be piloted by employing different models with different colleges and departments or programs in participation. A comparative study can be designed to investigate how each governance reorganization model works in meeting the challenges of technology development.

Fourth, the impact of technology development on the governance of a research university and a teaching university could be different. Studies can be conducted in comparing the extent of technology impact on the governance reorganization of the two types of universities.

IMPLICATIONS TO EDUCATIONAL PLANNING

It should be noted that due to the different missions, strategic positioning, historical perspectives, cultural traditions and developmental stages of different universities, the reform effort of governance systems of one university may undergo different formats and follow different steps from other universities. The findings of this study about the governance reforms in Chinese universities in this Internet Plus Era could serve as good references for other universities in the world. Educational planners of higher education worldwide could learn from the Chinese experiences in tailoring their governance reform effort to reflect the characteristics of their own universities. On the contrary, Chinese universities could also draw inspiration from the governance reform experience of other world-class universities, such as Harvard and MIT, and learn from their useful practices.

CONCLUSIONS

The findings of this study have disclosed the interviewees' perceptions of Chinese university governance reforms in light of the Internet Plus Era. The interviewees have clearly made their governance reform recommendations in labelling the specific technological roles and responsibilities of the staffs, decentralization of decision-making authorities, integration of academic disciplines and collaboration of administrative and academic staffs.

The researchers believe that the ideal governance model of colleges and departments is an academic mission-oriented, fully understood consensus by universities and colleges and departments, joint participation of multiple stakeholders, and an organic whole of scientific decision-making. However, such an ideal governance model is difficult to achieve because the backgrounds of universities are different and the university leaders hold their different beliefs. While the future impact of the Internet Plus Era will continue, future planning effort in university governance reform should aim at realizing the university mission through the strategies of balance, harmony, efficiency and fairness of roles and responsibilities.

REFERENCES

- Allen, A., & Mintrom, M. (2010). Responsibility and school governance. *Educational Policy*, 24(3), 439-464.
- Baig, M. I., Shuib, L., & Yadegaridehkordi, E. (2020). Big data in education: A state of the art, limitations, and future research directions. *International Journal of Educational Technology in Higher Education*, 17, 23-44.
- Birnbaum, R., & Edelson, P. J. (1989). How colleges work: The cybernetics of academic organization and leadership. *The Journal of Continuing Higher Education*, 37(3), 27-29.
- Bradburn, N. M., Sudman, S., & Associates (1979). *Improving interview method and questionnaire design*. Jossey-Bass Publishers.
- Brubacher, J. S. (1982). *On the philosophy of higher education*. Jossay-Bass, Inc.
- Chen, X., & Chen, J. (2013). A review of foreign university governance research. *Journal of Shanxi Normal University: Social Science Edition*, (2), 146-150.
- Corson, J. J. (1960). *The governance of college and universities: Modernizing structure and processes*. McGraw-Hill.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. (3rd ed.) Sage.
- Data management 101 on databricks* (2023). Databricks Inc. <https://www.databricks.com/resources/ebook/data-management>
- Del Favero, M. (2003). Faculty-administrator relationships as integral to high-performing governance systems new frameworks for study. *American Behavioral Scientist*, 46(7), 902-922.
- Gerard, G., Martine, R. H., & Pentland, A. (2014). Big Data and Management. *Academy of Management Journal*, 57(2),321-333.
- Glass, M. B. (1980). *A study of faculty perceptions regarding participation in college governance*. Texas Southern University, Texas.
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education*. (8th ed.) McGraw Hill.
- Han, S., & Xu, X. (2019). How far has the state 'stepped back': An exploratory study of the changing governance of higher education in China (1978-2018). *The International Journal of Higher Education Research*, 78(5), 931-946. (ERIC Document No. EJ1233204)
- Jaspers, K. T. (1960). *The idea of the university*. Eclinish Publishing.
- King, C. J. (2013). Tailoring shared governance to the needs and opportunities of the times. University of California, Berkeley. <http://files.eric.ed.gov/fulltext/ED545204.pdf>, 2013.
- Liu, X. (2015). *Advanced lecture on educational research methods*. Huazhong University of Science and Technology Press.
- Maassen P. (2000). The changing roles of stakeholders in Dutch university governance. *European Journal of Education*, 35(4), 449-464.
- Ouyang, G. H. (2008). From university autonomy to university governance: On the modern transformation of academic operation. *Educational Research and Experiment*, 2008(2), 45-50.

- Qin, H. (2013). Improvement of university governance structure under the influence of Internet public opinion. *China Higher Education Research*, 2013(5), 21-25.
- Ren, C. (2009). *Research on the role conflict of the president of China*. Huazhong University of Science and Technology.
- Sagiroglu, S., & Sinanc, D. (2013). *Big data: A review*. International Conference on Collaboration Technologies and Systems (CTS), San Diego, CA, USA, 2013. doi: 10.1109/CTS.2013.6567202.
- Schaeffer, M. A. (1991). *The state college academic senate: Architect or artifact of faculty governance*. Teachers College, Columbia University.
- Schoorman, D. (2013). Resisting the unholy alliance between a university and a prison company: Implications for faculty governance in a Neoliberal context. *Cultural Studies: Critical Methodologies*, 13(6), 510-519.
- Tuchman, G. (2015). The rise and decline of faculty governance: Professionalization and the American university. *Contemporary Sociology: A Journal of Reviews*, 44(6), 800-810.
- Wang, Y. (2002). The basic characteristics of modern university system. *Higher Education Exploration*, 2002(1), 13-18
- Xiao, H. (2017). *Models of school governance in research universities – A case study of Tsinghua University*. Tsinghua university press, China.
- Yuan, B. (2012). Modern university system, university regulations and university governance. *Exploration and Contention*, 2012(4), 69-72.
- Yuan, G. (2000). Establishing modern university system to promote reform and development of higher education. *Journal of National Institute of Advanced Education*, 2000(2), 23-26.
- Zhao, Z., & Yan, S. (2012). *From governance to good governance: Research on university governance from the perspective of ecology*. Suzhou University Press.