

# Bibliometric Analysis on Legislation to Improve Higher Education Governance Capacity

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**Abstract.** This bibliometric analysis delves into the role of legislation in enhancing higher education governance capacity, with a focus on China. The study examines the evolution and impact of legal frameworks on higher education institutions, shedding light on the complexities and dynamics of law compliance and defiance. Using bibliometric analysis, this research explores relevant publications, identifies research gaps, and offers insights into the broader field of law governing higher education. The result of this study presented main theories, and The role of law in higher education governance, and the research topics for further research.

**Keywords:** Legislation, Higher Education Governance, Bibliometric Analysis

## 1 Introduction

When look back to 1980s, China has two strategies for education reform. The first involves introducing market forces to stimulate change and competition. The second strategy utilizes legislation to regulate the resulting social changes. In the mid-1990s, China emphasized governing by law, enshrining this principle in its constitution in 1999. However, both governmental and non-governmental actors, including schools, students, and parents, frequently defy education-related laws. Numerous studies on social change and education in countries like Brazil, Japan, the US, and the UK have explored the role of law in education reform (e.g., Boakari, 1994; National Council on Educational Reform Government of Japan, 1988). However, these studies often overlook the unique complexities of China's context.

While some research has examined various change drivers and multidisciplinary frameworks, few have addressed law's specific role in China's education reform. Some studies, including those by Birch and Richter (1990) and DeMitchell and Fossey (1997), have shed light on the role of law in China's education reform but have not fully explained the dynamics of law compliance and defiance, the interactions between government and non-government entities, and the historical factors shaping legal compliance in China.

This study is design to look in to the field of laws to improve higher education governance capacity in China. This study used bibliometric analysis to dive into the revlent publications, to find out the role of law in higher educaiton governance and the futher research topic in this field.

## 2 Methods

This study uses bibliometric analysis. Bibliometric analysis provides a quantitative approach to understanding the academic literature. It allows researchers to analyze vast amounts of scholarly work systematically. This method is particularly useful when dealing with a large body of literature. It can help identify research gaps by highlighting areas with limited or no scholarly attention. Researchers can use this information to guide future studies and contribute to the development of the field. In addition, Bibliometrics enables researchers to create visual representations of trends, relationships, and patterns within the literature. Tools like citation maps, co-authorship networks, and keyword analysis help in identifying emerging topics and influential works. Bibliometric analysis is a valuable method for evaluating and understanding academic literature, particularly when dealing with extensive and complex bodies of work. Its advantages include its quantitative nature, efficiency, objectivity, and ability to provide historical and interdisciplinary insights. Researchers can use bibliometric analysis to gain a deeper understanding of a research field, identify gaps, and make informed decisions in their scholarly pursuits.

The corpus data of this study was obtained from Web of Science. Following search strategy was conducted to retrieve relevant publications: TOPIC: (law) and (higher education governance); LANGUAGE: (English); The data of publication was exported and saved in *bibtex* format. For this study, a total of 500 publications were retrieved.

## 3 Result

Table 1 provides an overview of the main characteristics and attributes of the analysed corpus in a systematic and data-driven manner. The table encapsulates essential information that aids in comprehending the scope and structure of the scholarly content under investigation. The study encompasses an extensive temporal range, spanning from 1980 to 2023, signifying a comprehensive examination of scholarly output over several decades. This extended timespan enables researchers to capture the evolution and dynamics of the subject matter under investigation. The corpus comprises content extracted from a diverse array of 301 sources, including journals, books, and other scholarly publications. This broad range of sources contributes to the richness and diversity of the academic material analysed. The analysed corpus comprises a substantive collection of 500 individual documents. These documents constitute the primary units of analysis and represent the core data upon which the research inquiry is founded. The calculated annual growth rate of 10.27% (*Figure 1*) signifies the progressive expansion of the corpus over time. A total of 7531 unique authors have contributed to the corpus, reflecting the collaborative and multifaceted nature of scholarly endeavors within the field of study. This extensive authorship highlights the diversity of intellectual contributions.

**Table 1** Main information of analyzed corpus

Description	Results
Timespan	1980:2023
Sources (Journals, Books, etc)	301

Documents	500
Annual Growth Rate %	10.27
Keywords Plus (ID)	1451
Author's Keywords (DE)	1814
Authors	7531
article	469
article; data paper	1
article; early access	24
article; proceedings paper	6

Table 2 offers a structured depiction of the most pertinent and influential sources within the corpus, thus illuminating the academic publications that have significantly shaped and informed the research landscape in the field of study. The journal "Sustainability" emerges as the most relevant source within the corpus, with an impressive tally of 24 articles. This source evidently serves as a central platform for disseminating research contributions pertinent to the field's sustainability discourse. "Studies in Higher Education," with 8 articles, emerges as a prominent source for academic investigations related to higher education, signifying its standing as a valuable resource in this research domain.

**Table 2** The most relevant sources

Sources	Articles
SUSTAINABILITY	24
LANCET	18
JOURNAL OF CLEANER PRODUCTION	9
STUDIES IN HIGHER EDUCATION	8
EMERGING MARKETS FINANCE AND TRADE	7
HIGHER EDUCATION	7
ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH	6
HIGHER EDUCATION POLICY	6
INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH	6
JOURNAL OF HIGHER EDUCATION	6

Table 3 provides an informative summary of the most prolific authors within the corpus, offering valuable insights into the individuals who have made significant contributions to the field of study through their scholarly output. This information is integral to understanding the scholarly landscape and acknowledging the scholarly endeavors of these prominent contributors.

**Table 3** The most productive authors

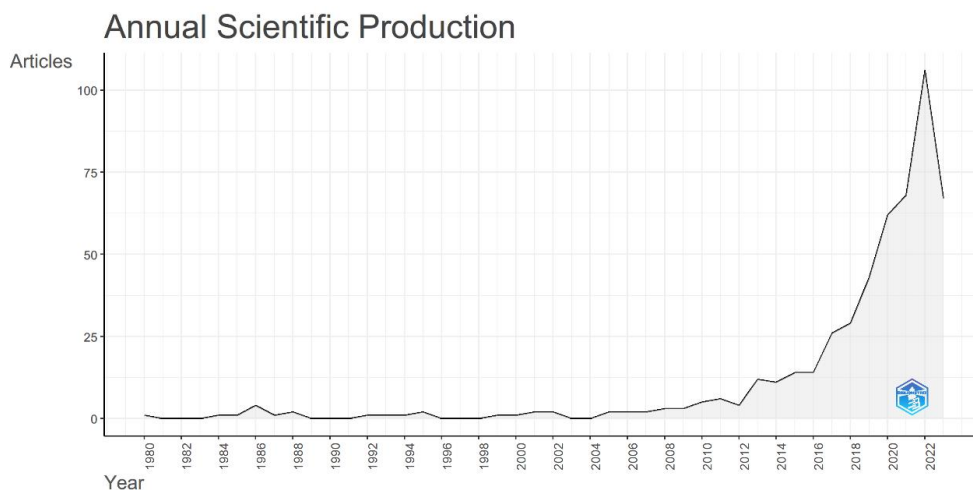
Authors	Articles
GUPTA R	28
ALAM K	19
LI Y	18
MERETOJA TJ	18
MURRAY CJL	18

SINGH JA	18
WANG Y	18
YONEMOTO N	18
JONAS JB	17
LIM SS	17

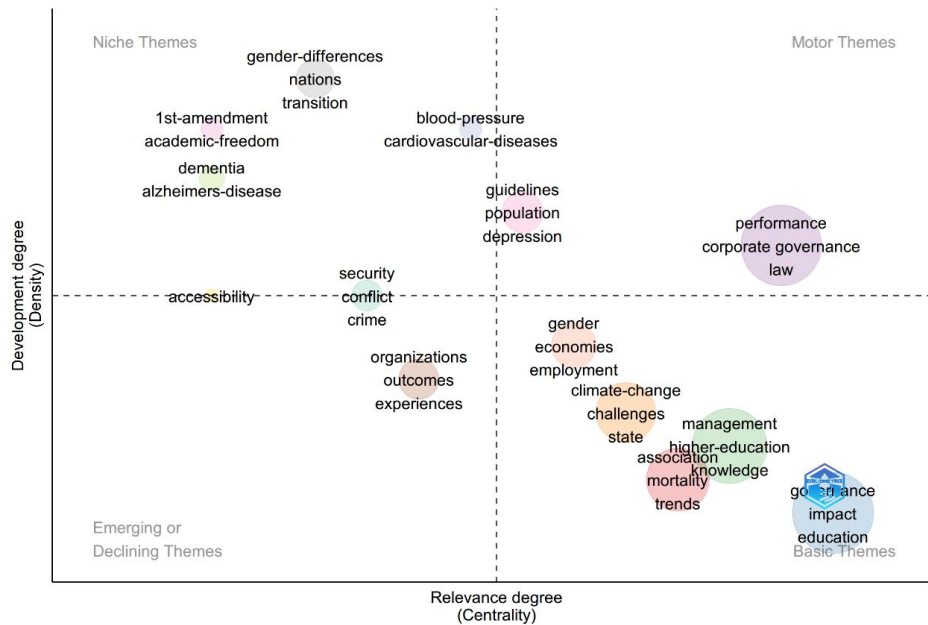
**Table 4** The most cited publications

Paper	DOI	Total Citations
ROTH GA, 2018, LANCET	10.1016/S0140-6736(18)32203-7	4904
JAMES SLG, 2018, LANCET	10.1016/S0140-6736(18)32279-7	4570
WANG H, 2016, LANCET	10.1016/S0140-6736(16)31012-1	3538
VOS T, 2016, LANCET	10.1016/s0140-6736(16)31678-6	2750
STANAWAY JD, 2018, LANCET	10.1016/S0140-6736(18)32225-6	2447
FOROUZANFAR MH, 2016, LANCET	10.1016/S0140-6736(16)31679-8	2421
FITZMAURICE C, 2017, JAMA ONCOL	10.1001/jamaoncol.2016.5688	2055
KATTGE J, 2011, GLOB CHANGE BIOL	10.1111/j.1365-2486.2011.02451.x	1757
FEIGIN VL, 2019, LANCET NEUROL	10.1016/S1474-4422(18)30499-X	1420
KASSEBAUM NJ, 2016, LANCET	10.1016/S0140-6736(16)31460-X	1119

Table 4 provides a comprehensive overview of the most highly cited publications within the corpus, offering valuable insights into the scholarly works that have garnered extensive recognition and scholarly impact within the field of study. The table presents essential bibliometric details, including the paper title, DOI (Digital Object Identifier), and the total number of citations each publication has received.



**Figure 1** The annual scientific production



**Figure 2** Theme map

Figure 2 is the themes map, providing information on research topics. The first quadrant is the motor themes, means important and need to be further dig into.

## 4 Discussion and Conclusions

### 4.1 Dominant theories

Several dominant theories and approaches within the field of law have been used to inform and improve higher education governance. These theories provide frameworks for understanding and analyzing the legal aspects of higher education governance.

Legal positivism is a theory that emphasizes the importance of written laws and formal legal structures in governing higher education institutions. Under this framework, laws and regulations are seen as the primary sources of authority, and the role of legal authorities and government agencies is central in ensuring compliance with these laws.

Administrative law focuses on the legal principles that govern the actions and decisions of government agencies, including those responsible for overseeing higher education. This theory is relevant in understanding the regulatory framework and the relationship between universities and government bodies.

Constitutional law is crucial in countries where higher education governance is influenced by constitutional provisions. It addresses issues related to academic freedom, the autonomy of educational institutions, and the protection of individual rights within the context of higher education.

New Public Management (NPM) is an administrative and governance theory that has influenced higher education governance in many countries. It emphasizes market-oriented reforms, performance measurement, and accountability mechanisms. NPM principles have been applied to restructure and modernize higher education systems.

Legal pluralism recognizes that higher education governance involves multiple legal sources, including statutory law, institutional policies, and professional norms. This theory acknowledges the diversity of legal systems and sources that shape higher education governance.

The human rights approach to higher education governance emphasizes the protection of human rights, including the right to education. International human rights instruments, such as the Universal Declaration of Human Rights, can inform legal frameworks for higher education.

Comparative law involves the study of legal systems in different countries to identify best practices and lessons that can be applied to improve higher education governance. Comparative analysis helps policymakers and scholars learn from the experiences of other nations.

Legal realism emphasizes the practical impact of law and legal decisions on higher education institutions. It recognizes that legal rules are shaped by social, economic, and political factors and may not always align with the formal legal framework.

Critical legal studies take a critical and interdisciplinary approach to examining the law's role in society. Scholars in this field may analyse higher education governance through the lens of power dynamics, inequality, and social justice.

Stakeholder Theory: This approach emphasizes the importance of considering the interests and perspectives of various stakeholders in higher education governance, including students, faculty, administrators, and the broader community.

#### **4.2 The role of law in higher education governance**

The role of law in higher education governance is multifaceted and critical in shaping the structure, operations, and accountability of universities and colleges. Law provides the legal framework within which higher education institutions operate, addressing various aspects such as institutional autonomy, funding, academic standards, and student rights.

*Establishing Legal Frameworks and Regulations*[1]: Governments typically establish laws and regulations that define the legal status and mission of higher education institutions. These legal frameworks often include laws that create, accredit, and fund universities, outlining their roles and responsibilities.

*Defining Institutional Autonomy*[2]: Laws often establish the degree of autonomy that universities have in managing their affairs, including academic programs, faculty appointments, and financial matters. Institutional autonomy varies by country, with some nations granting universities considerable independence, while others exercise tighter control.

*Academic Quality Assurance*[3]: Legislation can mandate the establishment of accreditation agencies or quality assurance bodies responsible for assessing and ensuring the quality of

education offered by higher education institutions. These agencies play a crucial role in maintaining academic standards and fostering accountability.

*Funding and Resource Allocation*[4]: Laws determine the funding mechanisms for higher education, including public funding, tuition fees, and research grants. They may also dictate how financial resources are allocated among institutions, programs, and research initiatives.

*Student Rights and Protections*[5]: Legal frameworks often protect the rights of students, including admission criteria, academic freedom, and mechanisms for addressing grievances. Laws can also establish safeguards against discrimination and harassment on campuses.

*Faculty and Staff Regulations*[6]: Laws may govern faculty and staff employment, including hiring, tenure, promotion, and labor rights. Employment laws can significantly impact the composition and functioning of academic staff.

*Intellectual Property and Research*[7]: Legislation often addresses issues related to intellectual property rights, technology transfer, and research ethics within higher education institutions. These laws influence research practices and innovation.

*Equity and Access*[8]: Laws can promote equity and access by enacting affirmative action policies, scholarships, or financial aid programs aimed at underrepresented groups, ensuring that higher education remains accessible to a diverse student population.

*Government Oversight and Accountability*[9]: Governments may establish bodies, such as ministries of education or higher education commissions, to oversee higher education institutions and ensure compliance with relevant laws and regulations. These oversight mechanisms aim to promote transparency and accountability.

*Internationalization and Cross-Border Education*[10]: Laws may address international collaboration, including the recognition of degrees earned abroad and the establishment of branch campuses or joint academic programs. International agreements and conventions can also shape higher education governance across borders.

*Crisis Management*[11]: Legal frameworks often contain provisions for handling crises and emergencies affecting higher education, such as financial crises, natural disasters, or public health emergencies like the COVID-19 pandemic.

#### **4.3 Topics for further research**

Improving higher education governance is a complex and evolving area of research in the field of law. Researchers and policymakers continue to explore various topics and challenges related to higher education governance to enhance its effectiveness, equity, and responsiveness. This study provides some topic for further dig into:

**Academic Freedom and Free Speech:** Investigating the legal frameworks that protect academic freedom and free speech within higher education institutions and exploring how these principles interact with governance structures.

**Autonomy and Accountability:** Examining the balance between institutional autonomy and external accountability mechanisms, including government regulation, accreditation, and quality assurance agencies.

**Diversity and Inclusion:** Analysing legal strategies to promote diversity, equity, and inclusion in higher education, including affirmative action policies, anti-discrimination laws, and accessibility for underrepresented groups.

**Governance Models:** Comparing different governance models (e.g., shared governance, corporate governance) and their impact on decision-making, transparency, and effectiveness in higher education institutions.

**Ethical Issues:** Investigating ethical dilemmas in higher education governance, such as conflicts of interest, ethical behavior of governing board members, and the role of ethics in decision-making.

**Financial Sustainability:** Exploring legal frameworks for ensuring the financial sustainability of higher education institutions, including funding models, endowments, and public-private partnerships.

**Globalization and Internationalization:** Analysing the legal implications of globalization trends in higher education, including cross-border education, international collaborations, and trade agreements affecting higher education.

**Quality Assurance:** Assessing legal mechanisms for ensuring and enhancing the quality of higher education programs, including accreditation, program assessment, and quality assurance frameworks.

**Data Privacy and Security:** Investigating legal issues related to the collection, use, and protection of student and institutional data in the digital age, including compliance with data protection regulations.

**Faculty Rights and Responsibilities:** Examining the legal rights and responsibilities of faculty members, including tenure, academic freedom, intellectual property rights, and employment contracts.

**Student Rights and Protections:** Analyzing legal frameworks for safeguarding student rights, including due process, access to education, and protection against discrimination and harassment.

**Government Policies and Regulations:** Studying the impact of government policies and regulations on higher education governance, including federal, state, and local laws governing higher education.

**Crisis Management and Emergency Preparedness:** Exploring legal aspects of crisis management in higher education, including responses to natural disasters, public health emergencies, and campus safety.

**Public-Private Partnerships:** Investigating legal frameworks for public-private collaborations in higher education, including the role of private providers, philanthropy, and industry partnerships.

**Legal Challenges in Online Education:** Examining legal issues associated with online and distance education, including intellectual property rights, digital accessibility, and regulatory compliance.



Environmental Sustainability: analysing the legal responsibilities of higher education institutions in promoting environmental sustainability and addressing climate change challenges.

Intellectual Property and Technology Transfer: Exploring legal issues related to intellectual property rights, technology transfer, and commercialization of research within higher education institutions.

## Reference

- [1] D. Palfreyman, 'Changing Legal Framework for Higher Education', in *The International Encyclopedia of Higher Education Systems and Institutions*, P. N. Teixeira and J. C. Shin, Eds., Dordrecht: Springer Netherlands, 2020, pp. 175–182. doi: 10.1007/978-94-017-8905-9\_524.
- [2] A. Magalhães, A. Veiga, F. Ribeiro, and A. Amaral, 'Governance and Institutional Autonomy: Governing and Governance in Portuguese Higher Education', *High Educ Policy*, vol. 26, no. 2, pp. 243–262, Jun. 2013, doi: 10.1057/hep.2012.31.
- [3] J. Williams and L. Harvey, 'Quality Assurance in Higher Education', in *The Palgrave International Handbook of Higher Education Policy and Governance*, J. Huisman, H. De Boer, D. D. Dill, and M. Souto-Otero, Eds., London: Palgrave Macmillan UK, 2015, pp. 506–525. doi: 10.1007/978-1-137-45617-5\_27.
- [4] I. Liefner, 'Funding, resource allocation, and performance in higher education systems', *Higher Education*, vol. 46, no. 4, pp. 469–489, Dec. 2003, doi: 10.1023/A:1027381906977.
- [5] 'Higher Education Governance and Student Participation | SpringerLink'. [https://link.springer.com/referenceworkentry/10.1007/978-3-319-31816-5\\_2487-1](https://link.springer.com/referenceworkentry/10.1007/978-3-319-31816-5_2487-1) (accessed Sep. 03, 2023).
- [6] 'Shared Governance At America's Universities: Reaffirming Higher Education's Cornerstone In The Post-Pandemic Era'. <https://www.forbes.com/sites/davidrosowsky/2022/09/23/shared-governance-at-americas-universities-reaffirming-higher-educations-cornerstone-in-the-post-pandemic-era/> (accessed Sep. 03, 2023).
- [7] R. Pillai K, K. Sankaran, K. Ramnarayan, and N. Prabhu K. P., 'Research in higher education governance: past performance and an agenda for the future', *Educational Review*, vol. 75, no. 6, pp. 1255–1278, Sep. 2023, doi: 10.1080/00131911.2021.1984214.
- [8] M. Wanti, R. Wesselink, H. Biemans, and P. D. Brok, 'Determining factors of access and equity in higher education: A systematic review', *Equity in Education & Society*, vol. 1, no. 2, pp. 279–296, Aug. 2022, doi: 10.1177/27526461221092429.
- [9] C. Scott, 'Managing higher education for a changing regulatory environment', *PAP*, vol. 24, no. 1, pp. 7–20, May 2021, doi: 10.1108/PAP-10-2020-0045.
- [10] J. Paniagua, C. Villó, and M. Escrivà-Beltran, 'Cross-Border Higher Education: The Expansion of International Branch Campuses', *Res High Educ*, vol. 63, no. 6, pp. 1037–1057, Sep. 2022, doi: 10.1007/s11162-022-09674-y.
- [11] M. Benner, J. Grant, and M. O'Kane, *Crisis Response in Higher Education: How the Pandemic Challenged University Operations and Organisation*. Cham: Springer International Publishing, 2022. doi: 10.1007/978-3-030-97837-2.