

# Does QS Ranking Really Affect the School Administrative Management and How? A Case Study of Tsinghua University

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## Abstract

In recent years, university rankings have become ever more important. Every year when the university rankings are announced, it affects the hearts of schools, parents and students. In recent years, China has paid more and more attention to the development of higher education (Yang, & Welch, 2012). The conceptual policies such as "211 Plan", "985 Plan", "Double First-Class Plan" and "World-Class University" have been proposed successively. It shows that China pays great attention to the rankings of higher education, internationalization and other issues. At the same time, China's unique party-government management model plays a significant role in higher education management. Therefore, this article seeks to explore the relationship between QS ranking and higher education administration. How does QS ranking affect higher education administration and how does China's higher education improve international rankings by improving the level of administration? This article uses Tsinghua University as a case study, since Tsinghua University is currently the number one university in China, and it performs well in the QS ranking in recent years and has a certain degree of representativeness. After the literature research, semi-structured interviews and data analysis as well as other research methods, it could find that at present, there are not many researchs on the relationship between QS ranking and the development of higher education administrative management level, thus this article has a certain degree of innovation.

## Keywords

QS ranking; Administrative management; Higher education.

## 1. Introduction

### 1.1. Definition

QS -- Quacquarelli Symonds is the world's leading provider of services, analytics, and insight to the global higher education sector. The QS ranking in this article means the ranking that QS published every year ("About QS", 2021)

The school administrative management in this article means that the management way of higher education. Tsinghua University in this article means the Tsinghua University in Beijing rather than the national Tsinghua University in Taiwan.

### 1.2. Research Background

#### 1.2.1. Realistic Background

Huang (2012) pointed out that rankings are important to students, schools, and the government. Since US News and World Reports published America's Best Colleges in 1983, university rankings continue to be a subject of considerable interest. They play an important role not only in the recruitment of students but also in the governmental budget allocation for higher education. In recent years the government and academia began to place great emphasis on the assessment of research performance.

Johnes (2018) holds the idea that the government is not the only potential stakeholder wishing to know about university performance, prospective students (both national and international) also wishing to find out the university ranking and knowing how well universities perform to inform their choice.

### 1.2.2. Theoretical Significance

The research about QS ranking is various, and the research about higher education administrative management is various, too. However, the research about the relationship and how the QS ranking influences the management belongs to a relatively unpopular research field, and there is currently no corresponding literature in various databases.

### 1.2.3. Research Questions

The broad topic of this research is whether the QS ranking will affect the level of administrative management and how? In order to answer this big question, the thesis will state in the following small research questions:

1. What are the factors related to ranking especially QS ranking? What factors are related to higher education administration?
2. Does the ranking relate school administration? For Tsinghua University, can I propose a model?
3. How does the ranking affect the level of organizational management?
4. In what ways can Chinese colleges and universities improve their administrative methods to improve their rankings?

### 1.2.4. Research Hypothesis

This article raises the following hypothesis

1. The ranking is related to factors such as the quality of university teaching, and the administrative management is related to factors such as the leadership of the dean, organizational structure, and party committee leadership.
2. The ranking has some influences on organizational management, but the influence is not large. After all, the party committee has the final decision.
3. Ranking impacts may make management more scientific, targeted, and aligned with the international. The party committee will change its governance or administrative level to a certain extent, but it will never copy the Western path. In terms of decision-making, it is unlikely to be completely liberalized, and in terms of implementation, it will also be a more efficient traditional model. However, there may be improvements in managerial staff assessment and management.
4. The level of internationalization can be improved by, for example, increasing the ratio of international teachers and international students, paying more attention to scientific research, publishing articles, and getting more funding.

### 1.2.5. Research Purpose and Significance

This article explores the relationship between QS rankings and university administration through the use of interviews, literature reviews, data analysis, and other research methods. Taking Tsinghua University as a case study aims to help other universities improve their management level.

## 2. Theoretical Support

Li (2012) noted that developed countries have formed relatively mature and distinctive higher education management systems and operating mechanisms in the long-term development of higher education. American scholar Burton Clark summarized it into four models, which are

"continental model", "British model", "American model" and "Japanese model". There does not exist an identical, universal standard model in the world.

Administrative philosophy: Scientific management, Administrative management, Bureaucratic management (Wang, W.L. & Cheng, 2020)

### **3. Literature Review**

#### **3.1. Factors that Affecting QS Ranking**

Hou & Jacob (2017) outlines that among the six pointers included within the QS framework, scholarly peer reputation study is the foremost vital. It weighs 40%. Another notoriety study addresses managers and contributes 10% to the positioning. At that point, the "citations per staff" and "faculty-student ratio" contribute 20% each to the by and large score. The numbers of "worldwide understudies" and "workforce pointers" weigh 5% for each. The weight relegated to the markers appears to reflect the accentuation of each worldwide positioning framework and have a few predispositions. The markers of the QS and THE frameworks are deficient in evaluating the viability of instructing and learning and investigate subsidizing (Marginson, 2014).

#### **3.2. Common Features of International Higher Education System and Mechanism**

Li (2012) also explains the differences between education management systems and operating mechanisms. It is said that the "Continental model" refers to the combination of government control and professor power mainly implemented by continental European countries. The power of professors in the government and universities is quite strong, while the power at the school level is relatively weak. In the "Continental model", professors have greater power. They not only have academic power, but also have the power to decide the allocation and use of resources, and even hold certain personnel power. The "British model" is a combination of the professors' guild with the appropriate influence of the school council and administrative staff. The government uses intermediary agencies to implement decentralized management, and the constraints on universities are reflected indirectly. The "American model" is a university governance model with a decentralized government. University autonomy becomes less restricted, and the state has weaker control over higher education. The "Japanese model" has absorbed some practices in Europe and the United States. The upper-level power is concentrated in the Ministry of Education. National University has a board of directors, and the administrative power of the institutions is relatively weak, while the chair professors have greater power in the colleges and schools. Management system and operating mechanism of higher education must follow the laws of higher education, and there are some common features. These common characteristics can be summarized as university autonomy and self-sponsored learning, teacher power and academic freedom, democratic management, and social participation.

From the perspective of a dynamic process, higher education administration relates to the budget, regulation, the cyclic management process consisting of planning, organization, leadership, coordination, evaluation, etc., includes both the Ministry of Education, the local administrative management and mechanism of government affairs carried out by educational administrative institutions at all levels, including the administrative power, financial resources, and government management and operational mechanisms to achieve organizational goals (Zhang, 2010)

Sun (2003) holds the idea that managerialism aims at achieving economy, efficiency, and effectiveness in the public sector. At the macro level, managerialism in the field of higher education reform is a reform led by the government, with the main purpose of promoting the

efficiency of higher education, and the main feature of replacing government intervention with market mechanisms. The market established by managerialism reflects the huge influence of the government everywhere. From the formulation of market competition rules to the major players in the market, we will see that the government is still playing a key role in it. The hot issue for universities in the 1990s is how to maintain quality while expanding rapidly and economically" (DES) (Milliken\* & Colohan, 2004).

### **3.3. Characteristics of Higher Education in China**

Li (2001) states that the institutional environment is vertical constraints based on government behavior. The main body of higher education institutions is the state and education authorities, higher education institutions are subordinate to the government, the establishment of higher education institutions, funding sources, professional settings, enrollment plans, education and teaching activities, scientific research, graduate distribution, logistics services, etc., all follow the instructions of the state or the competent department, forming a single operating mechanism that operates in accordance with the rules of the administrative agency. A top-down and deductive analogy model was adopted in system construction, it contributed to the formation of a vertical restraint mechanism based on government behavior in China's higher education, and also contributed to the "administrative" and "organizationalization" of China's higher education institutions. For the system characteristics, it is centralized management and compulsory obedience. The vertical restraint mechanism of higher education based on government administrative behavior is built on centralized management, and obedience is the result of centralized management. The system is lack of innovation. First, the system operation of China's higher education institutions is conducted through a hierarchical structure. Documents issued according to the hierarchical structure are matched with the resolutions of organizations and governments at all levels, which have become a typical form of system operation. Second, in the higher education system under highly centralized management, the main body of higher education is no longer part higher education, not the vast number of faculty and staff, but a kind of authority. Third, in a highly centralized management system of higher education, as the competent authority of higher education institutions, on the one hand, it has a right to organize, run, and manage the university.

In view of the public welfare nature of the government and universities, the contract model is a desirable model that respects the operating rules of both parties and effectively fulfills the requirements of their respective missions in terms of the management relationship between the government and universities. By strengthening the overall design of the development of colleges and universities, strengthening the work of "establishing rules and regulations" in colleges and universities, and actively developing the contractual relationship between the government and colleges and universities, it will promote the realization of self-sponsored education by colleges and universities by the law. Second, strengthen the work of "establishing rules and regulations" in colleges and universities. It is necessary to promote law-based education and standard management of colleges and universities through the formulation of articles of association. Third, promote the self-sponsored schooling of colleges and universities by the law using a contract. At present, the management of higher education institutions, whether externally or internally, is too administratively colored, and a university system that is truly conducive to innovation has not already been established (Ma, 2008).

### **3.4. How the Ranking Affect the Administration of Higher Education**

University rankings are a product for the media, a guide for consumers, and a reference to the government. For universities, it should be used as a tool for university development (Ye et al., 2006).

For the QS frameworks, the more effective supporters of the positioning of colleges were expert-based notoriety markers. World college rankings moreover impact key heading and

choices made by senior higher instruction directors, counting in how they respond among and between pioneers of other Higher instruction educate (Hazelkorn, 2009). Higher positioned colleges are like organization wipes that by and large have more prominent openings to retrieve supported open financing and private speculations. Regulation notoriety connected to worldwide rankings moreover makes it more helpful for the top-ranked HEIs to pull for researchers and understudies from household and worldwide areas. World college rankings serve as a basic supporting of regulation notoriety (Bowman & Bastedo, 2011) and in giving more noteworthy seen "credibility". Rankings are too persuasive in creating a non-negligible influence on graduates' compensation (Carroll, 2014).

### **3.5. Gaps Between Tsinghua University & High-Level Universities Based on the QS Ranking**

Compared with world-class universities, Tsinghua University has a gap in education and teaching environment, but the gap is not big; the biggest gap is mainly in the level of scientific research and internationalization, especially in the level of scientific research. (1) There is a lack of internationally recognized excellent scientific research results; the output of excellent scientific research results is far from enough, and the quantity, quality and influence of papers need to be improved urgently. (2) The degree of internationalization is low, and the source of foreign students is single. The degree of internationalization of a university is the only way for a university to improve its level of education and become a world-class university. At the level of international teachers, the development speed of Tsinghua University lags behind the world's first-class universities, and the gap is gradually widening. As for recruiting international students, Tsinghua University started late and the initial gap is relatively large. Although there has been progressed in recent years, there is still a lot of progress and need to be taken a long time to fill. On the whole, Tsinghua University have a low proportion of international students and international teachers, and there is still a considerable gap compared with world-class universities. On the other hand, the structure of international students is relatively simple. Most of them come from East Asian countries such as Japan and South Korea, and they are concentrated in the humanities and social sciences. This limits the internationalization of Chinese universities to a certain extent (Guo, 2015).

### **3.6. What Should Tsinghua University Do to Improve its Ranking**

Ye et al. (2006) hold the idea that Tsinghua University should use the following tools to reflect on its school-running practices and promote the construction of Tsinghua's world-class universities.

Firstly, the countermeasure is to run the school well and make world-class contributions in teaching, scientific research, and services. The most important thing is to conduct research. In the case of peer review or academic reputation, it is difficult to catch up with the older comprehensive universities. Tsinghua University must make great efforts in scientific discovery and technological innovation (Yuan & Pan, 2009).

In addition, to increase the degree of internationalization. Absorb the strength of higher education from various countries and promote cultural exchanges between the East and the West. Here are some details instructions: 1. Having the international flow of students; 2. Improving the internationalization of the faculty, which is to hire internationally renowned scholars or professors to teach, participate in scientific research and guide graduate students; 3. The internationalization of teaching and courses: cross-cultural understanding, the spirit of international cooperation and other content are integrated into existing courses, focusing on major international issues and related academic frontier research. Secondly, according to the characteristics of different disciplines and the requirements of talent training, steadily promote bilingual teaching; finally, use overseas educational resources to open school-wide elective



courses; 4. Improving the international cooperative research. Tsinghua University actively promotes high-level scientific research cooperation to improve teachers and students ability to host, plan, and participate in major international projects. At the same time, relying on international conferences to promote international exchanges of scientific and technological and academic achievements. 5. Having international cooperation in running schools.

Moreover, Ye et al. (2006) pointed out that public relations and publicity should also be strengthened to establish and expand Tsinghua's international image and influence. Such as participating in, initiating, and organizing major world political events, economic activities, cultural activities, etc. Tsinghua will also actively release and provide data in the future. Tsinghua must learn to deal with international media, which is also one of the basic abilities of the world's top universities. Mobilize the power of well-known alumni and alumni associations at home and abroad to spread the positive image and good reputation of Peking University and Tsinghua University on a global scale (Yuan & Pan, 2009).

Another is to further improve the incentive mechanism for scientific research. Establish scientific research achievements and paper award funds based on scientific argumentation, delineate scientific research achievements and academic publications according to the specific conditions of different disciplines, formulate "quality and quantity" award schemes, and especially encourage humanities and social sciences teachers to publish in international journals published papers.

Finally, relevant departments should start designing the school's subject indicator evaluation system, focusing on internationalization and scientific research indicators, arranging special personnel to count the publications and citations of teachers in various subjects, conducting self-evaluation and international comparison of faculties or subjects, and dynamic observation of the school development.

## 4. Research Gap

Through literature review, it is found that many people have studied the impact of rankings on universities, including funding, school enrollment, international reputation, reputation level, and so on. Some people have further studied the administrative management model of colleges and universities, as well as the management model of Chinese higher education.

Some people also analyzed the gap between China's domestic universities and world-class universities in terms of indicators through the study of QS rankings and proposed how to compensate for the gap. However, no one has proposed whether the QS ranking affects China's domestic higher education administration and how it will affect it, especially under China's special party-government relationship.

## 5. Methodology

### 5.1. Methodological Choice

Since the time is restricted and due to the pandemic, it is a little bit hard to collect a large scale of data. Thus, this article uses literature review analysis, quantitative analysis, and semi-structured interviews, supplemented by observation methods to verify the authenticity of the interviews. In terms of data sorting and analysis methods, the main focus is on classification and content analysis.

### 5.2. Research Site

For the interview, the very first choice is face to face interview. However, due to the pandemic, the interview is conducted online if it cannot meet the person face to face.

### 5.3. Participants

For the interview part, to ensure the validity, the participants are all staff or faculty members of the Tsinghua University, and they must be the senior administrative management people or professors in Tsinghua thus they could join in the policy-making procedure. Also, 3-5 interviews or more will be taken to make the effectiveness of the content.

### 5.4. Data Collection

For the interview part, it is designed to have 3-5 interviews with both genders to ensure the validity of the content. After the mailing out for invitation email and WeChat messages to around 20 people, not every one of them replied or accepted the interview. Finally, three interviewees are got, all of them are males. Two of them are faculty members, one of them is a staff member. The interview questions are designed related to the QS and management to address research questions.

To quantitatively figure out the logic and relationship between QS ranking and university administrative management, the "Eight Catching Fish" software is used to carry out a web crawler of QS official website and collected Tsinghua University's QS rankings from the Year 2014 to 2022 and scores of various indicators then some analysis of them are made, the details could be checked in Table 2.

### 5.5. Data Analysis

In order to make sure how the QS ranking and how higher education is always managed and the relationship between them, the literature review method is done. This article used Google Scholar and CNKI (China National Knowledge Infrastructure) as the databases on the topic of "QS ranking", "higher education" and "administrative management" to search for articles, after the comparison, around 20 of them are selected out.

Table 1. is created to show the criteria of the QS ranking to make it more clear based on QS official website and the literature review ("QS World University Rankings – Methodology", 2021).

Table 2. is created to show that from the Year 2014 to 2022, the most varied criteria are "citations per faculty" and "international faculty ratio".

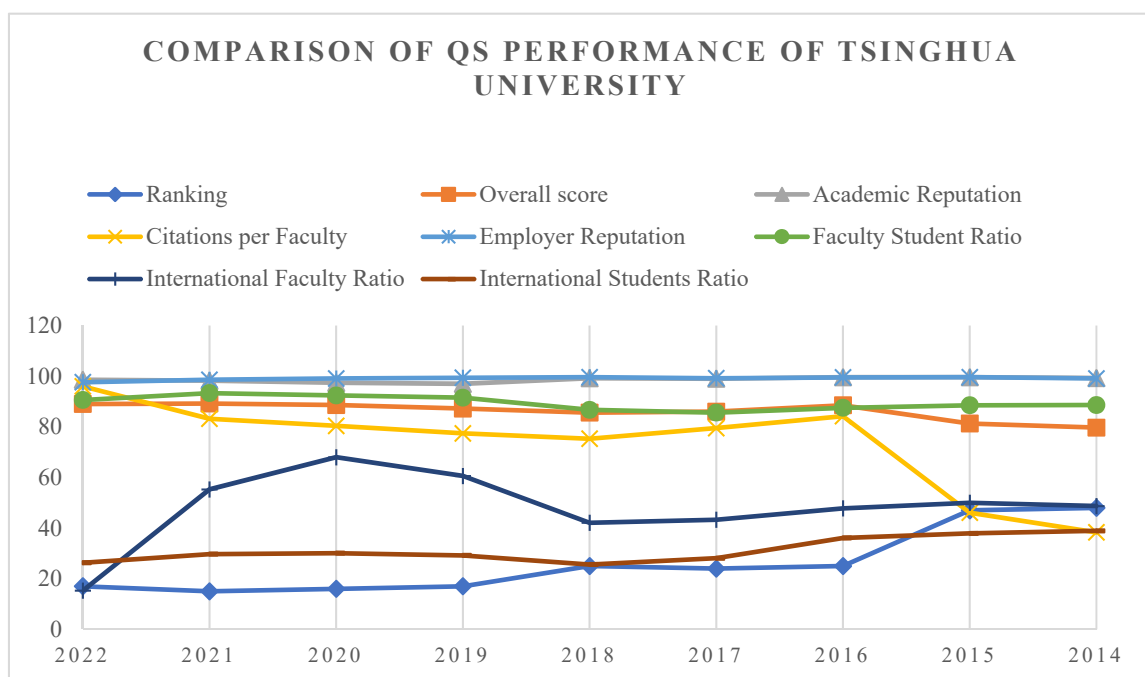
From data analysis that showed in Figure 1., Figure 2., Figure 3. and Figure 4. It could conclude that "ranking" appear highly correlated with "citations per faculty", "international student ratio" as well as "faculty-student ratio".

**Table 1.** QS World University Rankings – Methodology

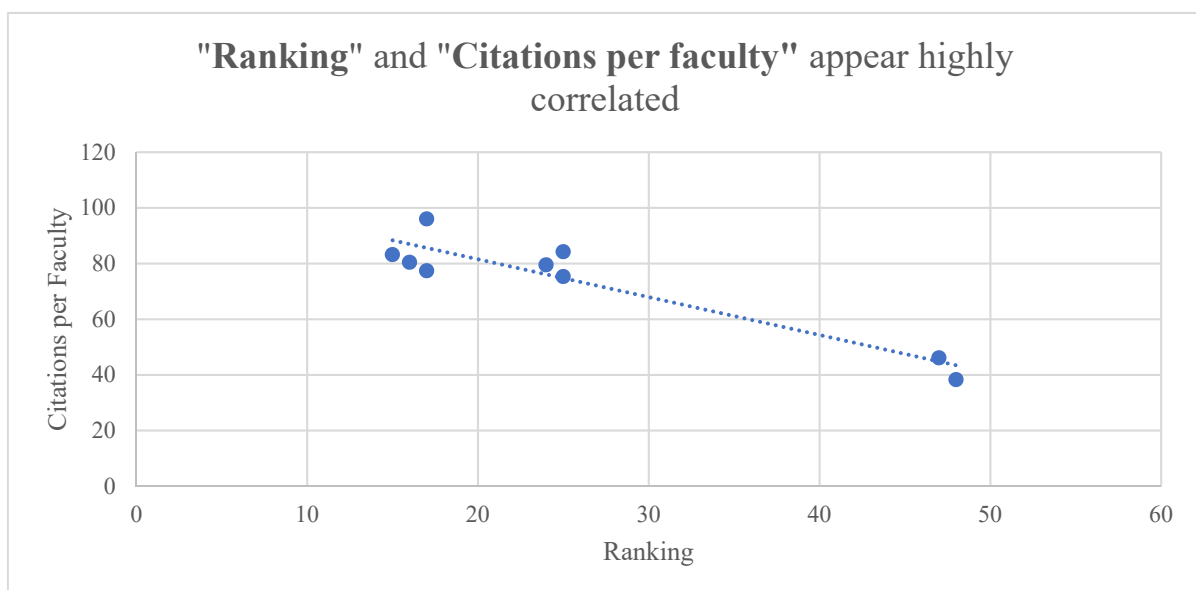
Assessment indicator	Criteria	Percentage %
Academic Reputation	Institutional research quality	40
Citations per faculty		20
Employer Reputation	Graduate employability	10
Faculty/Student Ratio	Teaching quality	20
International Faculty Ratio	International outlook	5
International Student Ratio		5

**Table 2. Comparison of QS Performance of Tsinghua University**

Year	Ranking	Overall Score	Academic Reputation	Citations per Faculty	Employer Reputation	Faculty Student Ratio	International Faculty Ratio	International Students Ratio
2022	17	89	98.6	96	97.6	90.6	15.3	26.3
2021	15	89.2	98.2	83.2	98.6	93.3	55.3	29.7
2020	16	88.6	97.4	80.4	99.1	92.4	68	30.1
2019	17	87.2	97	77.4	99.4	91.5	60.6	29.2
2018	25	85.6	99.2	75.3	99.6	86.7	42.1	25.6
2017	24	86	99	79.5	99.2	85.6	43.3	28.1
2016	25	88.5	99.6	84.2	99.5	87.5	47.8	36.1
2015	47	81.3	99.6	46.1	99.6	88.5	50	37.9
2014	48	79.7	99.3	38.3	99.1	88.6	48.7	38.9

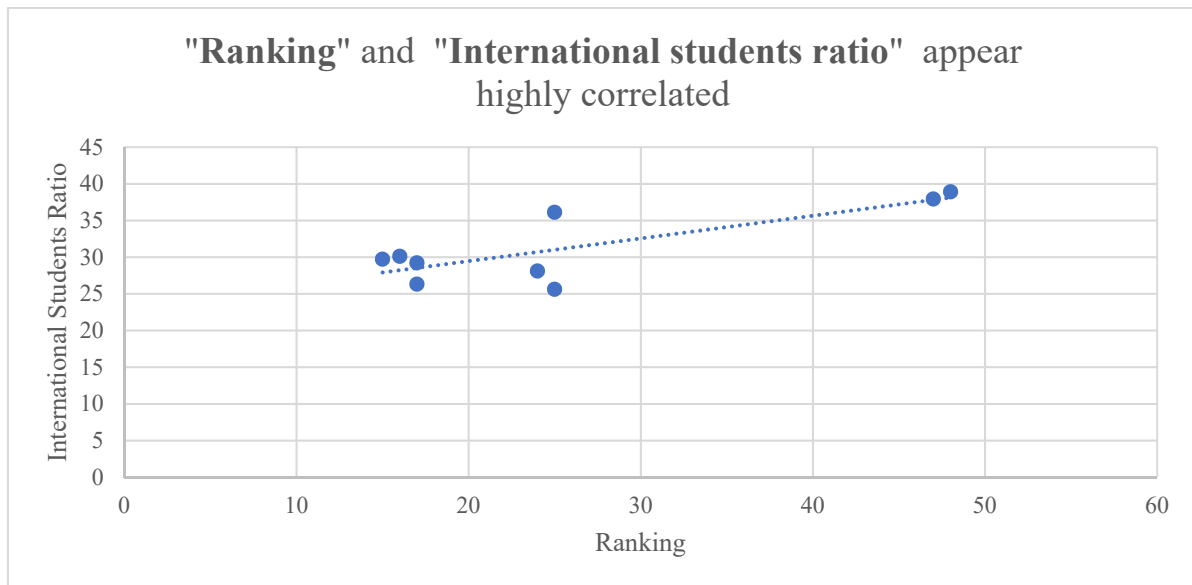


**Figure 1. Comparison of QS performance of Tsinghua University**

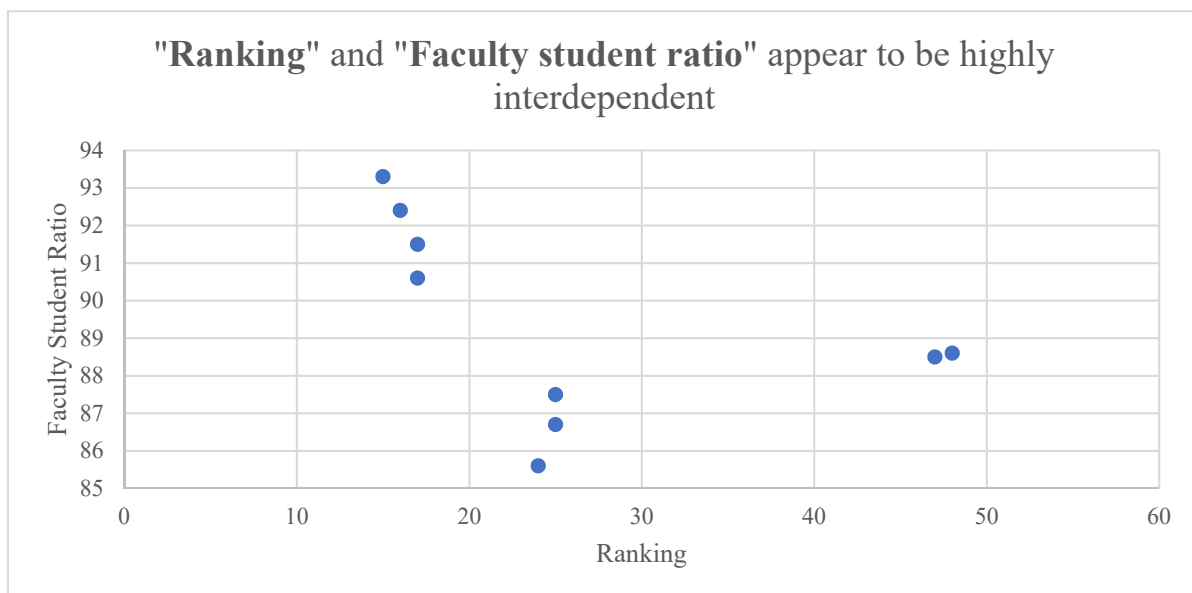


**Figure 2. The relation between “Ranking” and “Citations per Faculty”**





**Figure 3.** The relation between “Ranking” and “International students ratio”



**Figure 4.** The relation between “Ranking” and “Faculty student ratio”

For the interview, the interview questions can be found in Appendix—Table 5. There are 11 questions in the interview, split into 4 parts, including basic personal information (3 questions), semi-open-ended questions (3 questions), and fully open-ended questions (5 questions). The interview is conducted in Chinese, then the answer is translated into English.

**Table 3.** Information of participants

Subject	Nickname	Job title	Invitation way	Gender	Age	Interview way
Person 1	WCY	Associated professor	Email	Male	34-41	Face to Face
Person 2	HC	Professor	Email	Male	42-49	Online by Zoom
Person 3	QW	Senior administrative management officer	WeChat	Male	34-41	Online by Tencent meeting

**Table 4. Coding of interview information**

Subject	Topic A	Topic B	Topic C	Topic D	Topic E	Topic F	Topic G	Topic H
Person 1	No, 1. Paper publication and citation greatly affect the QS ranking. The poorly managed colleges and universities will rank very high if they have an SCI reward system 2. Science and engineering, especially, basic science, life sciences, and biochemistry have high impact factors, which will lead to high rankings	Did not do it specifically, some behaviors will improve QS rankings, such as publishing articles with strong scientific research capabilities It will also introduce some first-class international teachers to improve the faculty. Tsinghua University's global strategy will help enhance its international reputation	No, There is no connection. The school has improved the management level through solutions such as the modernization of governance capabilities, the joint participation of teachers and students, and the consensus and forward-looking solutions, but it is not for improving the QS ranking	No	Sci's reward mechanism, many people will publish more articles in order to reward and improve international rankings	The principal has a great influence, the governance structure, the influence of the principal's behavior, whether it is democracy or autocracy; the governance structure of the board of directors	Little relationship	Really follow the academic laws, hand over academic affairs to the people with the most academic judgment, and use the power of norms and administration to ensure that academic power will not be abused
Person 2	Yes, A high-ranking school means a lot of funding, which will affect management	Look at the QS criteria for THU	Necessary relevant,	No, no relationship	Many university cares much about it	Stakeholders, government, faculty, students, foreign relationships		Money, innovation breakout, research
Person 3	Yes, QS ranking has its advanced nature and uniqueness. Schools with higher rankings must have their own unique characteristics, and there is a proportional relationship	1. Strengthen good internal governance and activate the vitality of internal academic research innovation. If there is no innovation and a research mechanism atmosphere, there will be no way to be creative relatively loose management and governance environment. 2. Through the introduction of good alumni, resource management, more, academic achievements transfer, landing; internationalization strategy; how to let the global professional institutions and universities understand the achievements of Tsinghua is a global strategy 3. Support for young teachers, student incubation, innovation and entrepreneurship	Yes, School management is gradually improving. However, because there is no hard indicator, there is no way to quantify it, but to consider it qualitatively. Student development, and other indicators are on the rise. The school management system is scientific and effective	No; The two are mutually reinforcing, and there is no sufficient and necessary condition between them. Global ranking is not the ultimate goal of management. Management will eventually be perfect	1. More professionals, students, and resources will be more inclined to pay more attention to Tsinghua, the government, etc. 2. There are more opportunities for us to participate in the international community, listening to opinions on major projects, and more opportunities for off-campus cooperation 3. Maintain the positive development of the rankings and force their own management to promote each other	1. The human factor. Very important reason, what kind of leadership, main body, operation policy 2. Policy guidance, emphasis in policy 3. Social needs and responses force management methods	Qualitatively, the positive relationship	1. Grasp the policy directions 2. For a good governance model, the age of the human factor is very important, but it should be reduced 3. Operation, leading the team's scientific development concept, respecting the laws of education 4. Strategic goals, good use of resources and advantages to integrate together

Topic A: If a high Q.S ranking university means that the school is well managed and the reason

Topic B: What did Tsinghua University do in the past 5 years to improve its Q.S ranking

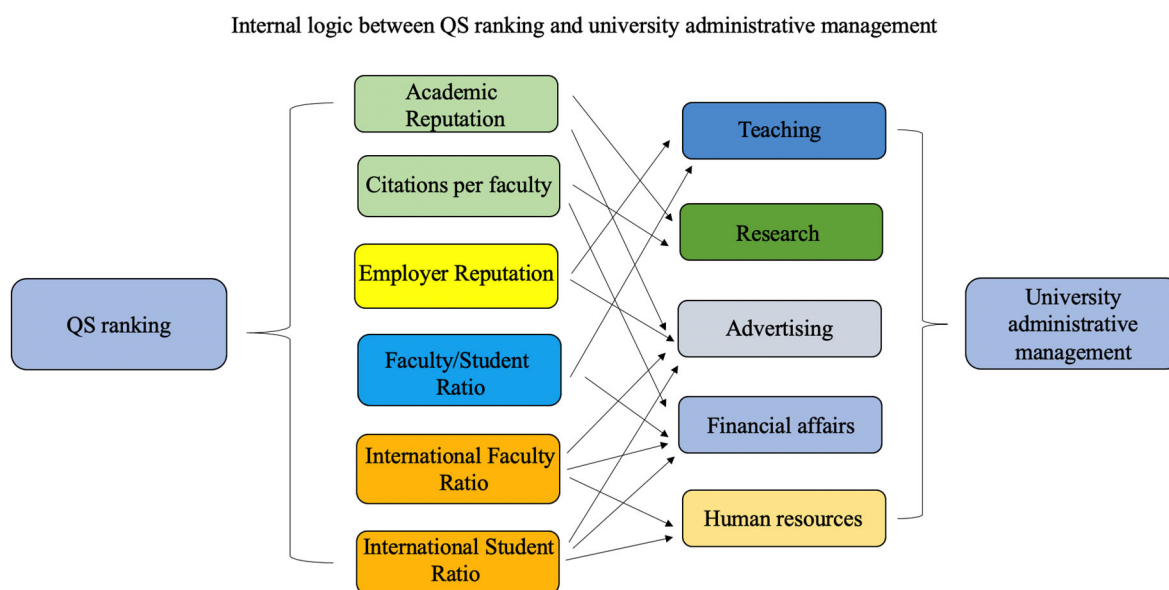
Topic C: If school administrative management has truly improved in the past few years behind the phenomenon of relatively high Q.S rankings these years and the reason

Topic D: If school administrative management be developed only according to the world ranking and the reason

- Topic E: How does the QS ranking influence the administrative management performance
- Topic F: The other factors that influence the university administrative management
- Topic G: The relationship between university ranking and administrative management
- Topic H: How to manage the university better in the future

From the above interviews, it could conclude that the QS ranking will determine to a certain extent that there is a positive relationship between the school's administrative management level and the school's organizational management level. University deans, management methods, capital investment, and publication of scientific research papers are all important factors that affect their management style. An increase in the ranking can enhance the school's international reputation so that the school will get more capital investment and attract more resources, and it will have more voice in the international community. Improving the QS ranking is not the right ultimate strategic goal of Tsinghua University. Improving the level of organizational management is what they have always been doing. Administrative management and policy are closely related.

Above all, the criteria of the Tsinghua university administrative management is created. That is teaching, research, advertising, financial affairs, human resources according to the literature review and what the organizational structure showed on Tsinghua official website ("Management structure-Tsinghua University", 2021). Then a model is made in order to have a visualized version of the structures and the relationship between QS ranking and university administrative management of Tsinghua University. It shows the internal logic between QS ranking and university administrative management.



**Figure 5.** Internal logic between QS ranking and university administrative management

### 5.6. Strategies of Enhancing Trustworthiness

This study uses semi-structured interviews, supplemented by observation methods to verify the authenticity of the interviews.

### 5.7. Ethical Considerations

For privacy and security considerations, all information will be anonymous. All research activities respect ethical and moral standards. Before the interviewee accepts the interview, they will sign an informed consent form. The informed consent form and research questions have been verified and approved by the Ethics Committee of the University of Hong Kong. The

information will be maintained for about half a year. This research did not have any commercial activities to make profits.

## 6. Results

The research results show that the standard composition of ranking mainly includes Academic Reputation, Citations per faculty, Employer Reputation, Faculty/Student Ratio, International Faculty Ratio, International Student Ratio. The main factors affecting the administration of higher education are: from a macro perspective, management models, government policies, social factors, etc. From a micro perspective, the principal's governance style, finance, teaching, scientific research, and other factors (Salama et al., 2018).

QS ranking has a positive relationship with the administrative management level of the school to some extent, but the ranking is not the right goal of the school to improve its management ability. The ranking can affect the school's funding, the school's research orientation, and the degree of internationalization. In order to increase the ranking, colleges and universities can improve scientific research capabilities, and improve scientific research incentives, globalization, increase publicity, improve international image and reputation, implement teaching effects and teacher-student ratios to improve QS rankings.

## 7. Discussion

### 7.1. Limitation of the Study

The method the article currently uses is the interview method in qualitative research. And it is only interviewed 3 in-service teachers at Tsinghua University, all of whom are male. Owing to the time of the epidemic, the number of interviewees is small, resulting in a relatively small data sample size. Gender is not balanced enough, if a large sample size can be used for quantitative research, coupled with gender balance, the results will be more convincing.

At present, there is no universal grading scale for higher education administrative management, so it is difficult to quantify the relationship between QS standards and administrative management standards. The model proposed in the article does not weighted for every criteria. In addition, there is currently no international database for tracking university rankings or performance. If there is, we can directly retrieve data from the database for quantitative research.

### 7.2. Future Study

More data can be collected through questionnaire surveys for further quantitative research.

Furthermore, it could also use crawlers to crawl the rankings and score changes of different universities and use deep learning method to build models in order to predict the changes in the relationship between ranking trends and management methods.

## 8. Conclusion

In general, due to time and the impact of the epidemic, this article only qualitatively analyzes the relationship between Tsinghua University's QS rankings and university administration and finds that QS will positively affect administrative management methods to a certain extent, such as letting the government increasing fund investment and increasing international influence will increase international discourse power. However, under China's unique political system, the management level is affected by many factors, and it is government policy-oriented, rather than raising international rankings as the administrative management goal. However, administrative management methods of Chinese universities are developing in a "contractual relationship" between the government and universities, which are reducing the degree of the

government's administrative influence on universities. Through Tsinghua's case analysis, other Chinese universities can improve their management level by 1. Improving the level of scientific research; 2. Improving the degree of internationalization, including increasing the proportion of international students and teachers; 3. Improving international publicity; 4. Optimizing and improving scientific research mechanisms, etc. thereby improving their QS ranking.

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## APPENDIX

**Table 5.** Interview questions

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Question 1: What is your gender?
Choices answer: Male/Female/Other
Question 2: What is your age?
Choices answer: 18-25; 26-33; 34-41; 42-49;50-57;58-65; Other
Question 3: What is your job title at Tsinghua University?
Choices answer: Professor/Associate professor/Senior administrative management officer/Other
Question 4: Do you think that a high Q.S ranking university means that the school is well managed and why?
Choices answer: Yes/No; Reasons
Question 5: What did Tsinghua University do in the past 5 years to improve its Q.S ranking?
Question 6: Do you think that school administrative management has truly improved in the past few years behind the phenomenon of relatively high Q.S rankings these years and why?
Choices answer: Yes/No; Reasons
Question 7: Is school administrative management be developed only according to the world ranking and why?
Choices answer: Yes/No; Reasons
Question 8: Do you think how the Q.S ranking influence the administrative management performance?
Question 9: What are the other factors do you think that influence the school administrative management?
Question 10: What do you think about the relationship between university ranking and administrative management?
Question 11: How to manage the school better in the future?

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