

**THE INFLUENCE OF  
ONLINE SERVICE QUALITY ON  
THE WORD-OF-MOUTH IN SICHUAN'S  
CHINESE PRIVATE HIGHER EDUCATION  
INSTITUTIONS**

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**THE INFLUENCE OF  
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THE WORD-OF-MOUTH IN SICHUAN'S  
CHINESE PRIVATE HIGHER EDUCATION  
INSTITUTIONS**

by

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## LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CHE	Chinese Higher Education
CMV	Common Method Variance
CPHEI	Chinese Private Higher Education Institution
CR	Composite Reliability
EDT	Expectancy Disconfirmation Theory
HEI	Higher Education Institution
LM	Linear Regression Model
ISSM	Information System Success Model
PLS-SEM	Partial Least Square – Structured Equation Modeling
SEM	Structural Equation Modeling
VIF	Variance Inflation Factor
WoM	Word-of-Mouth
WoS	Web of Science

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**PENGARUH KUALITI PERKHIDMATAN ATAS  
TALIAN TERHADAP “MULUT KE MULUT”  
DALAM INSTITUSI PENGAJIAN TINGGI SWASTA CHINA  
DI SICHUAN  
ABSTRAK**

Pendidikan tinggi China (CHE) dipengaruhi secara signifikan oleh institusi pendidikan tinggi swasta China (CPHEIs). Kehadiran CPHEIs adalah penting bagi CHE. Berbanding dengan institusi pendidikan tinggi awam China (HEIs), banyak masalah dikenal pasti dalam CPHEIs. Kajian terdahulu telah mengenal pasti beberapa masalah merangkumi, walaupun tidak terhad kepada kualiti perkhidmatan dalam talian yang lemah, ketidakpuasan hati pelajar, dan tahap perkongsian maklumat secara lisan (word-of-mouth, WoM) yang kurang memberangsangkan dalam CPHEIs. Model CPHEIs-SERVPREF iaitu model SERVPREF yang diubah suai, diasaskan atas berdasarkan Information System Success Model dan Expectancy Disconfirmation Theory dalam kajian ini. Kajian ini bertujuan menilai faktor-faktor yang mempengaruhi WoM dalam CPHEIs di Sichuan. Kajian keratan rentas yang menggunakan pendekatan tinjauan digunakan untuk menilai kajian ini. Sebanyak 234 responden dari lima universiti (Sichuan University Jinjiang College, Geely University of China, Tianfu College of SWUFE, Mianyang City College, dan Gingko College of Hospitality Management) telah mengambil bahagian dalam tinjauan ini. Set data yang digunakan dalam kajian ini terdiri daripada 200 soal selidik yang layak, yang kemudiannya dianalisis menggunakan pemodelan persamaan struktur kuasa dua terkecil separa (PLS-SEM). Hasil kajian ini adalah termasuk: (1) kualiti maklumat tidak mempunyai kesan positif terhadap kepuasan pelajar, dan kepercayaan yang dirasai tidak menyederhanakan perkaitan antara kualiti maklumat dan kepuasan pelajar

dalam CPHEIs di Sichuan. (2) Kualiti sistem mempunyai kesan positif terhadap kepuasan pelajar, tetapi kepercayaan yang dirasai tidak menyederhanakan perkaitan antara kualiti sistem dan kepuasan pelajar dalam CPHEIs di Sichuan. (3) Kualiti perkhidmatan portal mempunyai kesan positif terhadap kepuasan pelajar, tetapi kepercayaan yang dirasakan tidak menyederhanakan perkaitan antara kualiti perkhidmatan portal dan kepuasan pelajar dalam CPHEIs di Sichuan. (4) Kepuasan pelajar mempunyai kesan positif terhadap WoM, dan intensiti penggunaan WeChat menyederhanakan perkaitan antara kepuasan pelajar dan WoM dalam CPHEIs di Sichuan. Kesimpulannya, pemahaman yang lebih mendalam tentang kecemerlangan WoM dalam CPHEIs di Sichuan adalah hasil daripada pemahaman perkaitan-perkaitan ini seperti yang ditunjukkan dalam kajian ini. Selain itu, pihak pentadbiran di CPHEIs Sichuan mungkin dapat menilai semula strategi untuk meningkatkan kualiti perkhidmatan dalam talian, kepuasan pelajar, dan WoM berdasarkan penemuan ini.

**THE INFLUENCE OF ONLINE SERVICE QUALITY ON  
THE WORD-OF-MOUTH IN SICHUAN'S  
CHINESE PRIVATE HIGHER EDUCATION INSTITUTIONS**

**ABSTRACT**

Chinese higher education (CHE) is significantly influenced by Chinese private higher education institutions (CPHEIs). In comparison with Chinese public higher education institutions (HEIs), numerous problems are identified in CPHEIs. According to prior studies, the problems encompass, although not restricted to, poor online service quality, student dissatisfaction, and non-excellence word-of-mouth (WoM) in CPHEIs. The CPHEIs-SERVPREF model, which is a modified SERVPREF model, is founded upon the Information System Success Model and Expectancy Disconfirmation Theory in this study. This study aims to assess the influencing factors of WoM in Sichuan's CPHEIs. A cross-sectional study employing a survey approach is utilised for evaluating this study. A total of 234 respondents from 5 universities (Sichuan University Jinjiang College, Geely University of China, Tianfu College of SWUFE, Mianyang City College, and Gingko College of Hospitality Management) participated in this survey. The dataset utilised in this study comprised 200 qualified questionnaires, which were subsequently analysed using partial least squares-structural equation modelling (PLS-SEM). The findings of this study include: (1) information quality does not have a positive effect on student satisfaction, and perceived trust does not moderate the relationship between information quality and student satisfaction in Sichuan's CPHEIs. (2) System quality has a positive effect on student satisfaction, but perceived trust does not moderate the relationship between system quality and student satisfaction in Sichuan's CPHEIs. (3) Portal service quality has a positive effect on student satisfaction, but perceived trust does not moderate the

relationship between portal service quality and student satisfaction in Sichuan's CPHEIs. (4) Student satisfaction has a positive effect on WoM, and WeChat use intensity moderates the relationship between student satisfaction and WoM in Sichuan's CPHEIs. In conclusion, a crucial understanding of the excellence of WoM in Sichuan's CPHEIs results from the comprehension of these relationships as demonstrated in this study. In addition, administrators in Sichuan's CPHEIs may be able to reevaluate potential strategies for improving online service quality, student satisfaction, and WoM in light of these findings.

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction**

This Chapter 1 serves as an introduction to and description of the current investigation. A thorough backdrop is provided, including: (1) the status of global higher education, (2) an overview of Chinese Higher Education (CHE), the history, the development, and obstacles of Chinese Private Higher Education Institutions (CPHEIs), and (3) social media the key disseminate instrument for CHE. The chapter also discusses problem statements, research objectives, and questions. The significance of the study is divided into theoretical and practical contributions. A glossary of Key Terms is included. Finally, the organization of the report is discussed.

### **1.2 Background of the Study**

Higher education as a valuable cultural and scientific resource fosters personal development and drives economic, technological, and social advancement (UNESCO, 2023b). In the last century global higher education received tremendous (Schofer & Meyer, 2005). Universities worldwide had approximately 254 million enrolled students as of 2022 (UNESCO, 2024). The exploding demand for higher education and rising globalization has increased the importance of ensuring the quality of higher education (UNESCO, 2023b).

The rapid development of the CHE has enhanced the Chinese educational standard. According to the Ministry of Education, 240 million people in China have pursued higher education, including current students and graduates (Xinhua, 2022b). The average number of years of education for a labourer is 14 years (China Education Daily, 2023). The higher education quality of the entire nation of China has increased

steadily (Xinhua, 2022b). For instance, a total of 12 technical colleges for the future, 50 colleges for modern industry, and 33 excellence centres for software engineering were established in 2023. These initiatives demonstrate China's commitment to providing high-quality education in HEIs and addressing the demands of modern industries (MOE, 2024b).

### **1.2.1 The Status of Global Higher Education**

From 2000 to 2020, global higher education grew enormously (UNESCO, 2023b). The total number of students enrolled in HEIs worldwide was approximately 100 million in 2000. The source of the United Nations Educational Scientific and Cultural Organization (UNESCO) Higher Education: Figures at a Glance mentioned about 254 million Global HEIs students enrolment in 2022 (UNESCO, 2024). Section 1.2.1 describes the status of Global higher education in 4 aspects including (1) access to higher education, (2) quality in higher education, (3) service quality in higher education, and (4) the future trend of global higher education.

The first consideration revolves around the issue of facilitating access to higher education. A notable transformation unfolded between the years 2000 and 2020, during which the worldwide gross enrolment rate in higher education witnessed a substantial escalation from a mere 19% to a noteworthy 40%, as meticulously documented by UNESCO in 2022. This metric, the gross enrolment rate, essentially serves as an insightful proxy for gauging the overall capacity of the education systems in place (UNESCO, 2022). This statistical indication encapsulates the comprehensive global picture of enrolment within tertiary education institutions. Notably, this upsurge in the gross enrolment rate translates to a discernible amplification in the access to higher education for aspiring students. The implications are profound, indicating an

ever-expanding landscape of learning possibilities for those seeking to further their education.

Table 1.1 Top 10 Countries by Enrolment Rate in Private HEIs

Countries	Percentage of Enrolment in Private HEIs (%)
Sint Maarten (Dutch part)	100
Palestine	82.5
Monaco	76.6
Andorra	72.8
Puerto Rico	71.7
Angola	69.1
Burundi	68.9
El Salvador	66.9
Timor-Leste	65.3
Rwanda	64.6

Source: UNESCO Statistics

Second, delving into the realm of quality in higher education. HEIs around the world will face more problems as the number of students in school continues to grow. The imperative to uphold a standardized level of excellence in education remains a paramount concern for these institutions, as emphasized by Wariyo (2020). This emphasis on quality is further underscored by its inclusion as one of the 17 Sustainable Development Goals established by UNESCO. According to Wariyo (2020) the threat to the quality of higher education usually arise from the rapid growth of student numbers and the rapid expansion of private higher education. According to UNESCO statistics (UNESCO, 2023a), the proportion of students enrolled in private HEIs globally in 2023 ranged from 0.7% to 100% across different countries. Table 1.1 shows the Top 10 countries by enrolment rate in private HEIs. Believing this, around the world countries grapple with the intricate task of harmonizing quantity and quality

within their higher education systems. For example, in Ethiopia, a study of the higher education quality assessment was carried out to promote future higher education reforms (Wariyo, 2020). In conclusion, the pursuit of quality higher education serves as a crucial pillar in the current discussion over global educational progress and sustainability.

Third, the service quality in higher education is the main goal in global higher education. According to O'Neill and Palmer (2004, p. 42) service quality in higher education defines the gap between a student's expectations and perceptions based on higher education. Developing the service quality in higher education is a basic requirement for HEIs. Based on the complex and competitive landscape of today's global higher education, the cornerstone of HEIs development is a high level of service quality (Teeroovengadam et al., 2016). Evaluation and assessment of service quality in higher education must be conducted reliably. Particularly, the assessments on the services quality of higher education provided by students enrolled in HEIs (Teeroovengadam et al., 2016). Numerous scholars are currently investigating service quality assessment standards and methods for HEIs from the standpoint of the student (Abbas, 2021; Rizvi et al., 2020; Sukwadi & Yang, 2012). Therefore, the foremost necessity of global HEIs is the enhancement and improvement of service quality.

According to UNESCO (2022), tens of thousands of HEIs are operating globally, illustrating the extensive scale of higher education systems. Now, available higher education degrees worldwide are provided by public and private HEIs. According to the UNESCO study, private HEIs are those that are controlled and managed by a private organization, and the manager of public HEIs is the state (UNESCO, 2022). The biggest difference between public and private HEIs is financial arrangements from state or non-state provision. Private HEIs in countries like Brazil,

India, and the US are usually funded through government loans and national scholarships. In other countries like China, private HEIs are primarily funded by students and their families (UNESCO, 2022).

Finally, the future trend of global higher education is described. Amidst swiftly changing paradigms in education delivery and shifting student aspirations, substantial transformations are underway within the realm of higher education, particularly in the aftermath of a worldwide pandemic. As per the Education 2030 agenda, the fundamental principle is to ensure inclusive and equitable access to quality education and lifelong learning opportunities for everyone (UNESCO, 2022). A study of global HEIs shows that HEIs need to enhance operational efficiency, swiftly adjust to changing circumstances, and concurrently enhance the overall student experience (Workday Staff Writers, 2023). Another study in the US mentions over 95% of students supporting higher quality digital experiences for higher levels of satisfaction (Workday Staff Writers, 2023). Thus, to keep the sustainability development of global higher education, more scholars assess the relationship of service quality, student satisfaction, and word-of-mouth (WoM) in global HEIs (Giantari et al., 2021; Schellekens et al., 2022; Seo & Um, 2022; Um et al., 2021).

### **1.2.2 An Overview of Chinese Higher Education**

The origins of modern education in China date back to the Self-Strengthening Movement in the 1860s. During this period, the government introduced Western-style schools alongside the traditional education system. Following the establishment of the People's Republic of China in 1949, the government constructed a three-tiered structure (including primary education, secondary education, and higher education) of the Chinese education system (Chow & Shen, 2006; Hawkins et al., 2008). CHE is a crucial component of the Chinese education system, encompassing undergraduate,

graduate, professional degree programs, vocational, specialist and adult education (Cao, 2022a; Fan et al., 2022; Xiong et al., 2022). Over time, CHE has grown into a vast network of colleges and institutions that rank among the best globally, with China boasting the highest number of universities per capita, including some of the world's most prestigious institutions (Xinhua, 2022a).

Today, China boasts the world's most extensive higher education system. Over 54 million students enrolled in 3,013 HEIs including 4 types in China (Cao, 2022a, c). Table 1.2 shows the number of HEIs in China. The academic HEIs are only 1239 (include 953 public HEIs and 390 private HEIs). The gross enrolment rate for higher education has surged to 60.2% in 2023, a significant increase from the mere 2.6% in 1977 (MOE, 2024b; Wei, 2021). Table 1.3 shows the number of students in CHE (Cao, 2022c). Chinese HEIs employ 2 types of staff. Figure 1.1 shows these 2 types of Chinese HEIs staff (Cao, 2022b). One type comprises educational personnels (including office and support staff). Another type is the full-time teachers.

Table 1.2 Number of HEIs

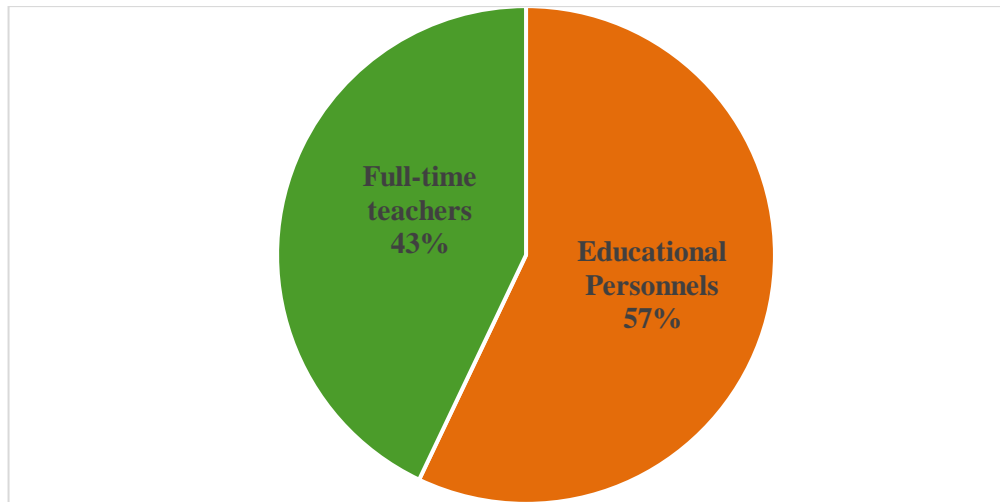
Type of HEIs	Public HEIs	Private HEIs	Total
Academic HEIs	849	390	1239
Professional HEIs	10	22	32
Vocational HEIs	1139	350	1489
Adult HEIs	251	2	253
Total	2249	764	3013

Source: Ministry of Education of the People's Republic of China (2022)

Table 1.3 Number of students in CPHEIs

Type of student	Graduates	Entrants	Enrolment
Postgraduate Students	950	1694	3878
Undergraduates	1,227,825	1,149,728	5,128,458
Total	1,228,775	1,151,422	5,132,336

Source: Ministry of Education of the People's Republic of China (2022)



Source: Ministry of Education of the People’s Republic of China (2022)

Figure 1.1 The 2 types of HEIs staff

Increasing the number of HEIs is unavoidable to fulfil the objective of developing a more competitive higher education system. This implies a greater development in the numbers and quality of CPHEIs. In the Chinese Education Modernization Plan 2035, there are 8 goals for high-quality education modernization in China (Xinhua, 2019). Among the more significant are the following: establish world-class, high-quality education with Chinese features; promote the popularization of high-quality education at all levels; equalize public education; and ensure that everyone has access to lifetime continuing education (Xinhua, 2019).

### 1.2.3 Landscape of Chinese Higher Education

At present, CHE has garnered global admiration and extensive research attention (Altbach, 2009; Mohrman, 2008). As of 2023, China has the second-highest number of ranked universities globally, with a total of 139 Chinese universities, trailing only the United States (169) and surpassing Japan (119) and the United Kingdom (105) (Times Higher Education, 2023). Tsinghua University and Peking University were recognized as the top two post-secondary institutions in China and the highest-ranked in Asia (Bothwell, 2021). Additionally, the 2024 QS World University

Rankings include 71 universities from mainland China, solidifying its position as a global educational powerhouse (Quacquarelli Symonds, 2023).

Two types of HEIs were allowed in China: private and public HEIs. The public's choice of CHE is no longer limited because of the increasing number of CHE degrees being offered giving the public more options. According to the Ministry of Education data (Cao, 2022a), mainland China had 3013 HEIs by the end of 2022 comprising 2249 public HEIs and 764 private HEIs. In China, the Gaokao score required for admission into Chinese private academic HEIs is much higher than that for the other 3 types of institutions. For example, the minimum score to enter Chinese private academic HEIs is at least 400, whereas for professional HEIs, it is only 200. Therefore, the CPHEIs is identified as the Chinese private academic HEIs in this study, excluding professional HEIs, vocational HEIs, and adult HEIs.

Figure 1.2 shows the 5 stages of CHE. It is further divided into 5 stages: "Double First Class University Plan," "Project 985," "Project 211," "Other Elite Universities," and "Other Universities". In 1995, about 100 public HEIs were chosen for "Project 211," the Chinese Ministry of Education's 21st century high-level academic programs (Zong & Zhang, 2019). Launched in 1999, "Project 985" aimed to focus limited resources on 39 of China's premier public HEIs in order to attain world-class goals (Zong & Zhang, 2019). In 2015, the Chinese government launched a new higher education hierarchy as the basis for all Chinese families to choose colleges and universities. This is known as the Double First Class University Plan (He, 2019; Zhou, 2018), which ranks higher than "Project 985", and "Project 211". The aim of the Double First Class University Plan is to contribute the "First Class" universities and "First Class" disciplines for CHE (Peng & Zhang, 2020).

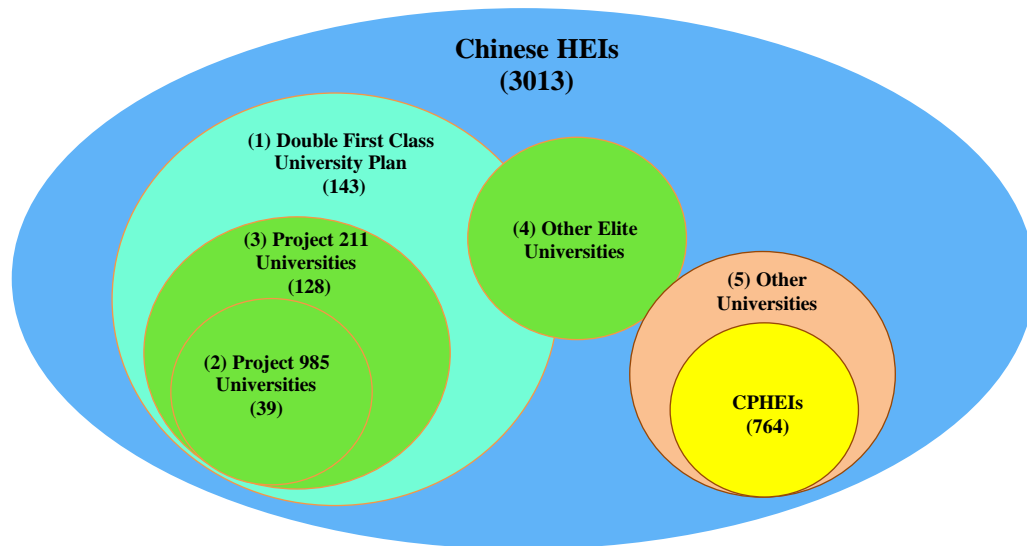


Figure 1.2 The 5 stages of CHE

CHE used to be entirely funded by public institutions, with all expenses coming from state entities such as ministries at all levels and municipal governments. Chinese public HEIs were established in that era. Today, Chinese public HEIs remain the dominant force in the CHE. Whether it is "Double First Class University Plan", "Project 985", or "Project 211", the top institutions in the CHE solely cover Chinese public HEI. The "Other Elite Universities" also cover only public HEIs. Hence, the quality of CHE instructions can be guaranteed. However, there are several drawbacks which include a low enrolment rate, and a low rate of higher education penetration.

The rise of CPHEIs has resulted in many students having access to a diverse array of higher education opportunities, allowing an increasing number of students to pursue higher education and advance their professional prospects (Gu, 2009). The feature that pertains to private HEIs is administrative flexibility to create a more innovative curriculum and learning environment (Yuk, 2019). CPHEIs have predominantly been established as application-oriented universities. In China, application-oriented universities focus on the development of students' practical application abilities (Ma et al., 2021; Zhang et al., 2019; Zhao et al., 2019).

#### **1.2.4 The Development of CPHEIs**

Since the late 1970s and early 1980s when China began reforming and opening up, the private sector has been playing a critical role in the country's higher education industry (Xue, 2006; Yang & Wang, 2012). During that period, the government permitted the private sector to establish schools and universities to help supply the growing demand for higher education in the country. The program was initially created to cater to the interests of the country's elite who desired to Westernize and modernise their education (Cao & Levy, 2005). However, it was not until the late 1990s and early 2000s that CPHEIs began to play a substantial role in large-scale CHE (Wen, 2014; Zhang, 2003). In 1999, the first million enrolment occurred in CPHEIs. This ranked China as the world's largest private HEIs (Cao & Levy, 2005).

Now the number of students enrolled in post-secondary education has increased significantly in China, as has the proportion of graduates from higher education. The higher education system has grown in size and diversity (Shin, 2018). The range of HEIs has expanded, with a significant increase in the number of CPHEIs, to the point that they now enrol roughly 25% of all students in the Chinese HEIs (Cao, 2022c). As a result, the CPHEIs development complements CHE and this augurs well for value (Yang, 1997). Influenced by the education economy generated by CPHEIs, it transformed Chinese society and its economy, and imparted a profound and enduring effect on the lives of its people.

#### **1.2.5 The Obstacles of CPHEIs**

The expansion of CPHEIs has not eased societal concerns, as many Chinese families continue to question their quality and prestige. The rapid rise of CHE has established many CPHEIs, serving an enormous number of students (Yang, 2021). The Chinese families with a deep-rooted understanding that "CPHEIs are not based on

merits, but depended on financial capability." At present, it has not succeeded in altering the prevailing negative perception of CPHEIs within Chinese families. In other words, Chinese families are fully aware of non-excellence in CPHEIs by WoM (Zhou, 2018). Therefore, there is an urgent need for CPHEIs to position better WoM among Chinese families (Chen, 2018; Dong, 2014; Qin, 2019; Zhang, 2020).

CPHEIs remain unranked in global academia due to structural and historical constraints (He, 2019; People's Daily, 2018; Zhou, 2018). For example, CPHEIs are not ranked in Times Higher Education World Academic Summit or QS Top Universities. According to some studies, the Chinese historical context, governance model, and government involvement in the CPHEIs are markedly different from Europe and the United States, and replicating the successful experiences is difficult at the moment (He, 2019; Li, 2018). This means CPHEIs cannot achieve a ranking in Times Higher Education World Academic Summit or QS Top Universities, like Ivy League colleges (He, 2019; Li, 2018).

In addition, according to numerous research, the most significant obstacles facing CPHEIs are absence of public funding, inadequate quality of students, unstable academic staff, insufficient educational background, the competence of the teaching personnel and others (Liu, 2022; Shen & Zhang, 2022; Wu & Chen, 2022). According to Liu (2022), a school-running model is appropriate for Chinese public HEIs but not for CPHEIs. Simultaneously, the characteristics of four associated CPHEIs are presented as follows: (1) non-government funding of school operations, (2) a private operation mechanism, (3) unstable teaching personnel, and (4) a comprehensive, flexible, and selective curriculum. Using 16 private educational institutions in Zhejiang, China, as an example, Shen and Zhang (2022) conducted qualitative research

utilising the SWOT model and found that the internal disadvantages are primarily categorized into three aspects: (1) insufficient funds for running schools' administration, (2) a decline in the quality of students, and (3) weak teachers.

CPHEIs, like the HEIs of the rest of the world, are primarily funded by students' tuition fees and donations from third parties. In contrast, the government wholly funds public universities (Deephouse & Suchman, 2008). As a result, CPHEIs face a more significant financial burden with tuition fees accounting for more than 90% of revenue. This affects campus operations, recruitment, education, and research quality (Beamer, 2011; Lin et al., 2005). Tuition fee is sometimes the sole source of income for many CPHEIs (Lyu, 2018).

Early admission, first-batch admission, second-batch admission, and junior college admission are the four standard categories of admissions to CHE. The admission scoreline declines in a similar sequence. All CPEHIs are in the second admissions batch which means students with excellent marks will be admitted to Chinese public HEIs with lower tuition fees and excellent teachers. More and more CPHEIs are confronted with the task of decreasing the admission score in order to complete a current year's admission plan, and some CPHEIs cannot admit enough students even if the score is dropped (Shen & Zhang, 2022). Such an embarrassing action frequently creates a vicious cycle which finally leads to a decline in the quality of students in CPHEIs. CPHEIs are ultimately unable to compete with Chinese public HEIs.

While CPHEIs have the flexibility to introduce innovative curricula, the high turnover rate of academic staff poses challenges to maintaining consistent teaching quality (Liu, 2022; Shen & Zhang, 2022; Wu & Chen, 2022). Numerous studies show

higher teacher turnover in CPHEIs of various reasons for various reasons such as society, university, and the individual (Chen, 2021; Li & Zhang, 2021; Tang, 2019; Yang, 2021). Numerous scholars focused on the pertinent study in CPHEIs, and numerous research outcomes have been discovered. A study of teacher turnover identifies that 3.3% turnover rate as a threshold for impact on CPHEIs performance (Zhang et al., 2010).

Due to income, perks, and other factors, CPHEIs frequently cannot attract educators with the most outstanding levels of education and capability (Liu, 2022; Shen & Zhang, 2022; Wu & Chen, 2022). Except for a few CPHEIs (such as West Lake University which is the best CPHEI) that require a doctoral degree in the recruitment conditions for teaching, most CPHEIs require only a master's degree or lower. Distinct from CPHEIs, teaching and research employees at Chinese public HEIs are required to hold a doctoral degree, and only a few non-teachers accept master's degree candidates.

Due to budget constraints, CPHEIs are under pressure to increase enrolment rates to stay afloat and are forced to achieve higher social empathy while constantly improving WoM (Lin et al., 2005). WoM is when individuals transmit verbal information via traditional or digital channels (Buttle, 1998; Hausmann & Poellmann, 2016; Helm, 2013). Now, globalization in education has prompted CPHEIs to "extend their offerings globally through strategic alliances in order to increase their impact, visibility, and/or market power on the international stage" (Denman, 2002; Li et al., 2014). Previous research suggested that a higher level of student satisfaction improves the WoM in CPHEIs and helps them stand out from their competitors to attract more new students.

### 1.2.6 Sichuan’s CPHEIs: Current Landscape and Future Trends

According to data from the Chinese Ministry of Education, Sichuan Province has a total of 134 HEIs, ranking 5th nationwide (Xie, 2023). At present, a total of 17 CPHEIs is located in Sichuan Province (MOE, 2024a). This highlights that Sichuan Province has the highest concentration of top-quality CPHEIs, making it an ideal target region for this study.

According to the Alumni Association's 2023 China University Rankings, 3 of 17 existing CPHEIs in Sichuan Province are in the top 10, more than other provinces. Table 1.4 shows the source regions of the Top 10. In addition, Table 1.4 shows 13 of the 17 existing CPHEIs in Sichuan Province are in the top 100 (Chinaxy, 2023). In other words, Sichuan Province is certainly the top overall quality of CPHEIs in China. Accordingly, past studies identified many common problems of service quality, student satisfaction, and WoM in Sichuan’s CPHEIs (Qian, 2019; Su, 2014; Zhang & Yang, 2016). Thus, this study identifies the CPHEIs in Sichuan Province as the range of study.

Table 1.4 Regions with top 10 of 2023 CPHEIs’ rankings

No	Regions	Total in Top 10	Total of CPHEIs
1	Sichuan	3	18
2	Hubei	2	32
3	Jiangsu	2	28
4	Hebei	1	21
5	Fujian	1	16
6	Tianjin	1	11
	Total	10	126

Before 2020, a blended service with online (university portal) and offline (face-to-face service of staff) were implemented in Sichuan’s CPHEIs. However, CPHEIs traditionally relied on a face-to-face approach to complete learning. The tradition of face-to-face learning dates back thousands of years to the earliest forms of organised

learning in human societies. In ancient civilisations such as Greece and China, teachers and students gathered together in physical spaces, such as temples and academies, to exchange knowledge and engage in intellectual discourse. Over time, this approach to education became deeply ingrained in educational practice and persisted even as new technologies and innovations emerged (Harrison & Risler, 2015; Xu & Jaggars, 2014). An assessment of offline service quality in Sichuan's CPHEIs reveals the prevalent service standards of that era.

The worldwide pandemic which befell us in 2020 transformed the way universities operate around the world (Shahzad, Chin, et al., 2020). Therefore, the pandemic-related closures of major HEIs and e-learning expediently became an emergency and radical transformation tool of universities worldwide (Pokhrel & Chhetri, 2021). In contrast to the majority in the rest of the world, China used online learning to teach all HEIs from March to July 2020. However, between September 2020 and December 2022, blended learning was the primary mode of instruction in CHE. Thus, numerous studies about service quality and student satisfaction in HEIs have expanded from offline to online service quality (Azzi-Huck & Shmis, 2020; Shahzad, Chin, et al., 2020; Shahzad, Hassan, et al., 2020; Shahzad et al., 2021).

Today, the challenges brought on by the pandemic have subsided. However, the advancements in higher education that it has catalysed will endure. The blended learning approach, which merges the most effective aspects of conventional and contemporary teaching methods will continue to evolve in the field of CHE. Consequently, with the same global HEIs, the main research key of Sichuan's CPHEIs in the future will be transformed to the relationship of online service quality, student satisfaction, and WoM.

### **1.2.7 Online Service Quality and Student Satisfaction in Sichuan's CPHEIs**

Online service quality plays a pivotal role in shaping student satisfaction in Chinese HEIs, including those in Sichuan's CPHEIs. Prior studies (Alkhateeb & Abdalla, 2023; Camilleri, 2022; Nortvig et al., 2018; Seo & Um, 2022) show that online service quality, often measured through different dimensions (tangible, reliability, responsiveness, information quality, system quality, and portal service quality), directly influences student satisfaction. Among these, information quality, system quality, and portal service quality have been recognised as key dimensions in evaluating online service quality because of the boom in communications technology (Alkhateeb & Abdalla, 2023). The universities' portal is a gateway for academic and non-academic services to students (Alkhateeb & Abdalla, 2023) and has been established and used in Sichuan's CPHEIs. Consequently, student satisfaction and WoM in Sichuan's CPHEIs are firmly enhanced by high-quality online services, including 3 dimensions.

In prior studies (Abdullah et al., 2022; Tindage et al., 2023; Uzir, 2020), many different factors moderate the relationship between online service quality and student satisfaction. For example, perceived trust is a crucial factor in this relationship, acting as a moderator between service quality and student satisfaction (Singh & Jasial, 2021; Tindage et al., 2023). In addition, students who have greater trust in an institution's online services are more likely to be satisfied and share positive WoM.

In conclusion, online service quality is a key moderating factor influencing student satisfaction in Sichuan's CPHEIs. Perceived trust further reinforces this relationship, contributing to higher satisfaction and sharing positive WoM. It highlights the importance of improving online service quality and fostering perceived trust to enhance student satisfaction and strengthen WoM in Sichuan's CPHEIs.

### **1.2.8 Social Media: Key Disseminate Instrument for CHE's Word-of-Mouth**

Social media encompasses a diverse range of online platforms and applications that empower users to generate, disseminate, and trade content in various formats, including text, images, videos, and audio (Hasan, 2023). The emergence of social media can be traced back to its inception in Tokyo in 1994 (Aichner et al., 2021). With the development of the Internet and digital information, nearly everyone has become a participant in the realm of social media. The social media platforms facilitate social interactions and networking among individuals and groups, allowing them to connect, communicate, and collaborate in virtual spaces. These platforms have become an integral part of people's lives, offering convenient avenues for interacting with friends, family, and global communities. From sharing everyday moments to engaging in discussions about significant societal issues, social media has become diverse and indispensable, shaping the landscape of today's information society.

The origins of social media may be traced back to the first days of computer-mediated communication and Internet shopping. While social media as humans know it today anticipate the platforms and technology would ultimately dominate the landscape of online social interactions (Edosomwan et al., 2011). A further development of social media is in the 1970's. In this era, a variety of social media began to become popular (Edosomwan et al., 2011). BBS is an abbreviation for bulletin board system, a widely recognized form of social media that was established in 1978 (Rimm, 2017). After the 1990s, a variety of social networks are in full force. Especially from 21st century, with the rise of social media such as Facebook and Twitter, a large number of users have flocked to social media. In the same era in China, WeChat beat Sina Weibo by a landslide to become the social media with the largest user base. At present, WeChat is the top social media platform in China with nearly

1.33 billion active users per month (Tencent, 2023). The second social media is Sina Weibo, which has less than 0.6 billion active users per month (Weibo, 2023). While WoM can spread through various channels, social media enables faster and broader dissemination (Özhan, 2022). This study focuses on WeChat as a key social media platform for WoM in CPHEIs.

Edosomwan et al. (2011) consider social media as a strategy and medium for communication. Many benefits for life are derived from the popularity of social media. One of the principal advantages of social media in enhancing communication efficiency lies in its capacity to surmount geographical constraints (Ellison et al., 2007). Furthermore, social media platforms provide a multitude of functionalities designed to optimize communication procedures (Obar & Wildman, 2015). Lastly, social media enables the dissemination of information and the sharing of resources (Kietzmann et al., 2011). In conclusion, a variety of benefits facilitate the replacement of traditional media by social media.

In recent years, the overlap between social media and various other fields of application has expanded. For instance, Cho (2022) highlights the influence of social media on the environment of service businesses. Kaplan and Haenlein (2010) argue that social media has become a powerful tool in areas, such as marketing, customer relationship management, and knowledge management. Social media platforms are being incorporated into educational learning settings to enhance collaboration and information exchange (Obar & Wildman, 2015). As social media continues to develop, it is expected that this will continue to connect with other sectors, creating new possibilities and difficulties for study, practice and governance.

At present, scholars explore the impact of social media use intensity in different fields. Stojanovic et al. (2018) conducted a study on the effects of the intensity of social media use on destination brand equity and found a positive effect of social media use intensity on brand awareness. The influence of social media use intensity on students' self-esteem and cognitive restructuring approaches to lessen intensity have been explored in the field of education (Irwayanti & Yasser, 2019). According to a study of Chinese foreign students in Malaysia, social media use intensity positively predicted social media use purpose and cultural identity partially moderated this association (Zhao et al., 2022). As shown in a study on communication and behaviour, the social media use intensity had a substantial impact on electronic WoM communication, which affected conspicuous consumption (Özhan, 2022). Overall, the expansion of social media use in various fields has led to a growing body of research exploring the impact of social media use intensity.

Significantly, the existing scholarly research on social media use intensity has primarily focused on exploring the impact of social media use intensity as an independent variable on various dependent variables such as brand equity, students' self-esteem, cultural identity, and WoM. Only limited number of studies investigated the moderating effects of social media use intensity. The study by Shang et al. (2021) employs the theory of planned behavior to explore the indirect impact of information publicity on the intention to visit via subjective norms, while also examining the moderating influences of social media usage and disposition. A study of tour leaders mentions social media use intensity moderates the relationship between job stress and job performance (Kuo et al., 2022). Among the available and few studies of the moderation effects, only one study from Romania evaluates Facebook use intensity as a moderator between satisfaction and electronic WoM (Anastasiu & Dospinescu,

2019). The moderating influence of WeChat use intensity on student satisfaction and WoM has not been studied.

In conclusion, while there is minimal direct research on the intensity of social media use as a moderator between student satisfaction and WoM, indirect study does exist (Anastasiei & Dospinescu, 2019). The studies provide insight into the influence of social media (Facebook and WeChat) on student satisfaction and WoM. The specific impact of WeChat use intensity as a moderator between student satisfaction and WoM in China requires more investigation.

### **1.3 Problem Statements**

Given the great number of CPHEIs, each CPHEIs are aggressive in pursuing the recognition of prospective students and families. Therefore, a large number of Chinese scholars have conducted research on CPHEIs according to worldwide research on private HEIs. With past studies, the main issues at this stage in Sichuan's CPHEIs are the following four.

First, the online service quality including information quality, system quality, and portal service quality in Sichuan's CPHEIs does not meet undergraduate students' expectations (Chen, 2021; Wang et al., 2021; Zeng, 2018). For example, Chen (2021) reported that undergraduate students in CPHEIs expressed dissatisfaction with online service quality, particularly in areas such as online information, institutional websites, and WeChat services. He et al. (2024) found that students in Sichuan's CPHEIs expressed a strong desire for improvements in their universities' information and system services. Similarly, Wang et al. (2021) found that online service platforms in these institutions failed to meet students' expectations, a dissatisfaction that undermines academic experiences and engagement while also reducing their

willingness to share positive WoM. Given that prospective students and their parents often rely on WoM from current students when making enrolment decisions, poor online service quality negatively impact the institutions' reputation and attractiveness. Therefore, improving online service quality is crucial for enhancing student satisfaction and fostering positive WoM in Sichuan's CPHEIs.

Second, the relationship between online service quality and student satisfaction in CPHEIs remains inconsistent, with some findings showing a positive relationship and others indicating a negative one. Chen (2021) indicated that low online service quality directly contributes to student dissatisfaction. Um et al. (2021) mentioned the uncertainty of influence between online service quality and student satisfaction in higher education in South Korea. Studies have introduced moderating factors to address this problem (Singh & Jasial, 2021; Tindage et al., 2023). For example, Singh and Jasial (2021) examined how perceived trust moderates the impact of service quality on student satisfaction. However, no studies have quantified the moderating effect of perceived trust between online service quality and student satisfaction in Sichuan's CPHEIs.

Third, the students' dissatisfaction affects poor WoM in Sichuan's CPHEIs (Zhang & Yang, 2016). According to Zhang (2021)'s study, in CPHEIs multiple undergraduate student respondents share dissatisfaction. It means the respondents disagree about good WoM in Sichuan's CPHEIs. In the studies of global private HEIs, limited studies of student satisfaction on WoM (Dora et al., 2019; Munapa & Yahayab, 2019; Tan et al., 2022). Therefore, further study on the relationship between student satisfaction and WoM in Sichuan's CPHEIs is essential.

Fourth, prior to the knowledge of the researcher, no study has examined the moderating effect of WeChat use intensity on the relationship between student satisfaction and WoM in Sichuan's CPHEIs. Worldwide research has examined the relationships between social media (e.g., Facebook, WeChat), student satisfaction, and WoM. A recent study by Anastasiei and Dospinescu (2019) explored social media use intensity as a moderator. Social media is the primary channel through which prospective students and families obtain information about CPHEIs (Li, 2022; Yin, 2021). Thus, further research is needed to examine WeChat use intensity as a moderating variable in this context.

Although many studies have been undertaken globally on WoM at private HEIs, little is known about the link between online service quality including information quality, system quality, and portal service quality, student satisfaction, and WoM in Sichuan's CPHEIs. The role of perceived trust and WeChat use intensity in moderating the relationship between online service quality and student satisfaction, and student satisfaction and WoM in Sichuan's CPHEIs remains unexplored. This knowledge gap is particularly alarming considering the challenges in Sichuan's CPHEIs. A study is needed in this situation to comprehend these dynamics.

#### **1.4 Research Questions**

The issues addressed in the preceding part raise a number of crucial questions, which are enumerated below:

1. Is there a positive relationship between online service quality (information quality, system quality, and portal service quality) and student satisfaction in Sichuan's CPHEIs?

2. Does the perceived trust moderate the relationship between online service quality (information quality, system quality, and portal service quality) and student satisfaction in Sichuan's CPHEIs?

3. Is there a positive relationship between student satisfaction and WoM in Sichuan's CPHEIs?

4. Does the WeChat use intensity moderate the relationship between the student satisfaction and WoM in Sichuan's CPHEIs?

### **1.5 Research Objectives**

In this study, the purpose is to discuss the factors influencing WoM in Sichuan's CPHEIs. The main research objectives of this study are the relationships between service quality, student satisfaction, perceived trust, WeChat use intensity and WoM in Sichuan's CPHEIs.

The primary research objectives include the following connected research goals:

1. To examine the relationship between online service quality (information quality, system quality, and portal service quality) and student satisfaction in Sichuan's CPHEIs.

2. To evaluate the moderating effect of perceived trust on the relationship between online service quality (information quality, system quality, and portal service quality) and student satisfaction in Sichuan's CPHEIs.

3. To examine the relationship between student satisfaction and WoM in Sichuan's CPHEIs.

4. To evaluate the moderating effect of WeChat use intensity on the relationship between student satisfaction and WoM in Sichuan's CPHEIs.

## **1.6 Significance of the Study**

The theoretical and practical significance of this study would add to the discipline by incorporating several viewpoints on the influencing factors of WoM in Sichuan's CPHEIs. Considering the discussion of theoretical and practical, two approaches are used to concisely illustrate the relevance of this study.

### **1.6.1 Theoretical Significance**

In contrast to limited prior studies that have concentrated on the WoM of private HEIs, the purpose of this study is to examine the influence factors of WoM in Sichuan's CPHEIs and the moderating effect of perceived trust and WeChat use intensity based on information system success model (ISSM) and expectancy disconfirmation theory (EDT). Numerous earlier research has indicated many factors influenced the WoM in Sichuan's CPHEIs. The most prevalent influencing factors are service quality, and student satisfaction (Dora et al., 2019; Munapa & Yahayab, 2019; Tan et al., 2022). A more comprehensive analysis of WoM in Sichuan's CPHEIs by the ISSM and EDT in this study.

Firstly, based on the ISSM, this study identifies three dimensions (information quality, system quality, and portal service quality) to measure the online service quality (Alatawi et al., 2021; Alkhateeb & Abdalla, 2023). Studies examining online service quality in Sichuan's CPHEIs have not yet been available. At present, many theories are used to measure online service quality. ISSM is the main theory of the studies. A study identified online service quality, system quality, and online content quality to measure the online service quality with a joint theory (ISSM and expectation-