

Chapter 3

Research Methodology

Research Design

This research was a mixed-method study using the exploratory sequential design. This type of research was conducted with a qualitative approach first, followed by a quantitative approach. In this case, the qualitative aspect involved gathering data from interviews, then developing it into a research framework, defining variables, and determining instruments (questionnaires) for quantitative data collection. It consisted of two stages. The first stage involved qualitative research to explore the data, followed by quantitative research to confirm and apply the findings more broadly. The initial step was to understand social capital, including its components, determinants, and consequences, through qualitative methods. The results obtained were then used for quantitative research, which involved defining variables, designing measurement tools, and collecting quantitative data.

In this study, a combination of interviews and questionnaires was adopted. To obtain relevant data, this study adopted the purpose-based sampling method, distributed questionnaires online, and collected data from hospitals within the scope of the study. Additionally, hospital leaders were interviewed to understand the factors that may have affected the formation of social capital in hospitals. After data acquisition, this study further used SPSS software to conduct a validity test and linear retrospective analysis of the collected data to verify the research hypothesis proposed in this paper.

This study used quantitative methods for data analysis. Data related to the management of private dental hospitals was collected and data processing and analysis were conducted using software. Descriptive statistical analysis was used, as the research focus was on the description, summary, and interpretation of the data to help understand the performance of key success factors in the data. Simultaneously, regression analysis was used to detect the relationship between factors and evaluate their impact on the management of private oral hospitals. Stepwise regression analysis was used to determine the best model, and the variance inflation factor was used to judge the existence of multicollinearity. Finally, the report was prepared and interpreted to better understand the results of the data analysis. In addition, qualitative methods were also used to complement the data analysis. In-depth interviews were conducted

to gain insight into the practice of private oral hospital management. Convenient sampling was used, and several representative private dental hospitals were selected as the study objects. Semi-structured interview guides were designed based on the research question and adjusted appropriately. The interviews were recorded and transcribed verbatim into text. The interview content was then analyzed and interpreted using the text analysis method, and a report was prepared for interpretation and summary. Furthermore, relevant literature was collected and analyzed to better understand the existing studies and further support the study on the key success factors in the management of private oral hospitals.

Population and Sample Size

The research scope of this study covered 13 different types of hospitals in Changzhou, as well as the heads of these hospitals and related department staff. In the sample group, the person in charge mainly selected the president or vice president in charge of daily work. Meanwhile, the sample survey mainly focused on the operation of the hospital (including the use of funds, outpatient flow, etc.) and the basic information of the staff (including the qualifications of the staff and the distribution of the number of people in the department, etc.). In addition, the person in charge of the hospital was further interviewed to understand the factors that could affect the social capital of the hospital from the aspects of the factors that affected the development of hospital management, the development and competition between private hospitals and public hospitals, the development of private hospitals, and the development and strategy of private hospitals.

To obtain sufficient survey results and data, 13 interview questionnaires were prepared for the heads of hospitals to obtain the survey results that could support qualitative research. At the same time, 200 questionnaires were prepared and sent to the staff of relevant departments in various hospitals to obtain questionnaire data that could support quantitative research. Through this qualitative and quantitative method, the determinants of social capital formation in dental hospitals and the possible influencing results were studied more effectively.

Research Instruments

Based on the above background and related concepts, this paper believed that the then-current relationship between social capital and the operation of private hospitals

could be expressed as the following relationship chain: Private hospitals could form new and strengthen the original social capital through their own input and external policy support, such as strengthening management ability and medical level. Then, driven by the new social capital, private hospitals could further improve their operational efficiency and economic benefits, such as improving the retention rate of their employees, increasing the proportion of cases cured, and enhancing overall economic income.

To investigate the determinants of social capital in private dental hospitals and its impact on hospital management efficiency, in accordance with the understanding at that time, the guidelines and questionnaire were described as follows:

1. Interview Guideline

In order to improve the acquisition and management of social capital in dental hospitals, the interview guideline outlined in this paper primarily investigated the social capital of dental hospitals. The interview subjects were primarily the key individuals in charge of various dental hospitals in Changzhou City, ensuring the accuracy and authenticity of the survey results.

Table 3.1 Interview guideline

Concepts	Questions
Understanding Social Capital	<ol style="list-style-type: none"> 1. In your opinion, what does "social capital" mean within the context of a private dental hospital? 2. How do you think social capital manifests in the day-to-day operations of the hospital? 3. How would you describe the level of mutual trust among the staff, patients, and management within the dental hospital? 4. What efforts does the hospital make to build and maintain trust between various stakeholders? 5. Can you elaborate on the networks and connections that exist among individuals and departments in the hospital? 6. How do these networks facilitate collaboration and communication? 7. How does the hospital encourage the development of professional networks within the dental community? 8. Are there any formal or informal agreements or norms that guide interactions and decision-making within the hospital?

Table 3.1 Interview guideline (Cont.)

Concepts	Questions
	9. How do these agreements and norms contribute to the smooth functioning of the hospital?
Determinants of Social Capital	<ol style="list-style-type: none"> 1. What are the determinants of social capital within your hospital? 2. Various factors such as medical equipment investment, staff salary, and hospital infrastructure may influence social capital formation. Can you elaborate on how these factors impact social capital within your hospital?
Economic: Management efficiency	<ol style="list-style-type: none"> 1. How is the efficiency of operation and management in the hospital measured? Could you explain the role of social capital in improving this efficiency? 2. Can you provide examples of how increased social capital has positively influenced the economic benefits of the private dental hospital?
Social: Doctor-patient relationship	<ol style="list-style-type: none"> 1. How do you think social capital affects patient trust in the hospital's services and healthcare providers? 2. In your experience, how has social capital contributed to building and maintaining a positive doctor-patient relationship?
Governance: Political engagement	<ol style="list-style-type: none"> 1. How do you perceive the role of social capital in influencing the political engagement and decision-making processes within the dental hospital? 2. Can you share specific examples of how social capital has been utilized to advocate for interests or influence hospital policies? 3. In your experience, how has social capital contributed to the hospital's collaboration with external entities, such as government agencies or regulatory bodies?

3. Questionnaire

According to the interview results from the interviewees, the research section of this paper further focused on the formation of social capital and its impact on the operational efficiency of private hospitals. In this regard, the paper proposed the following documents for further investigation, the results of which were further analyzed in Chapter 4.

Table 3.2 Questionnaire

Issues	Description	Reply
Whether your hospital is covered by health insurance	be	
	not	
The proportion of funds used in your hospital	Employee compensation	
	House rental	
	Purchase medical equipment	
	Hardware facility renovation	
	Ad spend	
	other	
The average outpatient flow at your hospital	person/year	
Distribution of staff at your hospital	Practicing doctors	
	Trainee nurse	
	pharmacist	
	Finance staff	
	Other healthcare workers	
	Managers	
Your hospital publicity department staff	Advertising Department	
	Marketing Department	
	Finance Department	
What factors do you think affect the development of hospital operations?	The level of medical technology	
	Medical Insurance Policy	
	Medical service attitude	
	Hospital brand image	
	Management	
	Leadership quality	
	Public opinion oriented	
	Healthcare market positioning	
	Stability of personnel flow	
	Residents' perception of medical treatment	
	Salary and welfare levels	
	Medical equipment	

Table 3.2 Questionnaire (Cont.)

Issues	Description	Reply
	Self-discipline in medical institutions	
	Government regulation	
	Healthcare environment	
	Academic status of medical staff	
	Tax incentives	
	Personnel promotion and learning opportunities	
	External publicity	

Data Collection: Questionnaire Survey of Changzhou Private Hospitals

In order to further understand the factors that influenced the formation of social capital in private dental hospitals in Changzhou and their impact, this study classified 13 private dental hospitals into three categories: general, traditional Chinese medicine, and specialized hospitals (including nursing). In 2023, the responsible personnel and staff of 13 private hospitals were interviewed and surveyed on relevant issues, and questionnaires were issued. The aim was to obtain qualitative and quantitative data from hospital staff on which factors affected the formation of social capital in hospitals.

Data Analysis

The qualitative data in this study underwent a rigorous process of analysis using content analysis. Content analysis is a systematic method employed to examine and interpret the textual, visual, or audio content of the data in a comprehensive and structured manner (Forman & Damschroder, 2007, pp. 39-62). Through content analysis, we delved into the qualitative data to identify, categorize, and extract meaningful patterns, themes, and insights. This analytical approach allowed us to explore the richness of the qualitative information collected, enabling us to derive valuable findings and conclusions from the interview and document dataset. Content analysis served as a powerful tool for uncovering nuances, perspectives, and underlying trends within the qualitative data, providing a deeper understanding of the subject matter

under investigation. By employing content analysis, we were able to extract the essence of the data and gain valuable insights that significantly contributed to our research findings and the overall depth of understanding the social capital of dental hospitals in Changzhou City. This methodological choice ensured the systematic and rigorous examination of the qualitative data, enhancing the reliability and validity of our research results.

For quantitative data, statistical software was used for sorting and analysis. Before performing any analysis, it was important to check the reliability and validity of the questionnaire data. After the examination, this paper used econometric regression analysis to examine the relationship between the independent and dependent variables. The regression analysis also identified any significant impact from online apparel customers. The main purpose of using linear regression was to study the causal relationship between the social capital of a hospital and its determinants.

The independent variable of this study was the influencing factor of hospital social capital, and the dependent variable was the social capital formed by the hospital. This study aimed to examine the relationship between these independent variables and dependent variables and used regression analysis to identify any important factors that may affect the formation of social capital in private dental hospitals.

After obtaining the questionnaire data, Cronbach's alpha measurement was used to test the reliability and validity of the questionnaire data. At the same time, in order to test the influence and significance of each correlation factor in the conceptual framework, this study adopted the Pearson correlation coefficient and combined the multiple linear regression method for analysis.