

**THE INFLUENCING MECHANISM OF NURSING STAFF  
CHARACTERISTICS ON THE WILLINGNESS TO CHOOSE  
ELDERLY CARE INSTITUTIONS: BASED ON THE  
MEDIATION PERSPECTIVE OF THE EXPECTED  
CONFIRMATION THEORY AND THE REGULATION  
OF GOVERNMENT POLICY SUPPORT**



**Lianxin Jiang**

**A Dissertation Submitted in Partial  
Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy (Management)  
International College,  
National Institute of Development Administration  
2021**

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**Lianxin Jiang  
International College,**

---

..... Major Advisor  
( Zhongwu Li, Ph.D.)

The Examining Committee Approved This Dissertation Submitted in Partial  
Fulfillment of Requirements for the Degree of Doctor of Philosophy (Management).

..... Committee Chairperson  
(Associate Professor Vesarach Aumeboonsuke, Ph.D.)

..... Committee  
(Associate Professor Jiafu Su, Ph.D.)

..... Committee  
(Assistant Professor Sid Suntrayuth, Ph.D.)

..... Committee  
( Daoming Wang, Ph.D.)

..... Committee  
( Zhongwu Li, Ph.D.)

..... Dean  
(Assistant Professor Sid Suntrayuth, Ph.D.)

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## ABSTRACT

<b>Title of Dissertation</b>	THE INFLUENCING MECHANISM OF NURSING STAFF CHARACTERISTICS ON THE WILLINGNESS TO CHOOSE ELDERLY CARE INSTITUTIONS: BASED ON THE MEDIATION PERSPECTIVE OF THE EXPECTED CONFIRMATION THEORY AND THE REGULATION OF GOVERNMENT POLICY SUPPORT
<b>Author</b>	Lianxin Jiang
<b>Degree</b>	Doctor of Philosophy (Management)
<b>Year</b>	2021

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The traditional family pension model faces great challenges as China entered deep aging in 2015, and the burden of aging at home further increases. It is urgent to accelerate the development of social pension institutions, solve diversified pension problems and further improve China's social pension system.

This study analyzes the factors influencing the choice of the elderly from the nursing staff characteristics, service quality, and satisfaction theories of social elderly service organizations. This study adopts the expectation confirmation theory model and combines service quality theory, satisfaction theory, government policy theory, and perceived value theory to explore the nursing staff characteristics of social elderly service institutions and their influencing factors on choice. Simultaneously, It explores the influence on choice under the mediating effect of service quality and satisfaction and the effect of nursing staff characteristics on service quality under the moderating effect of government policies. This study complements theoretical developments in choice research in social pension institutions. This study suggests that the study should improve the comprehensive quality and treatment of nursing staff, promote the improvement of personalized services in nursing institutions, increase the construction of institutional facilities to improve the quality of the environment, improve the management system and policy integration of the nursing service industry, and improve the policy support for social pension institutions. This study believes that in order to solve the real problems of Chinese elderly and social

pension institutions, it is necessary to improve the comprehensive quality of pension institution staff, promote the improvement of personalized services in pension institutions, increase the construction of institutional facilities, and improve the quality of the environment; simultaneously, improve the management system and policy integration of the elderly service industry, and increase the policy support for social pension institutions.



## ACKNOWLEDGEMENTS

When the thesis is about to complete, go back to the doctor for more than three years, there have been excited, there is too low, and have been confused. Thanks to the teachers who gave me great concern and support during my study period, care about my classmates. Friends, as well as their support and companionship, are motivation to encourage. Writing Ph.D. graduation thesis is the process of systematic learning, the completion of the graduation thesis is the end of the Ph.D., which means new learning, work, and life.

I want to express my special thanks to my advisor, Dr. Li ZW! This paper is completed under the guidance of Dr. Li ZW. Dr. Li poured a lot of effort, from the topic to the opening questions, from the writing outline, once again pointed out the specific problems, strict control, followed by the truth. Dr. Li's rigorous degree, profound knowledge, friendly, optimistic and cheerful life attitude and rigorous and pragmatic work style have left a deep impression, and I also encouraged me to work hard on the future growth path.

I would also like to thank Dr. Su JF and Dr. Wang DM, from the external judge instructor, in the process of the revision of the paper, Dr. Su JF gave me carefully guided and helped, and proposed a proposal for my research direction, giving it in life and learning. Great care. Let me get good exercise and improve in a short time, which is far-reaching in the future. At the same time, I want to express my best respect and sincere gratitude to the International College of Assoc.Prof.Vesarach Aumeugg, Ph.Prof.Vesarach, Ph.Prof.Sid Suntrayuth, PH. D. Express my highest respect and sincere gratitude, thank you for taking time in a busy schedule. Defiance for my paper and put forward important advice, so I can defile.

Finally, thanks again to my esteemed teachers, family, and friends for their support and help! I wish you all the best!

Lianxin Jiang

January 2022

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# CHAPTER 1

## INTRODUCTION

In the agricultural era, where land was an essential productive resource, the population was the most important labor force. With industrialization, factories, energy, science, and technology have become additional productive resources and land. The industrialization has increased labor productivity so that the amount of labor is no longer the most important factor in output and the size of the population is no longer the decisive factor in measuring a country's economic strength. The industrialization has also brought about an increase in life expectancy and a decrease in the birth rate, which in turn has brought about the aging of society. The problems brought about by the aging of society are not only the problems of the elderly themselves but involve many aspects of political, economic, cultural, and social development, bringing about a series of problems. Definition of an aging society. In accordance with the standard of the United Nations, a region is considered to have entered an aging society when the population over 65 years old accounts for 7% of the total population. Article 2 of China's Law on the Protection of the Rights and Interests of the Elderly stipulates that the starting age of the elderly is 60 years old, and people over 60 years old are called "elderly."

### 1.1 Research Background

#### 1.1.1 Realistic Background

The twenty-first century is a period when society enters a full-scale population aging. As early as 1999, China entered an aging society ahead of schedule, with the elderly population accounting for one-fifth of the total global elderly population, making it the country with the largest elderly population in the world. Based on the data of the seventh population census

released on May 1, 2002, 1021 as of May 11, 2020, China's population aged 60 and above was 264.02 million, accounting for 18.70%, up 5.44 percentage points from the sixth population census in 2010, of which 190.64 million, or 13.50%, were aged 65 and above (source: China National Bureau of Statistics). China has entered a period of rapid population aging in 2015 and is facing great pressure on the issue of old age. With the rapid socio-economic development and the gradual deepening of aging in China, the traditional family pension model faces great challenges, and the burden of aging at home has further increased. Consequently, against the background of deepening socio-economic development and increasing the elderly population, social pension institutions should be accelerated to solve the diversified pension problems of the elderly and further improve China's social pension system.

The accelerated growth of China's aging population and the serious population aging make both the state and society face the pressure of old age. Zhou and Chai (2015) mentioned in their study that Guangxi presents the characteristics of the rapid aging process, more purely elderly families and elderly living alone, and prominent seniority. Additionally, J. Ren (2016) also mentioned in his study that the proportion of the elderly aged 65 and above in the total population in Shanghai increased from 7% to 14% in only 20 years. Moreover, the number of purely elderly households and elderly living alone among the elderly in Guizhou is growing. Data show that at the end of 2015, there were 964,600 elderly in "purely elderly households" in Guizhou, of which 313,800 were aged 80 and above, accounting for 33.56%; 293,700 the elderly lived alone, an increase of 8.16% from 2010. The number of the elderly living alone is 293,700, an increase of 81,600 or 41.55% over 2010. This type of purely elderly and the elderly living alone need priority care and assistance. With the development of the social economy, the emergence of welfare pluralism, and the miniaturization of family structure, the traditional family-supported elderly care method is gradually disintegrating, and institutionalized elderly care, as a supplementary elderly care method, will become an important elderly care option in the future. In the meantime, it is

important to note that the overall service capacity of pension institutions in China is not high enough to meet the increasingly diverse needs of the elderly. This study will investigate the current operation status of social institutions, collect relevant data and analyze them, and propose measures to solve further the obstacles and dilemmas in the development of social institutions and improve the overall satisfaction and service quality of institutions. Simultaneously, it will improve the service quality and management level of pension institutions, promote the diversified development of social pension institutions and the senior care industry, and provide the foundation for China to slow down and solve the rapid growth of the elderly population. The United Nations Population Fund made the following forecast in 2009. By 2030, China's elderly population will quadruple, and by 2050, the proportion of Chinese people over 60 years old will exceed 30%, by which time China will enter deep aging. The above data shows that: the rapid and harmonious development of social welfare institutions has become the focus of scholars' research.

The development of pension institutions is one of the effective ways to solve China's elderly care problems in light of the current social situation. In fact, however, the occupancy rate of pension institutions is generally low nationwide, and there is a structural contradiction between supply and demand. Yang et al. (2017) suggested that the root cause of this is the large gap between the service quality of pension institutions and the needs of the elderly population. The problem of "low occupancy rate" has been the bottleneck of the development of pension institutions. Mu (2012) believes that poor service quality is an important reason for the low occupancy rate. Through an empirical study, Zhu (2019) showed that the persistence of inadequate staffing, long operating hours, and shortage of financial subsidies are the main factors influencing low occupancy rates. Therefore, at the 14th meeting of the Central Leading Group on Finance and Economics held in December 2016, Xi Jinping, General Secretary of the Central Committee of the Communist Party of China (CPC), emphasized that "a significant improvement in the service quality of nursing homes should be made as soon

as possible in accordance with the ideas of adapting to needs, prioritizing quality, reasonable prices, and diversified supply, and accelerating the establishment of a nationwide unified service quality standards and evaluation system." Subsequently, the General Office of the State Council issued "Several Opinions on Comprehensively Liberalizing the Senior Care Service Market and Enhancing the Service Quality of Senior Care" (Guo Ban Fa [2016] No. 91), which clearly proposed that "by 2020, the senior care service market should be fully liberalized and service quality should be significantly improved. Simultaneously, the mass Satisfaction should be significantly improved" goal, requiring civil affairs, quality inspection, and other departments to improve the standard system of elderly services as soon as possible. In this regard, six ministries and commissions, including the Ministry of Civil Affairs, also responded to the deployment requirements: starting from March 2017, a four-year special action for pension institutions' service quality construction will be carried out in three phases. In order to achieve the goal of "by the end of 2020, a nationally unified senior care service quality standard and evaluation system will be basically established, the senior care service quality governance and promotion system will be more perfect, and the overall level of service quality of pension institutions will be significantly improved. The overall service quality level of nursing homes is significantly improved".

The State Council released the "12th Five-Year Plan for the Development of China's Aging Business" in 2011, which for the first time proposed to include medical and health services for the elderly in the scope of health development - to carry out prevention of diseases in the elderly, actively promote the development of health care for the elderly, and build a medical and health service team for the elderly. In 2013, the State Council issued "Several Opinions on Accelerating the Development of the Elderly Service Industry," which mentioned that all parts of the country should actively promote the integration of medical services and elderly services, promote the integration of medical and elderly services, and explore the mode of combining medical and health resources with nursing homes, communities

and families. In September of the same year, the State Council also issued "Several Opinions on Promoting the Development of Health Service Industry," proposing to establish collaboration mechanisms between medical institutions and pension institutions to optimize the allocation of resources. In 2014, the state issued the "Guidance on Strengthening the Standardization of Senior Care Services," proposing: to strengthen the research and development of basic general standards for senior care service institutions. In 2015, the State Council issued the Guiding Opinions on Promoting the Combination of Medical and Health Care and Senior Care Services, which put forward the collaborative way of promoting the combination of medical and pension services. In 2017, the Ministry of Civil Affairs issued the pension. In 2017, the Ministry of Civil Affairs issued the "basic specification of pension institutions service quality," which put forward the content and quality requirements of pension institutions service from 16 aspects. For improving the service quality of pension institutions and enhancing the choice of pension models, the state and government need to establish effective long-term mechanisms and introduce corresponding service quality standards and norms.

The above situation regarding the development of social pension institutions and the demand for social pension institutions among China's elderly population has long drawn the attention of many researchers and scholars. Scholars have attempted to identify the root causes of the problems in terms of motivation, branding, management, medical conditions, and social support to find solutions to China's current social care dilemma. However, after this researcher combed through the relevant information, he found that many research results in the current public literature show that - changing and improving the service quality and satisfaction of social pension institutions is the key element to improving the elderly choice. The key element is to improve the choice of the elderly. Only by improving the choice of social care model for the elderly is the best solution to the elderly problem and the development of social pension institutions. Therefore, based on this realistic background, the study of how to improve the voice of the elderly and how to further improve and accelerate the development of social pension institutions

has become a hot research topic in the academic field. The present study is based on this current situation and scientifically carries out the relevant research work.

### **1.1.2 Theoretical Background**

According to Parrott (2003), senior care services in the UK began to follow a market-oriented and industrialized development path in the 1980s, and profit-oriented market service organizations have successfully solved the problem of insufficient community-based senior care services. The senior care industry began to develop on a large scale. showed that the pension model in the United States is mainly characterized by the Continuous Care Retirement Communities (CCRCs) model, which includes: full care "independent living homes," daycare "assisted living homes. "This model highlights the importance of humanistic care, social support, and government protection for the elderly in the United States. Zhang (2014) found that Japan's social elderly service model is divided into four forms: first, government-led service organizations. Second, government-sponsored private organizations, third, corporate elderly organizations. Fourth, volunteer organizations. The cost of the service is shared or financed by multiple parties, but the content and form of the service are diversified, including home care, daycare, short-term care, long-term care, and elderly health care consultation and guidance services. This model reflects that the social elderly service is more diversified under the government's leadership, and its service quality and living environment make the elderly satisfaction is on the rise. As such, government policies, the quality level of human resources, and the transfer of talent focus on improving social care services for the elderly. This demonstrates the increasing importance of research on service quality in pension institutions, and as research progresses, whether human resources improve service quality and influence choice will become a hot topic of research.

According to foreign scholars Peak and Sinclair (2002), the elderly living in social security institutions, their families, and the staff of social security institutions are the three important stakeholders in the system. Thus, the survey of service satisfaction of pension institutions should cover the subjects mentioned above. Meanwhile, Donabedian (2005) also proposed the "structure-process-result" model in his study, which provides a theoretical and meaningful framework for establishing the social security service quality system. This provides a complete framework of criteria for establishing the social service quality system of welfare institutions because the theoretical model suggests that the service quality criteria of social welfare institutions should cover: "structural criteria, process criteria, and outcome criteria." Among them, structural criteria mainly assess physical facilities (such as sites, equipment, etc.), human resources (including quantity and qualifications), organizational structure, etc.; moreover, process criteria mainly measure the process of directly providing services; besides, outcome criteria reflect the effectiveness and satisfaction of services, and this system is a more comprehensive measure of service quality in pension institutions. However, domestic scholar Mu (2012) argued in his study that the poor service quality of social pension institutions is an important reason for the low occupancy rate, so it does not exclude that service quality is one of the factors affecting the model choice of the elderly. Accordingly, regarding the respondents of social institutions' service satisfaction survey, Qin and Sun (2016) in their study divided the service quality of social institutions for the elderly into hardware facilities, operation and management, service content, service staff level, and location conditions, pointing out the multiple adaptations of pension institutions' services. Nevertheless, Zhu (2019) revealed through an empirical study that staffing, operating hours, and continuity of financial subsidies in social pension institutions are the main influencing factors. From this literature, it can be inferred that the staffing level of social pension institutions is one of the influencing factors of service quality and satisfaction.

Cardozo (1965), a foreign scholar, indicated in his study that customer satisfaction depends not only on service quality but also on payment, expected confirmation, etc. Customer satisfaction is never a simple evaluation of product or service quality, but it is likely to be influenced by the process of product or service delivery. Similarly, according to Parasuraman, Zeithaml, and Berry (1985; 1988) and many other scholars, service quality has an important impact on customer satisfaction. Thus, service quality is considered an antecedent of customer satisfaction. After that, in their research, Parasuraman, Zeithaml, and Berry (1988) again proposed that customer satisfaction is a prerequisite for service quality, which fully showed that service quality is an important influencing factor of satisfaction. Moreover, it was not until Chinese scholar Zhang and Liu (2012) proposed in his study that from the perspective of social pension institutions. As most of the elderly in social pension institutions are senior and disabled elderly, there is a significant operational risk, and this risk is not only from the resident elderly but also from the nursing in the staff of the institutions' service quality. This study also shows that human resources are one of the influencing factors of service quality, and it can be inferred from the literature that human resources can have an impact on satisfaction through service quality and, at the same time, can directly influence satisfaction. Hence, Bellou (2014), based on the survey data of 749 frontline care service workers, concluded that it is necessary to form a customer service-oriented culture among employees within pension institutions to enhance institutional elderly service satisfaction make pension institutions more competitive. Therefore, Zhang, Mu, and Fu (2013) put forward the "demand-requirement-pursuit" theory of institutional quality elderly care in their research results and divided the quality connotation of institutional elderly care into environmental quality, management quality, service quality, and humanistic quality, and this study also showed that the three elements of human resources, service quality, and satisfaction are the same. This study also displays an influential relationship between human resources, service quality, and satisfaction.



Philp (2004), a foreign scholar, concluded in his study that special care modalities and high quality of care services in social pension institutions enhance the choice of the elderly. For this reason, pension institutions need to improve the quality of services, improve the management model, and improve the quality of caregivers in order to increase the satisfaction of the elderly. Meanwhile, McAlearney and McAlearney (2006) argued that in order to improve the overall level of community health centers, they need to improve the professionalism of their services, and an effective way to do so is to cooperate with hospitals and bring in professionals in order to gain better recognition from the elderly. In addition, Addae-Dapaah and Juan (2014) argued that: the main factor affecting the elderly choice-the management, environment, medical care, services, and staffing level of the institutional geriatric care service system. Domestic scholars Chang, (2000) found that the main reason for the current phenomenon that social pension institutions are not favored by the elderly is not that the number of beds exceeds the demand or the fees are too high, but that the level of service and management is very low. Min (2006) and others also believe that the low occupancy rate is caused by the low number of practitioners, low quality, and low management level of institutions. As such, Wu (2011) analyzed the development status of institutional elderly services from supply and demand and dissected the gap between demand and supply. The analysis results showed a large gap between pension institutions and the choice of the elderly in terms of quantity, management level, quality, and specialization. According to Yang et al. (2017), the main root cause of the elderly's choice in the pension model is the large gap between the service quality of pension institutions and the needs of the elderly population.

Cronin Jr and Taylor (1992), foreign scholars, in their study of service quality, argued that service quality is a good tool for measuring customer satisfaction. This includes measurement factors such as the management status, professionalism, staffing, and facility functionality of the subject providing the service. However, the degree of influence of public policy on service quality cannot be excluded. According to Chinese scholar Liang,

Cheng, Yu, and Zhou (2003), the social security system of government public policy is a necessary measure to promote the stability of institutionalized elderly care, and government policy guidance has achieved considerable results in the feasibility of institutional system establishment, theoretical system, management system, and talent introduction. Therefore, Qiao (2013) also mentioned in his study that the inadequate and low level of professional care services in social pension institutions should be supported by government policies to make up for the deficiencies in institutional construction. After that, Wang (2014) also argued that concerning the current situation of institutional care in China, there are still many difficulties: pension institutions are expensive, the number of welfare-type pension institutions is small, and the demand exceeds the supply; the infrastructure and equipment construction is not perfect; and the overall quality of elderly care service personnel is low, leading to a situation that needs to be This situation needs to be guided and supported by the government. Later, G. Zhao and Zhou (2016) pointed out in their study that the current pension institutions are mainly led by the government and are mainly divided into two models: public and private and private. Meanwhile, the study of foreign scholars Kavsek and Bogataj (2017) showed that the service quality of pension institutions as understood by elderly groups and service providers has different connotations, so the support side of government policies should be universalized between public social pension institutions and private social pensions. However, Tian, Cui, and Yang (2018) argued that from the perspective of the institutional elderly service arranger, the government, to meet the demand for institutional elderly service of the elderly group, has introduced many policies to support the development of pension institutions. Still, it has not achieved the expected effect and has produced waste of resources and policy. Nonetheless, the government has introduced many policies to support the development of institutional care services, but they have not achieved the expected results. They have also produced unintended consequences such as waste of resources and policy arbitrage. However, Liu (2019) investigated developed countries such as the United Kingdom, the

United States, and Japan and found that the importance of laws and regulations is paid much attention to the development of market-based elderly care service system. The government and related departments have established many policies and legal norms to ensure the stable development of the market-based elderly service system in the country.

Consequently, Rhonda (2000) derived in his study that the state should provide the resources needed for old age and undertake the corresponding responsibility for it, providing guarantees in terms of social care services, medical treatment and equipment. Meanwhile, Allen (2000) also argues that old age is not a single responsibility and that the government and family should share it. Thus, it can be seen that government policy guarantee is important for pension institutions for the elderly and whether it is some factor that affects the quality of pension institutions service, which will attract the attention of many scholars. Moreover, Gibler, Moschis, and Lee (1998) showed that most of the elderly prefer large pension institutions that provide good housekeeping services, medical services, recreational activities, personalized personal care services, and transportation and shopping services. Van Bilsen, Hamers, Groot, and Spreeuwenberg (2008) also studied the service demand preferences of the elderly living in pension institutions. The study results showed that the elderly preferences for the pension institutions model were generally focused on the cultural and recreational services and nutritional meals provided by the pension institutions. This shows that the service quality of pension institutions is particularly important to the elderly in their choice, so is this a key influence on choice? However, a large number of studies have not found that a scientific and reasonable service system has been developed. Further research is needed to determine whether this is the main influence. However, Dr. Ian Philip (2004) found in his study that special care and high-quality care services are favored by the elderly, and pension institutions need to work on improving service quality, improving the management model, and improving the quality of nursing staff in order to improve the satisfaction of the elderly. Whether this indicates that human resource allocation can improve the service quality of social pension

institutions needs further study. However, Chinese scholar Zhang (2009) argues in his study that the research on the elderly model, choice, and influencing factors began to develop and increase gradually, and many scholars have put forward different views and opinions, which have not yet formed a unified conclusion. Thus, the topic of studying the elderly model choice can have a greater theoretical value and social value in the academic community. Therefore, Zhang (2012), a research expert in social pensions, believes that there are problems such as slow construction of pension institutions, an insufficient supply of pension services, poor quality of pension service teams, and incompatibility between the development of pension services and demand. This fully indicates that: the environmental feeling of social pension institutions and the high level of talent team have become the obstacles to the development of social pension institutions. This will be the primary cause of fluctuations in the level of service quality in pension institutions, and thus a major factor influencing the choice of the elderly; meanwhile, it will be one of the focuses of this study.

Considering the above, this study will investigate how to improve the service quality and satisfaction of pension institutions from the perspective of human resources, thereby identifying the factors that affect the choice of pension institutions by the elderly and proposing effective countermeasures and measures. This study will explore how to improve the service quality and satisfaction of pension institutions and thus find out what factors influence the choice of pension institutions by the elderly to propose effective countermeasures and measures. At the same time, this study defines the concept of the retirement model as the question of "how to retire," —how the elderly choose to spend their old age. To this end, this study will use scientific methods to study the future development prospects of social pension institutions, and start from the voice of the elderly, use scientific research methods to carry out a survey and analysis of social pension institutions and in-depth study of the voice of the elderly, to find out the relevant problems, and propose relevant strategies for the elderly. The study will provide a

reference basis for the choice of the elderly and provide theoretical guidance for the future development of social pension institutions.

## **1.2 Problem Statement**

In response to the above-mentioned current situation about the development of social pension institutions and the demand for social pension institutions among Chinese elderly people, this study finds problems in the pension institutions' pension model, pension institutions' service quality, and management. For example, the current level of service capacity of pension institutions in China is not high enough to meet the increasingly diverse needs of the elderly. The research on pension models, choices, and influencing factors is gradually developing and increasing, but no unified conclusion has been formed yet. More importantly, the supply of elderly services is insufficient, the quality of the elderly service team is not high, and the development of elderly services does not match the demand.

Simultaneously, since the government's 2013 Document 35, the Chinese government has increased its policy support for pension services. Nonetheless, research on whether and how Chinese government policy support affects the elderly' choice of pension institutions is unclear, and quantitative research is lacking.

## **1.3 Purpose of the Study**

China's population is aging swiftly and is now in the stage of deep aging, but the development of the elderly service industry is still lagging behind. The level of management and capacity of social pension institutions in China is an important factor for the elderly to choose pension institutions and a fundamental guarantee for the sustainable development of pension institutions. What factors will affect the improvement of pension institutions management level and capacity, and how to promote the harmonious and

rapid development of social pension institutions has long become one of the key contents of academic research on pension institutions.

Starting from the independent variable nursing staff characteristics, this study will try to determine the influencing factors that affect the choice of the elderly through service quality, perceived value, expectation confirmation, and satisfaction as mediating variables. Besides, this study will explore the effect of the moderating variables, government policy, on the relationship between nursing staff characteristics and service quality, perceived value, and expectation confirmation, and construct a theoretical model for this study. Furthermore, this study uses scientific, statistical analysis methods such as scientific SPSS and AMOS to identify the problems or drawbacks in the current development of social pension institutions. More importantly, this thesis also proposes corresponding improvement and enhancement measures further to improve the current situation of social pension institutions. This thesis aims to enhance the recognition of social pension institutions among the elderly and improve the choice to accelerate the good situation of sustainable development of social pension institutions and elderly care in China.

#### **1.4 Research Questions**

By combing the influence of nursing staff characteristics on service quality and expectation confirmation, and the influence of satisfaction through perceived value, this study explores how government policy as a moderating variable affects older adults' choice of pension institutions. Further, by combing the literature, this study identifies the following question: how effective are government-led social pension institutions and whether they enhance or promote older adults' choice of pension institutions. Consequently, if government policies are considered as moderating variables, whether they have moderating effects on human resource allocation and service quality in the construction of social pension institutions still needs to be further explored in the study. For the successful conduct of this study, the

author has reviewed and organized a large amount of literature in this research area through electronic databases and online libraries and summarized and clarified the issues of this study based on the previous research results as follows.

1) What is the effect of the elements of nursing service personnel characteristics on service quality.

2) How effective the elements of the characteristics of nursing service providers influence expectation confirmation.

3) What is the effect of the elements of nursing service personnel characteristics on the effect of choice mediated by service quality and expectation confirmation.

4) How effective is the mediation effect of perceived value between service quality and expectation confirmation and satisfaction.

5) How effective is the role of satisfaction between perceived value and choice.

6) Satisfaction in service quality and expectation of the role between confirmation and choice how effective.

7) What is the effect of government policy as a regulating role in influencing service quality, satisfaction, and expectation confirmation on choice.

## **1.5 Research Innovation**

By reviewing a large amount of literature for investigation through Chinese databases, Google Scholar's database, and collecting internet information for analysis, I found that: the current academic research on the choice of the elderly's choice of pension model and the enhancement of pension institutions are mostly related to service quality, satisfaction, objective physical conditions, infrastructure, the Some scholars have also studied the choice of pension institutions in terms of emotional support, behavioral support, and the improvement of pension institutions. Some scholars have also analyzed pension institutions in terms of emotional

support, behavioral support and material support, and policy recommendations in individual, institutional and national dimensions. Nevertheless, few scholars have studied nursing staff characteristics of pension institutions as a dimension or a single variable. Nowadays, many scholars' studies on pension institutions can be broadly divided into two categories. The first category is the study of the supply side of social pension service-the study of social pension institutions. The second category is the research on the demand side of pension institutions - the research on the needs of the elderly. This thesis belongs to the latter category, which is an in-depth study of the demand side of pension institutions.

Based on combing and summarizing related literature, this thesis argues that the five indicator variables of nursing staff characteristics, perceived value, service quality, expectation confirmation, and satisfaction of pension institutions correlate with choice. Thus, this study attempts to make the following innovations.

First, this study explores whether service personnel characteristics significantly affect choice under the mediating effect of service quality and expectation confirmation, further extending the expectation confirmation theory (ECT model) and a theoretical innovation of the expectation. This further extends the expectation confirmation theory (ECT) and a theoretical innovation of the expectation confirmation theory.

Second, to investigate whether there is a significant effect of service quality on the generation of satisfaction under the mediation effect of perceived value, which is an innovation of the service quality theory.

Third, to confirm whether there is a significant effect on the generation of satisfaction under the mediating effect of perceived value based on expectation, which is an innovation of the theory of customer satisfaction, is an innovation of the theoretical basis.

Additionally, the Chinese government has introduced many policies to support and encourage the pension service industry since 2013. For example, it has attracted more private capital to enter the pension service industry, provided idle land for public welfare to the pension service industry, and



provided tax exemptions. Besides, to improve the subsidies for the pension service industry, to train talents who meet the needs of the pension service, to encourage public charity organizations to support the pension service. All these policies have played a key role in developing the pension service industry. Accordingly, this study proposes a fourth innovation point.

Fourth, in the modeling framework of this study, whether government policies have a moderating role.

## **1.6 Research Framework and Technical Route**

Based on the current situation of the elderly's retirement model choice and the development of social pension institutions, this thesis proposes a research theme of satisfaction and choice of service quality in pension institutions. By reviewing a large number of domestic and foreign research literature, the author identifies the relevant variables and research objectives and determines the research content. Moreover, the author determined the research objectives of this thesis based on a comprehensive sorting and analysis of a large number of relevant research themes at home and abroad. Further, in this way, the research ideas and technical lines of this study were formed, as shown in Figure 1.1.

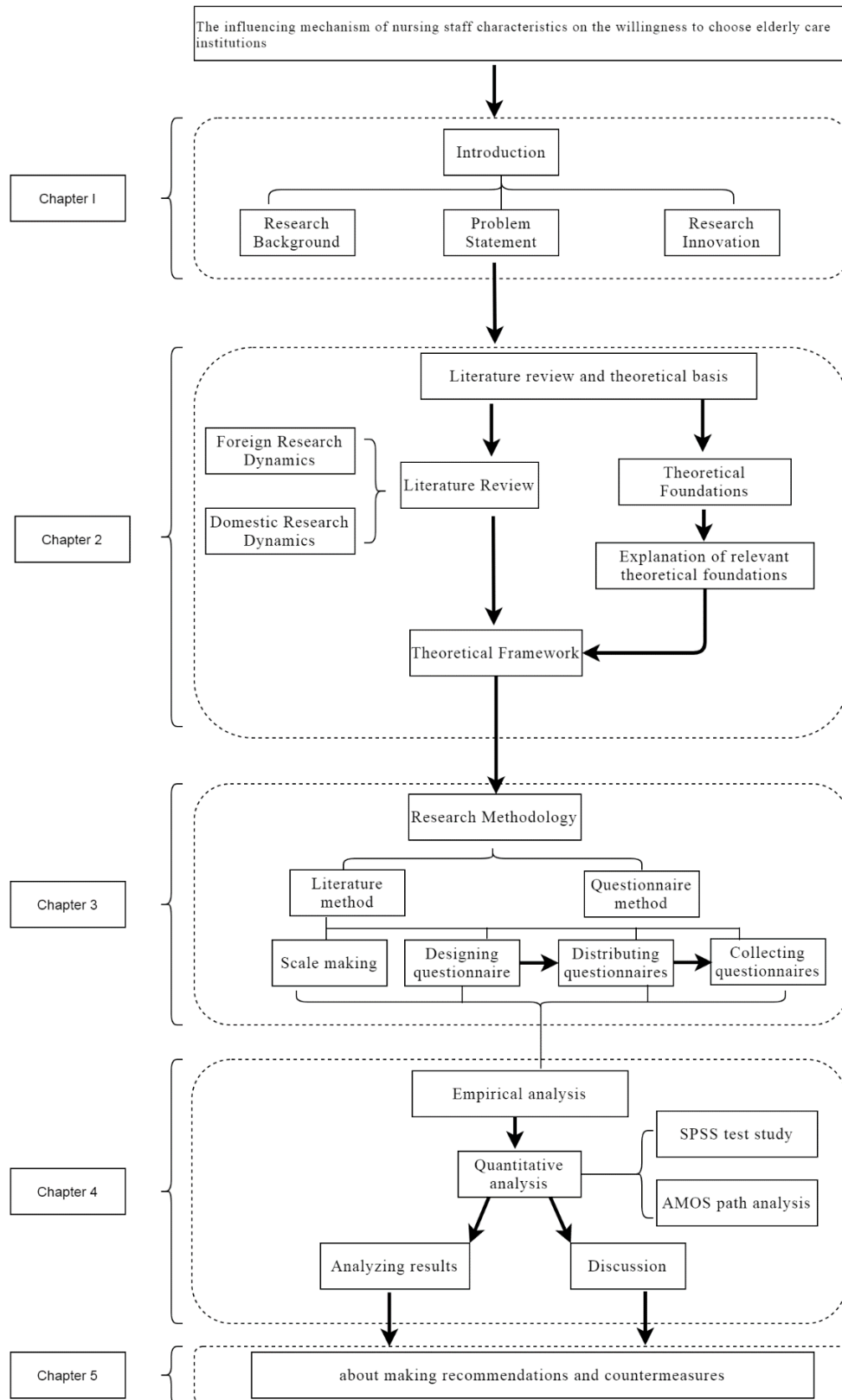


Figure 1.1 Framework and Technology Roadmap

## **1.7 Research Contribution**

### **1.7.1 Theoretical Contributions**

This study combined the indicator variables of nursing staff characteristics with the previous research results. For example, service level, vocational skills, and educational level are used as independent variables, service quality, perceived value, expectation confirmation, and satisfaction are used as mediating variables. Selection is the dependent variable to construct a new theoretical framework in this study. In particular, through the exploration and empirical analysis of the influential relationships among variables, the relevant theories in social pension institutions are supplemented. In addition, through the exploration and empirical analysis of the relationships among variables, the theoretical gaps in the theoretical study of social pension institutions are filled, and theoretical support is provided for other scholars in this research area. The research results will make the following contributions to the relevant theoretical foundation.

First, the mediation role of service quality and expectation confirmation between nursing staff characteristics and choice was examined empirically through path analysis - the factor of nursing staff characteristics had a significant effect on choice with the mediation role of service quality and expectation confirmation. The mediation effect of nursing staff characteristics in the relationship between service quality and expectation confirmation significantly affects choice. This is a further extension of the expectancy confirmation (ECT model), which is one of the important contributions of this study and provides a theoretical basis for other scholars in this area of research.

Second, it empirically tested the mediation effect of satisfaction between service quality and expectation confirmation and choice - service quality and expectation confirmation have a significant influence relationship on choice mediated by satisfaction, which complements the theory of customer satisfaction (ASCI model) and is the main contribution of this study.

Third, it is the variable moderating effect of policy support. The service quality element positively and significantly affects choice-the greater the policy support, the better the service quality-under the moderating effect of policy support, which complements the service quality theory and is one of the main contributions of this study.

### **1.7.2 Realistic Contribution**

Against the background of China's rapidly aging population, the practical contribution of this study is to address the problems and dilemmas faced in the current development of social pension institutions in China.

Firstly, based on the satisfaction survey analysis, the influencing factors of the elderly's retirement model choice are empirically studied, which provides a theoretical basis for social pension institutions to improve and enhance their service quality.

Secondly, through the investigation and analysis of this study, the problems and shortcomings of social pension institutions in the process of development will be found and identified; moreover, proposals and countermeasures will be made to improve the service quality and management level of social pension institutions and provide theoretical guidance and reference basis for the choice of pension model.

Thirdly, under the background of aging, the research results are used as a theoretical basis to optimize the service system of social pension institutions and accelerate the integration and innovative development of social pension institutions; furthermore, to effectively alleviate and reduce the pressure of the state and society on pensions and maintain social stability under the new situation.

Fourth, it guarantees the construction of a harmonious socialist society in China and provides a basis for decision-making and theoretical support for the development of social pension institutions by local governments and related legal entities such as the pension industry; it further promotes the healthy, harmonious, and sustainable development of social pension institutions.

## 1.8 Research Scope

Social pension institutions are the main carrier or social entity that sprouted from the socialized way of aging after the elderly chose institutionalized aging. Currently, they are institutions or organizations specializing in providing aging services for the elderly groups. Their functions are group organizational institutions that mainly provide daily life care, health care, psychological comfort, and group activities for the elderly.

Currently, following the "Basic Norms for Social Welfare Institutions for the Elderly" of the Ministry of Civil Affairs of the People's Republic of China, the elderly service institutions in China include eight forms: social welfare institutions for the elderly, homes for the elderly, apartments for the elderly, nursing homes or homes for the elderly, nursing homes and nursing homes. Nevertheless, there has not been a complete and unified definition of social institutions for the elderly in recent years among the social science academia. Thus, few scholars have specifically defined and explained it, but basically, social institutionalized elderly care has been discussed and studied as a modern pension model. For example, Mukesh et al. (2019) divided the traditional pension institutions. According to Jiang and Li (2021), pension institutions in China have gradually developed from home-based to community-based and institutionalized because of the needs of the elderly. And institutional care. At the same time, the "Social Pension Service System Construction Plan (2011-2015)" issued by the Chinese State Council states that the construction of the social pension service system should be home-based, community-based, and institutional supported. Therefore, the construction of infrastructure is the focus of the development of social pension institutions, and by strengthening and improving the level of infrastructure construction to achieve the goal of basic elderly service functions. Therefore, this study considers that social pension institutions are a socialized way of old-age care in which the elderly live in pension institutions or organizations for a long time, and the social pension institutions or

organizations centrally provide the elderly with food, accommodation, medical care, entertainment, psychological guidance, and other services.

In sum, under the guidance of a series of policies of the Chinese government, the infrastructure construction of social pension institutions will be the main direction of the development of social pension institutions in China. At the same time, the services provided by social pension institutions will cover the following life care services, meal services, Cleaning and sanitation services, laundry services, cultural and recreational services, medical care services, security and protection services, and other seven services, see Table 1.1 for details.

Table 1.1 Pension Institutions Service Items and Content Table

<b>Serial Number</b>	<b>Services</b>	<b>Services</b>	<b>Literature Sources</b>
1	Life Care Services	Making beds, assisting or dressing the elderly, eating, and Washing and bathing, outdoor activities, shopping for goods.	(Fan, 2019).
2	Catering Services	Meal preparation and feeding, dishwashing, recipes for the elderly, and regular updates.	
3	Cleaning and sanitation services	Cleaning the room, making things up, changing bedding, and Cleaning and disinfection of public areas.	
4	Laundry Service	Regular washing of clothes and bedding.	
5	Cultural and entertainment services	Regular recreational activities, organization of volunteers to visit the elderly, interest groups.	
6	Medical Care	Injection and medication, turning	

Serial Number	Services	Services	Literature Sources
	Services	and back tapping, excretion care, monitoring of disease, and Health guidance, rehabilitation care.	
7	Security Protection Services	Fire drills, safety education, and training, facility and equipment maintenance.	

Source: Fan (2019).



## **CHAPTER 2**

### **LITERATURE REVIEW**

Definition of concepts and theoretical foundations are the basis and prerequisite for scientific research, and the definition of concepts can make the research objectives more clear and thus make the research more in-depth. This chapter will define "pension institutions services," "social pension institutions," "pension model choice," "staff characteristics of social pension institutions nursing," "satisfaction theory," "service quality theory," "government policy theory," "perceived value theory," "expectation The concepts of "confirmation theory" are clearly defined and explained. In addition, this chapter constructs a theoretical framework and discusses the research hypothesis, and within this framework, a research structure for problem analysis and solution is developed.

#### **2.1 Research Status**

This study first compares the research development of the retirement industry in China and several countries outside of China that have entered the aging process to help this study identify the research frontiers in this related field.

##### **2.1.1 Foreign Research Developments**

In Western countries, the general term "services of pension institutions" is actually a localized expression. The concept of "Long-term Care" was first proposed by Kane, an American scholar, in 1987 and is more often referred to as such in the social and academic circles in this field. Some developed countries in the West have already entered the condition of population aging in the early 20th century, so the services of pension institutions facilities and management systems in developed countries are



more well built. At the same time, the long-term practice of these developed countries has provided a rich practical foundation for services of pension institutions research. Simultaneously, the long-term practice of these developed countries also provides a rich practical basis for the services of pension institutions research. Therefore, foreign scholars have been concerned about who should care for the elderly, the family? Government? Society? Therefore, foreign scholar Kane (2005) wrote a book "Comparison of national policies on issues related to care and support for the elderly," analyzing the elderly care policies of four countries, Germany, the United States, Canada, and Australia, and arguing that the government should take the responsibility of elderly care and play the role of a coordinator. Later, with the rise of research in social pension institutions and service quality, many scholars began to study them. Among them, Rhonda (2000), a scholar who studied the role of the state, argued that the state should provide the resources needed for old-age care and also assume the corresponding responsibility for old-age care by providing social pension services, medical care, and equipment. Meanwhile, Su (1999), a scholar of the state adjustment school, argues that the state should be responsible for coordination, the family should be the responsible subject of old-age care, and only when the family cannot take up the corresponding responsibility for old-age care, the state should fulfill the responsibility of old-age care. Social pension institutions are the responsible subject of old-age care services. Rhonda (2000) argues that when the family Rhonda (2000) considered that the community should provide the relevant services when the family is unable to take up the elderly care function. However, Allen (2000) concluded that there is no single responsibility for elderly care and that the government and the family should share the responsibility.

According to foreign scholars' research on the exploration of old-age security and old-age responsibility, through the level of economic development, policymaking, and fundraising methods in western countries, after that, many foreign scholars began to develop further the research on the industrialization of social old-age and the elderly old-age model choice. For

example, Kane (2005) said that in the institutional care model, pension institutions are the important material carrier of the institutional care model. In foreign countries, it includes geriatric hospitals, nursing homes, community health service stations, nursing homes, and other institutions that provide long-term care services to provide corresponding services for the elderly. Since nursing homes that provide professional care services have long been the dominant long-term care model (LTC), LTC has almost become a synonym for nursing homes. The term LTC has become almost synonymous with nursing homes. Scholars such as Gibler et al. (1998) argue that the demand for diversification in the market arises spontaneously as society ages and that older people choose from a wide range of products in the market according to their own preferences. Peak and Sinclair (2002) concluded that the elderly and their family members and the employees in the institutions are important stakeholders, and therefore the survey on the satisfaction of institutional elderly care services should cover all three types of stakeholders. In his study, Dr. Ian Philip (2004) found that special care and high-quality care services are favored by the elderly, and pension institutions need to make efforts to improve service quality, improve management mode, and improve the quality of nursing staff in order to improve the satisfaction of the elderly. McAlearney and McAlearney (2006) argues that in order to improve the overall level of social institutions or community health centers, elderly service organizations need to improve their services. Ejaz and Castle (2007) suggest that studying the satisfaction of institutional elderly care services from the perspective of the elderly residents can provide an important reference for quality improvement. The survey content overlaps the connotation of institutional elderly service satisfaction and institutional service quality. Institutional elderly service satisfaction is usually a comprehensive reflection of the quality of life, quality of care, service quality, etc. Van Bilsen et al. (2008) conducted a survey on 134 elderly residents with an average age of over 82 years at different time points. Van Bilsen (2) conducted two interviews with 134 elderly with an average age of more than 82 years old at different time points to study the service demand

preferences of the elderly living in institutions, and the study showed that the elderly generally pay attention to the cultural and recreational services and nutritional meals provided by institutions when choosing their willingness to live in institutions. Stevens (2018) found that a comparative analysis of the conditions of access to pensions in the United States and Europe in different regions, under different socio-political systems, and with different economic conditions and parameters, as well as different ways of calculating pensions in European and American societies, influenced the elderly's choice of pension institutions. Carrino, Glaser, and Avendano (2018) discovered through the study of raising the state pension age in the UK that raising the state pension age, a common policy aimed at improving the financial sustainability of the pension system, may harm the physical and mental health of older workers, with women in manual and traditional occupations facing not only a significant loss of pension income. Additionally, they face an increased risk of physical and mental illness due to the increase in the state pension age. There are two possible policy implications of this finding. First, the negative health effects of the reforms are limited to women from manual and conventional occupations, raising potential questions about fairness and whether eligibility rules should consider occupation as a potential criterion. Second, national policies to raise the state pension age need to consider strategies to prevent negative health effects on women in manual and conventional occupations. For example, inclusive labor market policies facilitate a smooth transition to retirement (i.e., a gradual reduction in the workweek) and provide workers with sufficient time and information to adapt to changes in the state pension age in advance. After analyzing the experience of pension systems in Europe, Asia, North and South America, and Australia, Koval, Priamuhina, and Zhmurko (2020) notes that after analyzing the implementation of the pension reform in Ukraine, there are still some unresolved issues in the provision of citizens' pensions in the 12 years following the pension reform in that country - -the aging of the population, which is one of the main factors that prompted the government to enter a new stage of pension system reform, the existence of

arrears in mandatory state pension contributions, the lack of sound financial instruments to invest pension assets, the unsatisfactory legal and financial awareness of the population in terms of pension provision, the lack of interest of employers in providing non-state pension schemes for their employees, and the pension funds in the pension system. The study found that Chile is considered the most effective and successful pension system model because the country has a long history of using a cumulative and voluntary pension system that prioritizes citizens' pensions financially and invests pensions prudently and efficiently at a low public investment rate of return. The same model is used in Peru, Argentina, Colombia, and Kazakhstan. De La Peña, Fernández-Ramos, and Garayeta (2021) proposes a mechanism for converting pensions into benefits to help pay for long-term care (LTC) in private defined benefit (DB) pension plans if beneficiaries need it. If they become dependent, the aim is to develop a pension plan model that considers future retirement and long-term care needs in the context of asymmetric information on individual health status and reduce the financial burden on families and private charities caring for frail, elderly, and disabled relatives. Another key challenge for researchers and policymakers, according to Yang et al. (2021), is to address the fragmentation of medical and long-term care service delivery. Another area for further research is engaging diverse stakeholders to effectively use resources, provide accessible and integrated services, and regulate and monitor providers to provide quality and affordable care for the elderly. A study of the contemporary U.S. long-term care system, looking at several dimensions of social, cultural, economic, and demographic trends, finds key highlights of current efforts to improve the quality of the long-term care continuum, consumers and their informal care partners, and challenges and ethical issues in long-term care, including recent Centers for Medicare and Medicaid Services directives and efforts to promote person-centered institutional and community-based care. Impact of the Affordable Care Act - Based on the Long-Term Care Environment.

In summary, in combing through a large amount of literature, the author found that up to now, foreign research on the senior living industry has focused on three main areas. First, the analysis of the costs incurred by the elderly in changing their residence and the research on the demand for retirement models. Secondly, the study of the characteristics and needs of the consumer groups in the pension institutions market and the reasons for the elderly to choose pension institutions. Thirdly, the policy orientation of post-aging countries in the industrialization of pension institutions is studied, and corresponding countermeasures and suggestions are proposed. Therefore, it is of great theoretical and practical significance to study the model choice of the elderly. For this reason, this study will start from the choice of the elderly and try to identify the problems in the development of social pension institutions and put forward relevant suggestions and measures.

### **2.1.2 Domestic Research Developments**

Based on the available literature, domestic scholars' research on China's aging population began in the early 1980s. Using modern cybernetics, prominent scholars such as Song, Yu, and Li (1980) predicted the possible problems in China's population development based on China's population sampling statistics from 1975 to 1978 and concluded that China would enter an aging society around the year 2000. This was the beginning of the research on the phenomenon of an aging society in China. Consequently, after the 1990s, China's aging problem gradually became the focus of academic research. Since then, Wang (1990) concluded the research on China's population aging by Song Jian and Lin Xueyuan. On this basis, he analyzed the characteristics and causes of China's population aging and explored and studied the problems that China's aging society would face. Among them, Song (2001) believed that "from abstract to concrete, from macro to micro, from whole to local, there are levels and differences in the aging system, aging patterns, and aging approaches. The system is an all-around framework system, including the infrastructure of social welfare institutions, service quality, medical level, living environment, government, social concern, etc.

Later, Zhu (2003) conducted a comparative study on the background, structural comparison, and functional analysis of community pension institutions based on a field survey of urban and rural community pension institutions in the Hangzhou area. The study concludes a great demand for institutional care in China through survey analysis and statistical data analysis. China should develop institutional care and focus on building the service quality and level of pension institutions to improve the choice of pension model. Through a case study of a nursing home in Beijing, Lu (2004) analyzed the life, spiritual and psychological needs of the elderly in Chinese nursing homes and pointed out that the emergence of these needs keeps pushing Chinese institutions towards professionalization. In improving the service quality and level of institutions and moving towards professionalization, introducing the professional value and working method of social work is the key to expanding Chinese institutions. In improving the service quality and level of institutions and moving towards professionalism, introducing social work professional values and methods is an effective way for Chinese pension institutions to expand their space for survival and development. Meanwhile, Zhao and Wang (2006) surveyed the attitudes of the elderly aged 65 and above in three districts of Fuzhou, namely, Taijiang, Gulou, and Changshan, to reveal the demand and willingness of these the elderly for the current elderly care mode, which shows that most of the elderly in Fuzhou community have a favorable attitude towards the non-family elderly care mode. The survey showed that most of the elderly in the Fuzhou community agreed with the non-family way of aging. Thus, he believed that "multi-level pension institutions should be developed and built, and various forms of community pension institutions and elderly service facilities should be developed and built" to meet the medical, dietary, living, and personalized service needs of the elderly. Subsequently, Zhang (2009) mentioned in his study that with the increasing aging of the population, the number of the elderly population in China is getting larger and larger, and the issue of elderly care is becoming more and more prominent and gradually becoming a hot spot of concern in today's society. Thus, the research on the

pension model, choice, and influencing factors began to develop and increase gradually, so many scholars have put forward different views and opinions. After that, Wu (2011) analyzed the development status of institutional elderly care services from the perspective of supply and demand, and also analyzed the gap between demand and supply, and the research results concluded that there is a large gap between pension institutions and the demand of the elderly in terms of quantity, management level, and quality, and the degree of specialization. Zhang (2012) analyzed the aging population in Xi'an and studied the problems of institutional elderly care in Xi'an, concluding that pension institutions have problems such as slow construction, an insufficient supply of elderly care services, poor quality of the elderly care service team, and incompatibility between the development of elderly care services and demand. Xi, Lu, and Xia (2015) analyzed the supply and demand of institutional elderly care services in the Nantong City area. The results showed that the price of pension institutions services was the main factor affecting the demand for institutional elderly care services in the area. Private institutions had high elderly care costs and incomplete facilities and personnel, and there were relatively few public institutions. The supply could hardly meet the demand. Li (2020) compared the pension policies of China and the U.S. in terms of pension systems, individual pension plans, and community services and discussed the differences in the basic structure of the pension insurance system between China and the U.S. in terms of government policies and coverage, the U.S. pension system is less dependent on the government and has a more diversified pension model. China needs to develop a diversified pension strategy, community government-provided social security, and individual pension investment plans.

According to domestic scholars' exploration of the development of social pension institutions, it is found that there are many problems in the development of social pension institutions in China at present, for example, scholars such as Jiang, Ding, and Qin (2011) analyzed the factors affecting the development of social pension institutions in China. The study results, for example, Jiang et al. (2011) analyzed the factors influencing the development

of social welfare institutions in China and concluded that the main constraints on the development of social welfare institutions include the income level of the elderly and the funding source of social welfare institutions. On the contrary, non-high-income elderly cannot provide social institutions with sufficient fees but want to get good services, and the only source of funding for social institutions is government subsidies. The only source of funding for social institutions is government subsidies, and this situation is not conducive to the development of social institutions. Therefore, Mu (2012) proposed that there are six major problems in China's institutional elderly care, such as under-utilization of resources, separation of the functions of "care, nursing, medical care and transportation," shortage of professionals, and non-standard development of rural retirement institutions, and proposed five countermeasures to solve the dilemma of institutional elderly care. Five major countermeasures are proposed to solve the dilemma of institutional elderly care. These countermeasures include improving the service quality to gain more recognition of the elderly, thus promoting the willingness of the elderly to choose the institutional care model, and increasing the number to achieve the purpose of higher fee income. However, Geng (2013) analyzed and compared the supply level, demand level, and economic development level of institutionalized care in each region through cluster analysis, and synthesized the levels and categories of institutionalized care levels in each region; moreover, summarized the development status of institutionalized care in each region as balanced, ahead of and lagging behind. Simultaneously, he believes that the state should increase its support for lagging regions. Li (2015) argues that there are obvious urban-rural and regional differences in China's pension institutions, an insufficient supply of pension beds, and narrow funding channels, and advocates the construction of diversified pension institutions. Zhang (2015) analyzed survey data from 12 prefectures and municipalities in Henan Province. This analysis revealed that in addition to personal characteristics and family status, the ease of access to medical care, knowledge of pension institutions, and life satisfaction in health care coverage impacted the elderly' willingness to age in institutions. Jiang (2021)



studied that the pension fund management system based on embedded design is a system designed to manage customers and pension funds, which can minimize the management time required for manual operation. In terms of gold management, use technology tools when developing a comprehensive solution, which will help to eliminate manual processes related to issues. Nie (2020) examined the negative attitudes toward old age that were found everywhere and proposed a Confucian (2021) found that negative attitudes toward old age are prevalent and proposed a Confucian ethical vision of healthy aging and social care. This vision is insightful and positive and can help identify deficiencies in the contemporary field of aging and generate new ideas, wisdom, and frameworks that enable a more positive approach to aging and aging.

As mentioned above, the author has found through a large amount of literature that up to now, the research on the supply of pension institutions is mainly conducted from two perspectives: macroscopic and microscopic. At the macro level, the study is mainly about the current situation, level, and problems of China's overall supply of pension institutions. At the micro-level, the study is mainly about the service hardware and facilities, staff, service content, and service quality of pension institutions from the perspective of pension institutions themselves. Based on this, this thesis concludes that the development of social pension institutions is mainly influenced by the nursing staff characteristics, service quality, and satisfaction, which influence the choice of the elderly's model. Simultaneously, government policies also play an important role in developing social pension institutions. This study will explore the relationship between several influencing factors, seek to identify the problems, and propose the development dilemmas and countermeasures of pension institutions.

## 2.2 Theoretical Foundation

### 2.2.1 Overview of the Senior Care Model Choice

#### 1) The concept of choice for the elderly model

With the introduction of the concept of "aging in a comfortable environment" in Western countries in the 1960s, Costa-Font, Elvira, and Mascarilla-Miró (2009), the diversification of retirement options Saad (2001), Skinner (2007) became the topic of research on aging patterns of older people in the West. In addition, a large number of Western studies on pension models are also reflected in the factors influencing the choice of pension models Chapleski, Massanari, and Herskovitz (2002); Prashker, Shiftan, and Herskovitch-Sarusi (2008), the pension model Krit (2013), and the elderly care services, and the geriatric care service system Addae-Dapaah and Juan (2014); Paez, Scott, Potoglou et al. (2007), among others. The American psychologist Maslow (2003) hierarchy of needs is the main source of thinking about the behavior of the elderly, such as the responsibility of the elderly and the willingness to care for the elderly, etc. Maslow (1943/2013) classifies human needs according to their satisfaction: physiological needs, security needs, belonging needs, respect needs, and self-actualization needs. Wang, Zhang, and Peng (2021) Family structure and intergenerational communication significantly influence the elderly 's retirement model choice. (2021) Family structure and intergenerational communication significantly influenced the choice of the elderly's pension model, and the elderly's pension model was influenced by their marital status, income level, and health status. The more harmonious the intergenerational relationship of the elderly, the lower their willingness to institutionalize; on the contrary, the higher the socioeconomic status of the elderly, the higher their willingness to institutionalize. Therefore, the elderly model choice is a model of aging that older people make decisions to choose based on their own characteristics and psychological needs, and the choice of this model is influenced by factors such as the level of quality of the institutions that provide services.

Based on this, this study argues that choice refers to the elderly's satisfaction according to their personal life and perceived psychological needs and uses this satisfaction as the basis for choosing whether to stay in social pension institutions. Therefore, this study concludes that the characteristics of nursing staff, service quality, and satisfaction of social pension institutions are important factors that affect the elderly' needs. This will directly or indirectly affect the elderly' satisfaction and final choice.

## 2) Research related to the pension model choice

According to the relevant literature, many factors affect the choices of the elderly 's retirement model. among them, foreign scholars Selby et al. (1987) proposed that from the perspective of the quality of life of the elderly, external communication and exchange have a significant impact on the quality of life of the elderly group. In order to improve the quality of life of the elderly, it is necessary to create a good communication platform and strengthen communication and interaction, which requires a better living environment and relatively professional staff to meet the life and spiritual needs of the elderly. Edelstein (1998) and others also suggested that the difference in the management level and ability of social pension institutions would also have a great impact on the quality of life of the elderly population; Chen and Yao (2010) and others believed that the individual needs of the elderly residents should be considered in the process of building pension institutions. Karen (2008) and others agreed through their survey that the accommodation environment and the surrounding facilities of social pension institutions are the concerns of the elderly residents. Thus, it is clear that the accommodation environment and facility configuration also influence the elderly's pension model choices. Domestic scholar Song (2001) showed through the survey data that the elderly's senior care mode choice is influenced by various factors such as region, age, gender, marriage, and living style, so the factors affecting the elderly's senior care mode choice and demand cannot ignore personal factors. Subsequently, Song, Li, and Li (2008). investigated and proposed that the economic, life care and spiritual needs of rural elderly with different family structures have obvious

differences. Hence, their choices also have different influencing factors with different individual needs. Zhang, Huang, and Yin (2011) pointed out that the needs of the elderly living in pension institutions are differentiated and analyzed in terms of medical services, rehabilitation guidance, life care, psychological care, and service attitudes, and empirically proved that these differentiations have a positive effect on satisfaction. Xiao, Lu, and Qi (2012). argued that the elderly would compare the occupancy of pension institutions with their homes, and taking care of the daily life of the elderly living in them is the main work of pension institutions. Consequently, its internal facilities and service quality show a significant positive correlation with the satisfaction of the elderly, which is the main factor affecting the choice of the elderly. According to Yuan (2016), choice refers to the subjective desire of the acting individual to engage in a particular behavior, a kind of subjective thinking of the individual. Simultaneously, it can also be understood as the subjective tendency of a demander to purchase a certain good, influenced by the consumer's knowledge, evaluation, and the surrounding environment. The above literature has shown that the professionalism and service quality of the staff of social pension institutions are the main considerations in the choice of the elderly. Zhu et al. (2017) conducted a study on the willingness of the empty nesters to retire and the influencing factors in Hangzhou city and used a logistic regression model to data. The study showed that the factors influencing the willingness of the empty nesters to retire in Hangzhou city are mainly worried about the cost of retirement, the greatest desire, health status, and urban and rural household registration. Ren, Fu, and Lin (2017) concluded that the willingness of the elderly to stay in retirement institutions is influenced by factors such as educational level, marital status, housing status, and household income. Gao and Yang (2019) studied the choice of urban the elderly 's willingness to stay in institutions in four dimensions: personal factors, family factors, socialized elderly service factors, and elderly attitudes, and the study concluded that most of the elderly in cities have approved of institutional care, and are positive in terms of socialized elderly service factors and elderly attitudes,

and believe that the provision of elderly, medical, environmental and basic the elderly who are provided with elderly care services are more inclined to aging in the community. Zhao, Zhou, and Zhu (2021), through a cross-sectional data study of the elderly in Chongqing, found that gender, educational level, medical expenses, number of children, living conditions, monthly income, and health status have a great influence on the attitude of the elderly in choosing the way of retirement. Besides, the elderly with better health status prefer family retirement, and men have a more negative attitude towards family and community retirement than women. Moreover, the elderly with high-income levels are more likely to accept family retirement.

According to the existing literature, among the many factors affecting the elderly model choices, scholars have generally recognized that personal background status is one of the influencing factors. At the same time, the author found in combing the related literature that many scholars have conducted a large number of studies from the characteristics of the elderly subject, government, psychological needs, life needs, medical services, living environment, culture, and other aspects, and the results are quite rich, as shown in Figure 2.1. However, many scholars have different theories, and However, many scholars have different theories and interpretations on the study of social security institutions choice. Therefore, combining the research results of most scholars in recent years, the author finds that many factors still influence choice have not been discovered or confirmed. Therefore, the influencing factors of choice still need to be further explored and studied.

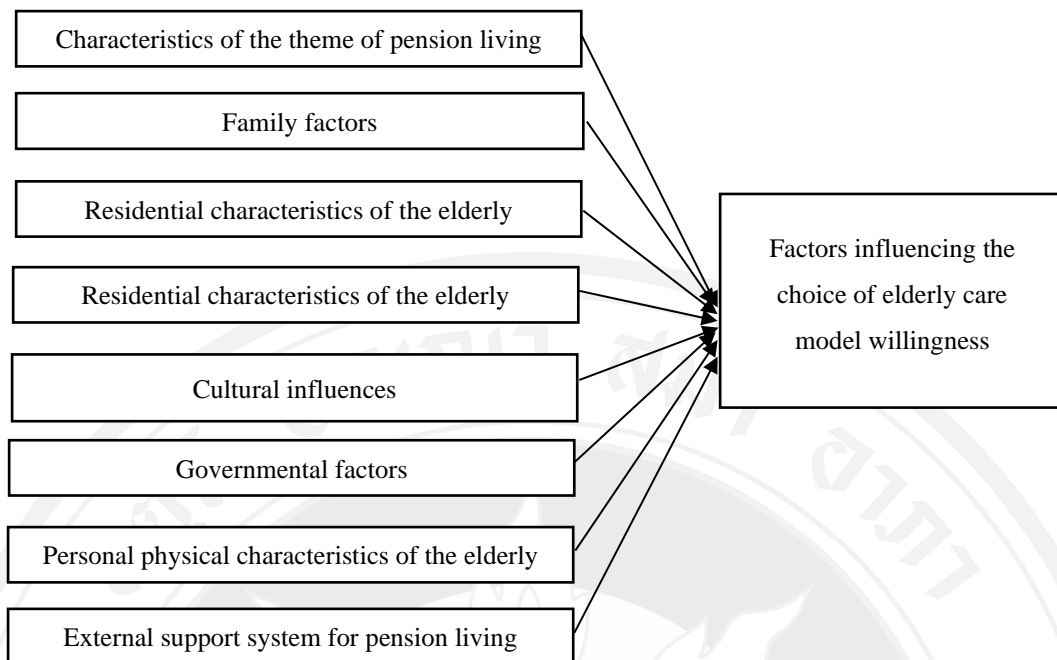


Figure 2.1 Influencing Factors of Senior Living Model Choices

Source: Hu (2018).

### 3) Summary of this section

As mentioned above, social pension institutions are an important vehicle or entity for the elderly to choose their retirement mode. The institutions aiming to provide pension service for the elderly mainly provide daily health care, life care, psychological comfort, group activities, and other services. The medical condition, surrounding environment, service attitude, and taste of food in social pension service institutions affect the future development of pension institutions. Simultaneously, this may also be an influential factor in the choice of the pension model. Based on this, this study will refer to the research results of Edelstein (1998), Chen and Yao (2010), Xiao, Lu and Qi (2012a), and other scholars to construct a theoretical research model with choice as the dependent variable, service quality, and satisfaction as the mediating variables, and human resources as the independent variables. Moreover, this study explores the main factors and molecules that affect the choice of the elderly and discovers the problems in

the development of social pension institutions by studying and analyzing the influence relationship between their variables.

The nursing service provided by nursing staff is indispensable for any pension model. The characteristics of nursing staff in pension institutions will impact the quality of service and play an important role in the choice of pension institutions and models for the elderly.

### **2.2.2 Overview of the Characteristics of Nursing Service**

1) The concept of the characteristics of social welfare institutions care, providers

According to Drucker (1954), who first coined the term "human resources," human resources possess qualities that other resources do not - "coordination, integration, judgment, and imagination." Bill et al. (1984) presented the theory of strategic human resource management, which combines organizational behavior, labor relations, and personnel management. Xiao et al. (2011) demonstrated that the quality status of three aspects mainly determines the overall quality of corporate HRM: technical level, professional level, and strategic HRM. Foreign scholars Peak and Sinclair (2002) proposed in their study that the elderly and their families living in social welfare institutions and the staff in social welfare institutions are the important stakeholders in the system, while Donabedian (2005) In his study, Donabedian (2005) also suggested that the service quality criteria of social security institutions should cover "structural, process and outcome criteria." Among them, the structural criteria mainly assess the physical facilities (such as premises, equipment, etc.), human resources (including the number and qualifications), and organizational structure. Thus, the professional level, workability, educational level, and work experience of the organization or institution are all considered service personnel characteristics. Therefore, McAlearney and McAlearney (2006) argues that in order to improve the overall level of the institution, community health centers need to improve the professionalism of their services. An effective way to do this is to cooperate with hospitals and bring in professionals to get better recognition

from older people, while Addae-Dapaah and Juan (2014) argued the influence of the elderly's choices. The main factor is the institutional geriatric care service system, including management, environment, medical care, services, staffing levels, etc. In order to improve the overall management level of social pension institutions and improve the management system of institutions, service staff characteristics are important constituents. Gallegos and Sortedahl (2015) argue that nursing staff's professional values are influenced by the level of education, culture, personal values, learning experiences, and job knowledge and skills. Sibandze and Scafide (2018) There are significant differences in the awareness and application of professional values or the prioritization of specific professional values based on the level of nursing education. Registered nurses with higher levels of attainment demonstrated a higher appreciation of professional values than nurses with lower levels of nursing education. After controlling for age, education remained a significant predictor, and further analysis revealed that age, educational level, gender, and certification status together contributed significantly to the differences in professional values. The educational level impacted the professional values of practicing nurses, and the higher the level of nursing education of practicing nurses, the stronger the perception and application of nurses' professional values in clinical nursing practice. These findings suggest that knowledge (theoretical and practical skills) is important in developing nurses' professional values. Therefore, this study argues that service personnel characteristics are a major factor in the construction and development of social pension institutions and, at the same time, one of the main influences of the elderly aging model choices. Based on this, this study combines the previous research results and experiences. This thesis considers the service level, professional skills, and educational level of social pension institutions as the constituent indicators of nursing service personnel characteristics to start the related research work.



## 2) Research on the characteristics of nursing service in social welfare institutions

Through combing the literature, it was found that foreign scholars Cronin Jr and Taylor (1992), in their study on social service quality of pension institutions, suggested that service quality is a good tool for customer satisfaction measurement, which includes the measurement of service provision. The service quality is a good tool to measure customer satisfaction, including the management status, professionalism, staffing, and facility function of the service provider. In his study, Philp (2004) found that the special care approach and high quality of care services in social welfare institutions enhance the choice of the elderly. Therefore, welfare institutions need to improve service quality, improve the management model, and improve the quality of nursing staff to improve the quality of the elderly. From this literature, it can be inferred that service staff characteristics are part of the factors that improve the service quality and satisfaction of the elderly. Meanwhile, Chinese scholar Chang (2000) found that the current service and management level of social pension institutions is very low, basically attributed to the low professionalism of the managers and staff of social pension institutions and lack of work experience, etc. Meanwhile, Min (2006) also concluded that the low number of employees in institutions, low quality, and low management level lead to low occupancy rate. This further reveals the role of work human resources on the influence of service quality. Therefore, Wu (2011) analyzed the development status of institutional elderly services from the perspective of supply and demand, and at the same time, dissected the gap between demand and supply, and found that there is a large gap between pension institutions in terms of quantity, management level and quality, and specialization with the elderly choice. In their study, Qinli et al. (2016) divided the social service quality of pension institutions into hardware facilities, business management, service content, service staff level, and location conditions, pointing out the multiple adaptabilities of pension institutions services. However, Zhu (2019) showed through an empirical study that the staffing, length of operation, and sustainability of financial subsidies

of social pension institutions are the main influencing factors. Liu, Zhang, Xu, and Pen (2018) studied the willingness of rural women left behind to work as nursing staff in pension institutions. The study found that the level of education, availability of skills training, and work experience of human capital showed a positive effect. The higher the educational level of rural women left behind, the higher the skills training; simultaneously, the more work experience in secondary and tertiary sectors, there was a positive relationship between human capital and women left behind who chose to work in nursing. Haugan (2021) identified that the incidence of functional and chronic co-morbidities and various disabilities increases with age, and for many, this requires long-term care in a nursing home. Quality of life and health promotion interventions for the elderly living in nursing homes will become increasingly important. Haugan (2021) has a holistic understanding of health that considers the person whole, including the physical, mental, social, and spiritual dimensions. Research has shown that various health promotion interventions, especially nurse-patient interactions, impact the body, soul, and spirit of the elderly in nursing homes, affecting the whole person. All countries need long-term care systems to meet the needs of the elderly. Communication is an important aspect of nursing care. Often, the nursing staff of a nursing institution cannot function without communication with the patient. The elderly have identified a number of attributes of this relationship: a sense of intimacy, belonging, caring, compassion, respect, and reciprocity in an open and trusting environment that appears to promote health and support residents' joy of life, recovery, and strength, and nurse-patient interactions have been shown to have an impact on nursing home residents' perceived life, hope, self-transcendence, joy of living, sense of coherence, and loneliness, anxiety, and depression in terms of meaningfulness. Thus, interactions between the elderly and nursing staff in nursing institutions are resources for nursing home health, quality of life, and well-being. Through ethical and competent nurse-patient interactions, health professionals influence the physical, emotional, social, functional, and spiritual well-being of the elderly, and empathic listening, awareness, tenderness, and attention skills positively

influence the physical and mental health and quality life of the elderly. Drageset and Haugan (2021), by studying the interaction between pension institutions nurses and patients in Norway, the nurse-patient relationship was emphasized as the core of care, and a nurse-patient relationship that positively influences patients brings them a sense of well-being and health. In this relationship, patients should have the possibility to communicate their hopes and meaning of life in an atmosphere of openness and empathy, which is essential to meet the specific needs of the residents and improve their well-being. By facilitating the integration of the nurse-elder relationship, information is improved, trust is increased, and expectation confirmation and goal attainment is facilitated. Liu, Aunguroch, Gunawan, and Zeng (2021) found that the top three sources of work stress for nurses were workload, nursing work characteristics, and expectation confirmation, followed by work-family conflict, interpersonal relationships, and nurse-patient interaction. Song and Peng (2021) used a trend extrapolation model to predict the demand for elderly personnel in pension institutions in Beijing, including nursing staff providing basic life care and professional medical staff providing rehabilitation, medical, nutritional, and psychological counseling services. The results suggest that by 2050, the demand for geriatric nursing staff in Beijing will exceed 150,000, and the demand for geriatric medical staff will be around 150,000. Skinner, Veenstra, and Sogstad (2021) studied 3717 nurses in 426 municipalities in Norway, of which 1766 worked in-home care services, 1510 in nursing homes, and 441 in short-term care units, mostly women (95%). A study of how nurses working in nursing homes and home care services perceived collaboration with other municipal health and nursing services and how their collaboration assessment varied with personal characteristics and background. The study maps differences in nurses' collaboration assessments at the core care management level for the elderly, specifically nursing homes, home care services, general practitioners, assigned offices, and physical and occupational therapy services. The study draws on the results of a national cross-sectional survey of post-hospital care of older people conducted by nurses in nursing homes and home care services

in Norway, which asked nurses to assess collaboration with these five services. Therefore, whether the service staff characteristics of social pension institutions affect the choice of the elderly is one of the focuses of this study.

According to the existing literature, there are few studies of nursing staff characteristics in social pension institutions, and there are no uniform criteria for the composition and indicators of nursing staff characteristics in social pension institutions. As such, it is impossible to know the extent to which nursing staff characteristics influence service quality. Therefore, there is no way to know the degree of influence of nursing staff characteristics on the quality of services and the degree of influence of nursing staff characteristics on the choice of the elderly. In addition, the literature on nursing staff characteristics in social pension institutions contains a number of elements. Among the common indicators are basically staff quality, professionalism, numerical staffing, technical experience, etc. A unified standard specification is unclear, but it provides the basic direction for this study. To further explore their characteristics and constituent elements, this study categorizes nursing staff characteristics in social pension institutions into service level, professional skills, and educational level. The study was conducted to investigate further whether nursing staff characteristics and their components impact choice.

### 3) Summary of this chapter

Above all, the author was able to find and verify not many studies on the characteristics of nursing staff in social pension institutions by combing through a large body of literature. However, the existing literature can provide the basis for this study - the quality, professionalism, quantity, and technical experience of the staff in the management of social pension institutions can be regarded as the nursing staff characteristics in human resources. Whether nursing staff characteristics impact service quality and satisfaction and choice through service quality and satisfaction are still subject to further research. Therefore, in this thesis, the nursing staff characteristics of social pension institutions are also explicitly summarized as service level, vocational skills, and educational level, depending on the

context and the target group of the study. Furthermore, this thesis attempts to determine how effective the nursing staff characteristics and their components are on service quality and satisfaction and the dependent variable choice. Accordingly, this study will first explore the research on satisfaction related to nursing care.

### **2.2.3 Overview of Satisfaction Theory**

#### **1) Satisfaction theory concept**

However, in the 1960s, many scholars began to apply the satisfaction evaluation theory to other areas of research based on the satisfaction theory. Cardinal developed the customer satisfaction theory. Cardozo first proposed the customer satisfaction theory in 1965 in his article "Experimental Study of Customer Input, Expectation Confirmation and Satisfaction." The American Customer Satisfaction Index (ACSI) model is the most widely used among the existing international customer satisfaction model studies. The model assumes that customer satisfaction depends on customer expectation confirmation of service quality and perception of quality and value, while perceived quality, perceived value, and customer expectation confirmation are the three determinants of ACSI. Thus, many scholars began to research various fields in the following time. Cardozo (1965) analyzed the application of satisfaction theory in marketing, and he pointed out in his article that customers' subsequent purchases would be influenced by their pre-purchase product satisfaction. Later Olson and Dover (1976) defined satisfaction as the gap between the actual utility obtained by consumers after purchasing a product or service and their previous expectation of confirmed utility. Oliver (1980), a famous scholar, first clearly pointed out that service quality differed from customer satisfaction and distinguished these two concepts. He believed that service quality is a general evaluation of the continuity of service, while customer satisfaction is a temporary emotional reflection of the service received after completion of comparison. Afterward, Oliver (1981) again proposed in his study that consumer satisfaction is a subjective judgment of whether the product or

service purchased satisfies their needs. Thus, satisfaction is intrinsic and subjective. Later, David and Wilton (1988) pointed out that satisfaction comes from consumers' evaluations, which arise because there is a difference between the actual utility of a product purchased by consumers and their empirical expectations, while Eegel (1993) also argued that satisfaction is an evaluation of consumers in the consumption process. If consumers' Shi, Hua, Tang, Xu, and Xu (2021), based on Maslow's hierarchy of needs theory and customer satisfaction theory, combined with the psychological perception of the elderly, built a model and analyzed the relevant influencing factors, the study showed that one should return to the bottom level needs and focus on the care needs of the elderly for basic life care and living environment. As the basis of Maslow's hierarchy of needs theory, due to the fact of physiological and psychological changes, special attention should be paid to the needs of the elderly, which in turn improves institutional care satisfaction. Hence, based on combining and referring to the previous research results, this study considers satisfaction as an emotional reflection of the consumer's satisfaction of the received service after completion of comparison, and is the satisfaction of It is a comprehensive evaluation of the subjective judgment of satisfying one's own needs. Therefore, the comprehensive evaluation of the expected and actual service quality of the elderly after choosing to stay in a retirement institution was considered as the target of this study.

## 2) Satisfaction theory related research

A literature review reveals that foreign scholars Sangl et al. (2007) have developed a number of measurement tools specifically to understand the satisfaction of institutional elderly care services and have also attempted a census of some scope. For example, the NH-CAHPS (Nursing Home CAHPS), a consumer assessment tool for health nursing service and systems developed by the Agency for Research and Quality (AHRQ) in collaboration with the Assessment Systems (CAHPS) group, measures 11 aspects of institutional experience/environment, caregiving, overall caregiving ratings, communication, quality of life, and Wheatley et al. (2007) developed the Ohio Senior Satisfaction Survey (ODS-RSS), which consists of

48 questions in 9 sections covering social services, activities, choices, direct care/care support, management, meals, environment, laundry, and overall satisfaction. In addition, the classic SERVQUAL scale has also been widely used to evaluate client satisfaction in institutional elderly care. However, Harris-Kojetin and Stone (2007) argued that satisfaction is regarded as an important indicator reflecting the quality of institutional care services, and therefore relevant surveys and studies have been generally valued. Nevertheless, there are still great challenges in the connotation and measurement of institutional elderly service satisfaction. From most of the literature, most of the studies on institutional elderly service satisfaction in foreign countries use the concept of "consumer satisfaction" broadly. Later, some scholars have also applied the theory of satisfaction to the field of social welfare institutions. For example, Grillo, Teixeira, and Wilson (2010) argues that the satisfaction of the elderly with institutional care services is not related to their perceptions but directly related to their participation in the work of institutional care services. Furthermore, Sirgy, Widgery, Lee, and Grace (2010) scholars argue that the satisfaction of the elderly with institutional elderly care services is not only related to the content and quality of the services provided by the institutions but also, and most importantly, there is a close relationship between the elderly's perceived quality of their own lives after participating in group activities. Later, Knox et al. (2013) pointed out in their research results that subjective factors: age, education, gender, physical condition, marital status, and objective factors: living conditions, living environment, institutional service quality, etc. have significant effects on the satisfaction of the elderly 's life. According to Cui and Qin (2001), the life satisfaction of the elderly living in pension institutions is inextricably linked to the social support they receive, the most important of which is the mutual support among the elderly living in the institutions. Ding and Xu (2007) surveyed the satisfaction of 386 the elderly in 33 socially run pension institutions in 10 districts of Beijing, which was divided into seven dimensions, including environment and facilities, staff, daily care, meals, activities, psychological care, independence, and respect.

The survey found that most elderly were satisfied with the environment, staff attitude, and daily care. However, many seniors reported that the pension institutions were understaffed and had no time to take care of all seniors, the meals were not nutritious and tasty, the activities for seniors in the institutions did not meet their needs and interests, and the pension institutions lacked psychological care for the seniors. Gu (2008) introduced the theory of satisfaction in medical services, pointing out that patients' satisfaction with the medical services they receive is evaluated after paying for the medical costs. Zou (2008) also combined public services with the theory of satisfaction and community services with the theory of satisfaction. Zhang et al. (2011) pointed out that the needs of the elderly living in pension institutions are differentiated, and the needs of the elderly are differentiated in terms of medical services, rehabilitation guidance, life care, psychological care, and services. The analysis was conducted regarding medical services, rehabilitation guidance, life care, psychological care, and service attitude. Xiao, Lu, et al. (2012) argued that the elderly would compare their stay in retirement institutions with their homes, and taking care of their daily lives is the main task of retirement institutions. Hence, their internal facilities and service quality show a significant positive correlation with the satisfaction of the elderly. The correlation between their internal facilities and service quality and the satisfaction of the elderly is significant. Wang (2017) measured the institutional elderly service satisfaction in five dimensions: overall environmental satisfaction, daily care, spiritual comfort, service staff quality, and fee level, while the multi-constructive measurement of institutional elderly service was borrowed from the classical customer satisfaction index model in which customer satisfaction is measured. Tuncer, Unusan, and Cobanoglu (2021) used the extended theory of planned behavior (TPB) to analyze the factors that influenced customer satisfaction and loyalty during the COVID-19 epidemic in Indonesia. They concluded that Hedonic Motivation (HM) had a significant direct effect on Hedonic Motivation (HM) was found have a significant direct effect on Intention to Use (ITU). Hedonic Motivation (HM) can be described as an irrational purchase pattern because it



does not conform to the economic principle of satisfying basic needs. Instead, customers buy goods to satisfy a sense of pleasure, largely influenced by the user's environment. Moreover, hedonic motivation (HM) strongly influences emotional arousal, which triggers customers to purchase. Dash, Kiefer, and Paul (2021) When it comes to paying for a product, consumers usually compare its perceived value with the actual price and then make a final purchase decision, and if the perceived value exceeds the purchase cost, consumers feel satisfied and inclined to buy. After combing through a large amount of relevant literature, the author found that the theory of satisfaction has been widely applied to the elderly and social welfare institutions, and the results are also very rich and worthy of reference and reference by later scholars. However, studies that use satisfaction as an independent dimension and variable are extremely rare; therefore, this study will set satisfaction as a mediating variable to explore its mediating influence between the independent variables service personnel characteristics and service quality and choice.

### 3) Summary of this section

To sum up, through the above literature conclusion, domestic scholars have analyzed and investigated the elderly's pension model from various aspects such as daily life, housing conditions, cultural activities, and psychological factors, respectively, taking into account the actual situation of the development of Chinese pension institutions. This study found domestic institutional elderly care service satisfaction from reviewing the available literature. The main target of the study is the group of the elderly who have already moved in. However, there is less research on the families of the elderly who have moved in and the employees of the institutions. According to the literature, there are three main methods to measure the service satisfaction of pension institutions: single-item measurement, multi-item measurement based on service division, and multi-configuration measurement based on the customer satisfaction index model. The single-item measure mainly asks about the overall satisfaction; the multi-item measure based on service segmentation can reflect the survey respondents' satisfaction with specific aspects of institutional elderly services. Therefore, from combing

through the relevant literature, scholars at home and abroad agree that: the factors affecting the satisfaction of institutional elderly services come from four main aspects: first, the individuals themselves—studies with demographic factors as variables. Second, the organization—studies with the operation of the management system as variables. Third, institutional services—studies with institutional service quality. Fourth, the employees in the organization and the study of the level of employees in the organization as a variable.

Based on this, the present study will combine the foundation and results of previous studies to carry out research work on satisfaction as a mediating variable of a single dimension to explore its influence on the mediating effect of nursing staff characteristics and service quality and choice, which is a further extension of the theory of human resources and service quality. This is a further extension of human resources and service quality theory.

#### **2.2.4 Service Quality Overview**

##### **1) Theoretical concept of service quality**

The concept of service quality was first proposed by Levitt (1972), whose main idea is that service quality refers to whether the service can meet the preset standards. Subsequently, academics began to pay attention to service quality and gave different definitions. Oliver (1981) distinguished between the concepts of satisfaction and service quality, the former being the temporary emotional reflection of service completion after comparison, and the latter being the overall evaluation of service continuity. Gonroos (1984) argued that service quality is the customer's evaluation of service based on comparing service expectation confirmation and actual service perception. However, Juran (1986) divided service quality into five components: internal quality, physical quality, timely response, and psychological quality, and Martin (1986) also distinguished service quality into two dimensions: friendly level and procedural level. After that, in the standard study on the definition of service quality of pension institutions service quality, foreign scholar

Donabedian (1988) pointed out that service quality usually consists of three elements: structure, process, and result. After a long period of research and discussion, the definition of the conceptual model of service quality systematically proposed by three professors of Cambridge University, Parasuraman, Parasuraman et al. (1988), is currently accepted and recognized by the research community: that is, service quality is a conceptual model of service quality from the customer's point of view. Thus, most scholars believe that service quality has an important influence on customer satisfaction and consider service quality an antecedent factor of customer satisfaction. Parasuraman et al. Bitner (1990) argued that good service quality produces customer satisfaction turn has an impact on perceived service quality. Furthermore, Cronin Jr and Taylor (1992) point out that service quality and satisfaction are not related to each other. Dabholkar, Thorpe, and Rentz (1996) found that the relationship between service quality and customer satisfaction varies depending on the specific context—the satisfaction of older people with social welfare institutions is affected by the service process. The relationship between service quality and customer satisfaction varies depending on the specific context, which means that the satisfaction of the elderly with social security institutions is affected by the service process of the institutions. In fact, service quality is the object of customer perception, also known as perceived service quality or perceived quality, which is the main factor for older people to evaluate the management level of social security institutions. Jo Bitner, Faranda, Hubbert, and Zeithaml (1997) defined service quality as "the customer's overall impression of the organization's level of excellence in service-related aspects."—a comprehensive evaluation of the overall impression of the elderly on the management level of social welfare institutions. However, the relationship between service quality and satisfaction has been controversial in academic circles, and scholar Oliver (1998) pointed out in his research that customer satisfaction is a comprehensive evaluation of the whole service, while service quality is different from it and is the customer's perception evaluation of the service based on various service attributes. Service quality is different from it

and is the customer's perceptual evaluation of the service based on various service attributes. Other scholars, Eskildsen, Kristensen, Jørn Juhl, and Østergaard (2004), argued that service quality is the antecedent of customer satisfaction and will positively influence customer satisfaction. Abdullah and Rahman (2015) argue that service quality is between the guest's service expectation confirmation and perception. If service quality is compared with implicit or explicit criteria, perceived service quality is a cross-sectional service assessment. Prabhu, Nambirajan, and Abdullah (2020) argue that service quality rating is provided by the gap between expected and perceived services. Hence, based on the combination of previous research results, the author defines service quality in this study as a comprehensive evaluation of the psychological emotion of the customer's pre-expectation confirmation and the actual feeling after the experience—the elderly's expectation of social pension institutions service quality before staying in the social pension institution. The difference between the expected confirmation value of the level of service quality and the actual feeling of the service quality of the social welfare institution after moving in, and whether these differences affect the choice of the elderly, is one of the main influencing factors in this study.

## 2) Research related to service quality theory

By combing the relevant literature, the author found that service quality is very rich, and its relationship with satisfaction has been the focus of research. For example, foreign scholars Thomas and Zhang (2005) advocate that pension institutions service quality is "the elderly who stay in pension institutions maintain a healthy state in physiological, psychological and physical aspects," meaning that social pension institutions should meet the actual needs of the elderly in the process of serving them in physiological, psychological and physical aspects. These needs are part of the components of service quality. As such, another scholar, Rha (2012), selected three areas of public service delivery between government and intermediary organizations - social work, child welfare, and health care - and examined the impact of service quality on customer satisfaction. The study results showed that the tangibility, responsiveness, and empathy dimensions of service quality

significantly affected customer satisfaction. In order to check whether these relationships exist or bail out certain relationships, scholars Panda and Das (2014). compared the effects of different dimensions of service quality on customer satisfaction in the healthcare and hospitality industries. The results of the empirical analysis showed different dimensions of service quality in the healthcare and hospitality industries. The results of the empirical analysis show that there are differences in the influence of different dimensions of service quality on customer satisfaction in the medical service industry and the hotel service industry. For the medical service industry, the influence of the tangibility and reliability dimensions of service quality is more significant, and both positively affect customer satisfaction. For the hotel service industry, the effects of tangibility, reliability, assurance, and empathy of service quality are more significant, and the first three dimensions of service quality have positive effects on customer satisfaction. In contrast, empathy has negative effects on customer satisfaction. It can be inferred that the service quality components influence satisfaction in multiple dimensions, but whether they influence the elderly's choice still needs further research and empirical evidence. Later, Tripathi and Dave (2016) studied the impact of service quality on customer satisfaction using the structural equation modeling analysis method using the restaurant service industry as example reliability, responsiveness, and empathy of service quality. The positive effect of service quality on customer satisfaction was significant. However, Alia and Raza (2017) studied the effect of specific dimensions of service quality on customer satisfaction in the banking service industry using the SERVQUAL model. The results showed that service quality dimensions of obedience, assurance, reliability, tangibility, empathy and responsiveness positively affect customer satisfaction. Hindmarsh (2021) service quality, emotional marketing, and spiritual marketing affect customer satisfaction, and quality aims to encourage consumers to provide a strong bond to the company. The company can improve service quality to satisfy customers and eliminate unpleasant customer experiences. Rizki Anugrah and Royani (2021) service quality can be defined as the customer expectation to confirm the service

received, based on their needs compared with the actual service received by the customer, forming the customer perception. Service quality can be unsatisfactory if the service provided is lower than the customer's expectation confirmation. Suppose the service provided is better than what the customer expects to confirm. In this case, service quality can be said to be satisfactory. If the service provided is the same as the customer expects to confirm, service quality can be good, but it can be further improved. However, Zhang (2017) mentioned in his translated work that service quality is an economic activity that includes all outputs as non-tangible products, usually consumed at the time of production, and provides added value in the form of convenience, pleasure, time-saving, comfort, or health. This indicates that the elderly have a higher demand for social pension institutions in terms of service quality level, and it involves psychological, physical, spiritual, living, environmental, and cost aspects. All these dimensions and factors will impact the evaluation of service quality level. Hence, service quality is an important influencing factor when the elderly evaluate the satisfaction of institutional elderly care services. In addition, domestic scholars Wang and Xue (2006) found in a survey study of 83 elderly residents and 61 elderly family members in 13 private pension institutions in Xuanwu District, Nanjing, that the life satisfaction of elderly residents in pension institutions was higher, and service Most of the elderly said that the services provided by the institutions basically meet their needs and they are satisfied with the services and facilities of the institutions. Based on this question, domestic scholar Zhao (2007) studied the choice of the elderly in Xicheng District, Beijing, and researched the choice of various groups of people on the way of old age. The study found that gender, educational level, whether or not they suffered from chronic diseases, and the number of children became important factors influencing the elderly's choice of senior care mode. In contrast, the level of caregivers showed a significant correlation with the choice of the elderly after adding the service quality variable. Later, Zhang et al. (2011) investigated the service satisfaction and needs of 574 the elderly living in pension institutions in six cities in Liaoning Province and found that more than half of the elderly living

in pension institutions were satisfied with the service attitude, life care service, and rehabilitation guidance service of the service providers. However, the satisfaction of medical care and psychological care was low, while the demand for psychological care was high. The choice of the elderly.

However, there has not been a complete and unified standard for the dimensions or components included in service quality. Therefore, many scholars also choose different dimensions and elements according to different research contexts. For example, Y. Li (2012), after researching four pension institutions in Huajing Town, Shanghai, concluded that there is a considerable lack of professional staff in the town and the construction of a service talent team is not perfect. The poor quality of service personnel directly causes the poor service quality of pension institutions, which shows that the composition and configuration of human resources of social pension institutions have a direct impact on service quality. At the same time, scholars F. Li (2013) also affirmed the importance of private pension institutions in solving the problem of elderly services. Through the study, the quality and environment of medical and nursing staff in social pension institutions directly affect the service quality of pension institutions. In fact, there are more than these that affect service quality, some scholars C. Gao and Ban (2013) used seven indicators such as occupancy, diet, life care, psychological or spiritual support, medical treatment and rehabilitation, recreation, and others to assess the service quality of private pension institutions in their study. The results confirmed an influential relationship between these factors on service quality. However, Z. Liang and Chen (2014) based on the RATER five-dimensional indicator analysis method to investigate the service quality of private pension institutions in five dimensions: hardware service facilities, service professionalism, service credit, service efficiency, and service staff empathy. These, too, have provided a research basis for later scholars. Furthermore, a foreign scholar, Ramona (2014), argues that service institutions are the service work of human beings. The influence of employees the service providers on the satisfaction evaluation of institutional elderly care services during the service delivery process cannot be ignored. Bellou (2010), based

on a survey of 749 frontline caregivers, argues that a customer service-oriented culture should be developed among employees in pension institutions. Bellou (2010), based on 749 frontline caregivers, argues that a customer service-oriented culture should be developed among the staff of pension institutions to enhance the satisfaction of institutional elderly care services and make pension institutions more competitive. Meanwhile, a study by Graneheim, Johansson, and Lindgren (2014) found that communication, support, and guidance of staff in social pension institutions have an important impact on the satisfaction of elderly family members. Therefore, Law, Patterson, and Muers, (2017) summarized three elements of employee aspects that affect the satisfaction of elderly family members staying in pension institutions - employee personality and attitude, employee management, and employee trustworthiness. Drawing on previous research results, domestic scholars Chen, Feng, Meng, and Liu (2018) conducted a service satisfaction survey among 440 elderly in 22 elderly service institutions in 13 cities in Jiangsu Province. The study results found that elderly residents had the highest satisfaction for facilities, equipment, and cleaning services and the lowest satisfaction for meal services and psychological comfort services in pension institutions. Therefore, Chen (2019) concluded that if the facilities, equipment, attitude of service staff, and ability to perform services in pension institutions are strong and can give personalized services to the elderly residents, it will positively impact customers' (elderly residents) satisfaction. Based on these research experiences and findings, this study summarizes service quality as medical level, accommodation, living atmosphere, and daily diet, and summarizes worker service personnel characteristics and level as service level, professional skills, and educational level, which are the main components of nursing service personnel characteristics.



### 3) Summary of this section

In conclusion, through the above literature, it is found that there are many concepts and definitions of service quality, and no unified norms or standards have been formed; moreover, the elements of service quality institutional components are also different dimensions and elements depending on the contexts studied by scholars. Based on this, this study summarizes the components of service quality as medical level, accommodation, living atmosphere, and daily diet, and sets them as mediating variables in this theoretical model in order to explore whether the characteristics of nursing service personnel have a significant influence on choice through service quality, and thus find out what are the significant influencing molecules which ones. The aim was to identify the relationships between the variables and identify the causes and problems in the development of social welfare institutions that affect the voice of the elderly.

#### **2.2.5 Overview of Perceived Value Theory**

##### 1) Perceived value concept

Perceived value was first proposed by Porter and Advantage (1985) first introduced the concept of perceived value in his study of competitive advantage. For more than 30 years, the connotation of perceived value has been enriched in theory, and although there is no unified concept, it is still the same. Similarly, Levy, a foreign scholar, believes that the psychological basis of customers' consumption of products or services is the value embedded in the subject - "value is the anchor." However, these two scholars did not conduct empirical studies and generalizations, and the term "value" is too broad and unclear. Foreign experts and scholars began to define customer perceived value in the 1990s, and Parasuraman et al. (1988) provided a clear definition of "customer perceived value." By using SERVQUAL, a tool for measuring service quality, setting questions, collecting questionnaires, and conducting analysis, he eventually defined perceived value as a cost-effective utility - a product of a game of interest under the assumption of pure rationality, a trade-off between the perception

of gaining increased benefits and the cost of obtaining them. Vantrappen (1992) argued that the perceived value of the same customer at different Flint, Woodruff, and Gardial (2002) understand the value in terms of value, desirable value, and value judgment, and argue that customers' perceived value is a trade-off between the characteristics they give up and the characteristics they expect to confirm. Chinese scholar Bai (2001) also recognizes that perceived value is between what customers gain and what they lose in obtaining a service. Overall, these two scholars define the connotation of perceived value similarly. Considering the individual difference characteristics of a large sample of consumers, variables such as the quality of the product itself, the experience of the service attitude, the elements of the purchase cost, and the time of service acquisition are diverse depending on customer differences. However, the core connotation of value remains constant as a trade-off between what is gained and what is lost in the service. Boksberger and Melsen (2011) argue that the utilitarian perspective of perceived value stems from the psychological constructs describing shared intuitions. Tuncer et al. (2021), through a study of 10 Konya, Turkey major fine dining restaurants in Konya, Turkey, found that the service quality that had the greatest impact on perceived value was food quality. Customer satisfaction plays a crucial role in the long-term relationship between customers and restaurant companies. Restaurant managers should constantly monitor customer dissatisfaction and dissatisfaction; furthermore, if dissatisfaction exists, they should immediately focus on its solution, as the basis of customer dissatisfaction may be perceived value or service quality.

Combing previous scholars' literature and research results, it is found that perceived value varies, and different definitions are given according to different research backgrounds, as shown in Table 2.2 below. In accordance with the views of the above scholars, the author believes that perceived value, as a subjective evaluation of consumers, mainly refers to consumers' preference and evaluation of product cost in obtaining and using the product in the consumption process. It refers to the consumer's preference

and evaluation of the product's characteristics and attributes in consuming the product to achieve psychological expectations. Table 2.1 below.

Table 2.1 Definition of Perceived Value Concepts

<b>Definition of Perceived Value Concept</b>		
<b>Scholars</b>	<b>Era</b>	<b>Representation</b>
Zeithaml	1988	Perceived value refers to the consumer's self-integrated evaluation of the perceived acquisition and payment costs in the consumption process, i.e., the assessment of the perceived utility received by the consumer versus the perceived utility given.
Monroe	1991	The buyer's perception of value is a trade-off between product quality and price perception.
Sheth	1991	Expanded consumer perceived value domain to include functional, social, emotional, conditional, and cognitive value dimensions.
Gale	1994	Perceived value refers to the consumer's evaluation of perceived quality in the market environment.
Butz	1996	Customer perceived value mainly refers to the relationship between the customer and the company through the product to establish a relationship bond and through the consumption of the product to obtain the perception of the value of the product.
Holbrook	1996	Customer perceived value is a subjective preference of consumers for a product.
Woodruff	1997	It refers to a consumer's preference and evaluation of product characteristics and attributes in consuming the product to achieve psychological expectations.
Gronroos	1997	It refers to consumers' overall perception of its product information, service, and experience.
Bai Changhong	2001	It refers to the overall evaluation of a product by consumers in using it and points out that the customer's perceived value reflects the trade-off between perceived benefits and losses.

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**Definition of Perceived Value Concept**


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<b>Scholars</b>	<b>Era</b>	<b>Representation</b>
Yao Zhong Hua	2002	The consumer's utility of use is the functional benefits and quality of the product obtained through the purchase of that product, and the consumer's value is the comparison of the total cost that the consumer has to pay to obtain the service and purchase it.
Holbrook	2005	Consumer perceived value was defined based on consumer interaction, relativism, and contextual preferences for object experience, leading to eight consumer-related dimensions of perceived value based on extrinsic/intrinsic, active/reactive, and self/other orientations.
Pura	2005	Six dimensions of perceived value (convenience, monetary, cognitive, conditional, social, and emotional) were defined.
Fan Xiucheng	2013	It refers to consumers' subjective judgment of the quality of a company's products and services. Perceived value is multidimensional, hierarchical, and all-variable.
Cheng Haiqing	2016	Refers to the role and influence of the consumer in the overall consumption process of the product supplier requires a certain amount of adaptation, the overall evaluation of the consumer's perception of the product during the adaptation process.
Slack, Singh, Sharma	2020	Due to the multidimensional nature of the value concept, it is crucial to understand the salient factors that develop a value for customers. For the four dimensions of consumer perceived value (i.e., emotional value, social value, monetary value, and performance value), a linear regression analysis revealed a significant positive effect of consumer perceived value on customer satisfaction.

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## 2) Perceived value-related studies

Foreign scholars Sheth, Newman, and Gross (1991) proposed the theory of consumer value and choice—— consumer choice is a function of multiple consumer values. They then summarized five values that influence customer choice: functional value, the utilitarian, functional and physical properties that customers perceive from the product. Social value, where customers are influenced by one or more surrounding groups and society as a whole in their decision to purchase a product, and where customers measure the value of a product based on its social image. Emotional value, the customer's feelings caused by the product or the utility gained in the emotional process. The customer will measure the value of the product according to the mood feeling when receiving the product. Epistemic value, customers, by purchasing products to satisfy curiosity, curiosity, and the pursuit of novelty, customers will measure its value based on the ability to absorb customers to absorb new knowledge. Contextual value: Customers view the product differently and measure value through different contexts due to the particular environment or different circumstances. In an article, scholar Sheth (1996) points out that customer perceived value can be divided into five aspects: functional, emotional, cognitive, situational, and social roles. Among them, the core is functional value, which refers to the attributes of the product to meet its own use function, such as reliable quality, durability, and other basic functions that reflect the use-value of the product; social value refers to the personal image or social attributes that consumers can reflect when they use or own the product. Emotional value refers to consumers' emotional connection to the product or brand during the purchase process or after ownership; cognitive product value refers to consumers' curiosity or desire to know about the product; situational value amplifies one of the above four values in a specific situation. Scholar Zhou (2006) also included green value into the perceived value dimension, where green value mainly refers to the magnitude of the spillover effect on the environment when consumers consume the product. Yunyin Hu (2010) takes knowledge-intensive services as the entry point, and through model construction, empirically concludes that

the five factors of perceived value - functional, perceptual, social, quality, and emotional - have the greatest impact on analyzing the role of customer perceptions of innovative products in the new situation. Similar to Kim's (2009) research background, scholar Zhong (2013) also conducted an empirical study on the influence of customer perceived value on consumption tendency in the online environment. At this point, he basically fixed the three-dimensional analysis theory consistent with Fan Patrick, namely the "Three Musketeers" of functional value dimension, experiential value dimension, and social value dimension. Nakagawa, Ito, and Yasumoto (2021) investigated the situation in Japan for the past 50 years. Researchers have attempted to reduce age discrimination using evidence that the elderly's self-perceptions have deleterious effects on their functioning and health. However, few studies have investigated whether these scientific efforts have reduced negative stereotypes of aging, and a global campaign to combat ageism has recently begun. Further research should directly assess the effectiveness of these policy changes in the context of an aging global society and provide concrete policy implications for eliminating negative age stereotypes. Um and Yoon (2021) found that the perceived value of tourism upgrades influenced willingness to travel responsibly. Perceived value influences willingness to conserve and participate, while conditional value influences willingness to conserve. These results emphasize the importance of the perceived value of tourism upside.

Research on perceived value has been more widely used from the existing literature, especially in consumption, and the research results are quite abundant. However, by combing through the literature, it is found that the research results on perceived value and customer expectation confirmation have not formed a complete system, especially the research results on the relationship between perceived value-expectation confirmation-continuous consumption behavior are relatively lacking. Hence, this will be the focus of this study.

### 3) Summary of this section

In summary, the author has systematically sorted out the definition and relevant content dimensions of perceived value through the literature mentioned above. From the current research results of previous scholars, the concept of perceived value theory should apply to various fields. Despite the different definitions given by scholars, a comprehensive analysis shows that the scholars are consistent: the comprehensive evaluation made by consumers after measuring profit and loss through subjective consciousness. Therefore, it can be said that perceived value is the basis for customers to make purchase decisions in the consumption process. Meanwhile, in the above literature review, the author observed that perceived value mainly examines and measures satisfaction and consumption behavior. Nevertheless, research related to expectation engagement and expectation confirmation theory is still a theoretical gap in the field. Based on this, this study will further enrich the basic theories related to perceived value, consumption behavior, and expectation confirmation.

#### **2.2.6 Overview of Expectation Confirmation Theory**

##### 1) Overview of expectation confirmation

First proposed by Oliver (1980), Expectation Confirmation Theory (ECT), he argued that satisfaction mainly determines consumers' willingness to continue to purchase a product or service after purchase, and Satisfaction is determined by expectation confirmation and degree of confirmation. Moreover, Oliver (1980) proposed the expectation confirmation theory (ECT) based on many studies of consumer behavior, pointing out that customer satisfaction and final decision are based on two important aspects: the first aspect is the customer's pre-purchase expectation of the product or service (pre-purchase expectation), and the second aspect is the customer's post-purchase expectation. Churchill Jr and Surprenant (1982) extended the expectation confirmation theory to include the following aspects of expectation confirmation theory by introducing the product performance formed by consumers' perceptions after first using the product or service, as

shown in Figure 2.2. The extended ECT argues that expectation confirmation, performance, confirmation, and satisfaction jointly influence continued purchase intention. Patterson and Spreng (1997) were the first to apply expectation confirmation theory to the information systems domain, exploring the relationship between performance, satisfaction, perceived value, and users' continued Bhattacharjee (2001) focused on consumers' perceptions after using a product or service, introduced the variable of perceived usefulness, and constructed the Expectation-confirmation model of IS continuance (ECM-ISC). Chinese scholar Liu (2017) explored the factors affecting consumers' willingness to use mobile shopping consistently based on the expectation confirmation theory model. It was found that expectation confirmation, satisfaction, self-efficacy, perceived usefulness, and perceived pleasure would positively affect the intention to continue using directly or indirectly. Hossain and Quaddus (2012) argued that based on the perceived performance of a product or service expectation confirmation and determine the extent to which their expectation confirmation is confirmed. Positive confirmation is expected if the perceived performance is better than expected, negative confirmation occurs if the consumer's perceived performance is lower than expected, and simple confirmation occurs if the perceived performance is just as expected. Based on the expectation confirmation theory, Ning and Hu (2015) found that perceived usefulness, perceived interestingness, and perceived ease of use impact the intention to continue using. Based on expectation confirmation theory, Jiang (2014) found that confirmation, perceived usefulness, perceived service quality, and satisfaction impact users' willingness to continue using virtual communities. Atapattu, Sedera, Ravichandran, and Grover (2016). From the perspective of expectation confirmation theory, a firm's perceived competence indicates how well the firm is able to identify customers, while the firm's responsiveness indicates how well the firm can act on expectations. A firm's ability to understand customer expectation confirmation through ongoing, pervasive interactions and respond to it with a superior customer experience that is easy, fast, and flexible. When viewed from the customer's perspective, customers experience a company's responsiveness through a



customer-based competitive behavior that the company performs based on its customer perception. Thus, through their experience (the customer perceives the company's agility), they can recognize that they respond to their unique individual needs. As a result, customers will be satisfied when the company is flexible and can meet their pre-consumption expectation confirmation. If the company is not able to meet the customer's expectation confirmation, they will not be satisfied. Some scholars have used expectation confirmation theory in the field of online platform learning, such as Cui, Dai, and Shan (2017), who found that satisfaction, confirmation, perceived usefulness, and mind-flow experience positively affect MMOC continuous learning intention directly or indirectly. Cai (2017) found that expectation confirmation, perceived usefulness, perceived ease of use, Small Private Online Course (SPOC) production quality, peer effect, and desire to learn had direct or indirect effects on students' willingness to continue learning in Small Private Online Course (SPOC). Jia, Li, Liu, Sun, and Hernandez (2020) found that customer trust, perceived risk, and perceived benefit significantly impact e-commerce positively related to purchase intention, which leads to confirmation of customer expectations at the pre-purchase stage. Then form an evaluation of that product or service, their perceived performance based on previous expectations, leading to the confirmation or non-confirmation of their expectations. Finally, the results may influence customer satisfaction, which is necessary to achieve loyalty. it is widely used in marketing and information systems research to examine customer behavior. Trust has a long-term impact on customer loyalty through post-purchase satisfaction.

The literature reviewed by previous scholars shows that many scholars have applied the expectation confirmation theory to information systems and the Internet to analyze the factors influencing continued use and purchase intentions. A few scholars have studied the continued purchase intention based on the choice of pension institutions for the elderly. It can be seen that most of the scholars have simply extended the expectation confirmation theory model to include the relevant directions of their own research and analyzed its influence on continued use and purchase intention.

However, few scholars have explored the factors influencing the elderly' plans for continued purchase or choice after receiving perceived experience, service quality, and expected expectation confirmation based on expectation confirmation theory. Almost no scholars have used expectation confirmation as a mediating variable to analyze the external effects. Consequently, all these theoretical gaps need further improvement and in-depth research.

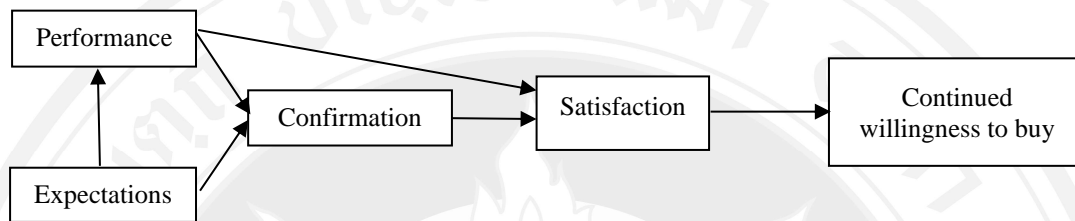


Figure 2.2 Expectation Confirmation Theory Model Diagram

Source: Oliver (1980)

## 2) Studies related to expectation confirmation

The expectation confirmation theory has now been applied in several fields. Oliver (1980) used confirmation as an exogenous variable in the overall model and satisfaction as a function of confirmation and expectation confirmation. This study found that cognitive confirmation was the variable that most influenced satisfaction. Churchill Jr and Surprenant (1982) expanded the expectation confirmation theory to explore the association between expectation, perceived performance, confirmation, and satisfaction, resulting in the widely popular ECT model. In the model, perceived performance and confirmation are influenced by the expectation confirmation formed before use. Perceived performance positively influences both the degree of expectation confirmation and satisfaction. The degree of expectation confirmation also influences satisfaction, which determines behavioral intentions. Since many marketing and information management studies have attempted to explore customer satisfaction and post-adoption behavior, Bhattacharjee (2001) proposed an Expectation Confirmation Model (ECM) that integrates the expectation confirmation theory and the technology

acceptance model. Davis and Stretton (1989) considered perceived usefulness as users' subjective expectations that using an application system will likely increase one's performance within the organization; Bhattacharjee (2001) defined perceived usefulness as users' expectations of the benefits of using the system, representing users' perceptions of the benefits of using the information system. expectation, representing the user's apparent perceived beliefs about using the information system—the personal beliefs after adopting the information system. Thus, Bhattacharjee (2001) argues that the definitions of perceived usefulness and expectation confirmation are consistent, but perceived usefulness is the expectation confirmation after use. Bhattacharjee (2001) expectation confirmation model is a generic model, and the variable "perceived usefulness" is used as a proxy for the user's post-purchase expectation confirmation or belief to make the model concise. Unfortunately, when users are faced with a rich and specific information platform (e.g., a group-buying website) or system, perceived usefulness does not fully represent all users' expectation confirmation or beliefs. Therefore, subsequent scholars have reasonably extended the expectation confirmation model to address this issue. Thong, Hong, and Tam (2006) conducted a study based on the expectation confirmation model by expanding perceived entertainment and perceived ease of use into a new model for mobile web services and found that the two variables of perceived entertainment and perceived ease of use and perceived usefulness have similar effects—both affect users' intention to continue using. Domestic scholars such as Chen and Shao (2011) introduced the concept of perceived funniness in the study of continued use of social networking sites and verified the necessity and effectiveness of this factor in the expectation confirmation model. The relationship between expectation confirmation and customer satisfaction was pointed out in a study by Dong (2012) and others for the continued use of group buying sites, which concluded that consumers' willingness to purchase a product or service again depends to some extent on the degree to which satisfaction is confirmed. The degree of confirmation (expectation confirmation) obtained by comparing consumers' expected feelings with their

feelings after actual use has a positive or negative effect on customer satisfaction. In fact, according to the literature, the expectation confirmation theory has been applied to many behavioral studies. For example, consumer satisfaction, consumer post-purchase behavior, and service marketing research Patterson and Spreng (1997). In recent years, many scholars have successfully applied expectation confirmation theory and its models to different contexts, especially in the context of consumer behavior and customer purchase scenarios. They have produced many studies using expectation confirmation theory to explain customer or user behavior. Wang, Lin, and Su (2021) concluded that the popularity of COVID-19 has changed the traditional teaching model, and online learning has effectively compensated for the shortcomings of traditional face-to-face teaching, using Expectation-Confirmation Theory (ECT) as an infrastructure to study the factors affecting satisfaction and continuance intention in online learning. The results of this study showed that college students were more willing to continue to engage in online learning when they confirmed that online learning was helpful. Persada et al. (2021) conducted a study with a total of 150 students across Indonesia. Present research measured students' willingness to use online private tutoring. Furthermore, measurement analysis was conducted through structural equation modeling analysis, using the expectancy confirmation model as a measurement tool. The study showed that despite the controversy surrounding online tutoring, most scholars agree that tutoring methods offer many positive insights that can be adopted. Improved service and public education by online private tutoring providers confirmed a significant positive effect on students' perceived usefulness of online private tutoring. Students' satisfaction with online private tutoring significantly affected students' willingness to continue using online private tutoring.

Therefore, this thesis combines the previous research results with the reality of this research work, and this thesis applies expectation confirmation as a mediating variable to the study of the elderly' consumption behavior intention. Consequently, the expectation confirmation is defined as the expectation of the nursing staff on each dimension of their characteristics. In this study, expectation confirmation is defined as the degree to which the elderly' expectations of the dimensions of nursing staff characteristics are consistent with the corresponding level of service they receive.

### 3) Summary of this chapter

The expectation confirmation theory states that customers reach repurchase intention - they have initial expectation confirmation about the product or service before shopping. After shopping, the customer accepts and uses the product or service, which leads to the perception of the performance of the service or product - perceived performance. Hence, the level of results after this comparison affects customer satisfaction, which in turn affects the likelihood of repeat purchase or continued use. As such, this subsection compares the relevant literature and organizes the studies related to perceived value and customer satisfaction, and continued use or choice, and clarifies that the expectation confirmation theory is the key theory that this study draws reference from because there are fewer studies that apply expectation confirmation to the consumption behavior of the elderly. Moreover, studies that combine theories and variables related to service personnel characteristics, service quality, and choice are rare, and the expectation confirmation model itself has imperfections. Consequently, this study needs to consider this in constructing the model.

## **2.2.7 Government Policy Overview**

### 1) Government policy concept

"Government policy" emerged in the state system with the emergence of the state as a product of humankind's gradual entry into class-managed society. Disciplinarily, "government policy" gradually evolved into a specialized academic term after the emergence of policy science. According

to foreign scholar Alston (1951), public policy is "the relationship between government institutions and their surroundings, expressed by the formula  $P = f(G, E)$ , where P refers to public policy, G refers to the government system, and E refers to the living environment. Therefore, public policy is also considered as government policy. According to American scholar Woodrow Wilson (1984), public policy is a law or regulation made by politicians - people with legislative power - and implemented by administrators, which indicates that public policy is entirely a concrete expression of the will of government rulers and government policies. Thus, to reflect the will of the state, Nagel (1990), in his study, argues that public policy is a decision made by the government to solve various problems - the strength of policy implementation reflects the extent of the results of the government to solve certain goals. Thus, Chinese scholar Wu (2005) argues that market failure is the theoretical basis of government regulation, the necessity of government regulation stems from market failure, and the purpose of government regulation is to correct market failure, thus fully illustrating that government policy is the main tool for regulating social markets. It plays the role of regulating the public affairs of society, which has become the consensus of most Western economists. Meanwhile, there are two main views on government policy, the representative at home and abroad. In foreign countries, the first view is that the implementers of public policy understand the implementation of government policy as a series of actions or activities, so Jones (2003) clearly states that "the implementation of policy consists of a series of activities, and it is due to this series of activities that policy is implemented, of which application, analysis, and organization are the three most important activities. In the domestic context, the second view is that government policy implementers directly define policy implementation as a process; thus, Mo (2005) argues that public policy implementation refers to the government's comprehensive capacity to implement public policies. In the book translated by Tian (2004), the American economist Burton Weissbrodt analyzed the need for nonprofit organizations and their relationship with the government and the market and proposed the "government failure theory." He

argues that government, markets, and nonprofit organizations are all means of satisfying individual needs and that the limitations of government and markets in providing public goods create a functional need for nonprofit organizations. Therefore, the government and nonprofit sectors complement public goods, whereby government policies have sufficient coordination and influence on social nonprofit organizations or institutions. In addition, Jiang (2012) also pointed out in his study that government executive power mainly refers to the ability of government agencies to implement the strategic policies of the state, provide public services and public goods, and efficiently realize the interests of society through the guidance of public spirit. Therefore, Chinese scholar Ren (2019) mentioned in his study that policy instruments are the means and realistic mechanisms adopted by the government to achieve policy goals and meet the public service needs of society. Therefore, there are three main connotations of policy tools: (i) the subject of using policy tools is the government; (ii) the purpose of using policy tools is to achieve the government's policy goals; and (iii) policy tools are the means and methods adopted to achieve policy goals, which are a series of institutional arrangements. Based on this, social organization policy tools mainly refer to a series of policy instruments and realistic mechanisms adopted by the government in order to promote the transfer of functions and meet the demand for heterogeneous public services in society and achieve the policy goal of healthy and orderly development of social organizations, aiming to create a relaxed institutional environment for the development of social organizations, strengthen the capacity building of social organizations and promote the sustainable development of social organizations. This further states that government policies play a regulatory and coordinating role in managing social public organizations and institutions. Meanwhile, Li, Cui, and Huang (2019) also pointed out that public policy is the process by which governmental work departments make full use of various resources to achieve governmental work goals based on policy programs. By combing the above literature, this study argues that government policy is the main tool of the government to regulate the social market, and the process of its

implementation and execution plays a regulatory role in public social affairs or public organizations and institutions and is the means and realistic mechanism adopted to meet the public service needs of the social public.

## 2) Research on government policies

In the 1950s, Harold Lasswell, one of the founders of American policy science, raised policy implementation to a very important position in policy implementation research, emphasizing the status and effects of policy. Subsequently, with the expansion of academic perspectives on policy implementation research, public policy implementation research gradually became a specialized field of academic research. For a long time after that, public policy research expanded to various fields, and public policy gradually began to exert influence in the management, coordination, and regulation of social aging and the development of social institutions for the elderly. For example, Allen (2000), a foreign scholar, argues in his research on the model of old age that old age is not a single responsibility but should be shared between the government and the family. Ginneken (2003) discovered in his research that only 20% of the world's population had been provided with relatively comprehensive social security, basically in developed countries. Almost all countries with economies in transition do not have independent pension arrangements for farmers but integrate them into the universal social security system. Rural pension systems in developing countries can be divided into contributory, noncontributory, and other informal systems. The contributory type dominates in most countries. This shows the importance of government policies in safeguarding and regulating social welfare pension systems. Therefore, Rhonda (2000) has argued that the state should provide the resources needed for old-age care and assume the corresponding responsibility for old-age care. Meanwhile, Hilier (1999), a scholar of the state adjustment school, has also argued that the state should assume the coordinating responsibility and the family should take the main responsibility for old-age care. Only when a family cannot assume the corresponding responsibility for old-age care, the state should fulfill its Only when a family is unable to take up the corresponding responsibility for old-age care; the



state should fulfill its role in old-age care. In the same period, American scholars Denhardt and Denhardt (2015) suggest that their book "The New Public Service: Serving, Not Steering" contains the following ideas about public service theory: the role of government should change from "steering" to "serving"; the target audience of public services should change from "steering" to "serving"; and the role of government should change from "serving" to "steering." The role of government should change from "steering" to "serving"; public services should be provided to citizens, not customers, and citizens should not be equated with economic customers in terms of management; people should be given more importance than productivity. Analyzing the issue of senior care from the perspective of the New Public Service Theory should focus on its view of social governance structure, fully recognizing the government's service function, not management function, in senior care issues, as well as the service relationship and guiding role between the government and the market players and voluntary organizations involved in senior care. Consequently, the new public service theory provides ideas for the role and function positioning of government in pensions, which fully demonstrates the role of the government role in serving, coordinating, and guiding the social pension system. This is one of the main contents of this study, which explores the guidance and policy guarantee of government policy in allocating human resources and service quality levels in social pension institutions. The initial purpose of these research contents is also inspired by domestic scholar Hong (2000), who argued in his study that the social security system of government public policy is necessary to promote the stability of institutionalized elderly care. That government policy guidance has achieved considerable results in the feasibility of institutional system establishment, theoretical system, management system, and talent introduction, as well as Zhang and Mou (2011), who pointed out that socialized elderly care services cannot rely on the government alone or the market alone. It needs to play both the guiding role of the government and the leading role of the market, and Qiao (2013) also mentioned in his study that the inadequate and low level of professional care services in social pension

institutions should be supported by government policies as a way to make up for the deficiencies in institutional construction. Later, Wang (2014) also argued that concerning the current situation of institutional elderly care in China, there are still many difficulties: pension institutions are expensive, the number of welfare-type pension institutions is small, and the supply exceeds the demand; the infrastructure and equipment construction is not perfect; and the overall quality of elderly care service personnel is low, leading to this situation needs to be The government should guide and support the situation. Han (2016) also argues that since elderly care services have the attributes of quasi-public goods, the provider of elderly care services can be the government or social forces. Liu (2016) also shows that pension institutions services are essentially a mixed public good; therefore, the government should clearly position itself, focus on building a fair, competitive environment, support Yang and Yuan (2020) It is the responsibility of society to protect people's livelihood, promote social progress, and develop public services. It is a grassroots self-governance organization in China that aims to improve its social governance system. To do a good job of grassroots self-governance and shared governance, the participation of multiple entities in providing services needs to rely on the community to gradually improve the quality of life of the elderly, which is also necessary to promote the transformation of government functions and build a new type of service-oriented government, as well as contribute to rural revitalization. Cohen, Mizrahi, and Vigoda-Gadot (2020) argued that citizens' dissatisfaction with government services might elicit various responses, contributing to these ideas and theories in several ways using a national survey of 625 Israeli citizens as a representative sample of the Israeli population. The author attempts to explain citizens' normative attitudes toward alternative health care services by distinguishing two types of parameters. One of them involves how citizens think about and understand the scope of the government's social responsibility or welfare state. The second factor involves real-world conditions such as satisfaction with health care services, participation in the decision-making process, and fairness of the health care system in providing

services. The author establishes a theoretical foundation for these relationships based on ideas from the public management literature. Public management is integrated with theories related to reducing the welfare state and alternative public services. This exploration underscores the importance of an understanding of government responsibility as a major factor in shaping attitudes toward alternative politics and consumer behavior in the context of health care delivery. Scholars predict that consumer satisfaction with the government will decrease when citizens are not involved in decision-making. Conversely, the desire for fair treatment would motivate citizens to support the government's role in providing public services rather than promoting alternatives. Based on values management and self-determination theories, Belgian scholar Crucke, Kluijtmans, Meyfroidt, and Desmidt (2021) explored how management's concern for organizational sustainability affects the internalization of public service values and job satisfaction. The study results based on data from 781 employees in 41 Flemish local governments in Belgium showed that organizational sustainability was positively related to job satisfaction through the impact of perceived organizational support and social impact potential on public service motivation (PSM). The author has combed through a large amount of literature and found that the research literature on government policies in the construction and development of social pension systems and social pension institutions is very large, and the results are very extensive. The contents cover public policies, public services, social and state responsibilities, coordination and guidance of institution building, and the support and dominant position of government policies, which all show that the government attaches great importance to the social pension issue. However, there are not many research results in many literatures about the government's support and guidance of service personnel characteristics and supervision support of service quality level in institution construction and development. Therefore, this study explores the coordinating, guiding, and regulating roles of government policies on the characteristics of service personnel and service quality level in the construction and development of social pension institutions based on previous

research results and inspirations, in order to find out the relevant influencing factors and provide a theoretical basis for supplementing and further improving the research in this field.

### 3) Summary of this chapter

As a summary, the author discovered through a large amount of literature that there are two relatively representative definitions of the concept of government policy at home and abroad. The first view is that public policy implementers understand the implementation of government policy as a series of actions or activities; the second view is that government policy implementers directly define policy implementation as a process. Accordingly, this study argues that government policy is the main tool of government to regulate the social market, and its implementation and execution process plays a regulatory role in the public affairs of a society or public organizations and is a means and a realistic mechanism to meet the demand for public social services. Simultaneously, a review of related literature reveals few research results on policy support for government guidance of human resource allocation and supervision and support of service quality levels. Based on this, this study concludes that further research is needed to explore the role of government policies in guiding and regulating the characteristics of service personnel and the level of service quality in the construction and development of social service institutions.

## **2.3 Theoretical Framework**

For scientific and reasonable research work and to make this study go smoothly, the author reviewed, sorted out, and analyzed a large amount of relevant academic literature through databases such as cnki.net, Wanfang Data, and Google Scholar, as well as conducted social surveys through tools such as the Internet and cell phones. Simultaneously, this study combined the research results of previous scholars. Based on the objectives of this study and full consideration, it was determined that service personnel characteristics were the independent variables, service quality and satisfaction were the

mediating variables, and the choice was the dependent variable. The following theoretical framework is constructed in Figure 2.3, and the study will be conducted from these dimensions and their variables, as shown in Figure 2.3 below.

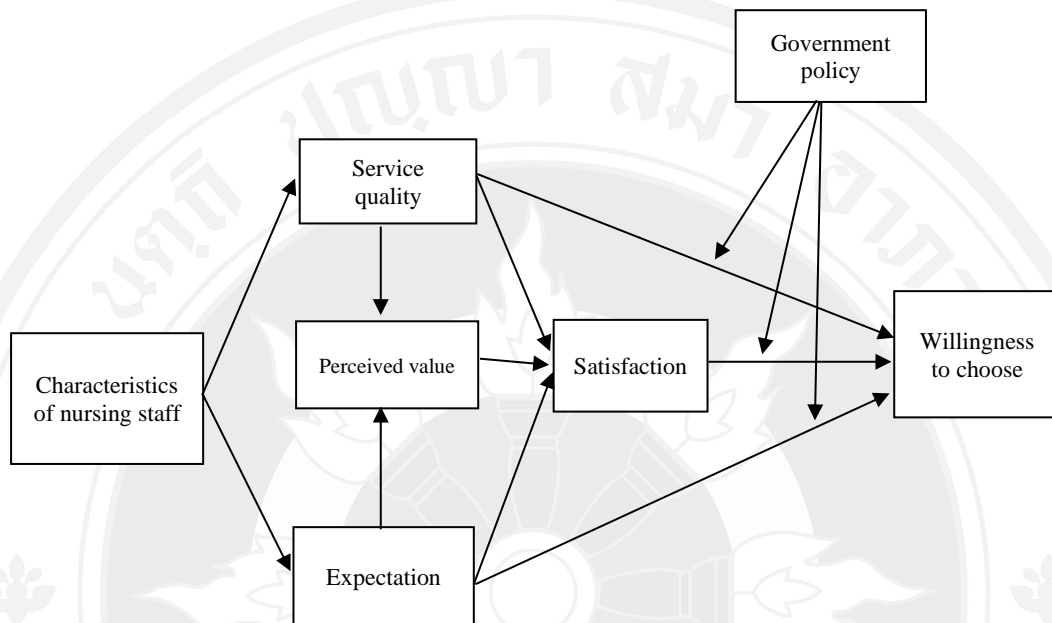


Figure 2.3 Theoretical Framework of this Study

## 2.4 Research Hypothesis

Through combing a large amount of literature and data analysis, the author will start from choice, build a theoretical framework with service quality, satisfaction, and government policy as variables, and analyze the influence relationship between these variables empirically through SPSS and AMOS, which will promote the harmonious development of social pension institutions It has landmark significance. Therefore, this study starts the research by taking the variables of service personnel characteristics and their factors service level, vocational skills, and educational level as independent variables, and at the same time, service quality and satisfaction as mediating variables and choice as dependent variables, and by mapping out the relationship routes between each variable and scientifically constructing the

following conceptual framework (as shown in Figure 2.4 ), that is, service personnel characteristics and their constituents are positively related to service quality, service quality and its constituents positively affect satisfaction and choice; the three influencing factors of service personnel characteristics positively affect satisfaction and choice, and satisfaction plays a mediation effect between human resources and service quality and choice, and government policies play a mediation effect in regulating the relationship between service personnel characteristics and service quality. This thesis proposes the following research hypotheses based on the research questions.

#### **2.4.1 Based on the Relationship between the Characteristics of Nursing Service Personnel and Service Quality**

Foreign scholars Peak and Sinclair (2002) believed that: the elderly living in social security institutions, their families, and the staff in social security institutions are all three important stakeholders in the system, so the survey of institutional elderly service satisfaction should cover the subjects mentioned above. At the same time, Donabedian (2005) also proposed the "structure-process-result" model in his study, which provides a theoretical and meaningful framework for establishing the social security service quality system. This provides a complete framework of criteria for establishing the service quality systems for social welfare institutions because the theoretical model suggests that the service quality criteria of social welfare institutions should cover: "structural criteria, process criteria, and outcome criteria." Among them, structural criteria mainly assess physical facilities (such as sites, equipment, etc.), human resources (including quantity and qualifications), organizational structure, etc.; process criteria mainly measure the process of directly providing services; outcome criteria reflect the effect and satisfaction of services, and this standard system for pension institutions service the measurement of service quality is more comprehensive. However, domestic scholar Mu (2012) argued in his study that the poor service quality of social pension institutions is an important reason for the low occupancy rate, so it does not exclude that service quality is one of the factors affecting

the model choice of the elderly. Therefore, in terms of the service satisfaction survey object of social institutions, Qin and Sun (2016), in their study divided social pension institutions service quality into hardware facilities, operation and management, service content, service staff level, and location conditions, pointing out that pension institutions service's multiple adaptabilities. However, Zhu (2019) showed through an empirical study that the staffing, length of operation, and continuity of financial subsidies of social pension institutions are the main influencing factors. Based on the literature mentioned above showing an influential relationship between the service staffing characteristics and service quality of social pension institutions, this study proposes the following hypothesis based on the literature mentioned above.

Hypothesis H1: There is a positive relationship between service level and service quality.

Hypothesis H2: There is a positive influence relationship between service level and expectation confirmation.

Hypothesis H3: There is a positive relationship between vocational skills and service quality.

Hypothesis H4: There is a positive influence relationship of vocational skills on expectation confirmation.

Hypothesis H5: There is a positive relationship between educational level and service quality.

Hypothesis H6: There is a positive influence relationship between educational level on expectation confirmation.

#### **2.4.2 Based on the Mediating Effect of Service Quality between Service Personnel Characteristics and Choice**

Foreign scholar Philp (2004) found in his study that the special care approach and high quality of nursing services in social pension institutions enhance the elderly's choice. Thus, pension institutions need to improve service quality, improve the management model, and improve the quality of nursing staff to improve the satisfaction of the elderly. Meanwhile,

McAlearney and McAlearney (2006) argued that in order to improve the overall level of community health centers, they need to improve the professionalism of their services, and an effective way to do so is to cooperate with hospitals and bring in professionals to gain better recognition from the elderly. Additionally, Addae-Dapaah and Juan (2014) argued that the main factor that affects the elderly choice is the institutional geriatric care service system, which includes the management, environment, medical care, services, and staffing levels. Domestic scholars Chang (2000) found that the main reason for the current phenomenon that social pension institutions are not favored by the elderly is not that the number of beds exceeds the demand or the fees are too high, but that the level of service and management is very low. At the same time, Min (2006) and others also believe that the low number of practitioners, low quality, and low management level of institutions lead to a low occupancy rate. Therefore, Wu (2011) analyzed the development status of institutional elderly care services from the perspective of supply and demand, and at the same time, dissected the gap between demand and supply, and found that: pension institutions have a large gap with the choice of the elderly in terms of quantity, management level, and quality, and specialization. Yang et al. (2017) argued that the main root cause of the elderly 's choice in the elderly model lies in the large gap between the SERVICE QUALITY of pension institutions and the needs of the elderly group. Based on the literature mentioned above showing whether service staff characteristics are the main factor influencing the elderly 's choice, service quality plays a mediating influence between service staff characteristics and choice, and service quality positively influences choice; hence, based on the literature mentioned above, relationship, this study proposes the following hypothesis.

Hypothesis H7: There is a positive influence relationship between service quality and perceived value.

Hypothesis H8: There is a positive influence relationship between expectation confirmation and perceived value.



Hypothesis H9: There is a positive influence relationship between service quality and choice.

Hypothesis H10: There is a positive influence relationship between service quality and satisfaction.

### **2.4.3 Based on the Mediating Influence of Satisfaction between Service Level and Service Quality and Choice**

Foreign scholars, such as Cardozo (1965), have pointed out in their research that customer satisfaction depends not only on service quality but also on payment and expected confirmation. Customer satisfaction is never a simple evaluation of product or service quality but is likely to be influenced by the process of product or service provision. Similarly, Parasuraman et al. (1985, 1988) and many other scholars believe that service quality has an important influence on customer satisfaction, and therefore, service quality is considered an antecedent factor of customer satisfaction. Later, Parasuraman et al. (1988) and others also suggested in their research that customer satisfaction is a prerequisite for service quality, which shows that customers will choose to buy or repurchase because of the high-quality service level. Moreover, domestic scholar Yang (2011) pointed out in his study that Wenzhou City attaches great importance to developing non-profit pension institutions and has set up a special management body and adopted a working mechanism through relevant policies and regulations. Besides, many human and material resources have been invested in promoting and enhancing the service quality level of social pension institutions. Obviously, these government administrations play an important role in managing elderly services. Therefore, when Zhang and Liu (2012) researched, she proposed that from the perspective of social pension institutions: since most of the elderly in social pension institutions are elderly and disabled, there is a significant operational risk, which comes not only from the resident elderly but also from the nursing staff service within the institutions quality, revealing that the high level of staff management directly affects the degree of satisfaction of the elderly, which is one of the main factors in the choice of pension model.

Consequently, Victoria (2014), based on the survey data of 749 research on frontline nursing service staff, argues to form a customer service oriented culture among the staff within the pension institutions to enhance the institutional elderly service satisfaction and make the pension institutions more competitive. Moreover, Zhang Tuan, Mu and Fu (2016) proposed the "demand-requirement-pursuit" theory of institutional quality elderly care in their research results and divided the quality connotation of institutional elderly care into environmental quality, management quality, service quality, and human quality. Based on the above literature, satisfaction positively influences choice, and satisfaction plays a mediation effect between service personnel characteristics and service quality and choice, and service quality positively influences choice; thus, the following hypothesis is proposed in this study.

Hypothesis H11: There is a positive influence relationship between perceived value and satisfaction.

Hypothesis H12: There is a positive influence relationship between expectation confirmation and satisfaction.

Hypothesis H13: There is a positive influence relationship between expectation confirmation and choice.

Hypothesis H14: Satisfaction has a positive influence relationship with choice.

#### **2.4.4 Based on the Regulatory Role of Government Policies**

1) Moderating effect of government policy between service quality and choice

Foreign scholars Cronin Jr and Taylor (1992), in their research on service quality, concluded that service quality is a good tool for customer satisfaction measurement, which includes measurement factors such as management status, professional level, staffing, and facility function of the main body providing the service. However, the degree of influence of public policy on service quality cannot be excluded. According to Chinese scholar H. Liang et al. (2003), the social security system of government public policy

is a necessary measure to promote the stability of institutionalized elderly care, and government policy guidance has achieved considerable results in the feasibility of institutional system establishment, theoretical system, management system, and talent introduction. Therefore, Qiao (2013) also mentioned in his study that the inadequate and low level of professional care services in social pension institutions should be supported by government policies to make up for the deficiencies in institutional construction. Tao and Yun (2013) argued that in order to improve the management level of private pension institutions in China, the training system should be improved based on increased government support; later, Wang (2014) also argued that, regarding the current situation of institutionalized care in China, there are still many difficulties: pension institutions are expensive, welfare-oriented pension institutions are few in number and short supply; the infrastructure and equipment construction is not perfect; and the overall quality of elderly care service personnel is low, leading to this situation needs to be guided and supported by the government. Xiao and Tang (2015) suggested that the legal environment of private pension institutions should be improved, the funding sources should be broadened to improve the funding capacity of private pension institutions. Moreover, the nursing staff should be expanded, society's prejudice towards the industry should be reversed, and the supervision mechanism of the government towards private pension institutions should be improved. After that, Zhao and Zhou (2016) pointed out that the current pension institutions are mainly led by the government and are mainly divided into two models: public and private and private. Meanwhile, the study of foreign scholars Kavsek and Bogataj (2017) showed that the service quality of pension institutions understood by the elderly group and service providers have different connotations, so the support side of government policies should be universalized between public social pension institutions and private social pensions. However, Tian et al. (2018) argues that from the perspective of the institutional elderly service arranger, the government, to meet the demand for institutional elderly service of the elderly group, has introduced many policies to support the development of pension

institutions. Still, it has not achieved the expected effect and has produced waste of resources and policy. However, the government has introduced many policies to support the development of institutional care services, but they have not achieved the expected results. They have produced unintended consequences such as waste of resources and policy arbitrage. However, Liu (2019) investigated developed countries such as the United Kingdom, the United States, and Japan and found that the importance of laws and regulations is paid much attention to the development of market-based elderly care service system. In order to ensure the stable development of market-based elderly care service systems in their countries, the government and relevant departments have formulated many policies and legal norms as a guarantee.

The literature mentioned above shows that government policies influence or intervention effect on social pension institutions—service quality of social pension institutions will be improved with government policy support. In contrast, other literature shows service quality. However, whether government policy support has a moderating effect on the relationship between service quality and choice remains further studied. Thus, the following research hypothesis is proposed in this thesis.

Hypothesis H15a: Government policy plays a positive moderating effect in the relationship between the effect of service quality on choice.

2) Moderating effect of government policy between satisfaction and choice

Colsher and Wallace (1990) found that private industry retirement, lack of leisure while working, and adaptability are also the main characteristics of the remote pension group, stress, anxiety, and even satisfaction with life. Therefore, the elderly have a remote pension destination Sirgy et al. (2010) argues that the satisfaction of the elderly with community-based pension services is not only related to the content and quality of the services purchased by the government but also, and most importantly, to the perceived quality of life of the elderly after participating in these programs. Grillo et al. (2010) also argues that the satisfaction of the elderly with

community-based senior care services is related to the perceptions of the elderly and is directly related to the quality level of the elderly in the work of government-provided senior care services. Domestic scholars such as Meng and Jiang (2004) found in their survey on the mobile elderly population in Beijing that the basic demographic attributes of the elderly, psychological demands, the economic status of the children in the inflow place, and the social relationship with the elderly, as well as the adaptation in the inflow place all, have a greater impact on the willingness of the elderly to remote pension. This form of remote pension is mainly expressed as to whether the elderly 's satisfaction with their life at the destination has reached the expected goal. Peng (2010) mentioned that improving the satisfaction of government purchase of home care services requires studying the factors affecting the satisfaction of government purchase of home care services, which has become a key issue for welfare states to improve their welfare levels. In a review of foreign literature, Zhang (2014) mentioned that in the micro perspective of government purchase of home care services, foreign studies on the factors influencing satisfaction are more from the perspective of the relationship between the elderly, living environment, family, and well-being and that environmental factors such as family, living environment and neighborhood environment are all related to the satisfaction of home care services for the elderly. Wang and Salamon (2010) led a research project on public service satisfaction, which started the first academic research in this field. According to the author, the research on the government's purchase of home care services in the field of satisfaction mainly starts from the perspective of service performance evaluation and studies the satisfaction indicators in the performance evaluation index system. The research results prove that the government's actions will impact the satisfaction of the elderly service industry. Scholars Liu (2012) also mentioned in his study that in order to better meet the public demand for elderly care, the government pays for elderly care services from enterprises or social organizations and signs contracts with enterprises or social organizations as the purchaser, agreeing on the scale of services, service content, service quality, etc. Finally, the

government evaluates the satisfaction of the services by the government will evaluate the satisfaction of the service and determine whether to pay or not.

The study by Jiang and Li (2021) also showed a problem that a large amount of human and public resources are occupied in community-based home care. Further, the service content of such community-based home care is also homogenized and formalized. As such, the role of government policies in regulating the human and public resources of pension institutions is one of the factors that must be considered when conducting relevant studies.

The literature mentioned above shows that government purchased social care services impact the satisfaction of the elderly - there is a correlation between the quality level of government purchased social care services and the satisfaction of the elderly. However, whether government policy support has a moderating effect on the relationship between satisfaction and choice remains further investigated. Thus, the following research hypothesis is proposed in this thesis.

Hypothesis H15b: Government policy plays a positive moderating effect in the relationship of the effect of satisfaction on choice.

3) Moderating effect of government policy between expectation recognition and choice

Zimmerman, Jackson, Longino Jr, and Bradsher (1993) argued that in the absence of children or other relatives who can provide home care, the elderly would prefer to move to areas with better health services and public health facilities. Heejun and Min (2012) used an econometric model to quantify the extent to which variables such as consumer risk perception, access, subjective customer needs, and consumer values influence the purchase intention of biologic products. Their findings demonstrate a relationship between government support factors and consumers' potential demand and that government-involved business practices increase consumers' purchase intentions. Jin (2013) analyzed the factors influencing Facebook users' usage behavior based on the traditional TRAM model and found that expectation confirmation and actual demand were the influencing variables

for users' choice to continue using Facebook, while information content and service quality are the variables that indirectly influence users' willingness to choose continuous use. In analyzing the factors influencing the purchase intention of new energy vehicles, Li (2017) found that policy preferences have a positive incentive effect on both enterprises and consumers and empirically proved that the product image of enterprises, consumer group characteristics, and government policies have a significant positive influence on the purchase intention of new energy vehicles. Zhang (2012) studied the relationship between government policies and the elderly's choice regarding service quality, service attitude, individual characteristics of the elderly, and service cost sources. After the empirical study, he found that the elderly prefer to receive policy support from institutions because of their personal physical condition and service quality level. This result indicates that the choice of the elderly is strongly correlated with policy support.

As mentioned above, the author found that many results in the literature show the influence of government policies on the choice of the elderly, and the few literatures also show that the elderly have higher expectations confirmation of the service quality of social pension institutions. However, it is still a blind spot in this field whether policy support affects expectation confirmation. Therefore, this study will explore the effect of policy-supported social pension institutions on the expectation confirmation of the elderly through the literature inference method. Therefore, the following hypothesis is proposed in this study.

Hypothesis H15c: Government policy plays a positive moderating effect in the relationship of the expected confirmed effect on choices.

## 2.5 Conceptual Framework

Following thorough consideration by the author, based on the research ideas and in order to test the hypotheses proposed in this study empirically, the following conceptual framework was constructed in this thesis based on the relationship between variables and paths (as shown in Figure 2.4 conceptual framework). The author reviewed the relevant literature and labeled the relevant literature support for each path (as in Figure 2.5) to carry out the related research work.

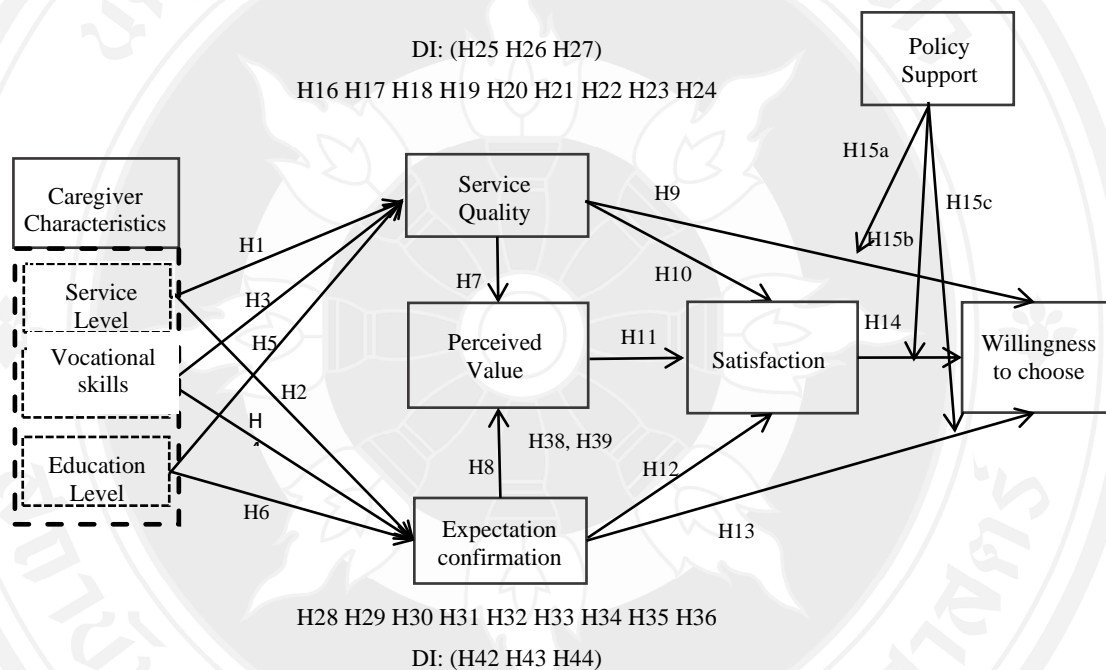


Figure 2.4 Conceptual Framework Model for this Study



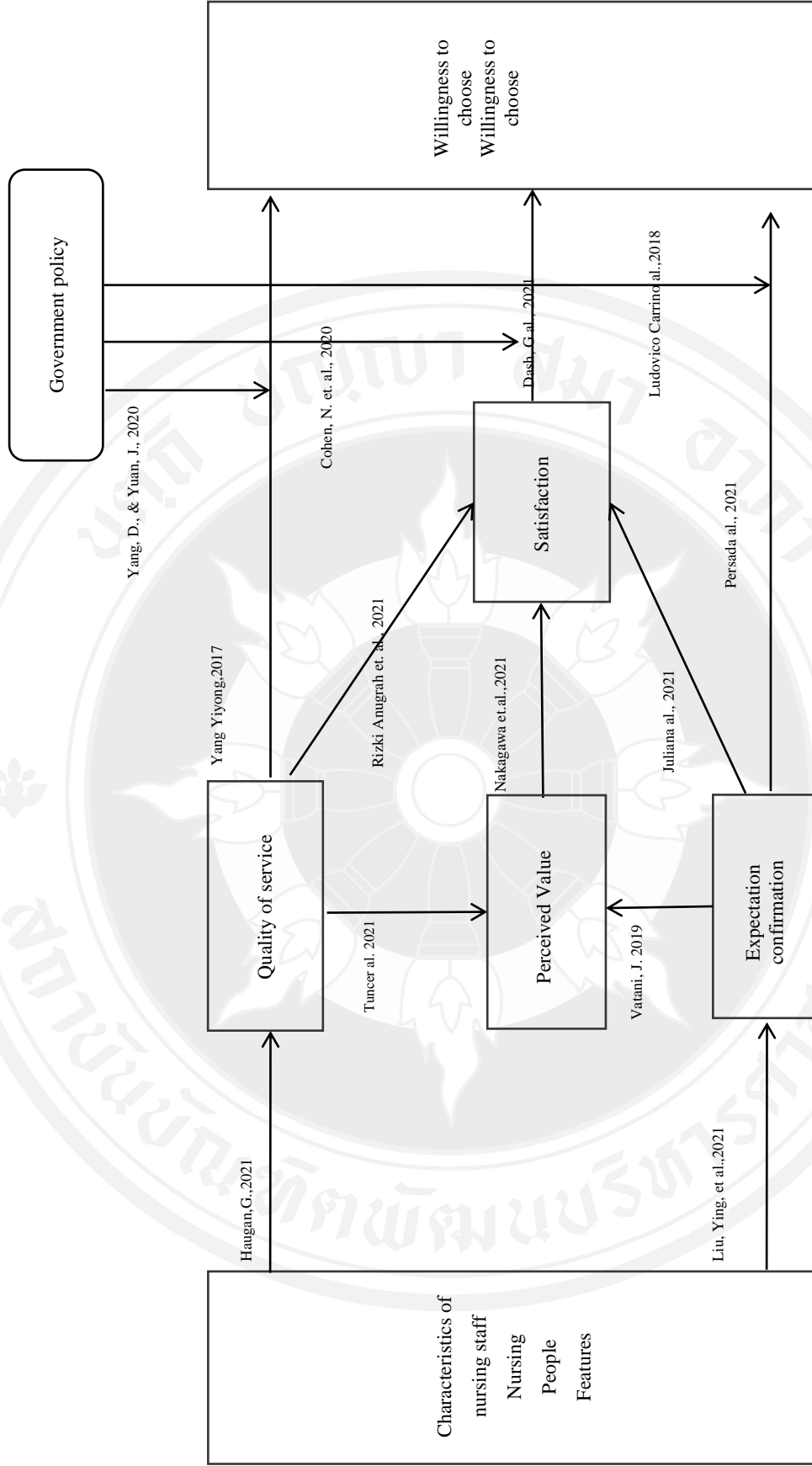


Figure 2.5 Literature Support for the Conceptual Model of this Study

Note: Drawing: Prepared by this author

## 2.6 Summary of Research Hypotheses

In this thesis, based on the experience and inspiration summarized by combing the relevant literature, based on the relevant theories, and combined with the reality of this study, the author compiled the research hypotheses and predictions summarized in Table 2.2 below.

Table 2.2 Summary of Study Hypotheses

		<b>Research Hypothesis Prediction</b>
	H1	There is a positive relationship between service level and service quality.
	H2	There is a positive relationship between service level and expectation confirmation.
	H3	There is a positive relationship between vocational skills and service quality.
	H4	There is a positive relationship between Vocational skills and expectation confirmation.
	H5	There is a positive relationship between educational level and service quality.
Direct	H6	There is a positive influence of educational level on expectation confirmation.
Effect	H7	There is a positive relationship between service quality and perceived value.
	H8	Expectation confirms the existence of a positive influence relationship on perceived value.
	H9	There is a positive relationship between service quality and choice.
	H10	There is a positive relationship between service quality and satisfaction.
	H11	Perceived value has a positive effect on satisfaction.
	H12	Expectation confirms the existence of a positive influence

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**Research Hypothesis Prediction**


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		on satisfaction.
	H13	Expectation confirms the existence of a positive influence relationship on choice.
	H14	Satisfaction has a positive effect on choice.
Adjustment	H15a	Government policy has a positive moderating effect on the relationship between service quality and choice.
Effect	H15b	Government policies play a positive moderating effect in the relationship of the effect of satisfaction on choice.
	H15c	Government policy plays a positive moderating effect in the relationship of the effect of expectation confirmation on choice.
	H16	Service quality mediates the effect of service level on perceived value.
Single	H17	Service quality mediates the effect of vocational skills on perceived value.
Intermediaries	H18	Service quality mediates the effect between educational level and perceived value.
Effect	H19	Service quality plays a mediation effect between service level and satisfaction.
	H20	Service quality mediates between vocational skills and satisfaction.
	H21	Service quality mediates the effect between educational level and satisfaction.
	H22	Service quality mediates between service level and choice.
	H23	Service quality plays a mediation effect between vocational skills and choice.
	H24	Service quality mediates the effect between educational level and choice.
Double	H25	Service quality and satisfaction play a mediation effect between service level and choice.

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**Research Hypothesis Prediction**


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Intermediaries	H26	Service quality and satisfaction play a mediation effect between vocational skills and choice.
Effect	H27	Service quality and satisfaction mediated the effect between educational level and choice.
	H28	Expectation confirmation mediates the effect between service level and perceived value.
Single	H29	Expectation confirmation mediates the effect between vocational skills and perceived value.
Intermediaries	H30	Expectation confirmation mediates the effect between Education Level and perceived value.
Effect	H31	Expectations confirm a mediating effect between service level and satisfaction.
	H32	Expectations confirm a mediating effect between Vocational skills and satisfaction.
	H33	Expectation confirmation mediates the effect between educational level and satisfaction.
	H34	Expectations confirm a mediating effect between service level and choice.
	H35	Expectations confirm a mediating effect between vocational skills and choice.
	H36	Expectation confirmation mediates the effect between Education Levels on cho.
	Single	H37
Intermediaries	H38	Perceived value plays a mediation effect between service quality and satisfaction.
Effect	H39	Perceived value mediates the effect between expectation confirmation and satisfaction.
	H40	Satisfaction plays a mediation effect between service quality and choice.

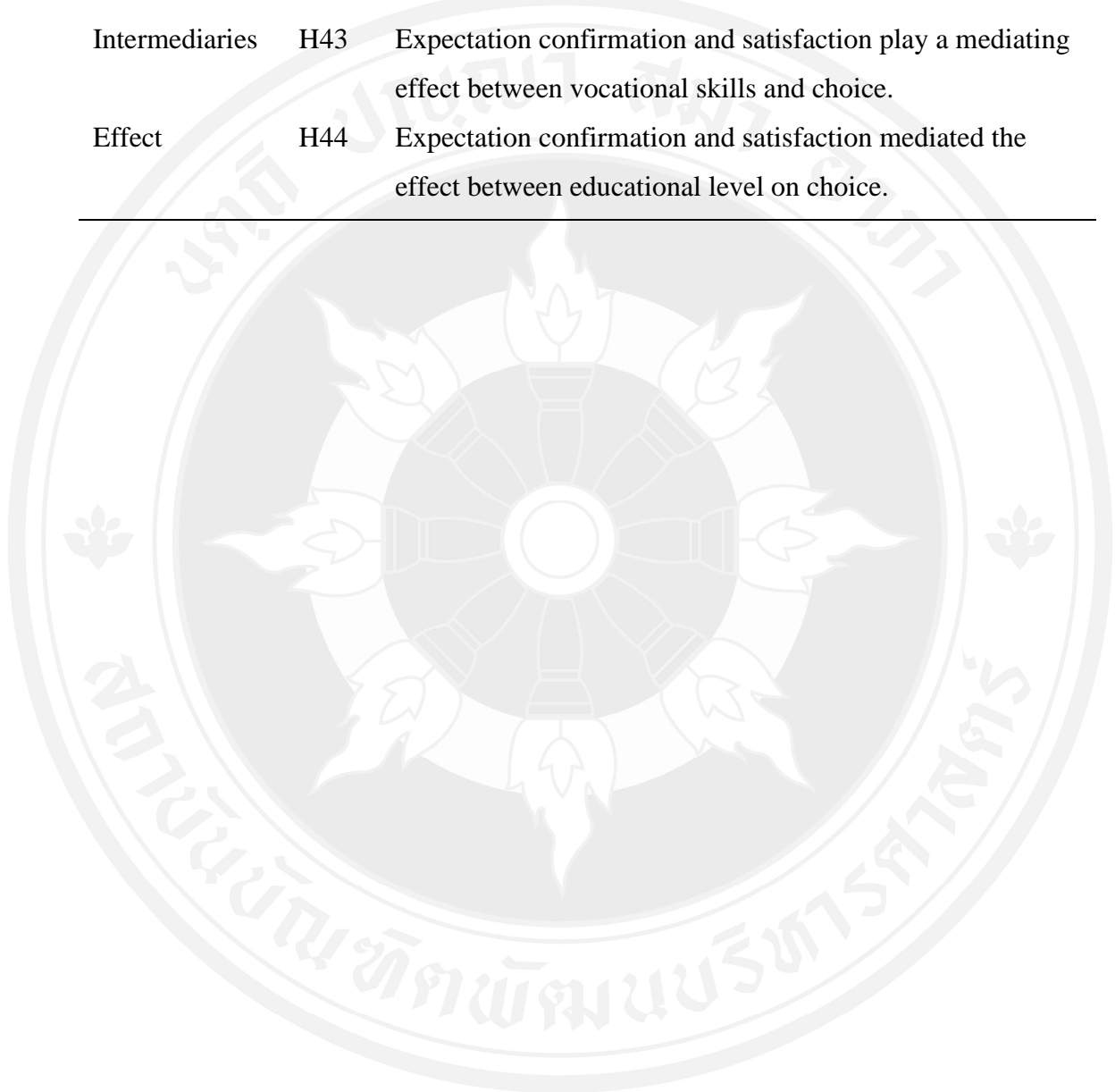
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**Research Hypothesis Prediction**


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	H41	Satisfaction plays a mediation effect in expectation confirmation and choice.
Double	H42	Expectation confirmation and satisfaction mediated the effect between service level and choice.
Intermediaries	H43	Expectation confirmation and satisfaction play a mediating effect between vocational skills and choice.
Effect	H44	Expectation confirmation and satisfaction mediated the effect between educational level on choice.

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## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1 Research Subjects

The twenty-first century is a period when society enters a full-scale population aging. China entered the aging society ahead of schedule as early as 1999, with the elderly population accounting for one-fifth of the total global elderly population, making it the country with the largest elderly population in the world. According to the data of the seventh population census released by the National Bureau of Statistics: At 00:00 on November 1, 2020, the population aged 60 and above accounted for 18.70%, 8.65 percentage points higher than the fifth population census in 2000. The population aged 65 and above accounted for 13.50%, 6.54 percentage points higher than the 2000 census. 2015 saw China enter a period of rapid population aging. In 2015, China entered a period of rapid development of population aging, and the issue of old age is under significant pressure. With China's rapid social and economic development, aging is gradually deepening, the traditional family pension model faces huge challenges, and the burden of aging at home is further increasing. Therefore, in the context of deepening social and economic development and increasing the number of the elderly, it is necessary to accelerate the development of social pension institutions, solve the diversified problems of the elderly 's retirement, and further improve China's social pension system. Zhou and Chai (2015) mentioned in their study that the aging process in Guangxi is characterized by fast speed, more purely old families and elderly living alone, and prominent seniority. These years, the proportion of the aging population in Guangxi is higher than the national 8%-10%. In addition, J. Ren (2016) also mentioned in their study that it took only 20 years for the proportion of the elderly population aged 65 and above to rise from 7% to 14% of the total population in Shanghai. Moreover, the number of purely elderly households and

elderly living alone among the elderly in Guizhou is growing. Data show that at the end of 2015, there were 964,600 elderly in "purely elderly households" in Guizhou, of which 313,800 were aged 80 and above, accounting for 33.56%; 293,700 the elderly lived alone, an increase of 8.16% from 2010. The number of the elderly living alone is 293,700, an increase of 81,600 or 41.55% over 2010. This type of purely elderly and elderly living alone needs key care and assistance. As mentioned in the 18th Party Congress (2012) report, General Secretary Xi Jinping has repeatedly stressed that "China's elderly population is increasing rapidly, but the development of the elderly service industry is still lagging behind." Therefore, according to the document "Opinions of the State Council on Accelerating the Development of the Elderly Service Industry" (State (2013) No. 35), the people's governments of provinces, autonomous regions, and municipalities directly under the Central Government have increased their support for the elderly service industry in six areas. These six areas are: first, improving the investment and financing policy, hoping to attract more private capital to enter the service industry; Second, improving the apprentice supply policy, local governments can adjust the idle land for public welfare to land for senior care service, and at the same time, not treating differently the private capital-organized The land use policy of non-profit pension structures and public pension structures; Third, improve the policy of tax and fee concessions, provide exemptions from business tax, property tax, land use tax, and other taxes for non-profit pension institutions, and at the same time, give the deduction ratio specified in the tax law for public welfare donations from enterprises and institutions when they pay income tax; Fourth, improve the policy of subsidy support for Improve the subsidy support policy, provide subsidies to the elderly who are old and have no ability to move around on their own, recommend the private sector to help them, and support the social forces to organize the elderly service institutions; Fifth, improve the human resources training and employment policy, each department must support the institutions of higher education and vocational colleges to add majors and courses related to the elderly service industry, and encourage the graduates of the corresponding majors to work in the elderly service; Sixth, encourage the public welfare charitable organizations to support the elderly service, and guide public welfare charitable organizations to focus on participating in the construction of pension institutions, the development of

products for the elderly and the provision of elderly services, so that public welfare charitable organizations become an important force in the development of the elderly service industry. Actively foster the development of public welfare charitable organizations for the elderly services. Actively support the development of various types of volunteer organizations for the elderly to carry out volunteer activities. Advocate the cadres of organs and employees of enterprises and institutions, students of universities and schools to participate in volunteer activities for the elderly services.

As such, it is necessary to investigate further and study how to improve the service quality and satisfaction of social pension institutions to enhance the choice of pension models for the elderly based on the current situation. In this way, the development of social pension institutions can be promoted, and the dilemma of the pension problem of the elderly in China's aging society can be solved.

The author selected the five provinces and cities with the highest proportion of people over 60 years of age based on the Seventh National Census Bulletin released by the National Bureau of Statistics on May 11, 2021, after reviewing a large amount of literature and taking into account the actual situation. (From highest to lowest. Liaoning 25.72%, Shanghai 23.38%, Heilongjiang 23.22%, Jilin 23.06%, and Chongqing 21.87%). As sampling provinces and municipalities, these five provinces and municipalities were used as representatives of the convenience sample for this study to ensure the representativeness and quantity of the sample - the main source basis for the sample and data collection for this study. In addition, according to the United Nations and World Health Organization's criteria for classifying older people as 65 years of age or older in developed countries and 60 years of age or older in developing countries, and according to Article 2 of China's Law on the Protection of the Rights and Interests of the Elderly, the starting age for older people is 60 years of age. people over 60 years of age are referred to as "older people." The age of the elderly is 60 years old. Among them, 60 to 69 are low elderly, 70 to 79 are middle elderly, and 80 and above are high elderly. Hence, this study uses retired the elderly over 60 years old as the study population and distributes questionnaires to elderly subjects, and its approach is representative and operational.



## 3.2 Scale Design and Operational Definitions

### 3.2.1 Survey Overall and Sample Definition

This study selected five provinces and cities with the highest proportion of people aged 60 years or older based on the Seventh National Population Census Bulletin released by the National Bureau of Statistics on May 11, 2021. (25.72% in Liaoning, 23.38% in Shanghai, 23.22% in Heilongjiang, 23.06% in Jilin, and 21.87% in Chongqing,) as the sample sampling cities to ensure the representativeness of the sample. The sample cities were: Liaoning, Shanghai, Heilongjiang, Jilin, and Chongqing. Simultaneously, according to the United Nations and the World Health Organization, the classification of the elderly is based on the following criteria: those aged 65 or older in developed countries and those aged 60 or older in developing countries. Moreover, according to Article 2 of the Law on the Protection of Rights and Interests of the Elderly in China, the starting age of the elderly is 60 years old, and people over 60 years old are called "elderly." Consequently, retired the elderly over the age of 60 were taken as the target population in this study. A questionnaire was distributed to the elderly in the study because the proportion of people over 60 years old in the five provinces and cities mentioned above are relatively similar. Therefore, 200 questionnaires were distributed in each province and city, and a total of 1000 questionnaires were distributed in this survey. Two hundred questionnaires were distributed in Liaoning, 172 were returned, and 156 were valid. In Shanghai, 200 questionnaires were distributed, 152 were collected, and 142 were valid. In Heilongjiang, 200 copies were distributed, 169 copies were collected, and 153 copies were valid. In Jilin, 200 copies were distributed, 166 copies were collected, 151 copies were valid, and in Chongqing, 200 copies were distributed, 164 copies were collected, and 150 copies were valid. A total of 823 questionnaires were collected, with a return rate of 82.3%, 752 valid questionnaires, and an effective rate of 75.2%, which is in line with Hair, Black, Babin, Anderson, & Tatham, (2006, 6th, pp. 195-196) on the principle that the ratio of the number of validly collected questionnaires to the number of sample items is not less than 5:1 or 10:1 for the next step of the study.

By referring to the models of pension model choice and social pension institutions service quality, the author draws on the models and specific elements of service personnel characteristics, service quality, and satisfaction of social pension institutions proposed by previous authors. In addition, the author constructed the evaluation system of human resources, service quality, and satisfaction of social pension institutions based on a large number of previous studies and research results and formed the first draft of this study's scale. As such, the questionnaire of this study consists of four parts and several measurement indicators.

Part 1: Contextual questions——information used to understand the relevant background of the person being asked, mainly as an important reference for interpreting the results of a certain part of the statistical analysis and making relevant recommendations. Demographic characteristics: gender, age, pre-retirement occupation, educational level, and monthly income.

Part 2: the subject questionnaire of this study is proposed, which mainly investigates the three elements of nursing staff characteristics of service level, vocational skills, and educational level and the corresponding item contents; the relevant descriptive statements are proposed for the current situation of social pension institutions design, and the five-point scoring of Likert (1932) is adopted according to the degree of conformity. The scoring structure is divided into five evaluation levels, i.e., from "1 to 5" indicating the evaluation score and strong degree, such as: "strongly disagree, disagree, average, agree, strongly agree." It was used to test the assessment of the interviewees.

Part 3: service quality and satisfaction are used for evaluation. In this study, service quality and satisfaction were measured from the three elements of human resources in addition to the second part. They were divided into five evaluation levels according to the degree of compliance using Likert (1932) five-point scoring structure, which was used to test the degree of perceived evaluation of service quality and satisfaction of the elderly.

Part 4: to propose a choice item, which uses the dimension of "choosing the social pension institutions model of aging" to measure the choice of the elderly, and to design a descriptive statement about the choice, divided into five evaluation levels, namely. " Very reluctant, reluctant, generally willing, very willing, very willing."

### 3.2.2 Care Provider Characteristics Measurement Scale

The previous comprehensive analysis of domestic and international dimensions of service personnel characteristics and involving Bozbura, Beskese, and Kahraman (2007); McAlearney and McAlearney (2006) perspectives on human resources in the management of social organizations and institutions suggest that service personnel characteristics are primarily key factors in examining the production dynamics within an organization or institution. Therefore, this study draws on some of the indicators from the comprehensive human resource evaluation indexes proposed by Bozbura et al. (2007); McAlearney and McAlearney (2006) as elements of the measurement of service personnel characteristics and the question items of this study and forms the scale of this study by eliminating and modifying it appropriately, as shown in Table 3.1 below.

Table 3.1 Service Level Competency Measurement Scale

<b>Variables</b>	<b>Dimensionality</b>	<b>Number</b>	<b>Title Item</b>	<b>Source Basis</b>
Nursing staff characteristics	Service Level	A1	A very professional level of service from agency staff.	(Bozbura et al., 2007).
		A2	Agency staff with good communication skills.	
		A3	Strong initiative on the part of agency staff.	
		A4	Agency staff are good at making sound recommendations.	

Source: Bozbura et al. (2007)

Table 3.2 Vocational Skills Measurement Scale

<b>Variables</b>	<b>Dimensionality</b>	<b>Number</b>	<b>Title Item</b>	<b>Source Basis</b>
Nursing staff characteristics	Vocational skills	B1	The professional skills of the institution's staff satisfy me.	(McAlearney & McAlearney, 2006).
		B2	The professionalism of the institution's staff to my satisfaction.	
		B3	The experienced practice of agency staff.	
		B4	Agency staff have the appropriate skills qualifications	

Source: McAlearney and McAlearney (2006)

Table 3.3 Table 3: Educational Level Measurement Scales

<b>Variables</b>	<b>Dimensionality</b>	<b>Number</b>	<b>Title Item</b>	<b>Source Basis</b>
Nursing staff characteristics	Education Level	C1	I am satisfied by the high level of education of the staff of the institution.	(Bozbura et al., 2007).
		C2	Agency staff with secondary education to my satisfaction.	
		C3	Agency staff with lower qualifications to my satisfaction.	

Source: Bozbura et al. (2007)

Drawing: prepared by this author

### 3.2.3 Service Quality Measurement Scale

By the comprehensive analysis of service quality dimensions at home and abroad in the previous thesis, this study refers to the views of Wang and Wang (2004); Xiao et al. (2012a); Ran et al. (2015); Knight et al. (2014) on service quality management in social organizations and institutions believe that service quality mainly examines whether the organization or institution's level of service quality is a key factor in satisfying customers. Therefore, this study draws on some indicators of the combined evaluation index of service quality and its elements proposed by Wang and Wang (2004); Xiao et al. (2012b), Ran et al. (2015); Daruwalla, Wong, Pillay, Leong, and Murphy (2014), as the measurement elements of service quality and the question items of this study, respectively, from the scale of this study by eliminating and appropriately modifying. The scale of this study was formed by excluding and appropriately modifying.

Table 3.4 Medical Level Measurement Scale

<b>Variables</b>	<b>Dimensionality</b>	<b>Number</b>	<b>Title Item</b>	<b>According to the Source</b>
Services Quality	Medical Level	D1	Medical (rehabilitation training) facilities and equipment to meet your needs.	(Wang & Wang, 2004).
		D2	The nursing staff will not be too busy to respond to your requests promptly.	
		D3	The nursing staff is polite and attentive.	
		D4	Nursing staff with professional knowledge and skills and a high level of management.	
		D5	Nursing staff are able to	

Variables	Dimensionality	Number	Title Item	According to the Source
				provide all services on time.
		D6		the nursing staff respects your habits and personal privacy.
		D7		The nursing staff will adjust the service hours and services according to the special requirements.
		D8		Nursing staff can give adequate care.
		D9		The nursing staff is usually willing to chat with you.
		D10		the nursing staff is always happy to help you when you need help.
		D11		The nursing staff can respond to your service needs quickly when you ask for them.
		D12		Your trust in the services provided by the nursing staff.

Source: Wang and Wang (2004)

Table 3.5 Housing Conditions Measurement Scale

Variables	Dimensionality	Number	Title Item	According to the Source
Services Quality	Housing Conditions	E1	The institution has good security precautions and will regularly check for security hazards.	(Xiao, Lv, et al., 2012).
		E2	Regular security sweeps by supervisors.	
		E3	Regular assessment services for supervisors.	
		E4	Proper documentation of relevant services.	
		E5	pension institutions charge reasonable and open prices.	
		E6	Signs that the infrastructure is functional and has supporting uses.	
		E7	The institution has enough beds to meet individual needs.	
		E8	The frequency of replacement of household items in pension institutions is reasonable.	
		E9	A reasonable level of housing hygiene and tidiness.	
		E10	The level of management and the condition of	

<b>Variables</b>	<b>Dimensionality</b>	<b>Number</b>	<b>Title Item</b>	<b>According to the Source</b>
			hardware facilities in pension institutions is reasonable.	
		E11	The residential character of pension institutions and their surroundings are good.	

Source: Xiao et al. (2012a).

Table 3.6 Life Atmosphere Measurement Scale

<b>Variables</b>	<b>Dimensionality</b>	<b>Number</b>	<b>Title Item</b>	<b>According to the Source</b>
Services Quality	Life Atmosphere	F1	Convenience for seniors to make friends and communicate in pension institutions.	(Ran et al., 2015).
		F2	pension institutions are rich in recreational life for the elderly.	
		F3	facilities for daily recreational activities provided by pension institutions for elderly residents.	
		F4	pension institutions regularly organize various recreational	



Variables	Dimensionality	Number	Title Item	According to the Source
				activities.
		F5	Mutual assistance among the elderly in pension institutions can make life easier.	
		F6	pension institutions to enhance their sense of warmth and provide an abundance of family-style gathering places.	
		F7	pension institutions have sufficient outdoor green areas.	
		F8	pension institutions have a comfortable indoor living environment.	
		F9	pension institutions service providers focus on interacting with clients.	
		F10	pension institutions will remind your children's relatives and friends to visit regularly and stay in touch with you.	

Source: Ran et al. (2015).

Table 3.7 Daily Diet Measurement Scale

Variables	Dimensionality	Number	Title Item	According to the Source
Service Quality	Daily Diet	G1	The Dietary Tastes of The Elderly Vary, and Pension Institutions Should Cater to The Dietary Tastes of Each Individual as Much As Possible	(Daruwalla et al., 2014).
		G2	The Variety and	
		G3	Pension Institutions	
		G4	There Are Clean and	
		G5	Meals Are Delivered	
		G6	The Dining Environment Is Very Good, And Food Hygiene and Safety Can Be Assured.	

Source: Daruwalla et al. (2014)

### 3.2.4 Expectation Confirmation Measurement Scale

By the comprehensive analysis of the expectation confirmation dimension in the previous thesis at home and abroad, this study refers to Oliver (1980); Bhattacharjee (2001) definitions of expectation confirmation and considers expectation confirmation - the expectations of the elderly before the choice of consumption behavior, and the perceived effects after arrival - a comparative relationship regarded as the degree of confirmation between expectation confirmation and perceived effects - a comprehensive assessment made by the elderly after

obtaining actual feelings by comparing expectations, which is measured as a single dimension in this thesis.

Therefore, this study drew on Oliver (1980); Bhattacharjee (2001) simplified views through testing as the elements of perceived value measurement and question items for this study and formed the scale for this study by eliminating and modifying them appropriately.

Table 3.8 Expectation Confirmation Measurement Scale

<b>Dimensionality</b>	<b>Number</b>	<b>Title Item</b>	<b>According to the Source</b>
Expectation confirmation	H1	To the point that after purchasing the service, I found it to be better than I expected.	(Bhattacharjee, 2001).
	H2	The level of products (services) offered by the destination is higher than I expected.	
	H3	Overall, the service experience has met all my expectations.	

Source: Bhattacharjee (2001)

### **3.2.5 Perceived Value Measurement Scale**

Utilizing the previous comprehensive analysis of tourism experience dimensions at home and abroad, this study refers to Flint, Woodruff, and Gardial (1997); Weiser and Morrison (1998) definitions of perceived value. It argues that perceived value, as a subjective evaluation of consumers, is mainly a trade-off between what consumers get in the process of consuming a product and what they pay in the process of using the product, and refers to A consumer's preference and evaluation of the characteristics and attributes of a product in the process of consuming the product to meet psychological expectations. This thesis measures a single dimension.

Thus, this study utilizes Flint et al. (1997) perspective, simplified by testing Peter Weiser and Morrison (1998) perspective. Simultaneously, the perceived value measurement elements and question items as this study were formed into scales by exclusion and appropriate modifications.

Table 3.9 Perceived Value Measurement Scale

<b>Dimensionality</b>	<b>Number</b>	<b>Title Item</b>	<b>According to the Source</b>
Perceived Value	J1	I feel that the services purchased here are worth every penny.	(Mathwick, Malhotra, & Rigdon, 2001).
	J2	I am willing to accept the services offered at the site.	
	J3	I am satisfied with the consumer price of this service.	

Source: Mathwick et al. (2001)

### **3.2.6 Satisfaction Measurement Scale**

By comprehensive analysis of satisfaction dimension at home and abroad, this study refers to Kotler (2012) view that "customer satisfaction is the state of pleasure or disappointment formed by a person after comparing the perceived effect of a product or service with his expectation confirmation," that is, customer satisfaction is a measure of customer satisfaction, which reflects the overall satisfaction of customers with a product or service. It is believed that satisfaction is the key factor to examine whether customers are satisfied with a product or service. Hence, this study draws on some of the indicators of the comprehensive evaluation index of satisfaction proposed by Kotler (2018) as the satisfaction measurement elements and the question items of this study and forms the scale of this study by eliminating and modifying appropriately.

Table 3.10 Satisfaction Measurement Scale

Serial Number	Dimensionality	Number	Title Item	According to the Source
1	Overall Satisfaction	K1	In general, are you satisfied with the services provided by pension institutions?	Philip Kotler. (Luo Hui, 2018, trans.)
2	Satisfaction compared to expectations	K2	After staying in a pension institution, do you feel that the services provided by the pension institution are comparable to How do you expect it to compare?	
3	Satisfaction compared to the ideal	K3	After staying in a pension institution, do you feel that the services provided by the pension institution are comparable to How does your ideal pension institutions service compare?	

Source: Kotler (2012 as cited in Luo, 2018).

### 3.2.7 Government Policy Measurement Scale

Employing a comprehensive analysis of government policy dimensions at home and abroad in the previous thesis, the study of Chen (2013) is referred to. Chen points out that government administrative subsidies play an important role in developing private pension institutions and improving their service capacity. He also emphasizes that one of the most important factors to promote the development of

private pension institutions is to solve the financial resources and operation management of pension institutions. Government support and tax incentives will undoubtedly play an important role in the view that government policy support mainly examines whether the improvement of service quality and optimization of human resource allocation of the organization or institution under government policy support is one of the controlling factors. Therefore, this study draws on some of the indicators of the comprehensive evaluation index of government policies proposed by W. Chen (2013) as the government measurement elements and the question items of this study and forms the scale of this study by excluding and appropriately modifying them.

Table 3.11 Government Policy Measurement Scale

Variables	Dimensionality	Number	Title Item	Source
Government Policy Support	Policy Administration Subsidies	L1	Whether they feel that government policy support and administrative supervision can improve the service quality of pension institutions.	(Chen, 2013).
		L2	Whether or not they can benefit from the government's policies for pension institutions.	
		L3	Access to government administrative grants for pension institutions.	
		L4	Is the administrative subsidy of government policy used to improve the service quality of pension institutions.	

Source: Chen (2013)

### 3.2.8 Willingness to Choose Measurement Scale

Through the comprehensive analysis of the service quality dimensions at home and abroad in the previous paper, this thesis refers to Chen and Yao (2010) viewpoint on the choice of pension model for the elderly. According to this thesis, the choice is mainly to examine whether the service quality and satisfaction of the elderly with the social pension institutions model are the key factors for the elderly to choose. Therefore, some of the indicators in the comprehensive evaluation index of human choice proposed by Chen and Yao (2010) were used as the choice measurement elements and question items in this study; moreover, the scale of this study was formed by appropriate elimination and modification.

Table 3.12 Choices Measurement Scale

Serial Number	Dimensionality	Number	Title Item	According to the Source
1	Willingness to choose	M1	I would like to choose this retirement model after understanding.	(C. Chen & Yao, 2010).
2		M2	After entering the pension institutions experience, I will continue to choose this retirement model.	
3		M3	If it is my ideal model of retirement, I will choose it.	
4		M4	I am not interested in all retirement models, and I prefer to age at home.	

Source: Chen and Yao (2010)

### **3.3 Research Methodology**

#### **3.3.1 Literature Method**

The authors have collected and reviewed much literature such as research results on social pension institutions service quality, satisfaction, and the development status of social pension institutions at home and abroad by using various tools such as relevant books and online databases, and mainly reviewed the research models of satisfaction, service quality and choice were mainly reviewed. The methodological and guiding significance of the theories of satisfaction and service quality for the study of this thesis was grasped. This was used as the theoretical basis for constructing the theoretical research model of the influence factors of choice of the elderly in this study.

#### **3.3.2 Questionnaire Method**

Based on a large amount of literature and telephone interviews, this study designed a questionnaire for social pension institutions based on the scale models of human resources, service quality, satisfaction, and choice. Since this study mainly measured perceived satisfaction and service quality, the questionnaire was designed mainly for the elderly who received pension services, and a total of 1000 questionnaires were planned to be distributed nationwide. In this study, first-hand data were obtained quickly and effectively through this method, and the relevant empirical analysis of the choice model was conducted.

This study is based on the principle of Hair, Black, Babin, Anderson, and Tatham (2006) about the ratio of the number of validly returned questionnaires to the number of sample items is not less than 5: 1 or 10. Therefore, there are a total of 67 formal items of this study questionnaire, that is, the recovery of valid questionnaires is not less than 67 than one, so the author will plan to distribute the 10-point questionnaire, such as the recovery rate and effective rate of about 70% can The requirements of this study will be met.



### **3.3.3 Quantitative Analysis Method**

Based on designing and distributing questionnaires, the author used SPSS statistical analysis software to analyze the data information collected from the questionnaires for items related to this study, and finally formed the social satisfaction evaluation index system of pension institutions, and finally calculated the relevant values according to the satisfaction gap theory, to The evaluation results of the social characteristics of nursing staff in pension institutions, service quality, expectation confirmation, satisfaction, and choice evaluation dimensions were obtained.

### **3.3.4 Questionnaire Distribution**

Depending on the needs of the study, in order to collect the completeness and effectiveness of the relevant data, this study plans to distribute 1000 questionnaires, using commissioned investigators to go deep into the elderly institutions to distribute questionnaires directly; furthermore, the elderly are instructed to fill them out on-site to verify the authenticity and reliability of the data.

## **3.4 Data Analysis Methods**

SPSS 22.0 Chinese version and AMOS were used as statistical and data analysis software to process statistical applications in this study. The statistical methods used in this study include descriptive statistical analysis, reliability analysis, factor analysis, independent sample t-test and structural equation modeling analysis, and data information analysis based on the significance level of statistical tests, the purpose of the study, and the above hypotheses. The specific situations used are as follows.

### **3.4.1 Descriptive Statistical Analysis**

Descriptive statistical analysis is performed to statistically describe the data related to all survey variables, mainly frequency analysis, concentration trend analysis, dispersion analysis, distribution, and some basic statistical graphics. 1) Frequency analysis of the data. In the pre-processing part of the data, frequency analysis and cross-frequency analysis can check outliers. 2) concentration trend

analysis of the data. It is used to reflect the overall level of the data, and the commonly used indicators are mean, median, plural, etc. 3) Dispersion analysis of data. It is mainly used to reflect the degree of difference between the data, and the commonly used indicators are variance and standard deviation. 4) Distribution of data. In statistical analysis, it is usually assumed that the distribution of the total to which the sample belongs to the normal distribution, so it is necessary to use the two indicators of skewness and kurtosis to test whether the sample data conform to normal distribution.

### **3.4.2 Reliability Test and Validity Test**

#### **1) Reliability test**

Reliability refers to the degree of reliability or consistency of a measure, with higher reliability indicating more consistent or stable results for that measure. Consistency mainly refers to whether the same scale can test the same content and results. Cronbach's alpha coefficient is usually used to analyze the reliability of the scale, and if the coefficient is larger, it means that the reliability of the scale is better and the measurement results are more stable. Among them,  $\alpha \geq 0.9$  indicates very high reliability and ideal data effect.  $0.8 \leq \alpha < 0.9$ , very high reliability, ideal data, and good effect.  $0.7 \leq \alpha < 0.8$ , acceptable reliability. In this thesis, the overall scale is first analyzed for reliability. If the analysis result- $\alpha$  coefficient is greater than 0.7, the scale in this thesis has good stability and can be analyzed in the next step.

#### **2) Validity test**

Validity - effectiveness - refers to the degree to which a measurement instrument or tool can accurately measure what is to be measured. Validity refers to the extent to which the results being measured reflect what is to be examined. Conversely, the lower the validity. Therefore, this thesis uses Amos for validated factor analysis (CFA), and by comparing the results of CFA with the test criteria for the degree of model fit, the degree of model fit can be known. Secondly, convergent validity can be judged by knowing factor loadings, composite reliability (CR), and average variance extracted value (AVE) if the CR value is greater than 0.7 and the

AVE value is greater than 0.5. Meanwhile, each factor loading is more than 0.5, indicating good convergent validity and high scale reliability.

### **3.4.3 Exploratory Factor Analysis**

Exploratory factor analysis was used to test the validity of the variables after reliability analysis. Prior to exploratory factor analysis, a KMO measure and Bartlett's sphere test of the sample are required to determine whether the data are suitable for factor analysis. Principal component analysis (PCA) in exploratory factor analysis was used in this study. In order to ensure that the scale reflects the structure of perceived value, the collected sample was divided into two groups. The first 100 questionnaires were used for the exploratory factor analysis (EFA) method to downscale the measurement items of the four variables to determine the measurement dimensions, and the rest of the questionnaires were used to do validated factor analysis (CFA). First, exploratory factor analysis was conducted on the first 100 samples using SPSS 22.0 software. The factor analysis mainly used principal component analysis to extract common factors and orthogonal rotation to extract abstract factors from specific measurement items. Factors with strong correlation will fall in the same group, while the correlation between common factors is low. When selecting items for measurement questions, 0.5 is usually used as the cutoff point for factor loadings, and items with factor loadings less than 0.5 or multiple factor loadings greater than 0.4 are excluded. The KMO values range from 0 to 1. When the KMO value is greater than 0.9, the scale is suitable for factor analysis. It was more suitable when the KMO value was between 0.7 and 0.9. It is not suitable when the KMO value is between 0.6 and 0.7. Bartlett's sphericity test is mainly used to verify significance. The larger the chi-square value of the scale, the higher the significance level, and the lower the significance value (sig.), when the significance level is less than 0.05, it indicates that the scale is suitable for factor analysis.

#### **3.4.4 Intermediation Effect Test**

The Bootstrap method is adopted in this thesis as a means of testing for mediation effects, with the sample size set to 5000 (usually at least 1000) and the confidence level of the interval set to 95%, to observe whether the upper and lower limits of the confidence interval corrected for indirect effect bias include 0. If they do not, the mediation effect is present, and then to observe whether the upper and lower limits of the confidence interval corrected for direct effect bias include 0. If not, partial mediation is indicated. If included, full mediation is indicated.

### **3.5 Hypothesis Testing**

Hypothesis testing is a method of statistical inference used to determine whether differences between a sample and a sample or a sample and the total are caused by sampling error or essential differences. Significance testing in quantitative research is one of the more common hypothesis testing methods and is currently one of the most basic forms of statistical inference. This study used AMOS and SPSS to test the hypotheses proposed to achieve the research objectives. First, the overall characteristics of this study were hypothesized. Subsequently, this study made inferences about whether this hypothesis should be rejected or accepted by making statistical inferences about the sample study and constructing a measurement model for hypothesis testing using AMOS. Next, logistic regression was conducted using SPSS analysis tools to test the effect of each variable on the geriatric factor in the choice of elderly care facilities.

### **3.6 Summary of this Chapter**

The investigation and combing of related literature indicate that the 21st century is the century in which the society enters a full-scale population aging. Moreover, China entered the aging society as early as 1999, and the elderly population accounts for one-fifth of the total elderly population in the world. Currently, China has become the country with the largest elderly population globally. In order to solve the social problem of the aging population, scholars at home and

abroad have long conducted in-depth research and achieved many results in this field, which have provided many effective decision bases for the government, enterprises, and society. Consequently, this study will also draw on the research results of previous scholars at home and abroad and use or draw on the more mature relevant scales and questionnaires and data analysis methods of previous experts and scholars to conduct this study. Simultaneously, this study tries to find out the current situation and problems in the development process of social pension institutions in China, to find out the factors that affect the development of social pension institutions, to find solutions and ways to provide policy-making and theoretical references for solving the social pension problem in China, and to provide research and theoretical bases for the government and academia. Furthermore, this study tries to identify the factors affecting the development of social pension institutions, find solutions and solutions, provide policy-making and theoretical references for solving the social pension problems in China, and provide research and theoretical bases for the government and academia.

## CHAPTER 4

### RESULTS AND DISCUSSION

In this section, the data collection and analysis for the development of the research work is the main focus. The author summarized and organized the questionnaires collected in this study; Furthermore, each item was statistically analyzed based on the research hypotheses presented in the previous section to validate the research hypotheses for all the research variables presented in this thesis.

This section analyzes the basic information of the questionnaire sample, exploratory factor analysis, and common methods such as analysis of variance (ANOVA). Principal component analysis, the purpose of which is to find out the percentage of explained variance of the factor with the largest initial eigenvalue in all questions by principal component analysis; reliability analysis, the purpose of which is to detect the consistency of the sample, and validity analysis, the purpose of which is to test the stability of the data obtained from the questions. ANOVA analyzes the sample variance, the mean of the sum of the squares of the differences between the data in the sample, and the mean sample results. Matrix analysis, the purpose of matrix analysis, is to obtain the overall question of the study questionnaire by principal component analysis. After extracting the independent factors, the attribution between questions and factors should be further determined to categorize questions under the same concept and distinguish questions under different concepts when examining the specific quality of different topics. Validation factor analysis, the purpose of which is to check the fit and convergent validity of the model. Correlation analysis and discriminant validity, the purpose of which is to analyze the correlation strength and discriminant validity of the observed variables by Pearson linear correlation analysis square, and to analyze whether there is a synergistic change of two variables with the same increase and decrease or one increase and one decrease by the least-squares method. The moderated model test, the moderated model test in

this study, was performed using SPSS, using hierarchical regression analysis, to test the research hypotheses proposed in this study.

## 4.1 Descriptive Statistical Analysis

### 4.1.1 Sample Characteristics Analysis

The analysis results are briefly summarized below after the author sorted and organized the basic data of all samples.

It can be seen from the results of the data analysis that out of all the subjects in this interview.

1) There were 395 males, accounting for 52.53%, and 357 females, accounting for 47.47%, indicating that 5 percentage points more males than females were willing to choose institutions. In contrast, females are slightly lower, indicating that females may choose to age at home because they need to bring up their grandchildren at home.

2) In terms of age distribution: the group under 60 years old is 0, the group aged 60-64 years old is 75 people accounting for 9.97%, the number of people aged 65-69 years old is 142 people accounting for 18.88%, the group aged 70-74 years old is 153 people accounting for 20.35%, and the group aged 75 years old and above is 382 people accounting for 50.80%. This shows that the group of people who choose pension institutions is more than the general 75 years old and above, which may be because the 75 years old and above need better treatment services, life care services, and lively atmosphere, and emotional care. Therefore, social pension institutions should focus more on improving the quality of living environment and management level.

3) In terms of the distribution of educational level: 66 people accounted for 11.97% for the group with high school and below, 248 people accounted for 32.98% for college, 312 people accounted for 41.49% for bachelor's degree, and 102 people accounted for 13.56% for master's degree and above. This shows that the number of the elderly with choice is close to the general population with a bachelor's degree and a large proportion of the group with a college degree. It can be seen that the majority of older people who have a choice for social pension

institutions have a good educational background, and it also shows that they have higher requirements for the service quality of pension institutions, especially in terms of perceived value and satisfaction. Consequently, social pension institutions should focus on improving service quality to obtain better-perceived value and satisfaction, which will help improve the voice of the elderly further.

4) In terms of occupational distribution, there were 129 civil servants, accounting for 17.15%, 217 employees in institutions, accounting for 28.86%, 109 teachers, accounting for 14.49%, 126 employees in enterprises, accounting for 16.76%, 100 self-employed, accounting for 13.30%, and 71 other people, accounting for 9.44%. This shows that the retired employees of institutions are more inclined to choose social pension institutions pension. Moreover, civil servants and enterprise employees are basically close to each other, they both choose social pension institutions at about 17%, and self-employed people and teachers are close to each other, they do not have a particularly strong choice of pension institutions. This shows that the elderly group who retired from the system or have experience working in state enterprises are more inclined to choose social pension institutions, probably because this group feels that the favorable government policies are more helpful for them to choose the ideal life in their old age. Hence, it is important for social pension institutions to seek more government policy support so that the elderly feel cared for by government policies and thus show higher expectation confirmation and satisfaction.

5) In terms of monthly income distribution: the group with a monthly salary of 5,000 yuan and below is 167 people accounting for 22.21%, the group with a monthly salary of 5001-10,000 yuan is 188 people accounting for 25.00%. The number of people with a monthly salary of 10001-15000 yuan is 183 people accounting for 24.34%. The group with a monthly salary of 15001-20000 yuan is 124 people accounting for 16.49%. The group with a monthly salary of 20,001 yuan or more is 90 people, accounting for 11.97%. This shows that only 22.21% of the low-income group would choose social pension institutions, while the groups with a monthly salary of 5001-10,000 yuan and 10,001-15,000 yuan are basically the same. This shows that the middle and high-income groups tend to choose social pension institutions for their old age, and the high-income groups also account for a large



proportion of the population, which fully indicates that the middle and high-income groups tend to choose social pension institutions for their old age. Therefore, to attract more seniors to choose social pension institutions, the managers of the institutions should consider adjusting the prices to get more seniors of different income levels to choose social pension institutions. See Table 4.1 below for more details.

Table 4.1 Demographic Analysis Table

	<b>Title Options</b>	<b>Number of People</b>	<b>Percentage</b>
Gender	Male	395	52.53%
	Female	357	47.47%
Age	Under 60 years old	0	0.00%
	60-64 Years old	75	9.97%
	65-69 Years old	142	18.88%
	70-74 Years old	153	20.35%
	75 years old and above	382	50.80%
Pre-retirement occupation	Civil Service	129	17.15%
	Business Unit	217	28.86%
	Teachers	109	14.49%
	Corporate employees	126	16.76%
	Self-employed	100	13.30%
	Other	71	9.44%
Educational level	High School and below	90	11.97%
	College	248	32.98%
	Undergraduate	312	41.49%
	Master and above	102	13.56%
Monthly income	Less than 5000 yuan	167	22.21%
	5001-10,000 yuan	188	25.00%
	10001-15000 yuan	183	24.34%
	15001-20000 yuan	124	16.49%
	20001 yuan or more	90	11.97%

The above results show that both male and female seniors choose social pension institutions for their old age, but there are more male seniors than female seniors, which does not exclude the reasons such as family values or life needs. In terms of age distribution, most older people who choose social pension institutions are over 65 years old, and the proportion of those over 75 years old is better. One of the reasons for this may be that older people over 75 years old have mobility problems, need caregivers, and have certain living conditions and living environment requirements. Thus, they need better service quality in order to have higher satisfaction, and the majority of the surveyed respondents have a college education and bachelor degree or above, which indicates that the elderly with higher education tend to choose institutionalized care, which comes from their focus on the perceived value of economic due to their perceived financial value and demand for service quality. Therefore, it can be observed that perceived value and service quality influence the choice of social pension institutions by the elderly, and it can be inferred that the elderly with higher education backgrounds pay more attention to the overall quality of service personnel. Consequently, the service level, vocational skills, and educational level of service personnel also influence factors. In terms of occupational distribution, retired seniors in institutions account for the largest proportion of respondents, followed by civil servants and corporate employees. Their proportions do not differ significantly, indicating that those with work experience in the state system will tend to choose social institutions for their later life. Therefore, the occupational distribution of retired the elderly is also an influential factor affecting the choice of social pension institutions in old age. In contrast, the number of self-employed and other people who choose social pension institutions is average, indicating that self-employed and other people will choose social pension institutions but also choose other ways. In terms of monthly income, the largest number of people are observed in the range of 5001-10,000 yuan and 10001-15,000 yuan. They are basically equal and more than average, which indicates that the economic base of the elderly group who choose social pension

institutions is good. As a result, they tend to purchase better treatment services and living environments to obtain better-perceived value and life satisfaction, while older people with a poor economic base may choose other ways of retirement.

In summary, in this survey and analysis, it is found that the elderly who choose social pension institutions are generally above 65 years old, and there are more the elderly above 75 years old because this age group needs caregivers to accompany and take care of them in their old age, and they have certain requirements for service quality. Meanwhile, the retired elderly with high education and middle and high income will choose social pension institutions to spend their old age, and most of them are retired elderly with working experience and background in the state system. Thus, it can be seen that this group has higher requirements for service quality and satisfaction and focuses on supporting government policies for social pension institutions. The stronger the support from government policies, the stronger the choice of this group. Therefore, the managers of social pension institutions should formulate policies or measures to improve the service quality and satisfaction of social pension institutions. Thus, the administrators of social pension institutions should formulate policies or measures to improve the service quality and satisfaction of pension institutions to enhance the voice of the elderly further.

### 4.1.2 Data Normality Distribution Test

Table 4.2 Data normal Distribution Test

Variable	Min	Max	Skew	C. R.	Kurtosis	C. R.
Willingness to choose	1	5	0.122	1.136	-0.030	-0.139
Expectation confirmation	1	5	-0.181	-1.690	-0.782	-3.648
Perceived Value	1	5	0.074	0.695	-1.143	-5.338
Satisfaction	1	5	-0.161	-1.501	-0.530	-2.475
Government Policy	1	5	0.621	5.800	-0.005	-0.024
Service quality	1	5	0.007	0.069	-0.629	-2.938
Education Level	1	5	0.373	3.483	-0.118	-0.551
Vocational skills	1	5	0.751	7.008	-0.295	-1.377
Service Level	1	5	0.721	6.727	-0.456	-2.127
Multivariate	-	-	-	-	5.804	4.716

The table shows the descriptive statistical analysis of the latent variables using SPSS 22.0. The statistical values of skewness and kurtosis were within the standard deviation (-1.96, +1.96) interval; furthermore, the absolute value of skewness was less than 3, and the absolute value of kurtosis was less than 10, indicating that the samples obeyed normal distribution (Cai, 2009).

## 4.2 Exploratory Factor Analysis

### 4.2.1 Validity Test of the Overall Questionnaire

Table 4.3 KMO and Bartlett's Spherical Test Table

The Kaiser-Meyer-Olkin metric of sampling adequacy.		0.892
Bartlett's sphericity test	Approximate cardinality	14610.728
	df	1780
	Sig.	0.000

In the overall questionnaire of this study, the KMO value is shown in Table 4.3, which is 0.892, which is greater than 0.7, indicating that the correlation between the topics is high. It can also prove that the low bias correlation between variables is suitable for factor extraction, and the value of Bartlett's sphericity test is obtained as 14610.728; simultaneously, the degrees of freedom of Bartlett's sphericity test  $df = 1780$  can be obtained. The significance  $Sig < 0.001$  obtained by comparing the chi-square value of Bartlett's sphericity test with the degrees of freedom illustrates that the correlation between the parent and child clusters is high, and the questionnaire is suitable for factor analysis and subsequent tests.

#### 4.2.2 Single Dimensional Validity Analysis of the Questionnaire

Table 4.4 Table 4: Unidimensional Validity Analysis of the Questionnaire

<b>Variables</b>	<b>Extraction Factor</b>	<b>KMO</b>	<b>Eigenvalue</b>	<b>Cumulative Percentage</b>
Service Level	1	0.863	3.489	87.218
Vocational skills	1	0.860	3.393	84.819
Education Level	1	0.731	2.331	77.684
service quality	1	0.850	3.070	76.754
Expectation confirmation	1	0.716	2.257	75.220
Perceived Value	1	0.737	2.361	78.705
Satisfaction	1	0.760	2.862	71.541
Government Policy	1	0.844	3.156	78.893
Willingness to choose	1	0.792	2.810	70.241

Factor analysis was performed on each of the nine latent variables, as shown above. The number of all factors showed only one factor, which verified the one-dimensionality of the factors; moreover, the explanatory rate was greater than 60%, representing a good explanation of variance. The KMO values were all above 0.6 and higher than 0.7. Consequently, this thesis concluded that the convergent validity of the problematic terms of each variable was good.

#### 4.2.3 Common Variance Deviation Test

Common method bias was tested using Harman one-way analysis of variance, which aims to find the percentage of explained variance of the factor with the largest initial eigenvalue among all questions by principal component analysis. The common critical standard value is 40% - a value greater than 40% proves that the source of all questions of the questionnaire is probably homogeneous and homogeneous, suggesting that the questionnaire study is invalid. The details are shown in Tables 4.5 below.

Table 4.5 Total Variance Explanation Table

Ingredients	Initial Eigenvalue			Extraction of Squares and Loading		
	Total	Percentage of Variance	Cumulative Percentages	Total	Percentage of Variance	Cumulative Percentages
1	8.796	26.655	26.655	8.796	26.655	26.655
2	3.674	11.134	37.790	3.674	11.134	37.790
3	3.230	9.786	47.576	3.230	9.786	47.576
4	2.398	7.266	54.843	2.398	7.266	54.843
5	2.096	6.350	61.193	2.096	6.350	61.193
6	1.894	5.738	66.931	1.894	5.738	66.931
7	1.419	4.301	71.232	1.419	4.301	71.232
8	1.312	3.975	75.207	1.312	3.975	75.207
9	1.173	3.555	78.762	1.173	3.555	78.762
10	.639	1.938	80.699	-	-	-

Note: Derived from the author's compilation

As indicated above, after passing the KMO and Bartlett's sphericity tests, the questionnaire questions could be analyzed using principal component analysis. Next, exploratory factor analysis was performed on the 67 individual questions of the questionnaire using principal component analysis. First, the common factors were extracted using principal component analysis to derive the initial conformity matrix.

Through the question analysis, it can be seen that 67 questions were subjected to the principal component test. After setting the criterion of extracting eigenvalues greater than 1 for principal component extraction, it can be obtained that a total of 9 components were extracted. The cumulative variance explained by these 9 components reached 78.762%, which is already greater than the base criterion of 60%. This indicates that the 9 factors extracted through 67 topics retain more than 60% of the original information of the original topics, and the extracted dimensions retain the information characteristics of the topics to a great extent. Hence, the extraction of components can be proved to be better.

Simultaneously, the cumulative sum of the variance of the first principal component was 26.655%, which did not exceed 40%. As such, there is no problem with common method bias.

#### 4.2.4 Principal Component Analysis

Table 4.6 Rotation Matrix Table

	Ingredients								
	1	2	3	4	5	6	7	8	9
A1	.549	-	-	-	-	-	-	-	-
A2	.568	-	-	-	-	-	-	-	-
A3	.554	-	-	-	-	-	-	-	-
A4	.587	-	-	-	-	-	-	-	-
B1	-	.615	-	-	-	-	-	-	-
B2	-	.622	-	-	-	-	-	-	-
B3	-	.635	-	-	-	-	-	-	-

	Ingredients								
	1	2	3	4	5	6	7	8	9
B4	-	.601	-	-	-	-	-	-	-
C1	-	-	-	-	.558	-	-	-	-
C2	-	-	-	-	.596	-	-	-	-
C3	-	-	-	-	.604	-	-	-	-
D	-	-	-	.580	-	-	-	-	-
E	-	-	-	.602	-	-	-	-	-
F	-	-	-	.623	-	-	-	-	-
G	-	-	-	.592	-	-	-	-	-
H1	-	-	-	-	-	-	-	.591	-
H2	-	-	-	-	-	-	-	.552	-
H3	-	-	-	-	-	-	-	.570	-
J1	-	-	-	-	-	.655	-	-	-
J2	-	-	-	-	-	.578	-	-	-
J3	-	-	-	-	-	.609	-	-	-
K1	-	-	-	-	-	-	-	-	-
K2	-	-	-	-	-	-	.635	-	-
K3	-	-	-	-	-	-	.628	-	-
K4	-	-	-	-	-	-	.588	-	-
L1	-	-	.735	-	-	-	.512	-	-
L2	-	-	.762	-	-	-	-	-	-
L3	-	-	.692	-	-	-	-	-	-
L4	-	-	.748	-	-	-	-	-	-
M1	-	-	-	-	-	-	-	-	.472
M2	-	-	-	-	-	-	-	-	.509
M3	-	-	-	-	-	-	-	-	.539
M4	-	-	-	-	-	-	-	-	.498

Extraction method: Principal components

The rotation converges after 7 iterations.



### **4.3 Confidence Analysis and Validity Analysis**

The reliability of a dimension is demonstrated by the degree of correlation within the question - the degree of deviation of the data from the actual measurement. In statistical analysis, reliability is usually expressed by the Cronbach consistency coefficient, which is usually above 0.7 to demonstrate the reliability of a dimension or questionnaire. This indicates that it is acceptable if the actual measurement results are not significantly different from the true value. Cronbach's reliability analysis results include the item-total correlation coefficient and the reliability results after removing items. These two results require that the item-total correlation coefficient is greater than 0.5, indicating that the correlation between the dimension and the question is high and that the connotation expressed by the question is basically the same as that of the dimension or questionnaire. At the same time, it is required that the reliability coefficient after removing the questions is smaller than the reliability value already obtained by the dimension - the removal of the questions does not promote the reliability of the dimension. Apart from the Cronbach reliability, there are usually half-score reliability, retest reliability, and composite reliability. The former two can be tested with SPSS, while the composite reliability is measured with structural equation software such as AMOS.

The reliability analysis will be performed in this thesis using the combined reliability and convergent validity in the validation factor molecule.

#### **4.3.1 Construct Reliability (CR) and Convergent Validity (AVE) Tests of the Questionnaire**

In this study, following the suggestion of Rong (2009), construct reliability (CR) and average variance extracted value (AVE) were used to test the convergent validity. Construct reliability is usually greater than 0.7, and AVE greater than 0.5 meets the criteria.

Table 4.7 Results of Convergent Validity Analysis

Latent Variable	Observed Variables	Standard Factor Loading Coefficients	S.E.	C.R.	P	CR	AVE
Service Level	A1	0.862	-	-	-	0.952	0.832
	A2	0.950	0.034	32.734	***		
	A3	0.888	0.037	28.353	***		
	A4	0.945	0.034	32.369	***		
Vocational skills	B1	0.925	-	-	-	0.941	0.779
	B2	0.922	0.027	36.227	***		
	B3	0.861	0.029	30.213	***		
	B4	0.866	0.031	30.645	***		
Education Level	C1	0.851	-	-	-	0.856	0.666
	C2	0.824	0.052	19.599	***		
	C3	0.771	0.049	18.57	***		
service quality	D	0.847	-	-	-	0.899	0.690
	E	0.831	0.049	22.493	***		
	F	0.817	0.044	21.944	***		
	G	0.828	0.044	22.35	***		
Expectation confirmation	H1	0.771	-	-	-	0.837	0.631
	H2	0.827	0.058	17.797	***		
	H3	0.784	0.058	17.16	***		
Perceived Value	J1	0.829	-	-	-	0.864	0.680
	J2	0.820	0.052	20.297	***		
	J3	0.825	0.05	20.428	***		
Satisfaction	K1	0.772	-	-	-	0.869	0.624
	K2	0.851	0.047	19.735	***		
	K3	0.806	0.048	18.716	***		
	K4	0.725	0.048	16.65	***		
Government Policy	L1	0.879	-	-	-	0.911	0.719
	L2	0.890	0.037	27.38	***		
	L3	0.797	0.038	22.781	***		
	L4	0.823	0.042	24.047	***		
Willingness to choose	M1	0.784	-	-	-	0.860	0.607
	M2	0.864	0.057	20.189	***		
	M3	0.757	0.06	17.68	***		
	M4	0.703	0.061	16.244	***		

The table shows the factor loadings, composite reliability (CR), and average variance extracted (AVE) values for each variable observed in the scale. The factor loadings for each question item ranged from 0.703-0.950, indicating high convergent validity, and the composite reliability (CR) for each dimension was greater than 0.7, meeting the criterion. The AVE was greater than 0.5, meeting the criterion with a significant probability of  $P < 0.001$ , indicating a significant relationship between the nine latent variables of the scale and each of the measured indicator variables and that the scale structure model converged well.



### 4.3.2 Discriminant Validity Analysis

Table 4.8 Distinct Validity Analysis Test

	Services Level	Vocational Skills	Education Level	Service Quality	Expectation Confirmation	Perception Value	Satisfaction	Government Policy	Willingness to Choose
Service Level	<b>0.912</b>	-	-	-	-	-	-	-	-
Vocational skills	0.477	<b>0.882</b>	-	-	-	-	-	-	-
Education Level	0.237	0.291	<b>0.816</b>	-	-	-	-	-	-
Service quality	0.239	0.210	0.170	<b>0.830</b>	-	-	-	-	-
Expectation confirmation	0.326	0.318	0.268	0.349	<b>0.794</b>	-	-	-	-
Perceived Value	0.310	0.469	0.271	0.308	0.506	<b>0.824</b>	-	-	-
Satisfaction	0.216	0.338	0.370	0.388	0.493	0.492	<b>0.789</b>	-	-

	Services Level	Vocational Skills Level	Education Level	Service Quality	Expectation Confirmation	Perception Value	Satisfaction	Government Policy	Willingness to Choose
Government Policy	-0.004	0.036	0.083	0.031	-0.040	-0.068	0.000	<b>0.847</b>	-
Willingness to choose	0.160	0.170	0.171	0.330	0.480	0.461	0.501	0.214	<b>0.779</b>

Note: a. The bolded value in the upper right corner is the square root of the AVE value

b. The table indicates that the AVE of each dimension is greater than 0.5, and the square root of the AVE is greater than the correlation coefficient between the dimensions. Hence, this indicates that the scale has good discriminant validity

## 4.4 Validation Factor Analysis

### 4.4.1 Service Level Measurement Model Analysis

#### 4.4.1.1 Service Level Validation Factor Analysis (Model A)

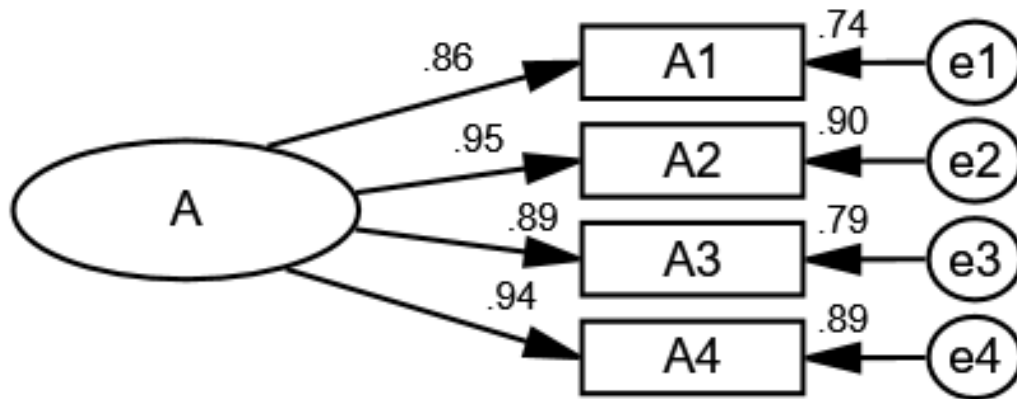


Figure 4.1 Service Level Validation Factor Model Diagram

Table 4.9 Service Level Measurement Model Fitted Indicators

Reference Indicators	$\chi^2/df$	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	3.301	0.994	0.968	0.997	0.994	0.998	0.066
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

As shown in the table: GFI = 0.994, AGFI = 0.968, NFI = 0.997, TLI = 0.994, CFI = 0.998, RMSEA = 0.066. In conclusion, all indicators of the service level validation factor analysis have been met, and the overall fit of the model is good.

#### 4.4.1.2 Service Level Measurement Model Convergent Validity Analysis

Table 4.10 Service Level Measurement Model Convergent Validity Analysis

Latent Variable	Observed Variables	Standardized Load Factor	Standard Error S.E.	Critical Ratio C.R. (Z)	P	CR	AVE
A	A1	.861	-	-	-	0.952	0.911
	A2	.951	.034	32.687	***		
	A3	.887	.037	28.256	***		
	A4	.945	.034	32.249	***		

The A-measurement model observations factor loadings, combined reliability (CR), and average variance extracted (AVE) values are shown in the table. The factor loadings for each question item were greater than 0.8, indicating high convergent validity, the combined reliability (CR) for the dimensions was greater than 0.7 to meet the criterion, and the AVE was greater than 0.5 to meet the criterion, with a significant probability of  $P < 0.001$ . This indicates a significant relationship between the latent variables and each measurement indicator variable and that the scale structure model converged very well.

#### 4.4.2 Analysis of Vocational Skills Measurement Model

##### 4.4.2.1 Vocational Skills Validation Factor Analysis (Model B)

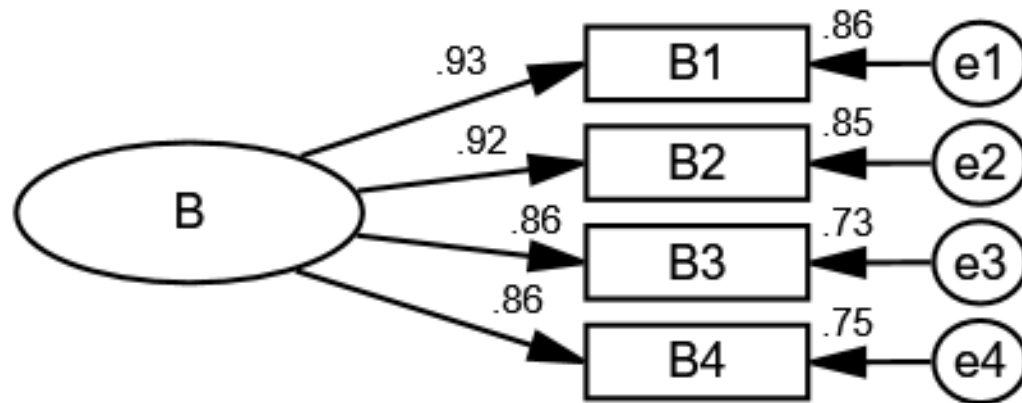


Figure 4.2 Occupational Skill Validation Factor Model

Table 4.11 Occupational Skill Measurement Model Fitted Indicators

Reference Indicators	X <sup>2</sup> /df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	3.463	0.994	0.968	0.996	0.992	0.997	0.069
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

In summary, all indicators of the validated factor analysis of vocational skills were met and the overall fit of the model was good as shown in Table 4.11: GFI = 0.994, AGFI = 0.968, NFI = 0.996, TLI = 0.992, CFI = 0.997, and RMSEA = 0.069.



#### 4.4.2.2 Occupational Skill Measurement Model Convergent Validity Analysis

Table 4.12 Table 4: Convergent Validity Analysis of the Occupational Skill Measurement Model

Latent Variable	Observed Variables	Standardized Load Factor	Standard Error S.E.	Critical Ratio C.R. (Z)	P	CR	AVE
B	B1	.928	-	-	-	0.941	0.893
	B2	.923	.027	36.415	***		
	B3	.857	.029	29.988	***		
	B4	.864	.031	30.671	***		

The B-measurement model observations factor loadings, combined reliability (CR), and average variance extracted values (AVE) are shown in the table. The factor loadings for each question item are greater than 0.8, indicating high convergent validity. The combined reliability (CR) of the dimensions was greater than 0.7 to meet the criterion, and the AVE was greater than 0.5 to meet the criterion, with a significant probability of  $P < 0.001$ , indicating that there was a significant relationship between the latent variables and each of the measured indicator variables and that the scale structure model converged very well.

### 4.4.3 Analysis of Education Level Measurement Model

#### 4.4.3.1 Validated Factor Analysis at the Education Level (Model C)

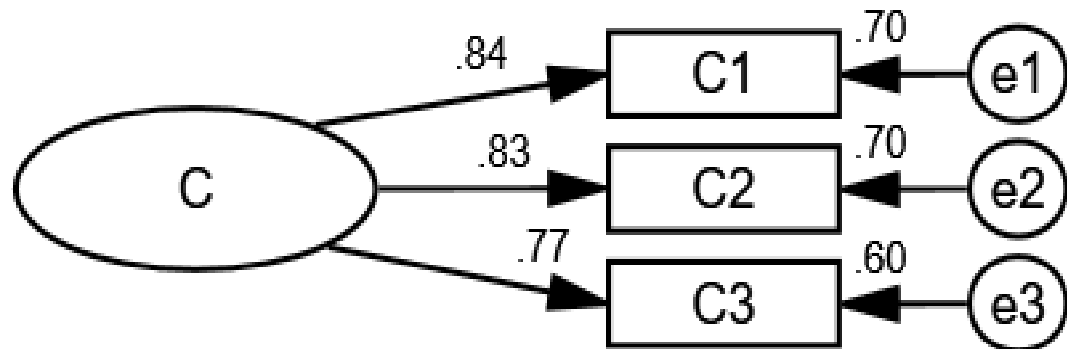


Figure 4.3 Validation Factor Model at Educational Level

Table 4.13 Fitted Indicators of the Education Level Measurement Model

Reference Indicators	X <sup>2</sup> /df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	3.461	0.914	0.898	0.906	0.923	0.927	0.055
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

In summary, all metrics of the service quality validation factor analysis were met, and the overall fit of the model was good as shown in Table 4.13: GFI = 0.914, AGFI = 0.898, NFI = 0.906, TLI = 0.923, CFI = 0.927, and RMSEA = 0.055.

## 4.4.3.2 Convergent Validity Analysis at the Education Level

Table 4.14 Convergent Validity Analysis of the Educational Hierarchy Measurement Model

Latent Variable	Observed Variables	Standardized Load Factor	Standard Error S.E.	Critical Ratio	P	CR	AVE
C	C1	.839	-	-	-	0.857	0.816
	C2	.834	.055	19.107	***		
	C3	.774	.050	18.260	***		

The C-measurement model observations factor loadings, combined reliability (CR), and average variance extracted (AVE) values are shown in Table 4.14. The factor loadings for each question item are greater than 0.8, indicating high convergent validity. The combined reliability (CR) of the dimensions was greater than 0.7 to meet the criterion, and the AVE was greater than 0.5 to meet the criterion with a significant probability of  $P < 0.001$ , indicating that there was a significant relationship between the latent variables and each of the measured indicator variables and that the scale structure model converged very well.

#### 4.4.4 Service Quality Measurement Model Analysis

##### 4.4.4.1 Service Quality Validation Factor Analysis (Model S)

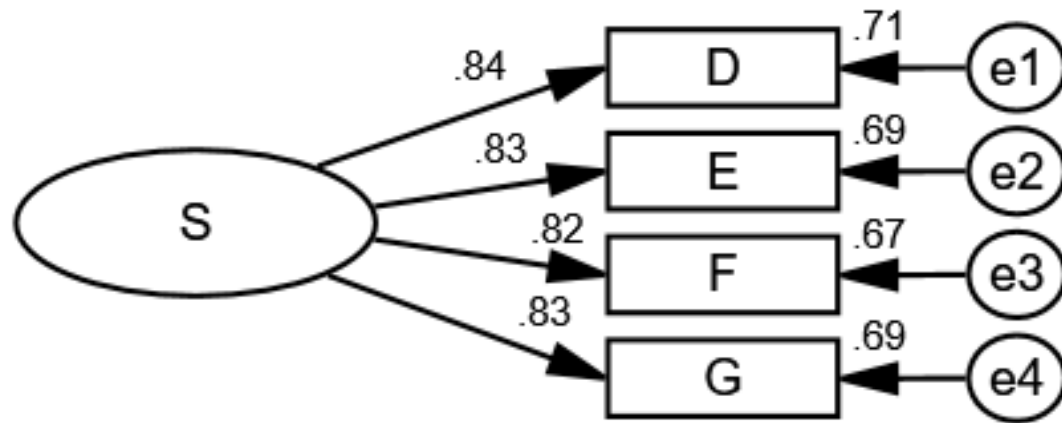


Figure 4.4 Service Quality Validation Factor Model

Table 4.15 Service Quality Model Fit Index

Reference	$\chi^2/df$	GFI	AGFI	NFI	TLI	CFI	RMSEA
<b>Indicators</b>							
Statistical values	2.461	0.934	0.928	0.906	0.922	0.937	0.059
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

The GFI = 0.934, AGFI = 0.928, NFI = 0.906, TLI = 0.922, CFI = 0.937, and RM sea = 0.059, as shown in Table 4.15. In conclusion, all the indicators of the service quality validation factor analysis were satisfied, and the overall fit of the model was good.

#### 4.4.4.2 Service Quality Convergent Validity Analysis

Table 4.16 Service Quality Measurement Model Convergent Validity Analysis

Latent Variable	Observed Variables	Standardized Load Factor	Standard Error S.E.	Critical Ratio C.R. (Z)	P	CR	AVE
S	D	.844	-	-	-	0.899	0.831
	G	.829	.044	22.203	***		
	F	.818	.045	21.780	***		
	E	.832	.049	22.283	***		

It shows the factor loadings, combined reliability (CR), and average variance extracted (AVE) values for the S-measure model observations. The factor loadings for each question item are greater than 0.8, indicating high convergent validity. The composite reliability (CR) for each dimension was greater than 0.7, which met the criterion, and the AVE was greater than 0.5, which met the criterion, with a significant probability of  $P < 0.001$ , indicating a significant relationship between the latent variables and each of the measured indicator variables and good convergence of the scale structure model.

#### 4.4.5 Analysis of Expectation Confirmation Measurement Model

##### 4.4.5.1 Expected Confirmation Validation Factor Analysis (Model H)

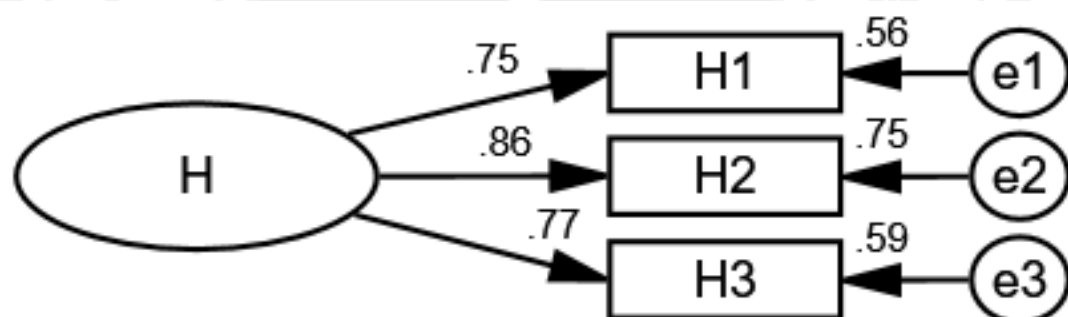


Figure 4.5 Diagram of the Validation Factor Model for Expectation Confirmation

Table 4.17 Expectation Confirmation Measurement Model Fit Index

Reference Indicators	X <sup>2</sup> /df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	3.460	0.924	0.898	0.926	0.902	0.927	0.061
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

The expectations, as shown in the table, were GFI = 0.924, AGFI = 0.898, NFI = 0.926, TLI = 0.902, CFI = 0.927, and RMSEA = 0.061. In summary, the expectations confirmed that all metrics of the validation analysis were met and that the overall fit of the model was good.

#### 4.4.5.2 Expected Confirmation Convergent Validity Analysis

Table 4.18 Expectation Confirmation Measurement Model Convergent Validity Analysis

Latent Variable	Observed Variables	Standardized Load Factor	Standard Error S.E.	Critical Ratio C.R. (Z)	P	CR	AVE
H	H1	.750	-	-	-	0.837	0.793
	H2	.863	.066	16.544	***		
	H3	.767	.062	16.210	***		

The values of factor loadings, combined reliability (CR), and average variance extracted (AVE) for the H-measurement model observations are shown in the table. The factor loadings for each question item are greater than 0.8, indicating high convergent validity. The composite reliability (CR) for each dimension was greater than 0.7, meeting the criterion, and the AVE was greater than 0.5, meeting the criterion, with a significant probability of  $P < 0.001$ . This indicates a significant relationship between the latent variables and each measured indicator variable and very good convergence of the scale structure model.

#### 4.4.6 Perceived Value Measurement Model Analysis

##### 4.4.6.1 Perceived Value Validation Factor analysis (Model J)

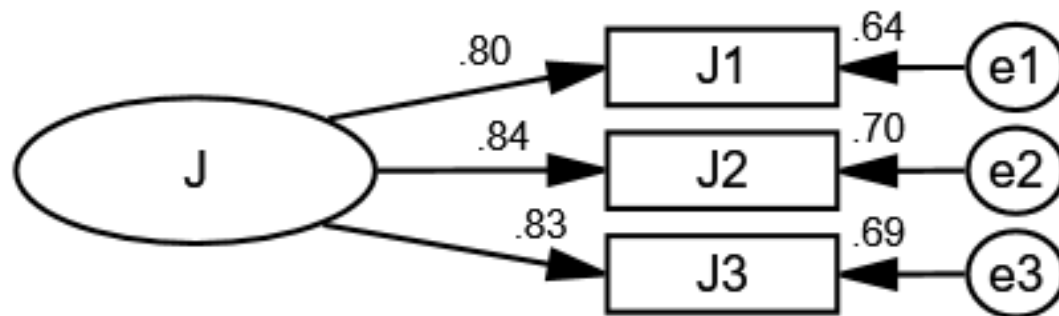


Figure 4.6 Perceived Value Validation Factor Model

Table 4.19 Perceived Value Measurement Model Fitting Index

Reference Indicators	$\chi^2/df$	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	4.060	0.904	0.897	0.916	0.912	0.921	0.062
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

In summary, all metrics of the perceived value validation factor analysis were met, and the overall fit of the model was good as shown in Table 4.19: GFI = 0.904, AGFI = 0.897, NFI = 0.916, TLI = 0.912, CFI = 0.921, and RMSEA = 0.062.

## 4.4.6.2 Perceived Value Convergent Validity Analysis

Table 4.20 Perceived Value Measurement Model Convergent Validity Analysis

Latent Variable	Observed Variables	Standardized Load Factor	Standard Error S.E.	Critical ratio C.R. (Z)	P	CR	AVE
J	J1	.803	-	-	-	0.712	0.825
	J2	.839	.058	19.313	***		
	J3	.833	.055	19.243	***		

J-measurement model observations factor loadings, combined reliability (CR), and average variance extracted (AVE) values are shown in the table. The factor loadings for each question item are greater than 0.8, indicating high convergent validity. The combined reliability (CR) of the dimensions was greater than 0.7 to meet the criterion, and the AVE was greater than 0.5 to meet the criterion, with a significant probability of  $P < 0.001$ , indicating that there was a significant relationship between the latent variables and each of the measured indicator variables and that the scale structure model converged very well.

## 4.4.7 Satisfaction Measurement Model Analysis

## 4.4.7.1 Satisfaction Validation Factor Analysis (Model K)

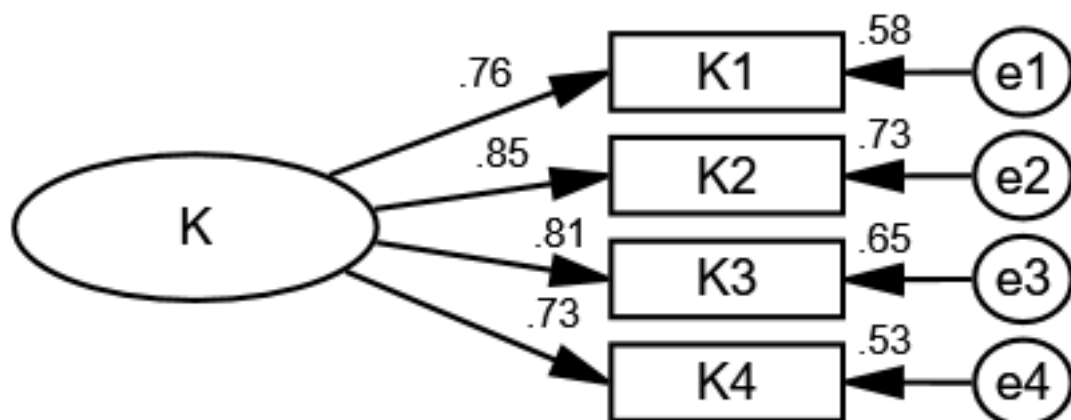


Figure 4.7 Satisfaction Validation Factor Model Diagram



Table 4.21 Satisfaction Measurement Model Fitting Index

Reference Indicators	X <sup>2</sup> /df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	3.917	0.891	0.916	0.896	0.920	0.912	0.030
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

As shown in Table 4.21: GFI = 0.891, AGFI = 0.916, NFI = 0.896, TLI = 0.920, CFI = 0.912, RMSEA = 0.030. In Summary, all indicators of satisfaction validation factor analysis have been met, and the overall fit of the model is good.

#### 4.4.7.2 Satisfaction Convergent Validity Analysis

Table 4.22 Satisfaction Measurement Model Convergent Validity Analysis

Latent Variable	Observed Variables	Standardized Load Factor	Standard Error S.E.	Critical Ratio C.R. (Z)	P	CR	AVE
K	K1	.759	-	-	-	0.869	0.789
	K2	.855	.050	18.942	***		
	K3	.809	.051	18.126	***		
	K4	.731	.050	16.331	***		

The observed value factor loadings, combined reliability (CR), and average variance extracted (AVE) values for the K-measure model are shown in the table. The factor loadings for each question item are greater than 0.8, indicating high convergent validity. The combined reliability (CR) of the dimensions was greater than 0.7 to meet the criterion, and the AVE was greater than 0.5 to meet the criterion, with a significant probability of  $P < 0.001$ , indicating that there was a significant relationship between the latent variables and each of the measured indicator variables and that the scale structure model converged very well.

#### 4.4.8 Government Policy Measurement Model Analysis

##### 4.4.8.1 Government Policy Validation Factor Analysis (Model L)

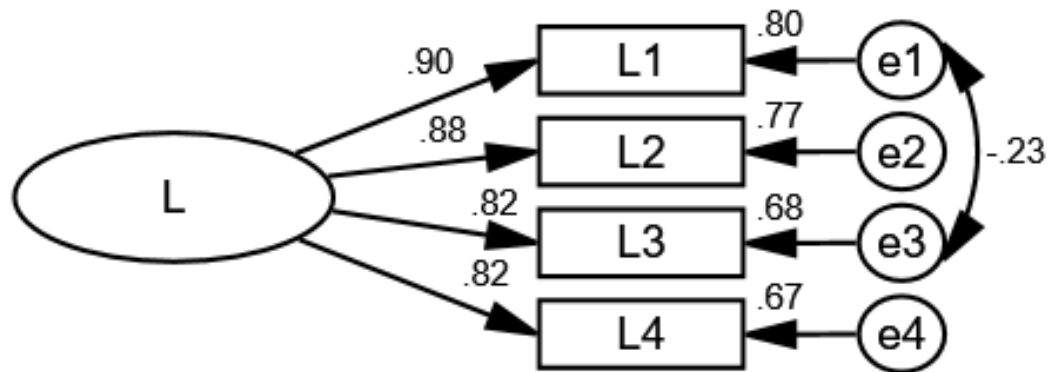


Figure 4.8 Validation Factor Model of Government Policies

Table 4.23 Government Policy Model Fitting Indicators

Reference Indicators	$\chi^2/df$	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	4.453	0.992	0.960	0.994	0.985	0.995	0.068
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

In summary, all indicators of the factor analysis for government policy validation were satisfied, and the overall fit of the model was good, as shown in Table 4.23: GFI = 0.992, AGFI = 0.960, NFI = 0.994, TLI = 0.985, CFI = 0.995, and RMSEA = 0.068.

#### 4.4.8.2 Government Policy Convergence Validity Analysis

Table 4.24 Convergent Validity Analysis of the Government Policy Measurement Model

Latent Variable	Observed Variables	Standardized Load Factor	Standard Error S.E.	Critical ratio C.R. (Z)	P	CR	AVE
L	L1	.897	-	-	-	0.773	0.854
	L2	.878	.038	25.995	***		
	L3	.822	.039	22.316	***		
	L4	.817	.042	23.450	***		

The observed value factor loadings, combined reliability (CR), and average variance extracted (AVE) values for the L-measurement model are shown in the table. The factor loadings for each question item are greater than 0.8, indicating high convergent validity. The combined reliability (CR) of the dimensions was greater than 0.7 to meet the criterion, and the AVE was greater than 0.5 to meet the criterion, with a significant probability of  $P < 0.001$ , indicating that there was a significant relationship between the latent variables and each of the measured indicator variables and that the scale structure model converged very well.

#### 4.4.9 Choice Measurement Model Analysis

##### 4.4.9.1 Choice Validation Factor Analysis (Model M)

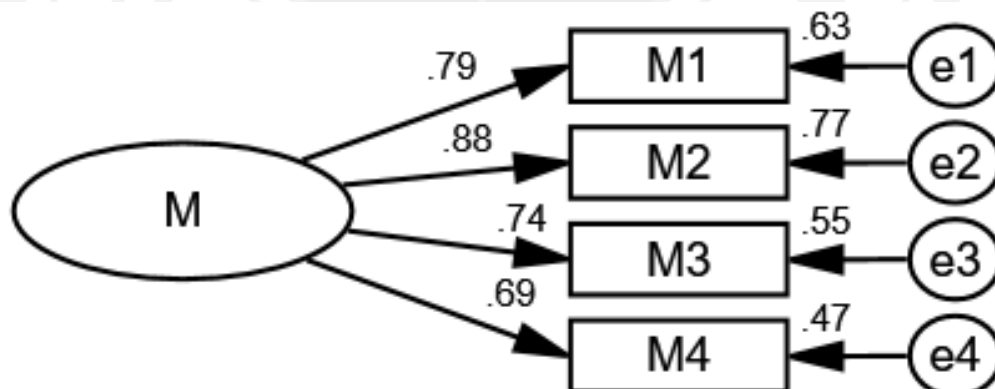


Figure 4.9 Choices Validation Factor Model Diagram

Table 4.25 Choices Measurement Model Fit Metrics

Reference Indicators	X <sup>2</sup> /df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	4.011	0.947	0.870	0.971	0.919	0.973	0.058
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

In summary, all the indicators selected for the validation factor analysis were satisfied, and the overall fit of the model was good, as shown in Table 4.25: GFI = 0.947, AGFI = 0.870, NFI = 0.971, TLI = 0.919, CFI = 0.973, and RMSEA = 0.058.

#### 4.4.9.2 Choice Convergent Validity Analysis

Table 4.26 Convergent Validity Analysis of the Choice-Measurement Model

Latent Variable	Observed Variables	Standardized Load Factor	Standard Error S.E.	Critical Ratio C.R. (Z)	P	CR	AVE
M	M1	.794	-	-	-	0.859	0.775
	M2	.876	.057	20.089	***		
	M3	.741	.059	17.335	***		
	M4	.689	.060	15.941	***		

The factor loadings, composite reliability (CR), and average variance extracted (AVE) values for the M-measurement model observations are shown in the table. The factor loadings for each question item are greater than 0.8, indicating high convergent validity. The composite reliability (CR) for each dimension was greater than 0.7, meeting the criterion, and the AVE was greater than 0.5, meeting the criterion, with a probability of significance of  $P < 0.001$ , indicating a significant relationship between the latent variables and each of the measured indicator variables and very good convergence of the scale structure model.

In summary, the fit of each indicator value and convergent validity test of each measurement model is relatively good for structural model testing and each hypothesis testing. The model and validation results are as follows.

#### 4.5 Validation Factor Model Test

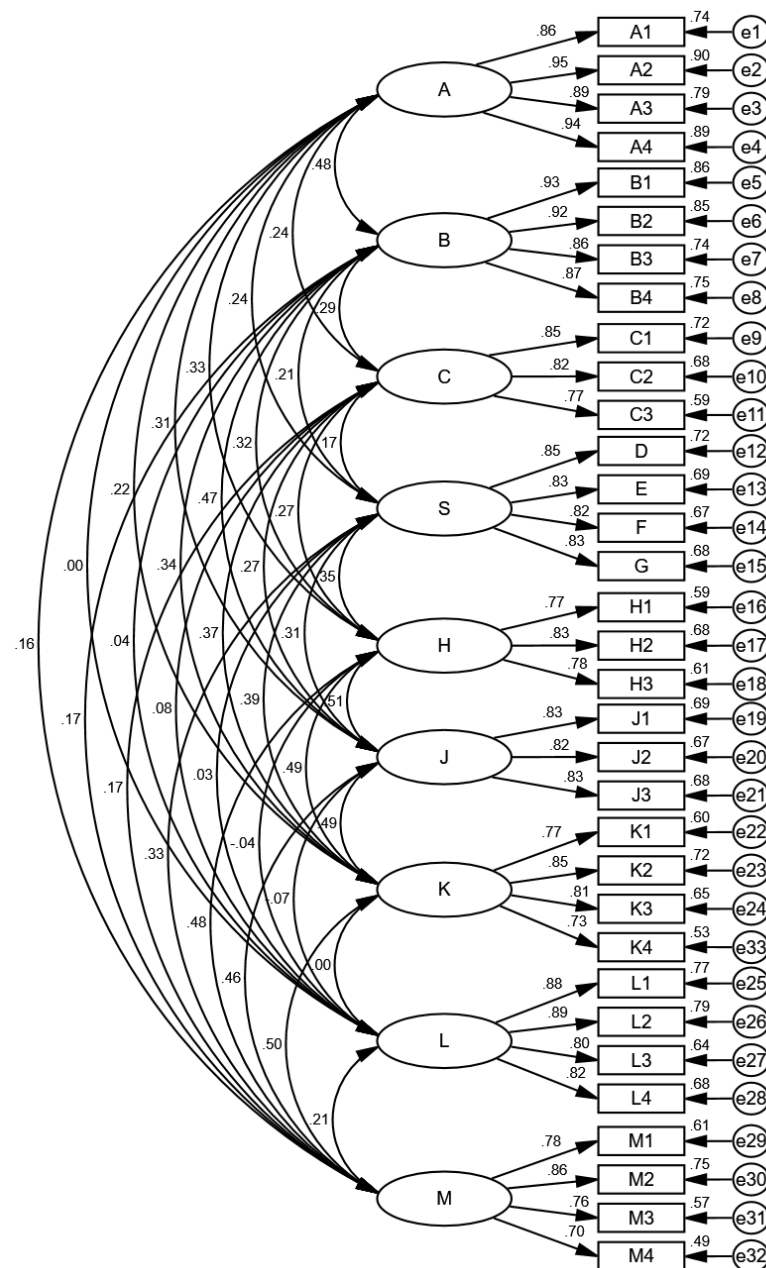


Figure 4.10 Validated Factor Analysis Model

Table 4.27 Validation Factor Model Fitting Indicators

Reference Indicators	X <sup>2</sup> /df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	2.344	0.892	0.868	0.916	0.943	0.950	0.051
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

In summary, all the metrics in the validation factor analysis in this thesis met the criteria and the overall fit of the model was good. as shown in Table 4.27: X<sup>2</sup>/df = 2.344, GFI = 0.892, AGFI = 0.868, NFI = 0.916, TLI = 0.916, CFI = 0.932, and RMSEA = 0.051.

### 4.6 Hypothesis Validation

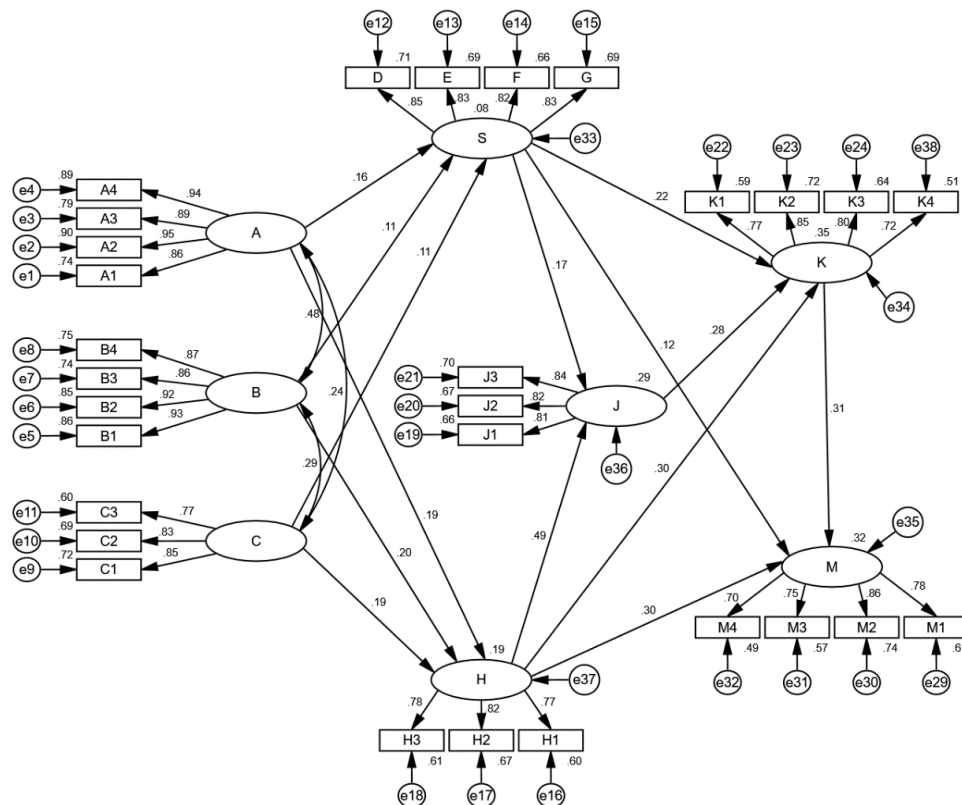


Figure 4.11 Results of Structural Equation Model Graph Run (Normalized)

Note: Service level-A, Vocational skills-B, educational level-C, service quality-S, expectation confirmation-H, Perceived value-J, satisfaction-K, government policy-L, Willingness to choose -M.

Table 4.28 Structural Equation Model Fit Index

Indicators	X <sup>2</sup> /df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Statistical values	2.782	0.885	0.861	0.910	0.933	0.940	0.058
Reference value	<5	>0.8	>0.8	>0.9	>0.9	>0.9	<0.08
Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards	Achievement of standards

The model runs fit indicators are shown in Table 4.28, and the fit indicators are  $x^2/df = 2.782$ , which is less than 5.  $GFI = 0.885$ ,  $AGFI = 0.861$ , which is more than 0.8,  $NFI = 0.910$ ,  $TLI = 0.933$ ,  $CFI = 0.940$ , which is more than 0.9, and  $RMSEA = 0.058$ , against the fit criteria in Table 4.28, the model of fitting indexes all meets the requirements, so the path of the model is analyzed.

#### 4.6.1 Direct Effect Hypothesis Testing

Table 4.29 Path Coefficient Test of Structural Equation Model

Path Assumptions	Standard Path Coefficient	Residual Error S.E.	Critical Ratio C.R.	P
Service quality <-- Service Level	0.163	0.042	3.085	0.002
Expectation confirmation <-- Service Level	0.194	0.041	3.695	***
Service quality <-- Vocational skills	0.109	0.039	2.01	0.044

Path Assumptions		Standard Path Coefficient	Residual Error S.E.	Critical Ratio C.R.	P
Expectation confirmation	<-- Vocational skills	0.204	0.039	3.802	***
Service quality	<-- Education Level	0.114	0.046	2.233	0.026
Expectation confirmation	<-- Education Level	0.192	0.046	3.779	***
Perceived Value	<-- Service quality	0.17	0.052	3.78	***
Perceived Value	<-- Expectation confirmation	0.489	0.06	9.432	***
Choice	<-- Service quality	0.119	0.036	2.58	0.01
Satisfaction	<-- Service quality	0.218	0.047	4.883	***
Satisfaction	<-- Perceived Value	0.28	0.051	5.037	***
Satisfaction	<-- Expectation confirmation	0.299	0.059	5.375	***
Willingness to choose	<-- Expectation confirmation	0.295	0.042	5.435	***
Willingness to choose	<-- Satisfaction	0.315	0.042	5.552	***

Note: \*\*\* indicates  $P < 0.001$ .



It can be derived from the Table 4.29 Path coefficient test for the structural equation model.

1) Hypothesis validation of the relationship between service level and service quality.

The path coefficient of service level on service quality is 0.163, and the C.R. value is 3.085, corresponding to a significant  $P = 0.002 < 0.01$ , therefore, the service level has a significant positive effect on service quality; thus, hypothesis H1 holds.

2) Hypothesis validation of the relationship between service level and expectation confirmation.

The path coefficient of service level on expectation confirmation is 0.194, and the C.R. value is 3.695, corresponding to a significance  $P = 0.000 < 0.001$ , therefore, the service level has a significant positive effect on expectation confirmation; thus, hypothesis H2 holds.

3) Hypothesis validation of the relationship between vocational skills and service quality.

The path coefficient of vocational skills on service quality is 0.109, and the C.R. value is 2.01, corresponding to a significant  $P = 0.044 < 0.05$ , therefore, Vocational skills have a significant positive effect on service quality hypothesis H3 holds.

4) Hypothesis validation of the relationship between vocational skills and expectation confirmation.

The path coefficient of Vocational skills on expectation confirmation is 0.204 and the C.R. value is 3.802, corresponding to a significant  $P = 0.000 < 0.001$ , therefore, Vocational skills have a significant positive effect on the expectation confirmation hypothesis H4 holds.

5) Hypothesis validation of the relationship between educational level and service quality.

The path coefficient of educational level on service quality is 0.114, and the C.R. value is 2.233, corresponding to the significance  $P = 0.026 < 0.05$ , therefore, the educational level has a significant positive effect on service quality hypothesis H5 holds.

6) Hypothesis validation of the relationship between educational level and expectation confirmation.

The path coefficient of educational level on expectation confirmation was 0.192, and the C.R. value was 3.779, corresponding to a significant  $P = 0.000 < 0.001$ , therefore, the educational level has a significant positive effect on expectation confirmation, so hypothesis H6 holds.

7) Hypothesis validation of the relationship between service quality and perceived value.

The path coefficient of service quality on perceived value is 0.17 and the C.R. value is 3.78, corresponding to the significance  $P = 0.000 < 0.001$ , therefore, service quality has a significant positive effect on perceived value, so hypothesis H7 holds.

8) Hypothesis validation of the relationship between expectation confirmation and perceived value.

The path coefficient of expectation confirmation on perceived value is 0.489 and the C.R. value is 9.432, corresponding to a significance  $P = 0.000 < 0.001$ , therefore, expectation confirmation has a significant positive effect on perceived value hypothesis H8 holds.

9) Hypothesis validation of the relationship between service quality and choice.

The path coefficient of service quality on choice is 0.119 and the C.R. value is 2.58, corresponding to the significance  $P = 0.01 < 0.05$ , therefore, service quality has a significant positive effect on choice, so hypothesis H9 holds.

10) Hypothesis validation of the relationship between service quality and satisfaction.

The path coefficient of service quality on satisfaction is 0.218 and the C.R. value is 4.883, corresponding to the significance  $P = 0.000 < 0.001$ , therefore, service quality has a significant positive effect on satisfaction, so hypothesis H10 holds.

11) Hypothesis validation of the relationship between perceived value and satisfaction.

The path coefficient of perceived value on satisfaction is 0.28 and the C.R. value is 5.037, corresponding to a significance  $P = 0.000 < 0.001$ , therefore, perceived value has a significant positive effect on satisfaction, so hypothesis H11 holds.

12) Hypothesis validation of the relationship between expectation confirmation and satisfaction.

The path coefficient of expectation confirmation on satisfaction is 0.299 and the C.R. value is 5.375, corresponding to a significance  $P = 0.000 < 0.001$ , therefore, expectation confirmation has a significant positive effect on satisfaction, so hypothesis H12 holds.

13) Hypothesis validation of the relationship between expectation confirmation and choice.

The path coefficient of expectation confirmation on choice is 0.295 and the C.R. value is 5.435, corresponding to a significance  $P = 0.000 < 0.05$ , therefore, expectation confirmation has a significant positive effect on the choices hypothesis H13 holds.

14) Hypothesis validation of the relationship between satisfaction and choice.

The path coefficient of satisfaction on choice is 0.315 and the C.R. value is 5.552, corresponding to the significance  $P = 0.000 < 0.001$ , therefore, satisfaction has a significant positive effect on choice, so hypothesis H14 holds.

#### **4.6.2 Intermediation Effect Hypothesis Testing**

The bootstrap method was used to test the mediating effect in this study, and the Bootstrap test is mainly a repeated sampling of the original sample. According to the criteria for judging the mediating effect: first, the test is conducted using the bias correction method in the 95% confidence interval standard, which does not contain 0, representing significance, indicating a mediating effect. The inclusion of 0, which represents insignificant, indicates no mediation effect. In addition, this model is a multiple mediation model. Separate analyses can only yield results for the total mediating effect but not for the specific mediating effect. For this reason, the syntax of AMOS software was used to assign all relevant paths and calculate the

unstandardized and standardized specific mediating effects separately. Based on Shrout and Bolger (2002), the following results were obtained in this study by sampling the sample data 5000 times.

Table 4.30 Mediated Path Hypothesis Testing

<b>Intermediary Path Assumptions</b>	<b>Intermediary Effect Value</b>	<b>LLCI</b>	<b>ULCI</b>	<b>P</b>
Service quality-perceived value.	0.028	0.007	0.056	0.003
Professional skills-service quality-perceived value.	0.019	0.001	0.046	0.041
Education Level-service-quality-perceived value.	0.019	0.001	0.046	0.038
Service level-service quality-satisfaction.	0.036	0.012	0.064	0.003
Professional skills-service-quality-satisfaction.	0.024	0.001	0.053	0.041
Educational level-service-quality-satisfaction.	0.025	0.001	0.056	0.038
Service-quality-Willingness to choose.	0.019	0.002	0.041	0.019
Professional skills-service-quality-Willingness to choose.	0.013	0.000	0.037	0.057
Educational level-service-quality-Willingness to choose.	0.014	0.000	0.036	0.055
Service level - expectation confirmation - perceived value.	0.095	0.038	0.155	0.001
Vocational skills - expectation confirmation - perceived value.	0.100	0.037	0.171	0.001
Education Level - Expectation confirmation - Perceived Value.	0.094	0.040	0.151	0.001
Service level-expectation	0.058	0.021	0.101	0.001

<b>Intermediary Path Assumptions</b>	<b>Intermediary Effect Value</b>	<b>LLCI</b>	<b>ULCI</b>	<b>P</b>
confirmation-satisfaction.				
Professional skills-expectation	0.061	0.021	0.113	0.001
confirmation-satisfaction.				
Educational level - expectation	0.057	0.019	0.107	0.001
confirmation – satisfaction.				
Service level-expectation	0.057	0.021	0.101	0.001
confirmation-Willingness to choose.				
Professional skills - expectation	0.060	0.022	0.106	0.001
confirmation -Willingness to choose.				
Educational level-expectation	0.057	0.023	0.094	0.001
confirmation-Willingness to choose.				
Perceived-value-satisfaction- Willingness to choose.	0.088	0.039	0.147	0.000
Service quality-perceived value- satisfaction.	0.048	0.016	0.086	0.000
Expectation confirmation- perceived value-satisfaction.	0.137	0.075	0.198	0.000
Service quality-satisfaction- Willingness to choose.	0.069	0.036	0.108	0.000
Expectation-satisfaction- Willingness to choose.	0.094	0.048	0.147	0.000

1) The role of service quality in mediating between service level and perceived value.

The service level  $\rightarrow$  service quality  $\rightarrow$  perceived value mediating effect is 0.028, corresponding to 95% confidence interval [0.007,0.056], not included 0, corresponding to significance  $P = 0.003 < 0.05$ , indicating the mediating effect of service quality between service level and perceived value is significant, so hypothesis H16 holds.

2) The role of service quality in mediating between vocational skills and perceived value.

The occupational skill  $\rightarrow$  service quality  $\rightarrow$  perceived value is mediating effect is 0.019, corresponding to a 95% confidence interval of [0.001,0.046], not included 0, corresponding to a significant  $P = 0.041 < 0.05$ , indicating that the mediating effect of service quality between occupational skill and perceived value is significant, so hypothesis H17 holds.

3) The mediation effect of service quality between Education Level and perceived value.

Educational level  $\rightarrow$  service quality  $\rightarrow$  perceived value mediated effect is 0.019, corresponding to 95% confidence interval [0.001,0.046], which does not contain 0. The corresponding significant  $P = 0.038 < 0.05$  demonstrates that the mediated effect of service quality between educational level and perceived value is significant; thus, hypothesis H18 is valid.

4) The mediation effect of service quality between service level and satisfaction.

Service level  $\rightarrow$  service quality  $\rightarrow$  satisfaction mediated effect is 0.036, corresponding to 95% confidence interval [0.012,0.064], which does not contain 0. The corresponding significant  $P = 0.003 < 0.05$  illustrates that the mediated effect of service quality between service level and satisfaction is significant; consequently, hypothesis H19 is valid.

5) The mediating effect of service quality between vocational skills and satisfaction.

Vocational skills  $\rightarrow$  service quality  $\rightarrow$  satisfaction mediated effect is 0.024, corresponding to a 95% confidence interval [0.001,0.053], which does not

contain 0. The corresponding significant  $P = 0.041 < 0.05$  indicates that the mediating effect of service quality between vocational skills and satisfaction is significant; therefore, hypothesis H20 is valid.

6) The mediation effect of service quality between educational level and satisfaction.

Educational level  $\rightarrow$  service quality  $\rightarrow$  satisfaction mediated effect is 0.025, corresponding to 95% confidence interval [0.001,0.056], which does not contain 0. The corresponding significant  $P = 0.038 < 0.05$  indicates that the mediated effect of service quality between educational level and satisfaction is significant; therefore, hypothesis H21 is valid.

7) The mediation effect of service quality between service level and willingness to choose.

Service level  $\rightarrow$  service quality  $\rightarrow$  satisfaction mediated effect is 0.019, corresponding to 95% confidence interval [0.002,0.041], which does not contain 0. The corresponding significant  $P = 0.019 < 0.05$  indicates that the mediated effect of service quality between service level and willingness to choose is significant; hence, hypothesis H22 is valid.

8) The role of service quality in mediating between vocational skills and Willingness to choose.

Vocational skills  $\rightarrow$  service quality  $\rightarrow$  satisfaction mediated effect is 0.013, corresponding to 95% confidence interval [0.000,0.037], which contains 0, corresponding to a significant  $P = 0.057 > 0.05$ , indicating that the mediated effect of service quality between vocational skills and willingness to choose is not significant; therefore, hypothesis H23 is not valid.

9) The role of service quality in mediating between Education Level and Willingness to choose.

The mediation effect of educational level  $\rightarrow$  service quality  $\rightarrow$  satisfaction is 0.014, corresponding to the 95% confidence interval of [0.000,0.036], contains 0, corresponding to the significance  $P = 0.055 > 0.05$ , indicating that the mediation effect of service quality between educational level and Willingness to choose is not significant, so hypothesis H24 is not valid.

10) Expectations confirm the mediation effect between service level and perceived value.

The service level  $\rightarrow$  expectation confirmation  $\rightarrow$  perceived value mediating effect is 0.095, corresponding to a 95% confidence interval of [0.038, 0.155], not included 0, corresponding to a significance  $P = 0.001 < 0.05$ , indicating that the mediating effect of service quality between service level and perceived value is significant, so hypothesis H28 holds.

11) The mediation effect of expectation confirmation between vocational skills and perceived value.

The Vocational skills  $\rightarrow$  expectation confirmation  $\rightarrow$  perceived value mediating effect is 0.100, corresponding to a 95% confidence interval of [0.037, 0.171], not included 0, corresponding to a significance  $P = 0.001 < 0.05$ , indicating that the mediating effect of expectation confirmation between Vocational skills and perceived value is significant, so hypothesis H29 holds.

12) The mediation effect of expectation confirmation between Education Level and perceived value.

The educational level  $\rightarrow$  expectation confirmation  $\rightarrow$  perceived value mediating effect is 0.094, corresponding to a 95% confidence interval of [0.040, 0.151], not included 0, corresponding to a significance  $P = 0.001 < 0.05$ , indicating that the mediating effect of expectation confirmation between educational level and perceived value is significant, so hypothesis H30 holds.

13) Expectations confirm the mediation effect between service level and satisfaction.

The service level  $\rightarrow$  expectation confirmation  $\rightarrow$  satisfaction is mediating effect is 0.058, corresponding to a 95% confidence interval of [0.021, 0.101], not included 0, corresponding to a significance  $P = 0.001 < 0.05$ , indicating that the mediating effect of expectation confirmation between service level and satisfaction is significant, so hypothesis H31 holds.

14) Expectations confirm the mediation effect between vocational skills and satisfaction.



The mediating effect of Vocational skills  $\rightarrow$  expectation confirmation  $\rightarrow$  satisfaction is 0.061, corresponding to a 95% confidence interval of [0.021,0.113], not included 0, corresponding to a significance  $P = 0.001 < 0.05$ , indicating that the mediating effect of expectation confirmation between Vocational skills and satisfaction is significant, so hypothesis H32 is valid.

15) The mediation effect of expectation confirmation between educational level and satisfaction.

The mediation effect of Education Level  $\rightarrow$  expectation confirmation  $\rightarrow$  satisfaction is 0.057, corresponding to a 95% confidence interval of [0.019,0.107], not included 0, corresponding to a significance  $P = 0.001 < 0.05$ , indicating that the mediation effect of expectation confirmation between Education Level and satisfaction is significant, so hypothesis H33 holds.

16) Expectations confirm the mediation effect between service level and choice.

The service level  $\rightarrow$  expectation confirmation  $\rightarrow$  choice is mediating effect is 0.057, corresponding to a 95% confidence interval of [0.021,0.101], not included 0, corresponding to a significance  $P = 0.001 < 0.05$ , indicating that the mediating effect of expectation confirmation between service level and choice is significant, so hypothesis H34 holds.

17) Expectations confirm the mediation effect between vocational skills and Willingness to choose.

The career skill  $\rightarrow$  expectation confirmation  $\rightarrow$  Willingness to choose mediated effect is 0.060, corresponding to a 95% confidence interval of [0.022,0.106], not included 0, corresponding to a significance  $P = 0.001 < 0.05$ , indicating that the mediated effect of expectation confirmation between career skill and Willingness to choose is significant, so hypothesis H35 holds.

18) Expectations confirm the mediation effect between educational level and Willingness to choose.

The educational level  $\rightarrow$  expectation confirmation  $\rightarrow$  Willingness to choose mediated effect is 0.060, corresponding to a 95% confidence interval of [0.022,0.106], not included 0, corresponding to a significance  $P = 0.001 < 0.05$ ,

indicating that the mediated effect of expectation confirmation between educational level and Willingness to choose is significant, so hypothesis H36 holds.

19) The mediation effect of satisfaction between perceived value and Willingness to choose.

The perceived value  $\rightarrow$  satisfaction  $\rightarrow$  Willingness to choose is mediating effect is 0.088, corresponding to a 95% confidence interval of [0.039,0.147], not included 0, corresponding to a significance  $P = 0.000 < 0.05$ , indicating that the mediation effect of satisfaction between perceived value and Willingness to choose is significant, so hypothesis H37 holds.

20) The role of perceived value in mediating between service quality and satisfaction.

The service quality  $\rightarrow$  perceived value  $\rightarrow$  satisfaction is mediating effect is 0.048, corresponding to a 95% confidence interval of [0.016,0.086], not included 0, corresponding to a significance of  $P = 0.000 < 0.05$ , indicating that the mediating effect of perceived value between service quality and satisfaction is significant, so hypothesis H38 holds.

21) The mediation effect of perceived value between expectation confirmation and satisfaction.

The expectation confirmation  $\rightarrow$  perceived value  $\rightarrow$  satisfaction mediation effect is 0.137, corresponding to a 95% confidence interval of [0.075,0.198], not included 0, corresponding to a significance  $P = 0.000 < 0.05$ , indicating that the mediation effect of perceived value between expectation confirmation and satisfaction is significant, so hypothesis H39 holds.

22) The intermediary role of satisfaction between service quality and Willingness to choose.

The service quality  $\rightarrow$  satisfaction  $\rightarrow$  willingness to choose mediating effect is 0.069, corresponding to a 95% confidence interval of [0.036,0.108], which does not contain 0, corresponding to a significant  $P = 0.000 < 0.05$ . This indicates that the mediating effect of satisfaction between service quality and willingness to choose is significant; thus, hypothesis H40 holds.

23) The mediation effect of satisfaction between expectation confirmation and Willingness to choose.

The expectation confirmation  $\rightarrow$  satisfaction  $\rightarrow$  willingness to choose mediating effect is 0.094, corresponding to a 95% confidence interval of [0.048,0.147], which does not contain 0, corresponding to a significant  $P = 0.000 < 0.05$ . This indicates a significant mediating effect of satisfaction between expectation confirmation and willingness to choose, which means that hypothesis H41 is valid.

In conclusion, according to the criteria for judging the mediation effect, the results of the mediation effect test show that the results of the above tests are within the confidence interval——none of the values contain 0. The mediation effect of H23 and H24 is not significant, indicating no mediation effect for the variables of H23 and H24, while the mediation effect of the other hypotheses is significant, and there is a mediation effect for the variables.

#### 4.6.3 Dual Intermediary Test

The bootstrap method was used in this study to test the mediating effect, and the Bootstrap test is mainly a repeated sampling of the original sample. Based on the criteria for judging the mediation effect: first, within the confidence interval, it does not contain 0, which means significant, indicating a mediation effect. Containing 0, which indicates insignificant, indicates no mediation effect. In this study, the results obtained are as follows, based on Shrout and Bolger (2002), which set to sample the sample data 5000 times.

Table 4.31 Two-mediated Path Hypothesis Testing

Dual Intermediary Path Hypothesis	Intermediary Effect Value	LLCI	ULCI	P
Service-quality-satisfaction- Willingness to choose.	0.011	0.003	0.022	0.003
Professional skills-service-quality-satisfaction- Willingness to choose.	0.007	0.000	0.017	0.041
Education Level-service-quality-	0.008	0.000	0.018	0.038

Dual Intermediary Path Hypothesis	Intermediary Effect Value	LLCI	ULCI	P
satisfaction- Willingness to choose.				
Service level-expectation confirmation- satisfaction- Willingness to choose.	0.018	0.006	0.034	0.001
Professional skills-expectation confirmation-satisfaction- Willingness to choose.	0.019	0.006	0.037	0.001
Educational level-expectation confirmation-satisfaction- Willingness to choose.	0.018	0.006	0.036	0.001

The analysis can be seen from the above analysis results according to the interpretation criteria.

1) The double mediation effect of service level as the independent variable and service quality and satisfaction as the mediator on Willingness to choose.

Service level → service quality → satisfaction → the double mediation effect of Willingness to choose is 0.011, corresponding to a 95% confidence interval of [0.003,0.022], which does not contain 0, corresponding to a significant  $P = 0.003 < 0.05$ . This indicates that the double mediation effect of service quality and satisfaction between service level and willingness to choose is significant; therefore, hypothesis H25 is valid.

2) The double mediation effect of vocational skills as the independent variable and service quality and satisfaction as mediators on Willingness to choose.

Vocational skills → service quality → satisfaction → the double mediation effect of Willingness to choose is 0.007, corresponding to a 95% confidence interval of [0.000,0.017] without 0, corresponding to a significant  $P = 0.041 < 0.05$ . This implies that the double mediation effect of service quality and satisfaction between vocational skills and willingness to choose is significant; therefore, hypothesis H26 is valid.

3) The double mediation effect of educational level as the independent variable and service quality and satisfaction as mediators on Willingness to choose.

Educational level → service quality → satisfaction → the double mediation effect of Willingness to choose is 0.008, corresponding to a 95% confidence interval of [0.000,0.018], which does not contain 0, corresponding to a significance of  $P = 0.038 < 0.05$ . This indicates that the double mediation effect of service quality and satisfaction between educational level and willingness to choose is significant; therefore, hypothesis H27 is valid.

4) The double mediation effect of service level as the independent variable and expectation confirmation and satisfaction as mediators on Willingness to choose.

Service level → expectation confirmation → satisfaction → the double mediation effect of Willingness to choose is 0.018, corresponding to a 95% confidence interval of [0.006,0.034], which does not contain 0, corresponding to a significance of  $P = 0.001 < 0.05$ . This illustrates that the double mediation effect of expectation confirmation and satisfaction between service level and willingness to choose is significant; thus, hypothesis H42 is valid.

5) The double mediation effect of vocational skills as the independent variable and expectation confirmation and satisfaction as mediators on Willingness to choose.

Vocational skills → expectation confirmation → satisfaction → the double mediation effect of Willingness to choose is 0.019, corresponding to a 95% confidence interval of [0.006,0.037], which does not contain 0, corresponding to a significance of  $P = 0.001 < 0.05$ . This indicates that the double mediation effect of expectation confirmation and satisfaction between vocational skills and willingness to choose effect is significant; therefore, hypothesis H43 is valid.

6) The double mediation effect of educational level as the independent variable and expectation confirmation and satisfaction as mediators on Willingness to choose.

Educational level → expectation confirmation → satisfaction → the double mediation effect of Willingness to choose is 0.018, corresponding to a 95% confidence interval of [0.006,0.036], which does not contain 0, corresponding to a

significance of  $P = 0.001 < 0.05$ . This demonstrates that the double mediation effect of expectation confirmation and satisfaction between educational level and willingness to choose effect is significant; therefore, hypothesis H44 is valid.

In summary, according to the judgment standard for double mediation effect, the results of the mediation effect test show that most of the above tests are within the confidence interval - none of the values contain 0, corresponding to a significance of  $P < 0.05$ , which represents a significant effect. Consequently, the above analysis results indicate a mediation effect on the variables, which indicates that the prediction hypotheses H25, H26, H27, H42, H43, and H44 of this study are valid.

#### **4.6.4 Test For Moderating Effects**

The model in this study is tested by adjusting government policy variables in the prediction path from expectation confirmation to choice. Government policy variables are adjusted from expectation confirmation to satisfaction in the prediction path. Government policy variables were used to test the moderating effect of service quality on the predictive path of willingness to choose. AMOS 22.0 was used to compare the moderating effect of government support in the group, and the test for the moderating effect in AMOS was conducted according to the method proposed by Wen, Hou, and Zhang (2005) -first restricting the two structural equation regression systems to be equal and obtaining a  $\chi^2$  value and the corresponding degrees of freedom. This restriction is then removed, and the model is re-estimated to obtain another  $\chi^2$  value and the corresponding degrees of freedom. Finally, the  $\chi^2$  value of the unrestricted model is subtracted from the  $\chi^2$  value of the restricted model. If the  $\chi^2$  test result is significant, the moderating effects of the two groups are significantly different.

1) Cluster analysis of the moderating effect of government support between service quality and Willingness to choose

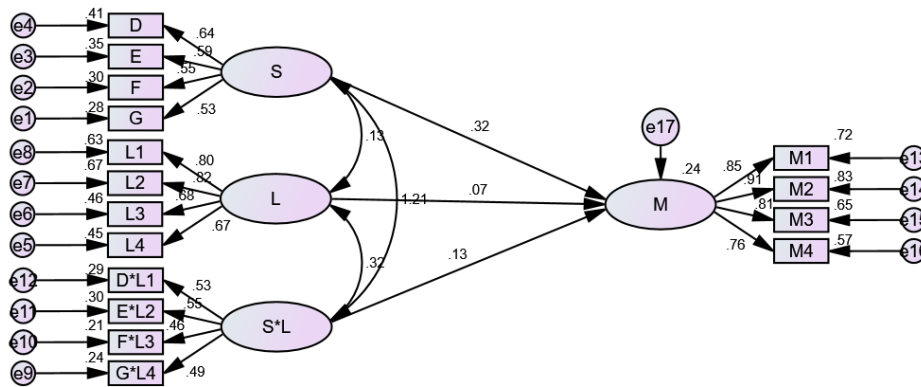


Figure 4.12 The Moderating Effect of High Government Support on the Relationship between Service Quality and Willingness to Choose

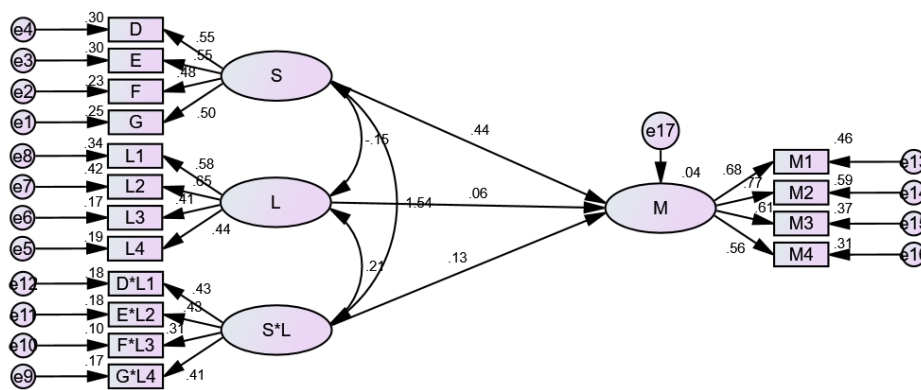


Figure 4.13 The Moderating Effect of Low Government Support on the Relationship between Service Quality and Willingness to Choose

Table 4.32 CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Unconstrained	76	356.590	196	.000	1.819
Structural weights	61	391.786	211	.000	1.857
Saturated model	272	.000	0	-	-
Independence model	32	2878.164	240	.000	11.992

Table 4.33 RMR, GFI

<b>Model</b>	<b>RMR</b>	<b>GFI</b>	<b>AGFI</b>	<b>PGFI</b>
Unconstrained	.134	.925	.896	.667
Structural weights	.161	.917	.893	.711
Saturated model	.000	1.000	-	-
Independence model	2.488	.530	.467	.467

Table 4.34 Baseline Comparisons

<b>Model</b>	<b>NFI</b>	<b>RFI</b>	<b>IFI</b>	<b>TLI</b>	<b>CFI</b>
	<b>Delta1</b>	<b>rho1</b>	<b>Delta2</b>	<b>rho2</b>	
Unconstrained	.876	.848	.940	.925	.939
Structural weights	.864	.845	.932	.922	.931
Saturated model	1.000	-	1.000	-	1.000
Independence model	.000	.000	.000	.000	.000

Table 4.35 RMSEA

<b>Model</b>	<b>RMSEA</b>	<b>LO 90</b>	<b>HI 90</b>	<b>PCLOSE</b>
Unconstrained	.040	.033	.046	.996
Structural weights	.041	.034	.047	.994
Independence model	.145	.141	.150	.000

Table 4.36 Nested Model Comparisons

<b>Model</b>	<b>DF</b>	<b>CMIN</b>	<b>P</b>	<b>NFI</b>	<b>IFI</b>	<b>RFI</b>	<b>TLI</b>
				<b>Delta-1</b>	<b>Delta-2</b>	<b>rho-1</b>	<b>rho2</b>
Structural weights	15	35.196	.002	.012	.013	.003	.003



The analysis of the unrestricted model was first performed, and as seen in Table 4.32, the unrestricted model  $CMIN/DF = 1.819 < 3$ ,  $p < 0.05$ . The model fit indicators  $GFI = 0.925$ ,  $AGFI = 0.896$ ,  $NFI = 0.876$ ,  $IFI = 0.940$ , and  $CFI = 0.939$  were all close to or greater than 0.9.  $RMSEA = 0.040 < 0.08$ , indicating a good fit of the unrestricted model.

Subsequently, the restricted model was analyzed, and from Table 4.32,  $CMIN/DF = 1.857 < 3$ ,  $P < 0.05$ . From Table 4.33, Table 4.34, and Table 4.35, the model fit indicators  $GFI = 0.917$ ,  $AGFI = 0.893$ ,  $NFI = 0.864$ ,  $IFI = 0.932$ , and  $CFI = 0.931$  were close to or greater than 0.9.  $RMSEA = 0.041 < 0.08$ , indicating that the restricted model fit is good.

Table 4.36 reveals that the group regression analysis unrestricted and restricted models were compared, and the  $\chi^2$  significant difference test was conducted for the 2 clusters.  $\chi^2(15) = 35.196$  and  $P < 0.05$  after restricting all structural equation coefficients equal, which indicates that the moderating effect of government support on the 2 latent variables is significant, and there is a significant difference between the 2 clusters.

Table 4.37 Comparison of the Moderating Effect Groups between Government Support on Service Quality and Willingness to Choose

				<b>Estimate (Std.)</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
High government support	Willingness to choose	<--	Service quality × Government support	.134	.067	2.861	.004
Low government support	Willingness to choose	<--	Service quality × Government support	.126	.067	2.861	.004

As shown in Table 4.37,  $P < 0.05$ ,  $\beta = 0.134$ , indicating a significant positive moderating effect of high government support on the relationship between service quality and choice. Therefore, the hypothesis is valid.

$P < 0.05$ ,  $\beta = 0.126$ , indicating a significant positive moderating effect of low government support on the relationship between service quality and choice. Therefore, the hypothesis is valid.

In summary, the standardized path diagrams and tabular outputs above show a significant difference between the restricted and unrestricted models. This implies that government support has a moderating role between service quality and choice; moreover, there is a significant difference between low and high policy support in the moderating role of service quality and choice. Thus, H15a holds.

2) Cluster analysis of the moderating effect of government support between satisfaction and Willingness to choose

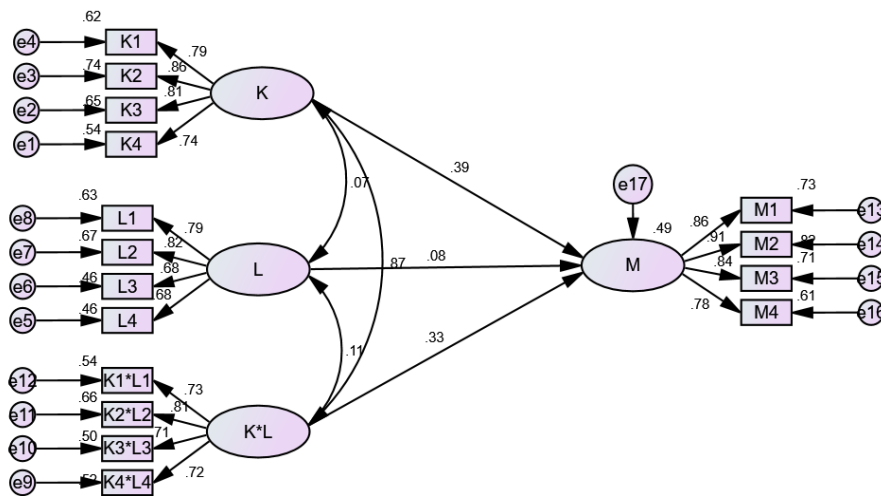


Figure 4.14 The Moderating Effect of High Government Support on the Relationship between Satisfaction and Willingness to Choose

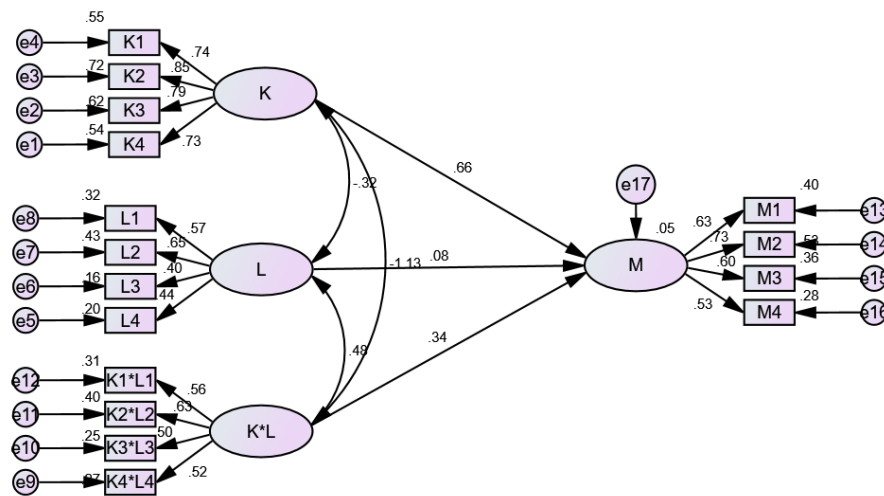


Figure 4.15 The Moderating Effect of Low Government Support on the Relationship between Satisfaction and Willingness to Choose

Table 4.38 CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Unconstrained	76	577.581	196	.000	2.947
Structural weights	61	643.600	211	.000	2.956
Saturated model	272	.000	0	-	-
Independence model	32	4144.628	240	.000	17.269

Table 4.39 RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Unconstrained	.189	.880	.833	.634
Structural weights	.339	.868	.830	.674
Saturated model	.000	1.000	-	-
Independence model	2.624	.428	.352	.378

Table 4.40 Baseline Comparisons

<b>Model</b>	<b>NFI</b>	<b>RFI</b>	<b>IFI</b>	<b>TLI</b>	<b>CFI</b>
	<b>Delta1</b>	<b>rho1</b>	<b>Delta2</b>	<b>rho2</b>	
Unconstrained	.861	.829	.903	.880	.902
Structural weights	.845	.823	.890	.874	.889
Saturated model	1.000	-	1.000	-	1.000
Independence model	.000	.000	.000	.000	.000

Table 4.41 RMSEA

<b>Model</b>	<b>RMSEA</b>	<b>LO 90</b>	<b>HI 90</b>	<b>PCLOSE</b>
Unconstrained	.061	.055	.067	.001
Structural weights	.063	.057	.068	.000
Independence model	.177	.172	.181	.000

Table 4.42 Nested Model Comparisons

<b>Model</b>	<b>DF</b>	<b>CMIN</b>	<b>P</b>	<b>NFI</b>	<b>IFI</b>	<b>RFI</b>	<b>TLI</b>
				<b>Delta-1</b>	<b>Delta-2</b>	<b>rho-1</b>	<b>rho2</b>
Structural weights	15	66.018	.000	.016	.017	.006	.006

Firstly, the unrestricted model was analyzed, and from Table 4.38, it can be seen that the unrestricted model  $CMIN/DF = 2.947 < 3$ ,  $P < 0.05$ ; the model fit indicators  $GFI = 0.880$ ,  $AGFI = 0.833$ ,  $NFI = 0.861$ ,  $IFI = 0.903$ ,  $CFI = 0.902$  are close to or greater than 0.9;  $RMSEA = 0.061 < 0.08$ , indicating that the unrestricted restriction model fit is good.

Subsequently, the restricted model was analyzed. From Table 4.38,  $CMIN/DF = 2.956 < 3$ ,  $P < 0.05$  in the restricted model. from Table 4.39, Table 4.40, and Table 4.41, the model fit indicators  $GFI = 0.868$ ,  $AGFI = 0.830$ ,  $NFI = 0.845$ ,  $IF I$

= 0.890, and CFI = 0.889 are close to 0.9. RMSEA = 0.063 < 0.08, indicating that the restricted model fit is good.

As can be seen from Table 4.42, the grouped regression analysis unrestricted and restricted models were compared, and the  $\chi^2$  significant difference test was conducted for the 2 clusters.  $\chi^2(15) = 66.018$ ,  $P < 0.05$ , after restricting all structural equation coefficients to be equal, indicating that the moderating effect of government support on the 2 latent variables was significant and the 2 clusters were significantly different.

Table 4.43 Comparison of the Moderating Effect of Government Support on the Cluster between Satisfaction and Willingness to Choose

				Estimate (Std.)	S.E.	C.R.	P
High government support	Willingness to choose	<--	Satisfaction × government support	.327	.051	6.927	***
Low government support	Willingness to choose	<--	Satisfaction × government support	.337	.051	6.927	***

Table 4.43 shows  $P < 0.05$ ,  $\beta = 0.327$ , indicating a significant positive moderating effect of high government support between satisfaction and Willingness to choose. Therefore, the hypothesis is valid.

$P < 0.05$ ,  $\beta = 0.337$ , indicating a significant positive moderating effect of low government support between satisfaction and Willingness to choose. Therefore, the hypothesis is valid.

In conclusion, from the above-standardized path diagram and table outputs, the difference between the restricted and unrestricted models is significant, implying that there is a moderating effect of government support between satisfaction

and choice, and there is a significant difference between the moderating effect of low policy support and high policy support in satisfaction and Willingness to choose; thus, the H15b holds.

3) Cluster analysis of the moderating effect of government support between expectation confirmation and Willingness to choose

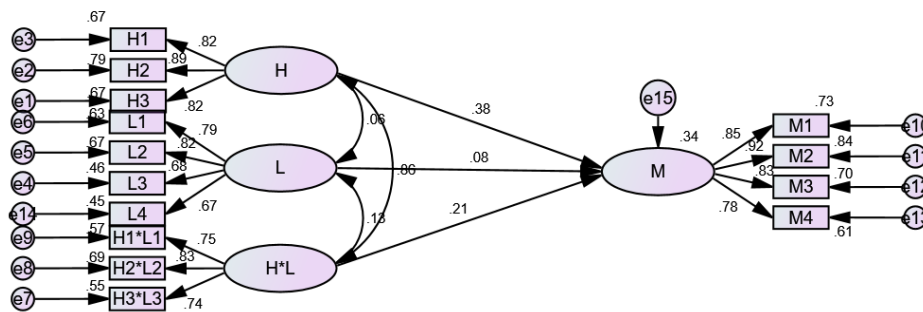


Figure 4.16 The Moderating Effect of High Government Support between Expected Confirmation and Willingness to Choose

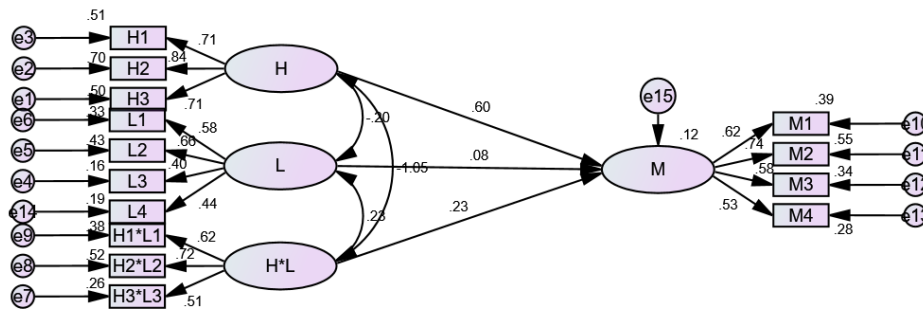


Figure 4.17 The Moderating Effect of Low Government Support between Expectation Confirmation and Willingness to Choose

Table 4.44 CMIN

<b>Model</b>	<b>NPAR</b>	<b>CMIN</b>	<b>DF</b>	<b>P</b>	<b>CMIN/DF</b>
Unconstrained	68	291.668	142	.000	2.054
Structural weights	55	326.854	155	.000	2.109
Saturated model	210	.000	0	-	-
Independence model	28	3220.495	182	.000	17.695

Table 4.45 RMR, GFI

<b>Model</b>	<b>RMR</b>	<b>GFI</b>	<b>AGFI</b>	<b>PGFI</b>
Unconstrained	.126	.930	.896	.629
Structural weights	.160	.921	.892	.680
Saturated model	.000	1.000	-	-
Independence model	2.370	.486	.407	.422

Table 4.46 Baseline Comparisons

<b>Model</b>	<b>NFI</b>	<b>RFI</b>	<b>IFI</b>	<b>TLI</b>	<b>CFI</b>
	<b>Delta1</b>	<b>rho1</b>	<b>Delta2</b>	<b>rho2</b>	
Unconstrained	.909	.884	.951	.937	.951
Structural weights	.899	.881	.944	.934	.943
Saturated model	1.000	-	1.000	-	1.000
Independence model	.000	.000	.000	.000	.000

Table 4.47 RMSEA

<b>Model</b>	<b>RMSEA</b>	<b>LO 90</b>	<b>HI 90</b>	<b>PCLOSE</b>
Unconstrained	.045	.038	.052	.867
Structural weights	.046	.039	.053	.814
Independence model	.179	.174	.184	.000

Table 4.48 Nested Model Comparisons

<b>Model</b>	<b>DF</b>	<b>CMIN</b>	<b>P</b>	<b>NFI</b>	<b>IFI</b>	<b>RFI</b>	<b>TLI</b>
				<b>Delta-1</b>	<b>Delta-2</b>	<b>rho-1</b>	<b>rho2</b>
Structural weights	13	35.186	.001	.011	.011	.003	.003

Firstly, the unrestricted model was analyzed, and from Table 4.44, it can be seen that  $CMIN/DF = 2.054 < 3$ ,  $P < 0.05$  in the unrestricted model; the model fit indicators  $GFI = 0.930$ ,  $AGFI = 0.896$ ,  $NFI = 0.951$ ,  $IFI = 0.951$ ,  $CFI = 0.951$  are close to or greater than 0.9;  $RMSEA = 0.045 < 0.08$ , indicating a good fit of the unrestricted model.

Then the restricted model was analyzed, from Table 4.44, it can be seen that  $CMIN/DF = 2.109 < 3$ ,  $P < 0.05$  in the restricted model; from Table 4.45, Table 4.46, Table 4.47, it can be seen that the model fit indicators  $GFI = 0.921$ ,  $AGFI = 0.892$ ,  $NFI = 0.899$ ,  $IFI = 0.944$ ,  $CFI = 0.943$  are close to or greater than 0.9;  $RMSEA = 0.046 < 0.08$ , indicating that the restricted model fit is good.

Finally, grouped regressions were analyzed to compare unrestricted and restricted models. After restricting all structural equation coefficients to be equal,  $\chi^2$  significant difference tests were performed for the 2 clusters, as can be seen from Table 4.48  $\chi^2(13) = 35.186$ ,  $P < 0.05$ , indicating that the moderating effect between high and low levels of government support on expectation confirmation and the choice was significant and differed significantly between the 2 clusters (high, low).



Table 4.49 Comparison of the Moderating Effect of Government Support on Expectation Confirmation and Willingness to Choose

				Estimate (Std.)	S.E.	C.R.	P
High government support	Willingness to choose	<--	Expectation confirmation × government support	.212	.045	4.434	***
Low government support	Willingness to choose	<--	Expectation confirmation × government support	.228	.045	4.434	***

As shown in Table 4.49,  $P < 0.05$ ,  $\beta = 0.212$ , indicating a significant positive moderating effect of high government support on the relationship between expectation confirmation and Willingness to choose. Therefore, the hypothesis holds.

$P < 0.05$ ,  $\beta = 0.228$ , indicating a significant positive moderating effect of low government support on the relationship between expectation recognition and Willingness to choose. Therefore the hypothesis holds.

In conclusion, from the above-standardized path diagrams and table outputs, the difference between the restricted and unrestricted models is significant, implying that there is a moderating effect of government support between expectation confirmation and Willingness to choose's, and a significant difference between the moderating effect of low and high policy support in expectation confirmation and Willingness to choose's; hence, H15c holds.

#### 4.7 Summary of the Study Results

In conclusion, this study uses structural equation modeling to scientifically analyze the data collected in this thesis, organized as follows based on the study results.

Table 4.50 Table 4: List of Study Results

	<b>Study Whether the Hypothesis Prediction Holds</b>	<b>Support</b>
	H1 There is a positive relationship between service level and service quality.	Yes
	H2 There is a positive relationship between service level and expectation confirmation.	Yes
	H3 There is a positive relationship between vocational skills and service quality.	Yes
	H4 There is a positive relationship between Vocational skills and expectation confirmation.	Yes
	H5 There is a positive relationship between educational level and service quality.	Yes
Direct	H6 There is a positive influence of educational level on expectation confirmation.	Yes
Effect	H7 There is a positive relationship between service quality and perceived value.	Yes
	H8 Expectation confirms the existence of a positive influence relationship on perceived value.	Yes
	H9 There is a positive relationship between service quality and Willingness to choose.	Yes
	H10 There is a positive relationship between service quality and satisfaction.	Yes
	H11 Perceived value has a positive effect on satisfaction.	Yes
	H12 Expectation confirms the existence of a positive	Yes

	<b>Study Whether the Hypothesis Prediction Holds</b>	<b>Support</b>
	influence on satisfaction.	
	H13 Expectation confirms the existence of a positive influence relationship on Willingness to choose.	Yes
	H14 Satisfaction has a positive effect on Willingness to choose.	Yes
Adjustment	H15a Government policy has a positive moderating effect on the relationship between service quality and Willingness to choose.	Yes
Effect	H15b Government policies play a positive moderating effect in the relationship of the effect of satisfaction on Willingness to choose.	Yes
	H15c Government policies play a positive moderating effect in the relationship of the effect of expectation confirmation on Willingness to choose.	Yes
	H16 Service quality mediates the effect of service level on perceived value.	Yes
Single	H17 Service quality mediates the effect of vocational skills on perceived value.	Yes
Intermediaries	H18 Service quality mediates the effect between educational level and perceived value.	Yes
Effect	H19 Service quality plays a mediation effect between service level and satisfaction.	Yes
	H20 Service quality mediates between vocational skills and satisfaction.	Yes
	H21 Service quality mediates the effect between educational level and satisfaction.	Yes
	H22 Service quality mediates between service level and Willingness to choose.	Yes
	H23 Service quality plays a mediation effect between	No

	<b>Study Whether the Hypothesis Prediction Holds</b>	<b>Support</b>
	vocational skills and Willingness to choose.	
	H24 Service quality mediates the effect between educational level and Willingness to choose.	No
Double	H25 Service quality and satisfaction play a mediation effect between service level and Willingness to choose.	Yes
Intermediaries	H26 Service quality and satisfaction play a mediation effect between vocational skills and Willingness to choose.	Yes
Effect	H27 Service quality and satisfaction mediated the effect between educational level and Willingness to choose.	Yes
	H28 Expectation confirmation mediates the effect between service level and perceived value.	Yes
Single	H29 Expectation confirmation mediates the effect between vocational skills and perceived value.	Yes
Intermediaries	H30 Expectation confirmation mediates the effect between educational level and perceived value.	Yes
Effect	H31 Expectations confirm a mediating effect between service level and satisfaction.	Yes
	H32 Expectations confirm a mediating effect between Vocational skills and satisfaction.	Yes
	H33 Expectation confirmation mediates the effect between educational level and satisfaction.	Yes
	H34 Expectations confirm a mediating effect between service level and Willingness to choose.	Yes
	H35 Expectations confirm a mediating effect between vocational skills and Willingness to choose.	Yes
	H36 Expectation confirmation mediates the effect between Education Levels on Willingness to	Yes

<b>Study Whether the Hypothesis Prediction Holds</b>		<b>Support</b>
	choose.	
Single	H37 Satisfaction plays a mediation effect in perceived value and Willingness to choose.	Yes
Intermediaries	H38 Perceived value plays a mediation effect between service quality and satisfaction.	Yes
Effect	H39 Perceived value mediates the effect between expectation confirmation and satisfaction.	Yes
	H40 Satisfaction plays a mediation effect between service quality and Willingness to choose.	Yes
	H41 Satisfaction plays a mediation effect in expectation confirmation and Willingness to choose.	Yes
Double	H42 Expectation confirmation and satisfaction mediated the effect between service level and Willingness to choose.	Yes
Intermediaries	H43 Expectation confirmation and satisfaction play a mediating effect between vocational skills and Willingness to choose.	Yes
Effect	H44 Expectation confirmation and satisfaction mediated the effect between educational level on Willingness to choose.	Yes

As shown in the table, among all the prediction hypotheses of this study, all of the hypotheses proposed in this thesis passed the prediction except H 23 and H 24 did not pass the prediction, indicating that all of the hypotheses of this study, except H23 and H did 24 not hold, were valid and met the effect and research objectives of this study.

## CHAPTER 5

### DISCUSSION AND SUMMARY

#### 5.1 Research Findings and Discussion

The data collected from this study were analyzed using SPSS and AMOS statistical analysis tools, including descriptive statistics, normal distribution test, reliability, and validity test, factor analysis, regression analysis, variance, and analysis of variance. The research model and research hypotheses proposed in this thesis were basically verified.

Service level, vocational skills, and educational level have a direct and significant effect on service quality, respectively, which is consistent with the study of Mu (2012) and others; service level, vocational skills, and educational level have a direct and significant effect on expectation confirmation, respectively, which echoes the findings of Donabedian (2005); service quality and expectation confirmation have a positive effect on perceived value, respectively, which is consistent with Addae-Dapaah and Juan (2014) study; service quality has a positive effect relationship on choice and satisfaction, which corroborates Yang et al. (2017) study; perceived value and expectation confirmation have a positive influence on satisfaction respectively, which is consistent with the findings of scholars such as Parasuraman et al. (1985, 1988); expectation confirmation and satisfaction positively influence choice respectively, which is consistent with the study proposed by scholars Zhang, Mu and Fu (2016).

The above results demonstrate that the three dimensions reflecting nursing staff characteristics positively influence the choice of pension institutions by expectation confirmation and satisfaction, respectively.

There is a moderating effect of government support between service quality and Willingness to choose, and there is a significant difference between the moderating effect of low policy support and high policy support in service quality and Willingness to choose. This result continues the view of scholars Qiao (2013); Tao and Yun (2013); there is a moderating effect of government support between satisfaction. There is a moderating effect between satisfaction and Willingness to choose. There is a significant difference between low and high policy support in the moderating effect between satisfaction and Willingness to choose, which is consistent with the findings of Grillo et al. (2010); Meng, and Jiang (2004). Besides, there is a moderating effect between government support in expectation confirmation and choice, and there is a significant difference between low and high policy support in the moderating effect between expectation confirmation and choice. There is a significant difference between the moderating effect of government support on expectation confirmation and choice and the moderating effect of low policy support and high policy support on expectation confirmation and Willingness to choose. This result is consistent with the view of scholars Zhang (2012).

These results suggest that government policy, regardless of the level of support, moderates the elderly's choice of institutions, which demonstrates the indispensability of government policy for senior care in China.

Service quality and expectation confirmation have a mediation effect in the relationship between service level, vocational skills, and educational level on perceived value, satisfaction, and choice, respectively, which is consistent with the findings of Um and Yoon (2021). satisfaction has a mediation effect in the relationship between perceived value and expectation confirmation on service quality and choice, respectively; perceived value has a mediation effect in the relationship between service quality and expectation confirmation on satisfaction, which is consistent with the findings of Tuncer et al. (2021). Satisfaction has a mediation effect in the relationship between perceived value and service quality on choice, respectively. Simultaneously, perceived value mediated the relationship between service quality and expectation confirmation on satisfaction, consistent with the findings of Tuncer et al. (2021). Service quality and expectation confirmation and satisfaction mediated the relationship between service level, Vocational skills, and

educational level on choice. The mediation effect of service quality and satisfaction and expectation confirmation and satisfaction in the relationship between service level, vocational skills, and educational level on choice is consistent with the study of Zhong (2013).

Therefore, both the individual mediation effect and the chain mediation effect of service quality, satisfaction, and expectation confirmation on the willingness of older people to choose pension institutions are indispensable.

In conclusion, the findings of this thesis are as follows.

### **5.1.1 The Relationship between Nursing Staff Characteristics and Service Quality and Expectation Confirmation**

The human resource management of social pension institutions is mainly reflected in the service level of managers for the overall operation of the institution and the vocational skills and educational level of staff, which are also the main manifestation of the characteristics of nursing staff. The test results, service level, vocational skills, and educational level all positively and significantly affect service quality and expectation confirmation, indicating that the hypotheses of this study: H1, H2, H3, H4, H5, and H6 are all valid. Therefore, from evaluating the three dimensions of nursing staff characteristics, the importance of service level, vocational skills, and educational level of pensioners in social pension institutions is significant, but there are still differences. From the overall results, there is still room for improvement in the current service level, vocational skills, and educational level of pension institutions.

Among the constituent indicators, the evaluation rankings of the three indicators of the characteristics of nursing staff are relatively close, the path coefficient of service level to service quality is 0.163, the path coefficient of vocational skills to service quality is 0.109, and the path coefficient of educational level to service quality is 0.114. The path coefficient of service level to expectation confirmation is 0.194, the path coefficient of vocational skills to expectation confirmation is 0.204, and the path coefficient of educational level to expectation confirmation is 0.192. However, the ratings of some evaluation indexes involving the subjective feelings of the elderly need to be improved. Because subjective feelings are



the most direct expression of service quality, it can be improved by improving the service level of pension institution staff to meet the needs of consumers. Their evaluation indicators need to be improved, which also illustrates that social pension institutions are more concerned with external service norms relative to the subjective expectations and personalized needs of the elderly. The diversified needs of the elderly are not well met.

The main phenomena are: the lack of work experience of nursing staff or professional skills and usually have less interaction with the elderly, so they cannot truly and effectively understand the needs of the elderly and provide personalized services; moreover, with a small number of nursing staff, and the number of professionally qualified service staff is minimal, resulting in the nursing staff appearing The number of nursing staff and the training of professional skills are especially reflected in the number of nursing staff.

### **5.1.2 The Relationship between Service Quality and Perceived Value, Satisfaction, and Willingness to Choose**

The uneven development of social service quality of pension institutions is not only reflected in structural differences between specific dimensions of service quality——service quality. In this study, from the analysis of service quality evaluation data, service quality positively and significantly affects perceived value, Willingness to choose, and satisfaction, which shows that H7, H9, and H10 of this study are all valid.

From the evaluation data, the residents in social pension institutions rated the service quality of pension institutions as good in terms of living atmosphere and daily meals and moderate in terms of medical level and accommodation conditions. This shows that the variability of social service quality of pension institutions is reflected in the management mode, operation mode, size, management system, and location of the institution. In other words, regardless of whether the institutions are operated as public or private institutions, their service quality is the main concern of the elderly.

In general, as the scale of pension institutions grows and develops, their perceptions of service quality will increase. Through the analysis of this survey, it is found that the perceived evaluation of service quality medical level, accommodation conditions, living atmosphere, and daily meals of social institutions in China still cannot meet the individual needs of the elderly, and this affects the perceived value. As a result, the elderly's perceived value and satisfaction of social welfare institutions are not particularly strong.

### 5.1.3 Intermediary Effect

The empirical analysis revealed that among all the single mediating effects, all the mediating values were supported (H16, H17, H18, H19, H20, H21, H22) except for service quality which did not mediate between service skill, educational level, and Willingness to choose (H23, H24 did not hold). These empirical results suggest that service quality mediates perceived value, satisfaction, and choice. For example, service quality mediates perceived value through service quality at both occupational skill and educational levels (H17, H18), while Perceived value mediates between expectation confirmation and satisfaction (H39), and satisfaction has a positive effect on Willingness to choose (H14). Through comparison, this study found that even though service quality cannot mediate between service skills, educational level, and Willingness to choose, service quality can play a role in choice by mediating perceived value, which shows the importance of the mediation effect of perceived value.

Meanwhile, the empirical results of this study prove the importance of expectation confirmation, and all the hypotheses of expectation confirmation mediating effects are supported (H28, H29, H30, H31, H32, H33, H34, H35, H36). The mediating effects of expectation confirmation and satisfaction on the final dependent variable choice are also significant in the double mediation effects (H42, H43, H44). These results indicate that the mediating effect of expectation confirmation is significant in all the ways of the relationship between independent variables and dependent variables. Therefore, increasing the expectation confirmation of the elderly to the service providers of the pension institutions is helpful to increase the choice of the elderly group to the pension institutions. The results show that the

mediating effect of expectation confirmation is significant in all ways of the relationship between the independent variables and the dependent variable.

#### **5.1.4 The Moderating Effect of Policy Support Relationship**

The structure of the above study shows a positive relationship between the nursing staff characteristics of social pension institutions on service quality, while service quality has a positive effect on perceived value, satisfaction, and Willingness to choose. Meanwhile, the test analysis revealed that among the mechanisms of influence of service quality, satisfaction, and expectation confirmation on choice hair, the high or low degree of policy support has a moderating effect in all three pathways—the hypotheses of this study: H15a, H15b, and H15c are all valid. This moderating effect is reflected in.

First, the higher the level of policy support for social pension institutions, the higher the Willingness to choose of the elderly, which plays a positive regulatory role.

Second, with the support of government policies, the service quality of social welfare institutions will be improved, which will, in turn, contribute to the improvement of the elderly 's Willingness to choose.

Third, the higher the level of government policy support, the higher the satisfaction of the elderly will rise, which in turn will affect the increase of the Willingness to choose of the elderly.

## **5.2 Research Contribution**

This thesis empirically investigates the main research questions and research hypotheses using the collected data through SPSS 22.0 and AMOS statistical analysis software, and the main theoretical contributions of the study are as follows.

### **5.2.1 Expectations Confirm the Mediating Effect between Service Personnel Characteristics and Willingness to Choose**

Western scholar Van Bilsen et al. (2008) showed that the elderly generally focus on the two aspects of cultural and recreational services and nutritional meals provided by pension institutions when they are willing to

choose pension institutions. However, the study did not mention that the characteristics of service personnel affect service quality and affect the choice under the mediating effect of service quality. Meanwhile, Western scholar Stevens (2018), in his study is proposed that for different economic conditions and economic parameters, the analysis of the expectations of older people in European and American societies confirm of access to pension conditions affects the impact of the elderly on the Willingness to choose of pension institutions, but the mediation effect of expectation confirmation is not confirmed. Through the empirical study of this research, all mediation effects of expectation confirmation are verified in Table 4.50. This shows that with the mediating effect of expectation confirmation, service member characteristic factors will have a positive and significant effect on perceived value, service member characteristic factors will have a positive and significant effect on satisfaction, and service member characteristic factors will have a positive and significant effect on Willingness to choose. This is a further extension of the expectation confirmation theory (ECT model), which is one of the innovations and contributions of this study.

### **5.2.2 The Mediating Effect of Perceived Value in Service Quality and Satisfaction**

Parasuraman et al. (1988) consider service quality as the antecedent of customer satisfaction, Bitner (1990) believes that good service quality produces customer satisfaction, which in turn has an impact on perceived service quality, Grönroos (2000) based on the accumulation of theories improves and supplements the concept of service quality as a combination of a series of continuous and intangible activities, mainly through mutual exchange between consumers and service employees, intangible consumption needs, and tangible resources and products. Chinese scholar Zhuang (2004) defines service quality theory as the process of obtaining the use-value in the form of movement by the transfer of the right of use between different economic subjects so that consumers can obtain the benefits of consumption or satisfaction, which is both process and result, intangible and tangible characteristics. Zhang and Zhang (2018) believe that elderly service quality is the

degree of satisfaction of the elderly in the community, which is a subjective evaluation. However, it has not been further verified whether service quality significantly affects satisfaction under the mediating effect of perceived value.

All hypotheses about the mediating effect of perceived value are also supported in Table 4.50 through the empirical study of this research. This indicates that the mediating effect of perceived value between service quality and satisfaction is significant. With the mediating effect of perceived value, service quality will have a positive and significant effect on satisfaction, which in turn will have a positive effect on choice. This is a supplement to the theory of service quality, which is one of the innovations of the theoretical basis.

### **5.2.3 The Mediating Effect of Perceived Value in Expectation Confirmation and Satisfaction**

Howard and Sheth (1969) considered customer satisfaction as a state of perception that customers are adequately compensated for the price they pay, Hunt (1977) considered customer satisfaction as a process that arises through experience and evaluation, Oliver (1981) considered satisfaction as a function of the initial standard and the perceived, discrepancy from the initial reference point, and satisfaction as a function of the level of Expectation and Confirmation. Satisfaction is considered as a function of the perceived level of Expectation and Confirmation, and Kotler (2012) considers satisfaction as a level of the human feeling state, which comes from the comparison of the envisaged performance or output of a product or service with people's Zou (2005) studied how to control the service quality of tourism enterprises based on customer satisfaction. Wang (2017) measured the institutional elderly service from five dimensions: overall environment satisfaction, daily care, spiritual comfort, service personnel quality, and fee level. Satisfaction. Synthesizing the above, scholars at home and abroad have some studies on customer satisfaction and expectation confirmation, but whether expectation confirmation has a significant effect on satisfaction under the mediating effect of perceived value has not been further verified.

Through the empirical study of this research, in Table 4.30, the expectation confirmation → perceived value → satisfaction mediating effect is 0.137, corresponding to the 95% confidence interval of [0.075,0.198], not included 0, corresponding to the significance of  $P = 0.000 < 0.05$ , indicating that the mediating effect of perceived value between expectation confirmation and satisfaction is significant, so the hypothesis H39 holds. It shows that with the mediating effect of perceived value, expectation confirmation will have a positive and significant effect on satisfaction, which supplements the theory of customer satisfaction and is one of the innovations of the theoretical basis.

#### **5.2.4 Moderating Effect of Government Policies**

American scholars Denhardt and Denhardt (2015) point out that the role of the government should change from "steering" to "serving"; it should fully recognize the government's service function rather than management function in senior care issues. However, there is no mention of how the government regulates the relationship between the market players and customer consumption. Chinese scholar Wang (2014) mentioned that there are still many difficulties in the current situation of institutional care in China: pension institutions are expensive, the number of welfare-type pension institutions is low, and the supply exceeds the demand. Pension institutions are few in number and short supply; the construction of infrastructure and equipment is not perfect; the overall quality of elderly care service personnel is low, leading to this situation needs to be guided and supported by the government, but no empirical evidence has been developed on how the regulation effect and the degree of influence of government policies in social pension institutions change; in addition, In addition, Qiao (2013) also mentioned in his study that the lack of professional care services and the low level of professional care services in social pension institutions should be supported by government policies to make up for the deficiencies in the construction of institutions, but whether government policies will confirm the role of guidance or regulation has not been further verified.

In this study, by analyzing the cluster of moderating effect of government support between service quality and choice, from the above-standardized path diagrams (Figure 4.12 and Figure 4.13) and the output of Table 4.41, the difference between the restricted and unrestricted models is significant, implying that there is a moderating effect of government support between service quality and Willingness to choose effect. There is a significant difference between the moderating effect of low policy support and high policy support between service quality and choice. Through the cluster analysis of the moderating effect of government support between satisfaction and Willingness to choose, from the output of the standardized path diagrams (Figure 4.14 and Figure 4.15) and Table 4.43, the difference between the restricted and unrestricted models is significant, implying that there is a moderating effect of government support between satisfaction and Willingness to choose. There is a significant difference between low policy support. There is a significant difference between the moderating effect of high policy support between satisfaction and Willingness to choose. Through the cluster analysis of the moderating effect of government support between expectation confirmation and choice, from the output of the standardized path diagrams (Figure 4.16 and Figure 4.17) and Table 4.49, the difference between the restricted and unrestricted models is significant, implying that there is a moderating effect of government support between expectation confirmation and choice. There is a significant difference between low policy support and high policy support in the moderating effect of expectation confirmation, and There is a significant difference in the moderating effect of Willingness to choose. Therefore, hypotheses H15a, H15b, and H15c hold, indicating that under the moderating effect of government policies, service quality has a positive and significant effect on Willingness to choose, satisfaction has a positive and significant effect on Willingness to choose, and expectation confirmation has a positive and significant effect on Willingness to choose, which is This is a supplement to the basic theory of choice and innovation in the research framework. Consequently, it is one of the main innovations and contributions of this study.

### **5.3 Practical Contribution**

In conclusion, the main practical contributions found in this study include.

#### **5.3.1 The Role of Nursing Staff Characteristics in Practice**

The empirical study and analysis found that the characteristics of nursing staff and their constituents, service level, vocational skills, and educational level have a positive and significant effect on service quality and customer expectation confirmation. For that reason, social pension institutions should strengthen the service level and vocational skills training of their staff and recruit staff with relatively high educational levels to improve the service quality of social pension institutions and enhance the expectation confirmation of the elderly.

#### **5.3.2 The Role of Service Quality in Practice**

The empirical study and analysis found that the service quality of social pension institutions affects the perceived value and satisfaction because the four dimensions of service quality, namely, the level of medical care, housing conditions, living atmosphere, and daily food, have significant effects on satisfaction and perceived value. This is because the level of medical care, housing conditions, living atmosphere, and daily meals among the four service quality dimensions significantly affect satisfaction and perceived value. Hence, social pension institutions should develop more scientific and effective management plans and programs, mainly to improve the level of medical care, improve the housing conditions, enrich the living atmosphere of the institutions, and continuously improve the quality and conditions of diet, so that the elderly can obtain higher value perception experience and life satisfaction.

#### **5.3.3 The Practical Role of Perceived Value**

The empirical study and analysis found that service quality and expectation confirmation can significantly and positively affect perceived value, and perceived value positively and significantly affects satisfaction, which in turn positively and significantly affects Willingness to choose. Therefore, improving the service quality



and expectation confirmation of pension institutions can improve the overall perceived value experience of the elderly, which in turn can improve satisfaction and thus improve Willingness to choose.

#### **5.3.4 The Practical Role of Government Policy Regulation**

Through empirical research and analysis, it is found that policy support has a positive moderating effect in the influence mechanism of service quality, satisfaction, and expectation confirmation on choice. Thus, the government should play a macro-regulatory role, formulate and introduce corresponding effective policy measures to strengthen the pension industry's policy support and enhance institutional. Consequently, the government should play the role of macroeconomic control, formulate and introduce effective policy measures to strengthen policy support for the elderly care industry, and improve the service quality and satisfaction and expectations of institutions. Therefore, the realistic results of this thesis will provide a theoretical and decision-making basis for government administrators to participate in supporting and regulating social pension institutions.

### **5.4 Management Recommendations**

As the aging society continues to accelerate, the development of China's elderly service industry should be centered on the physical and mental health and interests of the elderly; moreover, it should adhere to the principles of government-led social participation and universal care. More importantly, it is important to provide support services according to the specific needs of the elderly, increase human resource investment, upgrade service quality, improve the perceptual experience and enhance the satisfaction of elderly life. Based on the current situation and problems of the elderly service industry in China and the inspiration of the experience of the elderly service industry in foreign developed countries to China, the author proposes the following suggestions to promote the development of the elderly service industry.

#### **5.4.1 Focus on the Development and Nurturing of Pension Institutions Practitioners**

Human and financial resources are two indispensable basic conditions for the development of the pension industry, especially for the development of the pension industry. It is only by improving the comprehensive quality of our pension service industry personnel and enhancing the treatment of nursing staff that the demand of the elderly can be further satisfied.

First of all, pay attention to the construction of the pension institutions workforce, and improve the salary level and welfare benefits.

Second, strengthen the vocational training of pension institutions' practitioners. Training relevant practitioners from a professional degree, the government should also increase the corresponding subsidy policy on the practitioners of elderly services to encourage the increase of human resources. Through professional institutions, accelerating the comprehensive quality of our service professionals and technicians is also the key to senior care services. It also includes guiding and integrating colleges and universities to accelerate the training of elderly care, elderly service management, healthcare, nursing, rehabilitation, medicinal guidance, health and wellness, psychological counseling, and vigorously carrying out job training and vocational training.

Thirdly, to enhance the overall quality and experience of nursing staff in social pension institutions, improve and accumulate working experience, and provide better service quality, thereby increasing.

#### **5.4.2 Improving the Service Quality of Pension Institutions**

The level of internal facilities and equipment of social pension institutions is the main condition for creating a good level of medical care, accommodation, living atmosphere, and daily meals for the elderly; therefore, social pension institutions need to focus on the following four aspects to increase the investment in pension institutions.

First, strengthen the construction of medical facilities, improve medical equipment, and enhance the level of medical care. For some of the elderly who are sick, prepare appropriate medicines, equip professional medical personnel, and improve the medical level of pension institutions.

Second, upgrade and improve the accommodation conditions. According to their physical characteristics and service needs, some elderly with limited mobility can increase barrier-free access exclusively for them. Besides, arrange the elderly with limited mobility on lower floors to facilitate their daily activities. Furthermore, to provide rooms with better lighting and special beds with higher comfort levels, which can be lifted and adjusted so that the elderly can adjust the right angle.

Third, enrich the atmosphere of life. Focus on psychological construction and affectionate services for the elderly within the institution in daily operations. According to the physical and mental characteristics of the elderly, group activities are held regularly to increase communication among the elderly and build up a sense of trust. This helps reduce the work pressure of nursing staff and helps meet the psychological needs of the elderly, and better integrate them into the living environment of pension institutions. Simultaneously, the subjective feelings of the elderly are emphasized, whether nursing staff take the initiative to care for the elderly and respond to their requests promptly to create a good restorative living environment.

Fourth, to improve and enhance the daily diet and provide lighter, softer, and more easily digestible meals tailored to the characteristics of the elderly, such as poor teeth and weaker digestive functions.

#### **5.4.3 Promote the Confirmation of Expectations, Perceived Value, and Satisfaction of the Elderly in Retirement Institutions**

Based on the previous empirical analysis, several factors influence the expectation confirmation, perceived value, and satisfaction evaluations of social pension institutions by the elderly. The perceived experience of social pension institutions service quality will produce different results, thus affecting social pension institutions should improve the management level and service quality of pension institutions based on the expectation confirmation, satisfaction, and perceived value of

the elderly, in order to further obtain high expectation confirmation and high satisfaction of the elderly. The social security institutions should improve the management level and service quality of the institutions to obtain high expectation confirmation and satisfaction of the elderly.

#### **5.4.4 Increase Government Policy Support for the Social Care Industry**

The previous empirical study has shown that government policy support is an important factor in regulating the evaluation of social, institutional elderly service quality, and to a certain extent, influences the perception and recognition of elderly service quality.

First, the government's policy on service quality should be improved, and government subsidies should be increased. Financial subsidies are provided for housing conditions, medical facilities and equipment, and meals for the elderly in social pension institutions to guide and promote the investment of social funds to improve the hardware facilities and equipment, management level, and service quality of old institutions.

Secondly, to enhance the regulation role of government policies on satisfaction, plan vocational colleges and universities, increase the number of elderly care majors and expand the scale of enrollment, vigorously develop pension institutions nursing staff talent training, promote the modernization of this service model by holding vocational skills training, and enhance the perceived experience and satisfaction of the elderly.

Third, to enhance the moderating effect of government policies on expectation confirmation, relevant government departments should improve humanistic care for the elderly and regularly arrange counselors, volunteers, and social workers to provide psychological guidance to the elderly in order to meet their spiritual subjective expectation confirmation and gain more recognition from the elderly.

#### **5.4.5 Explore Embedded Intelligent Pension Service System**

As the proportion of elderly people continues to increase, my country has gradually become a country with a highly aging population. The negative impact of the aggravated population aging problem is the increase in the burden of social elderly

care services and the increase in the proportion of empty-nest elderly. The people of our country have respected the idea of "filial piety first" since ancient times, and our law also expressly stipulates that supporting parents is a basic obligation to their children. However, under the influence of the wave of Western thoughts, my country's elderly care service system has undergone major changes under the influence of the aging population, and the awareness of some families to support the elderly has gradually decreased. Therefore, the country urgently needs to develop a new type of elderly care service system to alleviate the contradiction between my country's basic social conditions and traditional thinking. In this context, exploring the embedded intelligent elderly care service system not only fully alleviates the problem that some families are unwilling to provide for the elderly and passively provide for the elderly, but also alleviates the change of urban structure and the increase of population mobility. It is difficult to support the elderly. This can not only improve the care ability of some families, but also reduce the burden on society. Moreover, the embedded intelligent elderly care service system can meet the emotional and psychological needs of the elderly, take care of the emotions of the elderly, and improve the sense of belonging and satisfaction of the elderly on the basic premise of improving the material quality of life of the elderly.

Community home care services need to consume a lot of human resources and occupy a lot of community public places and public facilities. Moreover, the service content of community home-based care is too single and formalized. Therefore, in order to solve the pension problem, we need to explore new content and methods of elderly care service. Based on this background, combined with the traditional pension service mode, using big data and artificial intelligence technology, an embedded intelligent elderly care service system is proposed, the elderly can not only enjoy community pension service, but also enjoy social pension service in the form of elderly university and nursing home.

## 5.5 Research Limitations

There are limitations in this study due to objective conditions such as human, material, and financial resources.

1) This study selects five provinces and cities with the highest proportion of the elderly aged 60 or older as sample sampling provinces and cities based on the Seventh National Population Census Bulletin released by the National Bureau of Statistics on May 11, 2021, using Liaoning, Shanghai, Heilongjiang, Jilin, and Chongqing as sample collection and study sites, which may not fully represent the actual situation of social pension institutions across the country. Whether the study sample of the elderly staying in pension institutions, a field with large differences from the social pension industry, has the same practicality needs to be further studied by later scholars.

2) This study was conducted and explained based on the variable relationships among nursing staff characteristics, service quality, satisfaction, government policy, and Willingness to choose. However, later scholars need to investigate further other possible theoretical bases or influential relationships among the variable relationships.

3) In this study, service quality and satisfaction were selected to be studied as mediating variables between nursing staff characteristics and choice. However, whether there are effects on other dimensions and factors of choice needs to be added by other scholars in the future.

4) This study has explained the influencing factors of choice, but whether elderly choice forms certain effects on the local economy, environment, society is to be further studied subsequently.

## 5.6 Research Outlook

Due to financial, material, human, time and other reasons, this study has certain limitations or deficiencies. Therefore, the author believes that there can be further in-depth research in the field of elderly care in the future. For example, we can also focus on the following aspects:

First, in this study, the author started from the perspective of expectation confirmation and satisfaction, which are the individual dimensions of the mediating variables. Concurrently, the author constructed the model with nursing staff characteristics components as independent variables. Similarly, future research could be based on the theoretical model of planned behavior in terms of the attitudes of the elderly population toward aging and subjective norms.

Second, there may be other ways to obtain samples for surveys of pension institutions and the elderly. Stratified sampling, for example, would expand the scope of the survey and increase the sample size to allow for disaggregated multicohort analysis. For example, whether there are significant differences in the demographic characteristics of the elderly across age groups in terms of their willingness to choose pension institutions would make the results more generalizable and scientifically valid.

Third, other research methods could be used in the follow-up study regarding research methodology and analytical tools. For example, before using the scale, a qualitative approach was used to develop more focused questions through in-depth conversations with experts, companions, and pension institutions staff; subsequently, a more focused questionnaire was formed to conduct a survey and survey of current pension institutions, pension models in China empirical evidence. This may lead to new and more in-depth conclusions.

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**APPENDIX**

**QUESTIONNAIRE**

## Questionnaire

### Senior pension institutions choice questionnaire

Dear Senior Citizens.

Hello!

In order to better understand the needs of the elderly in old age and improve the service quality of pension institutions, this survey is a study of the influence mechanism of nursing staff characteristics on the choice of pension institutions, and this research questionnaire is for academic research purposes only. The anonymous survey is only used for the overall study, and no individual data information will be disclosed, so please do not worry about the leakage of your personal information.

Thank you very much for taking your valuable time to participate in our survey. I implore you to answer the following questions based on your real thoughts and actual situation, and there is no right or wrong answer, each statement, divided into five evaluation levels, that is, from 1" to5 "indicates the evaluation score and Strong degree, such as: "strongly disagree, disagree, general, agree, strongly agree," answer the question directly on the selected option to draw a "√. "

Thank you for your understanding, support, and positive cooperation, thank you!

National Institute of Development Management International College  
of Thailand

Study Group on the Influence Mechanisms of  
Pension Institution choice

## Part I Basic Information

### Basic personal information

1. Gender	A. Male B. Female
2. Age	A. 60 under the age of B. 60-64 years old C. 65-69 years old D. 70-74 years old E. 75 years old and above
3. Pre-retirement Occupation	A. Civil servants B. Institutions C. Teachers D. Enterprise employees E. Individuals F. Other
4. Educational level	A. High school and below B. College C. Bachelor D. Master and above
5. Monthly income	A. Less than 5,000 yuan B. 5001-10,000 yuan C. 10001-15,000 yuan D. 15001-20000 yuan E. 20001 yuan or more

## Part II Nursing staff characteristics assessment

### I. Service Level Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
A1. The level of service provided by the institution's staff is very professional.	1	2	3	4	5
A 2. Institutional staff with good communication skills.	1	2	3	4	5
A 3. Institutional staff with strong initiative.	1	2	3	4	5
A 4. The institution's staff is good at making reasonable suggestions.	1	2	3	4	5

### II. The Vocational Skills Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
B1. The professional skills of the institution's staff satisfy me.	1	2	3	4	5
B2. The professionalism of the institution's staff satisfies me.	1	2	3	4	5

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
B3. The experienced practice of the institution's staff.	1	2	3	4	5
B4. The staff of the institution has the appropriate skill qualifications	1	2	3	4	5

### III. Educational Level Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
C1. The institution's staff has higher education to my satisfaction.	1	2	3	4	5
C2. Institutional staff with secondary education to my satisfaction.	1	2	3	4	5
C3. The institution's staff has lower education to my satisfaction.	1	2	3	4	5

### The third part of service quality and satisfaction measurement

#### IV. Medical Level Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
D1. Medical (rehabilitation training) facilities and equipment meet your needs.	1	2	3	4	5
D2. nursing staff will not be so busy that they cannot respond to your request promptly.	1	2	3	4	5
D3. The nursing staff is polite and courteous.	1	2	3	4	5
D4. nursing staff have professional knowledge and skills and high service level.	1	2	3	4	5
D5. nursing staff can provide all services on time.	1	2	3	4	5
D6. nursing staff respect your habits and personal privacy.	1	2	3	4	5
D7. nursing staff will adjust the service time and service content according to your special requirements	1	2	3	4	5

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
D8. nursing staff can give you enough care.	1	2	3	4	5
D9. nursing staff are usually willing to chat and communicate with you.	1	2	3	4	5
D10. nursing staff are always happy to help you when you need help.	1	2	3	4	5
D11. nursing staff can respond to you quickly when you ask for service.	1	2	3	4	5
D12. You trust the services provided by the nursing staff.	1	2	3	4	5

#### V. Measurement Scale for Accommodation Conditions

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
E1. The institution has good safety and security measures and regularly checks for safety hazards.	1	2	3	4	5
E2. Regular security clearance by	1	2	3	4	5

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
supervisors.					
E3. Regular assessment services for supervisors.	1	2	3	4	5
E4. Correct recording of relevant services.	1	2	3	4	5
E5. pension institutions charge reasonable and open prices.	1	2	3	4	5
E6. Signs that the infrastructure is functional and has supporting uses.	1	2	3	4	5
E7. The institution has sufficient beds to meet individual needs.	1	2	3	4	5
E8. The frequency of replacement of household items in E8 pension institutions is reasonable.	1	2	3	4	5
E9. A reasonable level of housing hygiene and tidiness.	1	2	3	4	5
E10. pension institutions have a reasonable level of service and hardware facilities.	1	2	3	4	5



	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
E11. The residential character of the E11, pension institutions, and their surroundings are excellent.	1	2	3	4	5

#### VI. Life Atmosphere Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
F1. Convenience for elderly residents to make friends and communicate in pension institutions.	1	2	3	4	5
F2. Pension institutions are rich in recreational life for the elderly.	1	2	3	4	5
F3. Pension institutions' facilities for daily recreational activities for elderly residents.	1	2	3	4	5
F4. pension institutions regularly organize various recreational activities.	1	2	3	4	5
E5. Mutual assistance among the elderly in F5 and pension institutions	1	2	3	4	5

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
can make life easier.					
F6. pension institutions enhance their sense of warmth and provide a rich family-style gathering place.	1	2	3	4	5
F7. pension institutions have sufficient outdoor green areas.	1	2	3	4	5
F8. pension institutions have a comfortable indoor living environment.	1	2	3	4	5
F9. pension institutions service providers focus on interacting with their clients.	1	2	3	4	5
F10. pension institutions will remind your children of regular visits from family and friends to keep in touch with you.	1	2	3	4	5

## VII. Daily Diet Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
G1. Different the elderly have different dietary tastes, pension institutions should take care of each the elderly's dietary tastes as far as possible	1	2	3	4	5
G2. The variety and richness of the dishes offered by the institutions of pension	1	2	3	4	5
G3. Pension institutions provide a nutritional mix of dishes	1	2	3	4	5
G4. There are clean, sanitary restaurants for me to eat in.	1	2	3	4	5
G5. Catering services such as the delivery of meals to dormitories are available here	1	2	3	4	5
G6. The dining environment here is very good, and the food hygiene and safety can be assured.	1	2	3	4	5

## VIII. Expectation Confirmation Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
H1. By the time the service is purchased, I find that the service is better than I expected.	1	2	3	4	5
H2. The destination offers a higher level of products (services) than I expected.	1	2	3	4	5
H3. Overall, the service experience all met my expectations.	1	2	3	4	5

## IX. Perceived Value Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
J1. I feel that the services purchased here are good value for money.	1	2	3	4	5
J2. I am willing to accept the services provided by the site.	1	2	3	4	5
J3. The consumption price of the service makes me satisfied.	1	2	3	4	5

## X. Satisfaction Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
K1. In general, are you satisfied with the services provided by pension institutions?	1	2	3	4	5
K2. How do you think the services provided by the pension institutions compare to your expectations after staying in them?	1	2	3	4	5
K3. After staying in a pension institution, how do you think the service provided by the pension institution compares to Your ideal pension institution service?	1	2	3	4	5

## XI. Government Policy Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
L1. Whether they feel that government policy support and administrative supervision can improve the service quality of pension institutions.	1	2	3	4	5
L2. Whether they can enjoy the various government policies and benefits for pension institutions.	1	2	3	4	5
L3. Access to government administrative grants for pension institutions.	1	2	3	4	5
L4. Whether administrative subsidies from government policies are used to improve the service quality of pension institutions.	1	2	3	4	5

## Part IV choice Assessment

### XII. Choice Measurement Scale

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>General</b>	<b>Agree</b>	<b>Strongly Agree</b>
M1. I would like to choose this pension model after understanding.	1	2	3	4	5
M2. After entering the pension institutions experience, I will continue to choose this pension mode.	1	2	3	4	5
M3. If it is my ideal retirement model, I would like to choose.	1	2	3	4	5
M4. Not interested in all aging models. I prefer to age at home.	1	2	3	4	5

The questionnaire is finished.

Thank you for your cooperation and strong support!

## BIOGRAPHY

<b>Name-Surname</b>	Mr. Lianxin Jiang
<b>Academic Background</b>	Bachelor's Degree with a major in computer science from Changchun University, Changchun, Jilin, China in 2016 and Master's Degree in Management (International). at International College of National Institute of Development Administration (ICO NIDA), Thailand.
<b>Experience</b>	Staff at Xiamen Fujian import and Export Co., Ltd., China, in 2002 – 2003.  Engineer at Foxconn Technology Group, China, in 2003 – 2005.  Engineer at Xiamen Wangxinda Trading Co., Ltd, China, in 2005 – 2006.  General Manager at Beijing Xinda Technology Training Center, China, in 2006 – 2014.  General Manager at General manager, Beijing Guolian Zhongwei Network Technology Co., Ltd, China, in 2014 – 2017.  Vice President at Beijing Guolian Xingye Technology Research Institute, China, since 2019.