

# How to develop the Time Bank for Old-Age Service in Less Developed Areas: A Comparison of Nanning and Nanjing

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**Abstract.** With the rapid economic growth, China has officially entered into an aging society and is facing the severe challenge of a population aging crisis. China has begun implementing the Time Bank for old-age service to address the aging problem better. However, Time Bank is usually developed in economically developed regions, and Time Bank is not set in less developed areas. This paper compares and analyzes the operation mechanism of the Time Bank in Nanning from five perspectives: policy support and funding sources, operation model, volunteer team construction, Time Banking platform construction, and service projects. The proposed measures for developing Time Bank in less developed regions fill a problem gap. China needs to address the risk of population aging actively. This is important for China to solve its pension problem and deepen the understanding of Chinese academia on the development of time banking in less developed regions.

**Keywords:** Time Bank, Senior Living Model, Less Developed Areas, Volunteerism.

## 1. Introduction

China has officially entered an aging society as it continues to modernize and urbanize, as longevity and childlessness increase. Countries around the world are concerned about population aging and negative population growth. As a result, dealing with the population-aging crisis scientifically and effectively is a significant challenge for China today. If it is not adequately addressed, China will face development challenges such as a mismatch between supply and demand for social care, an aging workforce, and slowing economic growth. In recent years, China has started to explore and encourage the development of homes and mutual respect, and most of the joint care services in urban communities are presented in Time Bank. Since the 2018 Government Work Report emphasized the development of mutual help elderly care services, governments around the world have begun to draft documents on the implementation of mutual help elderly care services, which has been followed by the piloting of Time Bank in urban communities, which has so far covered the majority of the country's provinces. According to the development of Time Bank in various cities, Time Bank performs better in economically developed regions. In contrast, as a less economically developed region, Nanning has also been able to solve the local retirement problem by utilizing the benefits of the Time Banking system. In light of this, this paper investigates how Nanning has fully used its resources to innovate the Time Bank operation mechanism through a comparative analysis of Nanning and Nanjing, as well as the implications for the development of the Time Bank in other less developed regions.

This paper uses Nanning and Nanjing as case studies to compare the development status, operation mode, and system design of Time Bank in the two cities, grasp the current effectiveness of Time Bank in the two towns, synthesize the profile of Time Bank in Nanning, and draw conclusions. In terms of practical significance, the Time Bank model of mutual aid for the elderly can help reduce the cost of traditional elderly services while also integrating various elderly service resources. It is critical to investigate the development path of the Time Bank mutual aid model in less developed regions, which is essential for China's social pension problem, and to respond actively to the risk of population aging. In terms of theoretical significance, this study expands on previous research to deepen the development path of the Time Bank mutual care model in less developed regions and, to some extent, compensates for the shortcomings of this issue.

## 2. Theoretical overviews

At the moment, academic research on Time Bank is primarily focused on theoretical studies of the concept and connotation of the term. TimeDollars were first proposed by Edgar Cahn, who rejects money as the sole criterion for measuring the value of people's products and services and advocates using a currency such as "time" as an alternative that can be stored and exchanged. The concept of Time Bank sparked a lively debate among scholars and was later introduced to China by Chinese scholars, primarily in the context of elderly care services. After summarizing previous scholars' theoretical definitions of the Time Ban, Chinese scholars proposed that time banks can be broadly divided into intergenerational labor exchange, deferred payment of the fruits of labor, and volunteer time accumulation [1]. In conclusion, the concept of a Time Bank has gradually changed in practice, and Chinese scholars have defined the idea of a Time Bank in terms of its purpose, approach, and role.

After decades of development, the management of Time Bank has matured in terms of laws, regulations, and policies in developed Western countries, and according to Marks, three models of Time Bank have been extended, namely neighborhood-based Time Bank, public and non-profit-led Time Bank, and youth-focused Time Bank [2]. Based on the perspectives of different modes of establishing Time Bank, Zhang Wenchao and Yang Hualei categorize Time Bank into three categories: those found with the assistance of third-party institutions, those shown with the aid of government-purchased services, and those set by communities on their initiative [3]. China's Time Bank for the old-age benefit is constantly experimenting with new models, such as the "combination of health care," the "three communities" linkage mechanism, and the O2O innovation model.

Following the introduction of the Time Bank for old-age service in China, the Time Bank model of mutual help for the elderly was implemented in various locations. Still, most of the time, Banks operated for a limited time and then closed. However, most of them failed after a certain period of operation. Most scholars have explored the problems in developing China's Time Bank model in terms of top-level design, operational mechanisms, and the interaction between the participating parties and thus put forward relevant suggestions. According to Yuan Zhigang et al., the insufficient policy is the primary impediment to its development; At the same time, a lack of awareness is a prerequisite, a lack of resources is a direct factor, and technical issues are an indirect cause [4].

Meanwhile, Qi Feng and Gao Ce argue that the focus of developing Time Bank should be on strengthening top-level design while establishing mechanisms for universal deposit and exchange, inheritance and transfer, and exchange assessment, as well as expanding community resources and strengthening online platform system construction [1]. Chinese academics have researched Time Bank as a proactive approach to aging as a novel model of aging in China. The scholars have thoroughly examined and interpreted the existing typical cases of Time Bank in urban communities in China, as well as discussing the viability of Time Bank in China from both theoretical and practical perspectives, demonstrating that the community Time Bank model is currently a supplemental mechanism for elderly care services. From both theoretical and practical angles, academics debate the viability of Time Bank in China. Most research has, however, concentrated on developed areas and coastal cities. There aren't many case studies and empirical assessments in second and third-tier cities or s where there are ethnic minorities. As a result, a critical issue in the current aged care crisis is creating a Time Bank for old-age service with local features in less developed areas.

## 3. Mechanism and effectiveness of the Time Bank for old-age service: a comparison of the cases of Nanjing and Nanning

This paper chooses Nanjing and Nanning as case studies. It conducts a comparative analysis of recent government work reports, relevant policies, relevant news reports, and literature to restore the operation mechanism, process, and effectiveness of the Time Bank mutual care model in the two cities, to analyze the specific patterns of the Time Bank in regions with different economic development. Even though Nanjing is an economically developed region and Nanning is financially

underdeveloped, the Time Bank model for the elderly has been replicated throughout the city, making it China's most rapidly growing town for the Time Bank for old-age service. Time banks are commonly thought to be more common in developed areas. Still, Nanning is a typical counter-example, so a comparison of the two can explore the innovative path of the Time Bank for old-age service in less developed areas.

### **3.1. Case 1: Nanjing City - the Time Bank operating mechanism based on a big data platform**

2014, Nanjing began the Time Bank pilot project on Yao Fang Men Street. The "Notice of the General Office of the Municipal Government on the Issuance of the Implementation Plan of Nanjing Time Bank for Elderly Services (for Trial Implementation)" and the Time Bank was published by the Nanjing Municipal Government in 2019. In Nanjing, the Time Bank for old-age service started to be promoted.

The Nanjing Time Bank for old-age service has a municipal and district management system, which means that the Nanjing civil affairs department and other pertinent departments oversee this model of care and care by sector under the direction of the municipal and district governments. The Nanjing Time Bank mutual aid model is operated by a third-party social organization purchased by the government, without increasing administrative costs, relying on home care service centers, with the government-led, deposit and exchange, and unified authority principles, using community home care service centers as service stations, and doing an excellent job of matching supply and demand, volunteer recruitment and training.

Adhering to the principles of government-led and social participation, Nanjing uses "My Nanjing"'s bank operation mechanism and big data platform to create a unified service standard system, create a unified time bank information management platform, strengthen the Time Bank's institutional design, and implement the registration of volunteers and service recipients, demand release, service process, time deposit and transfer, and service evaluation. And establish a special fund for Time Bank, with government and social donations, to ensure their credibility and sustainability; encourage the volunteer spirit of storing the time at a younger age and exchanging services at an older age.

Strong senior care service capability and risk control abilities are features of the Time Bank for old-age service in Nanjing, built on a big data platform. "Meal assistance, bath assistance, cleaning assistance, emergency assistance, and medical support" are the services provided under the Nanjing Time Bank for old-age benefits. The services are divided into team service projects, non-team service projects, and professional service projects. Each of these service project categories has a different time standard. To minimize risks, the Nanjing Municipal Finance Bureau has granted 10 million RMB to operate the Time Bank platform.

### **3.2. Case 2: Nanning City - the Time Bank for old-age service with the cooperation of multiple entities**

Under the leadership of the Civil Affairs Bureau, Nanning City took the lead in establishing the first Time Bank in Guangxi in Xinzhu Community in September 2018. Taking the Time Bank in Xinzhu community as a model, the pilot project of Time Bank has been widely promoted in the city to promote the Time Bank for old-age service in Nanning and to establish the Time Bank for old-age assistance. To promote Time Bank for old-age benefit in Nanning, establish a development pattern of mutual help, mutual construction, and sharing, and build an elderly service system with volunteer service at its core.

Time Bank in Nanning has established a service provision pattern in which the government takes the lead, community party organizations serve as leaders, party pioneers do as demonstrators, social organizations serve as auxiliaries, and community residents, university volunteers, and others collaborate and participate. In Nanning, three types of cooperation among multiple subjects have emerged: party-led collaboration between numerous subjects, government-community interaction cooperation among various topics, and mixed linkage cooperation among multiple issues [5]. Among them, the Party-led model for collaboration among different entities, for instance, relying on the

grassroots Party branch of the Xinzhu community, has established a volunteer team of Party members (social workers and communist party members) to actively provide voluntary services for the elderly and the disabled in the community; the government and community interaction model of cooperation among various entities, for instance, the "Good Neighbor" elderly service scheme carries out voluntary services for the elderly and the disabled in the community; The mixed linkage model of cooperation among multiple entities, for example, the "We are all one family" activities to help the disabled.

The Time Bank in the Nanning community is a rich and varied kind of collaboration between various subjects, and each of the three categories has pros and cons of its own. A new sort of elderly care service is called Time Bank, and the more people who cooperate in providing it, the more diverse the Time Banking services that can be offered to the elderly, better satisfying their increasing demand for a variety of elderly care services.

#### **4. Case study: Innovative mechanisms for the operation of the Time Bank for old-age service**

The development of the Time Bank for old-age service in China is mainly in the policy environment, operation mode, team building, platform construction, service content, and other aspects. Due to the limitations of economic development, Nanning still needs to develop a more organized policy support system or reliable funding source than Nanjing. However, Nanning has begun to introduce social forces actively and created a synergistic mechanism of numerous cooperative subjects, which is favorable to the development and application of the Time Bank for old-age service in Nanning.

##### **4.1. Policy support and funding sources**

In terms of legal protection for the growth and operation of the Time Bank, Nanjing has implemented pertinent laws and policies, and Nanning has done the same to explore and support the development of the Time Bank and enhance the services it offers. It still needs to put in place formal procedures to guarantee the operation of the Time Bank. Nanjing is primarily government-funded, with the government providing funds to ensure the Time Bank's ability to control risks. The government needs more money to set aside, especially for the Time Bank in Nanning, which is bound by its economic development. The Time Bank is primarily funded by the Community Benefit Fund, which also needs to be used for other livelihood issues [6].

##### **4.2. Operating model**

In terms of operation models, Nanjing is the first city in China to promote the Time Bank for old-age service, forming three Time Banks for old-age assistance, including the street model, the social organization service model, and the district model. By 2020, a "government-led, universal deposit and exchange, and unified authority" time bank operation mechanism will be established [7]. In Nanning, three types of cooperation among multiple subjects have been formed: party-building-led collaboration between numerous issues, government-society interaction cooperation among various topics, and mixed-linkage cooperation among multiple subjects to enrich the types of Time Bank services.

##### **4.3. Volunteer team construction**

The Time Bank of Nanjing Mutual Help Aging Model's volunteer training is organized into three levels: fundamental training, intermediate training, and advanced training. According to the period, the training's focus varies, but systematic volunteer training is provided through collaboration with professional service organizations. The "Notice of the 14th Five-Year Plan for the Development of Civil Affairs in Nanning" was released by the Nanning Municipal People's Government to compensate for the lack of social organizations. The plan calls for strengthening non-profit

organizations' involvement and expanding the channels through which social forces can participate in elderly care services by 2025. Some communities are collaborating with universities to allow social work students to actively participate in the operation of the Time Bank for old-age assistance and to promote the Time Bank model's professional development.

#### **4.4. Time Banking platform construction**

The system platform for Nanjing's Time Bank for old-age service is integrated into "My Nanjing," where service recipients place orders on the system platform, volunteers accept the charges, volunteers provide services at home, both parties evaluate and confirm the benefits, and volunteers earn time. This makes the Time Bank more precise and scientific. Nanning City has collaborated with the Nanning Citizen Card Company to set up a "Time Banking" section on the "Nanning Citizen Card - Internet Integrated Service Platform," despite its lack of financial resources to construct a more comprehensive information and data service center. The "Nanning Citizen Card - Internet Integrated Service Platform" has a "Time Bank" section where communities or social organizations can post requests for elderly Time Banking services. Volunteers can select the appropriate service items on the platform based on their abilities and professional expertise. The forum and information system enable the elderly's needs for aged services to be communicated in the first place, and volunteers can promptly give services by their needs, improving the efficiency and accuracy of service delivery.

#### **4.5. Time Bank service project**

The Time Bank of Nanjing's Mutual Help Aging Model offers five services—"Meals, Bathing, Cleaning, Emergency, and Medical Assistance"—to cover most residents' needs. Communities in Nanning organize volunteers and party members to conduct household surveys, gather feedback from service recipients through door-to-door visits and call notices, identify needs, resources, and service lists, thoroughly assess the number of people served and their ages, comprehend the technical aptitude of potential volunteers, establish conversion methods and difficulty factors based on the ease of service, and create service projects and content. Field research and references to experiences and practices from other countries were used to construct the services' content. At the same time, the model of collaboration among multiple entities allows for a wide range of project types.

### **5. Implementation of the Time Bank for old-age service in less developed areas**

#### **5.1. Improving the system to strengthen the government's lead responsibility**

The government should take on the three duties of "system planner," "financial supporter," and "regulator" to improve its leadership responsibility. The government should respond to citizens' needs promptly, carry out its duties, and do everything in its power to meet public demand, as it is the primary party accountable for doing so [8]. The creation of policies, the provision of capital, the establishment of standards, and the regulation of services are all government duties in the growth of Time Bank [9]. As Time Bank's thought leader, the government should alter its supply concept. The government should reposition itself as the helmsman and accept the responsibility of being an excellent ideological guide, actively shifting from the original "top-down" management concept to a "bottom-up" cooperation concept, shifting from formulating policies and issuing orders downwards to accepting and adopting them. At the same time, people should increase our financial support as Time Bank's financial backer. Sufficient financial support is essential for Time Bank's long-term operation, and special funds can be established. Social capital was introduced to increase Time Bank's risk-bearing capacity.

#### **5.2. Constructing a cooperative model of aging with the participation of multiple actors**

Under the theory of welfare pluralism and the theory of collaborative governance, The four aspects of cooperation are to clarify the responsibilities and positioning of plural subjects, improve the

communication and coordination mechanism of plural subjects' cooperation, enhance the effectiveness of plural subjects' collaboration, and improve the guarantee mechanism of plural subjects' association, which is a good path for plural subjects' cooperation in Time Bank [5]. Social forces should be actively introduced to create an ideal training system for participants and expand resources for the elderly. In Time Bank elderly volunteer service, social organizations have solid professional ability and systematic service planning, which can improve volunteers' professional level. The Time Bank can establish certain cooperative relationships with schools and use the resources of colleges and universities while providing them with places for volunteer practice to achieve a win-win situation [10].

### **5.3. Online and offline with the service platform**

It is impossible to divorce the growth of the Time Bank for old-age service from the healthy development of the network information system. The key to achieving the intellectual development of Time Bank to match the resources and demands of supply and demand on the information system is through the use of blockchain, big data, and other technologies [11]. Simultaneously, the advancement of the information system can compensate for the shortcomings caused by earlier manual records, relieving managers of the tedious daily records and facilitating the improvement of the managers' working ability. Additionally, the development of the information system combines municipal and community mutual assistance data to create big data, which encourages the exchange of information and the sharing of elderly mutual aid resources and aids in the optimization of mutual aid resources. To spread awareness of the Time Bank Mutual Pension Model among the public, raise the level of understanding among residents, and then broaden the scope of its implementation, people should pay attention to offline publicity work, fully mobilize media resources, and flexibly use different methods like PSAs, leaflets, cell phones, and the Internet.

### **5.4. Improve service capacity based on project construction**

The following areas can be improved to support the effective growth of this pension model in response to the issues of a single service content, a limited scope of service objects, and the metrics of service content in the service process of the Time Bank Mutual Pension Model. To begin with, increasing the variety of service contents can be accomplished through collaboration with professional teams to specialize service objects such as maintenance. Additionally, through cooperation with tourist sites and other recreational institutions, service items related to entertainment can be provided to address the varied entertainment demands of service recipients. Meanwhile, by learning from advanced practices around the world, the standards of Time Bank service items can be adjusted from multiple dimensions such as content, intensity, and quality to ensure the scientific nature of service standards and solve the problem of mismatch between actual service time and service standard time of volunteers.

## **6. Conclusion**

Due to economic development and senior care service mode limitations, the Time Bank for old-age service in less developed regions is frequently characterized by imperfect policies, a single source of funds, and ineffective operation and management mechanisms. Less developed areas should actively learn from the practical experience of the developed regions, improve relevant regulations according to local conditions, and establish a multi-body and multichannel service construction model to create Time Bank. This paper differs from previous research on the Time Bank for old-age service. It has some theoretical innovation and practical value: The present studies mainly examine how Time Bank functions in developed cities, largely ignoring their use and empirical study in less developed places. Simultaneously, this paper synthesizes existing research and proposes countermeasures based on comparative analysis, which has strong practical relevance. It somewhat compensates for the lack of study on the traits and growth circumstances of Time Bank in second and third-tier cities or areas

where ethnic minorities reside. However, there is no use of a combination of methods in the study, such as questionnaires and interviews, and there needs to research on residents' perspectives. Scholars from various disciplinary backgrounds can conduct the collaborative study in the future by merging their research viewpoints with multidisciplinary cross-fertilization, mixing sociology with other disciplines like psychology, economics, and law. In terms of study topics, Time Bank is still primarily studied in the context of aged care services in Chinese academia. However, exploring Time Bank's applications in other industries can fully use Time Bank's institutional benefits.

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