

Study on the Impact of the Service Economy in China's First-Tier Cities on the Employment Structure

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Abstract

This research explores the impact of the service economy on employment structure in China's first-tier cities. We first describe the status of the service economy in China's first-tier cities and discuss the key factors promoting its development. Next, we discuss the current situation and changes in the employment structure and compare the employment structures of different first-tier cities. The study finds that the service economy has a significant impact on the employment structure in first-tier cities, especially in industries such as education, finance, and high-tech. This study summarizes the impact of the economization of the service industry on the employment structure of first-tier cities, and proposes prospects for future research, providing suggestions for policy-making.

Keywords

China, Service Economy, Employment Structure, First-Tier Cities, Industry Case Studies

1. Introduction

With the advent of the information era and the acceleration of globalization, the economic structure of cities around the world is undergoing profound changes. In particular, in China, the rapid expansion and development have attracted wide attention from home and abroad. Among these transformations, one of the most influential changes is the shift from a traditional economy to a service-oriented economy, especially in first-tier cities such as Beijing, Shanghai, Guangzhou, and Shenzhen. These cities are leading this transformation and have become epitomized as a service-oriented economy in China. The focus of our discussion today

is the impact of the service industry's economization on the employment structure of China's first-tier cities.

The economization of the service industry and changes in the employment structure have significant impacts not only on the development of cities in China, but also on the socio-economic landscape and global economy. Detailed study of this development will provide valuable insights for policy-makers, investors, and scholars. As the service-oriented economy develops, it directly affects the employment structure of cities. This impact is multi-dimensional, altering the population composition, education, and industry structure of urban labor force (Zhang & Song, 2016). Therefore, it's of great importance to discuss the current situation of the service economy in first-tier cities and its impact on employment structure.

The transformation of the service economy is reshaping the economic and employment landscape of China's first-tier cities. The service sector, especially in first-tier cities, has become the economic engine driving overall economic growth, creating employment, and increasing income (Wang & Mei, 2018). By examining its impact on the employment structure, we can gain a deeper understanding of the changing employment dynamics and grasp the future trends of urban employment and the socio-economic development of China's first-tier cities. For policy-makers, understanding the impact of service-sector transformation on employment can elucidate strategies for job creation, labor force development, and urban planning. For businesses and investors, identifying employment trends can guide resource allocation directions. Through exploring the trajectory of urban economy and employment patterns, and participating in policy dialogues, it provides a unique perspective to observe and understand the transformation of urban landscapes in China's first-tier cities. Therefore, our theme "the impact of the service-oriented economy on the employment structure" is critical for understanding the ever-changing socio-economic environment in China's urban centers.

2. The Current State of Service Economy in China's First-Tier Cities

2.1. The Current State of Service Economy in First-Tier Cities

In the past several decades, the service economy in China's first-tier cities has developed rapidly. These cities, such as Beijing, Shanghai, Guangzhou and Shenzhen, have gradually evolved into some of the global centers of service industry, accumulating a large number of high-end services industries, including finance, information technology, management consulting, scientific research and development, which play a vital role in urban economic development (Chen & Liu, 2015). Taking the financial industry as an example, as an important part of the service industry, its development in first-tier cities has been particularly notable in recent years. According to data from the People's Bank of China, the added value of Shanghai's financial industry reached 862.631 billion yuan in 2022, an

increase of 5.2% year on year¹. Guangzhou and Shenzhen have also emerged from the competition of Asian financial center cities with their strong financial industry foundation. With its complete financial service system, Beijing has attracted a large number of domestic and foreign financial institutions and is solidly in the position of the financial capital.

Likewise, the rapid development of technological services in first-tier cities is also an important manifestation of the service economy. Under the wave of the times, data processing, software and information technology services have sprung up in major first-tier cities, fully demonstrating the vitality of service economy of innovative cities in the new era. Shenzhen, known as the “Silicon Valley of China”, has shown tremendous vitality in technology services, attracting a large number of renowned technology companies such as Huawei, Tencent, and fostering world-renowned innovative technology products. Consulting services are also booming in first-tier cities (Li & Zhou, 2017). With the transformation of China’s economy, the demand for professional consulting in areas such as strategic planning, market research, human resources management has rapidly increased. First-tier cities, represented by Beijing and Shanghai, have attracted many well-known consulting companies at home and abroad, such as McKinsey and Boston Consulting, forming highly concentrated consulting service industry clusters. At the same time, tourism, modern retail, catering, and the rising online platform services also constitute the important part of the service economy in first-tier cities, bringing a large number of jobs to cities, promoting the upgrade of urban consumption, and driving the sustainable development of the city’s economy.

Overall, the service economy in China’s first-tier cities has reached a new stage, with various high-end services steadily growing and deeply integrating into the development of the city’s economy. Against this background, it is particularly worth noting the discussion of the impact of the service economy on the employment structure of first-tier cities. The next section will specifically explore the impact of the service economy on the employment structure of first-tier cities, analyzing the importance of service industry growth in boosting urban economic vitality and employment.

2.2. Exploring the Key Factors Promoting the Development of Service Industry Economization

After gaining a certain understanding of the current situation of service industry economization in China’s first-tier cities, we must delve deeply into the dominant factors that influence and promote the development of service industry economization, which include policy orientation, industrial transformation, technological innovation, and the upgrading of consumption structure.

First, policy guidance is the main axis for promoting the economization of the service industry. In this process, the government’s support and guiding role for

¹Data source: *Shanghai Financial Prosperity Index Report (Issue 17)* (n.d.), <http://www.shfa.org.cn/>.

the service industry is pivotal, establishing a series of policies, regulations, and measures beneficial to the development of the service industry. For instance, in China's 13th Five-Year Plan which clearly pointed out the need to optimize the development environment of the service industry, reduce the tax burden on the service industry, and support the service industry to develop in the direction of high-end, professional, and branding. This set of policies allows for the rapid development of the service industry, which has become a significant force in promoting economic growth. Second, industrial transformation is also a key factor in promoting the economization of the service industry (Yang & Huang, 2019). Along with China's economy transitioning from the traditional production-oriented to knowledge and service-oriented, the service industry has gradually become the dominant force of economic growth. Specifically, China's strategy of building an innovation-driven development has boosted technological advancement and industrial upgrade, allowing for the rapid development of high-tech service industry and knowledge-intensive service industry, which also has a positive impact on changing the employment structure and improving employment quality. Moreover, the impact of technological innovation on the promotion of service industry economization should not be underestimated. With the emergence of information and communication technology, cloud computing, big data, artificial intelligence, and other new-generation information technology, the service industry is digital, networked, intelligent, forming new growth points. Particularly with the rapid development of new-format service industries such as e-commerce, online travel, online education, and telemedicine, it has greatly promoted the economization of the service industry. Lastly, the upgrade of consumption structure is also promoting the economization of the service industry. With the rise in residents' income, consumption demand has transitioned from simple commodity consumption to service consumption, thus posing new requirements for the development of the service industry. The consumption concept and methods of residents in China's first-tier cities are undergoing profound changes, and the demand for cultural, health, education, tourism, and other service consumption is steadily increasing. This upgrade in consumption structure has played a positive role in promoting the development of service industry economization.

Policy orientation, industrial transformation, technological innovation, and the upgrading of consumption structure are the four key factors that are deep driving forces for promoting the development of service industry economization in first-tier cities. It is also these factors that joint function to facilitate the rapid development and structural optimization of the service industry in China's first-tier cities, consequently providing sufficient momentum for service industry economization. However, to realize the healthful, sustainable development of the service industry, further reform must be deepened, policy environment optimized, innovation encouraged, and service quality improved, so as to meet the increasingly growing demand for a better life from the masses.

3. The Current Situation and Changes in the Employment Structure of First-Tier Cities

3.1. The Trends and Characteristics of Changes in the Employment Structure of First-Tier Cities

The study of the current status and changes in the employment structure is a hot topic in China's current economic research. Beijing, Shanghai, Guangzhou, and Shenzhen, with their speed and scale of economic development, have become important supports for China's economic growth. In recent years, the employment structure of China's first-tier cities has entered a new stage of development, transitioning from being dominated by the manufacturing industry to being led by the service industry (Sun & Zhang, 2020).

Firstly, the service industry has become the main source of employment in first-tier cities. According to recent statistical data, the number of people employed in the service industry in first-tier cities has exceeded that of manufacturing. For example, in 2022, the proportion of service industry employment in total employment in Beijing exceeded 75%, and similar trends have been observed in Shanghai, Guangzhou, and Shenzhen². This is primarily due to strong local government support for the service industry and an increase in the level of economic development, which has led to an increase in service consumption demand, pushing the development of the service industry. Secondly, the employment ratio of knowledge and technology-intensive industries is increasing. With first-tier cities amassing a large number of research and development institutions and higher education institutions, favorable conditions are provided for the development of knowledge and technology-intensive industries. For example, the number of people employed in the software and information technology service industry in Beijing already exceeds 10% of the total number of employees in the city, making it one of the important jobs in Beijing (Liu & Long, 2017). In addition, with the development of first-tier city economies, some advanced manufacturing and high-tech industries have gradually occupied important positions in the employment structure. For example, the development of emerging industries such as new energy vehicles, cloud computing, and big data has created a large number of jobs. According to statistics, by 2022, China's emerging industry employment contribution rate had already exceeded 15%. From the perspective of gender structure, the employment structure in first-tier cities also has unique characteristics. In recent years, with increasing social awareness of gender equality and women's education level continually improving, women are occupying increasingly higher positions in the job market. Women occupy nearly 50% of total employment in first-tier cities, far above the national average³.

Besides, the employment structure in first-tier cities shows that those with higher levels of education have a higher level of employment. This is mainly be-

²Data source: *Beijing Population Development Research Report (2022)* (2022 Beijing Population Blue Book), https://www.beijing.gov.cn/ywdt/gzdt/202212/t20221211_2877481.html.

³Data source: *Global Youth Employment: Status, Trends, and Implications (2023)*, <https://cj.sina.com.cn/articles/view/5044281310/12ca99fde020022cw2?autocallup=no&isfromsina=no>.

cause first-tier city industry and industrial structures are leaning towards high-end and knowledge-based requirements, necessitating a large number of highly educated employees. According to statistical data, the proportion of people with a bachelor's degree or above in first-tier city employment is significantly higher than the national average⁴.

In conclusion, changes in first-tier city employment structures show increases in the ratios of the service industry and knowledge and technology-intensive industries, emerging industry development creates more job opportunities, and the employment rates for women and highly educated people are increasing. These changes reflect the deep structural adjustments of first-tier city economies and trends in industrial transformation and upgrading. It also predicts future changes in first-tier city economic development and the human resource market.

3.2. The Differences and Characteristics of Employment Structures in Different First-Tier Cities

We have four first-tier cities, although they are all transitioning towards a service-oriented employment structure, each city has distinct variations and features in their employment structures (Gao & Guo, 2014). According to employment data statistics for China's first-tier cities, Beijing's 392 listed companies have a total of 6.7485 million employees, an increase of 0.17% year-on-year; Shenzhen's 352 listed companies have a total of 2.9652 million employees, an increase of 3.96% year-on-year; Shanghai's 358 listed companies have a total of 2.0362 million employees, an increase of 4.19% year-on-year. Although Guangzhou only has 121 listed companies, fewer than Hangzhou's 168, it still ranks fourth in terms of the number of employees, with a total of 776,100 employees, an increase of 0.66% year-on-year⁵.

As shown in **Figure 1**, the data indicates that in 2020, the average salary for employees of listed companies in Beijing was 255,100 yuan, a year-on-year increase of 1.7%. In Shanghai, the average salary for employees of listed companies was 231,300 yuan, a year-on-year decrease of 1.24%. In Guangzhou, the average salary was 150,000 yuan, with a year-on-year decrease of 2.15%. In Shenzhen, the average salary for employees of listed companies in 2020 was 173,800 yuan, a year-on-year increase of 2.8%. It can be seen that the overall salary changes in the four cities are not significant and have tended to stabilize. However, as the political and cultural center of China, Beijing attracts a large number of civil servants, educators, and researchers. Therefore, the proportion of employment in education, research, public management, and culture and entertainment is relatively high. In terms of high-end service industries, supported by strong research and education capacities, Beijing has gradually developed knowledge-intensive industries such as information technology, the Internet, and creative culture. Shanghai, as China's economic center and an international metropolis, boasts a prosperous modern service industry, particularly the financial service industry.

⁴Data source: Zhaopin.com, Evergrande Research Institute (2020), https://m.thepaper.cn/baijiahao_9743632.

⁵Data source: Investment Times (2021), https://www.sohu.com/a/473888566_561871.

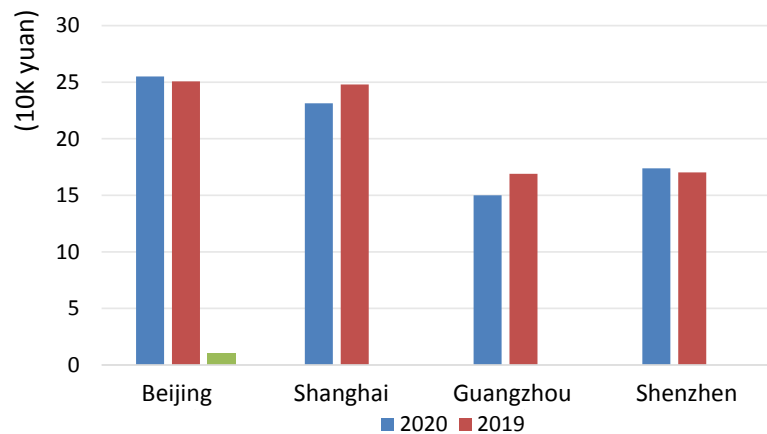


Figure 1. Comparison of average salary per employee among listed companies in China's first-tier cities (data source: *Investment Times*, 2021).

Furthermore, as Shanghai is an important logistics hub globally, it attracts a large number of employment population related to trade and logistics. As the center of traditional industries such as petrochemicals and mechanical manufacturing in South China, Guangzhou has witnessed a new industrial form dominated by high-tech industries and modern services during its industrial transformation and upgrading. However, in contrast to Beijing and Shanghai, Guangzhou's manufacturing-dominated employment structure is still more evident. Shenzhen, as the window of China's reform and opening-up and an important base of China's electronics industry, gathers a large number of high-tech and manufacturing talents. High-tech industries and modern services like electronic information, the Internet, and software services account for a significant proportion of employment.

Hence, while all four first-tier cities display a general trend of transitioning from manufacturing to services, each city has its unique employment development advantages and features. Beijing and Shanghai have gradually developed a high-end service employment structure dominated by knowledge-intensive services and finance, based on their potent intellectual property and financial resources. Concurrently, Guangzhou and Shenzhen, relying on their robust manufacturing and high-tech industries, have gradually crafted a new employment structure that is a mix of technological knowledge-intensive and advanced manufacturing.

However, despite the employment structure in first-tier cities moving towards a more optimized and high-end direction, there are many challenges to be faced in the developmental process that requires in-depth research and discussion (Zhao & Zhou, 2015). For instance, the high housing prices, high cost of living, and various "urban illnesses"⁶ in first-tier cities exert tremendous pressure on

⁶"Urban illnesses" is a term that generally refers to the various problems and symptoms that arise during the rapid development of cities. These may include environmental pollution, traffic congestion, housing shortages, inadequate public services, social isolation, economic inequality, and other multifaceted issues. As urban populations continue to grow and urbanization accelerates, these problems often become critical factors that limit the sustainable development of cities and the quality of life within them.

attracting and retaining excellent talents. Simultaneously, the intense competition in the job market of first-tier cities also causes considerable worries to a large number of high-tech talents and senior managers in their employment process.

Therefore, in the future, we should not only pay attention to the changes in the employment structure of first-tier cities but also focus on issues related to the employment environment, policy guidance, and talent training in first-tier cities. By studying the employment structure of first-tier cities from a more comprehensive perspective, we can provide theoretical support and policy recommendations for promoting the healthy, balanced, and sustainable development of China's urban economy.

4. The Impact of Service Economy on Employment Structure

4.1. The Degree of Impact of Service Economy on the Employment Structure of First-Tier Cities

With the accelerating development of the service economy, profound changes are happening in the economic structure of first-tier cities in China, and the employment structure is also being optimized and adjusted. During this process, the service-based economy has had a significant impact on the employment structure, an influence that is far-reaching and multi-dimensional.

Firstly, in terms of the number of employment opportunities, the service economy has created a plethora of job opportunities in first-tier cities. For example, the rapid development of high-end services such as finance, technology services, and consulting has attracted a large number of highly skilled talents. According to Chinese statistical data, the proportion of people employed in the service industry in first-tier cities had exceeded 50% by 2022⁷. These new job opportunities have played an active role in optimizing the city's employment structure and attracting a variety of professional talents.

Secondly, in terms of the quality of employment, the service-based economy has also driven an improvement in the quality of employment in cities. Compared with traditional manufacturing, the service industry often offers better working conditions and higher compensation levels. Moreover, the demand for talents in high-end services such as technology service industry, finance, and consulting has greatly increased, contributing to the optimization of the city's talent structure.

Furthermore, in terms of the stability of employment, the rise of service economy has also been beneficial to enhance job stability. While manufacturing has been the engine of China's economic growth over past decades, some employment opportunities in the sector have slightly decreased due to technological innovation and automation. On the contrary, the service industry, especially the lifestyle service industry targeting consumer demand, has demonstrated a strong

⁷Data Source: National Bureau of Statistics of China (n.d.), <https://www.stats.gov.cn/sj/?eqid=a3af5207001569c400000004646e29c6>.

vitality and appeal. Whether in traditional catering, tourism, or new online tech services, the jobs they create are not only numerous but also relatively stable (Xie & Li, 2021).

In addition, the influence of the service economy on the employment structure of first-tier cities is also reflected in terms of employment distribution. Traditional manufacturing is usually located in fixed places, while the nature of the service industry makes its employment distribution more widespread. For instance, retail industry requires shops to be set up in various communities and business districts, enabling job opportunities to be more evenly distributed in all corners of the city. This distributional feature carries vital significance for improving the city's employment situation and even planning the urban structure.

In sum, the service economy has had a profound impact on the employment structure of first-tier cities, an impact that is reflected not only in increased numbers but also in improved quality. At the same time, changes in job stability and distribution also reflect employment issues in the process of service economy. However, compared with the benefits brought by the service economy, these problems are solvable as long as appropriate policies and measures are taken.

4.2. Specific Industry Case Analysis

To delve deeper into the specific ways and results of the impact of the service economy on the employment structure, examples from various industries provide more intuitive support. In this section, we will use the finance industry, catering industry, and Internet technology industry as examples to reflect the profound impact of the service economy on the employment structure.

Firstly, the finance industry is a key sector in the process of the service economy in China's first-tier cities. Taking Beijing and Shanghai as examples, the rapid development of the financial sector is reflected in multiple aspects including the number of employees, compensation, and talent attraction. In terms of employment, the number of people employed in the finance industry in Beijing has shown steady growth in recent years, providing a large number of job opportunities and driving an increase in income for Beijing's residents. In terms of compensation, the finance sector offers noticeably higher salaries than other industries, stimulating a large influx of excellent talents into the finance industry and promoting the optimization of the city's talent structure.

Secondly, the catering industry demonstrates its vitality with its albeit thin but stable profits and steadily increasing employment opportunities. Whether it's large chain catering enterprises like Haidilao or numerous snack and fast-food shops, the catering industry provides a wealth of job opportunities. The industry's diverse and flexible employment forms have a positive effect on absorbing various labor forces and improving market liveliness.

The last example is the Internet technology industry. Over the past decade or so, the rise of Internet technology giants such as Alibaba, Tencent, and ByteDance, developing various new services such as Alipay, WeChat, and TikTok, has

brought profound changes to social life. These new services have not only met the public's needs but also brought significant profits for these enterprises. More importantly, these talents working in the Internet technology industry are becoming the new force in China's economy. Their innovation and entrepreneurial spirit have injected a new vitality into China's economy.

In summary, these industry examples all indicate that the impact of the service economy on the change in employment structure has penetrated into all industries. Whether it's an increase in the number of job opportunities, improvement in job quality, or enhancement in the distribution of jobs, the service economy plays a pivotal role. However, how first-tier cities fully utilize these opportunities and resolve potential issues as the reform deepens still requires further discussion.

5. Conclusion and Recommendations

The development of the service sector has provided numerous job opportunities, promoting income growth among urban residents. Meanwhile, the servicification of the economy has led to a more specialized division of labor across all industries, thereby diversifying the occupation structure. In specific industries, whether it is finance, catering, or the Internet technology sector, the service economy has shown its positive impact in promoting job growth, attracting high-quality labor, and optimizing the labor structure. Therefore, it can be confirmed that the service economy has a significant positive impact on the employment structure of first-tier cities in China. However, while the service economy has had a positive impact on first-tier cities, it has also brought about some issues. For example, some service positions with high labor intensity and work pressure, due to low salary and stressful work environment, are less attractive in terms of employment. Additionally, some positions in the service sector that require a high level of technical expertise also face a shortage of labor due to high requirements for professional skills and knowledge. Therefore, employment issues brought about by the service economy also need sufficient attention.

In response to this situation, we suggest that relevant departments and enterprises improve salary and compensation, improve the work environment, and enhance workers' professional skills to address the employment issues brought about by the service economy. Furthermore, we suggest in-depth research into the specific mechanisms of the service economy's impact on the employment structure to provide theoretical support for related policies.

In conclusion, while the service economy has had a significant positive impact on the employment structure of first-tier cities in China, it has also posed some issues. Future research should focus on the strategies for addressing employment issues brought about by the service economy and its implementation effects, and further explore the deep-seated mechanisms of the service economy's impact on the employment structure. This will provide theoretical guidance and policy recommendations for the deep development of the service economy.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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