

# The Innovation and Development Path of Beijing's High-End Service Industry Empowered by Digital Economy

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## Abstract

Digital economy is an important force driving economic development and innovation. Digitalization has changed traditional industries and created new growth and employment opportunities, and the high-end service industry has become an important support for the development of digital economy by providing efficient and accurate services together with the digital economy. Beijing, as the capital and economic center of China, digital economy provides strong support for the development of high-end service industry. The paper takes Beijing's digital economy-enabled high-end service industry as an entry point, analyzes the current situation of Beijing's digital economy-enabled high-end service industry in various regions and industries, and based on the current situation, we put forward four existing problems in the development of Beijing's high-end service industry empowered by the digital economy, and combined with the experience of foreign developed countries and regions in promoting the development of the digital economy and high-end service industry, we put forward corresponding solutions to provide brand new ideas for Beijing's high-end service industry empowered by the digital economy, and to further promote the innovation and development of Beijing's high-end service industry empowered by digital economy.

## Keywords

Digital Economy, High-End Service Industry, Industrial Transformation and Upgrading, Innovative Development

## 1. Introduction

### 1.1. Background

With the rapid development of information technology and the popularization

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of the Internet, the digital economy has become an important force driving economic development and innovation. Based on information technology, the digital economy has changed the production methods and business models of traditional industries through digitization and intellectualization, creating new economic growth points and employment opportunities (Shen & Zhou, 2015). In the era of digital economy, high-end service industry, as the knowledge-intensive, technology-intensive and innovation-intensive service industry, is increasingly integrated with information technology, providing more efficient and precise services through digitalization and intelligent means, and becoming an important support for the development of digital economy (Hong & Deng, 2014). Beijing, as the capital and economic center of China, the digital economy provides strong support for the development of high-end service industry.

Beijing is rich in high-end service industry resources. As the political and economic center of the country, Beijing has gathered many high-end service industry institutions and professionals. Financial institutions, law firms, consulting firms, design organizations, etc. have a high degree of concentration and development in Beijing. These organizations and talents have rich experience and expertise in high-end service industries, providing strong support for the development of the digital economy.

Secondly, Beijing has the favorable innovation environment and innovation ecology. Innovation is an important driving force for the development of high-end service industry and one of the core elements for the development of digital economy. Beijing has many research institutes, higher education institutions and science and technology parks, which provide a good platform and support for innovation. At the same time, Beijing also actively promotes cooperation among the government, enterprises and universities, strengthens scientific and technological innovation and technology transfer, and promotes the industrialization and commercialization of scientific and technological achievements, which provides a strong impetus for the innovation and development of high-end service industries (Sun & Xing, 2023).

Thirdly, Beijing has broad market demand and consumption capacity. With the development of the economy and the improvement of residents' income, people's demand for high-end service industry is increasing, which provides a broad market space and opportunities for the development of high-end service industry. At the same time, the development of digital economy also provides new growth points for high-end service industry, providing more personalized and customized services through digital and intelligent means.

In addition, Beijing has perfect infrastructure and informatization conditions. As the capital of the country, Beijing has a relatively high level of infrastructure development and informatization. With a well-developed transportation network, perfect communication infrastructure and high Internet penetration rate, Beijing provides a good environment and conditions for the development of high-end service industry. At the same time, the development of digital economy

cannot be separated from the support of information technology, and Beijing has strong strength and competitiveness in information technology.

Therefore, the relevance of the current development context of Beijing's digital economy to the high-end service industry includes the important position of the high-end service industry in the digital economy, rich resources of the high-end service industry, a favorable innovation environment and innovation ecology, broad market demand and consumption capacity, as well as perfect infrastructure and informatization conditions. Together, these factors promote the rapid development of Beijing's digital economy, facilitate the transformation and upgrading of the city's economy and sustainable development, and provide important support and impetus for the development of Beijing's high-end service industry.

## 1.2. Significance

Digital economy is an important trend in the current global economic development and an important direction for the economic transformation and upgrading of Beijing. As an important part of the digital economy, the innovation and development of high-end service industry is of great significance in promoting Beijing's economic growth and enhancing industrial competitiveness. Therefore, studying the innovation and development path of high-end service industry in Beijing empowered by digital economy has the following significance.

The study of the path of innovation and development of Beijing's high-end service industry empowered by the digital economy will provide a scientific basis for the government's decision-making. The government is the leading force to guide the economic development, and the study of the path of innovation and development of high-end service industry in Beijing empowered by the digital economy can provide reference for the government to formulate relevant policies and measures. Through in-depth analysis of the impact of the digital economy on the high-end service industry, the government can better formulate industrial policies, promote the innovative development of high-end service industry, and realize the transformation and upgrading of the economy.

Secondly, studying the innovation and development path of high-end service industry in Beijing empowered by digital economy can provide development direction for high-end service industry enterprises. High-end service industry enterprises are the main carrier of the digital economy, and studying the innovation and development path of high-end service industry in Beijing empowered by the digital economy can help enterprises understand the development trend of the digital economy and market demand, and provide them with the development direction and strategic choices. Through the deep integration with the digital economy, high-end service industry enterprises can improve service quality and efficiency, expand market space and realize innovative development.

Thirdly, researching the innovation and development path of Beijing's

high-end service industry empowered by the digital economy can promote industrial collaborative innovation. The development of digital economy requires the synergistic cooperation of different industries, while high-end service industry, as a cross-field and cross-industry industry, is of great significance for the synergistic innovation with other industries. Studying the innovation and development path of high-end service industry in Beijing empowered by digital economy can promote the integration and innovation between high-end service industry and other industries, promote the extension of industrial chain and the enhancement of value chain, and realize the synergistic development of industries.

Fourthly, research on the innovation and development path of high-end service industry in Beijing empowered by the digital economy can enhance industrial competitiveness. The development of digital economy provides new growth points and development opportunities for high-end service industry, providing more efficient and precise services through digitalization and intelligent means. Studying the innovation and development path of high-end service industry in Beijing empowered by the digital economy can help high-end service industry enterprises to enhance their core competitiveness, improve their service quality and efficiency, expand their market share, and strengthen their market competitiveness.

Finally, studying the innovation and development path of high-end service industry in Beijing empowered by digital economy can provide reference for other regions. As the capital and economic center of China, Beijing's experience in the innovative development of high-end service industry has a certain demonstration effect. Other regions can draw on and refer to Beijing's experience to promote the innovative development of high-end service industry in their own regions and realize economic transformation and upgrading.

In summary, it is of great significance to study the path of innovation and development of high-end service industry in Beijing empowered by digital economy. It can not only provide scientific basis for governmental decision-making, provide development direction for high-end service industry enterprises, promote industrial synergistic innovation, and enhance industrial competitiveness, but also provide reference for other regions, and promote the development of regional economy. Therefore, it is of great theoretical and practical significance to deeply study the innovation and development path of high-end service industry in Beijing empowered by digital economy.

The following is structured as: II. Literature review, III. The status quo of Beijing's high-end service industry with the development of digital economy, IV. Beijing's problems in developing high-end services enabled by digital economy, V. International experiences in promoting the development of high-end services through the digital economy, VI. Countermeasures for the innovative development of Beijing's high-end services empowered by digital economy, VII. Conclusions.

## 2. Literature Review

### 2.1. The Impact of Digital Technology, Intellectual Capital, and Human Capital on Service Productivity

Wang and Yang (2022) point out that the double deepening of intellectual capital and human capital is key to improving labor productivity in the service industry, and that by incremental compensation and driving the transformation of labor supply, it can meet the demand for labor quality in the service industry, thus promoting sustained economic growth. Li (2022) points out that overcoming the “cost disease” in the service industry depends on the relative change of digital technology on the growth rate of labor productivity in the service industry and other industries, and emphasizes the opportunity seeking of digital economy development to improve labor productivity in the service industry and promote the high-quality development of the economy.

### 2.2. The Role of the Digital Economy in Promoting Efficiency, Industrial Optimization and Structural Upgrading of High-End Service Industries

Chi and Shi (2022) pointed out that the development of the digital economy and the promotion of industrial structure optimization and upgrading are mutually reinforcing, and that it is necessary to strengthen digital technological innovation, promote industrial integration, promote the development of new forms of business, and improve the relevant governance system. Pang and Li (2022) pointed out that the development of the digital economy can alleviate the “service industry cost disease” in China, especially in industries with a high dependence on digital inputs and the southeastern region, the effect is more significant, because the digital economy has a greater effect on the productivity of the service industry than the manufacturing industry.

Liu et al. (2023) pointed out that the development of the digital economy plays an important role in improving the efficiency of the service industry, through changing the traditional production methods, accelerating the economic dynamic cycle and knowledge spillover effects and other paths, the digital economy can promote the high-quality development of the service industry, to overcome the problem of inefficiency in the service industry. Mu et al. (2023) revealed the spatio-temporal evolution characteristics and regional differences in the scale of digital economy of service industry in China by analyzing the data of input-output table, and explored the impact of technological innovation, economic development level, government intervention degree, foreign trade dependence, degree of marketization and human capital on the development of digital economy of service industry. Yang et al. (2023) showed that the development of digital economy has a positive driving effect on the structural upgrading of the service industry, which is mainly realized through the mechanisms of factor supply, job creation and technological innovation, and the advanced human capital has a positive moderating effect on this effect.

Through the theoretical framework of government-market relations, [Dai et al. \(2023\)](#) found that the digital economy significantly promotes the structural upgrading of China's service industry, and the effectiveness of government governance enhances its promotional role, but the impact on the mechanism of labor efficiency enhancement is not obvious; the digital industry, digital users, and digital platforms have a positive impact on the structural upgrading of the service industry, and the role of digital innovation is insignificant; the digital economy has a positive effect on the structural level of the service industry in the first-tier cities, central cities, eastern cities and cities with higher levels of service industry structure have more obvious promotion effects. [Ji and Wei \(2023\)](#) pointed out that the digital economy has a significant impact on service industry agglomeration, but there are differences in regional and industry heterogeneity, and the government should address the digital divide to reduce regional differences and promote the optimization of the spatial pattern of service industry agglomeration.

### **2.3. Measures and Effects of the Digital Economy on the Transformation and Upgrading of the High-End Service Industry**

[Ren and Gong \(2023\)](#) believe that the digital economy plays an important role in the transformation and upgrading of the service industry, and that measures such as accelerating the construction of digital infrastructure, promoting the development of digital finance, guiding digital innovation and strengthening regulation can promote the digital transformation of the service industry and enhance the labor productivity of the service industry. [Ma et al. \(2023\)](#) put forward the development of the digital economy can improve the efficiency of the service industry and alleviate the pressure of insufficient labor supply, especially in the case of deepening aging and optimization of the industrial structure, the eastern region will benefit more, and it is necessary to accelerate the development and popularization of the digital economy and promote the digital transformation of the service industry in a targeted manner. [Zhong et al. \(2023\)](#) pointed out that the development of the digital economy has a significant impact on the structural upgrading of the service industry, especially the digital industrialization, digital infrastructure construction and industrial digitization have the greatest impact on the structural upgrading of the service industry, and the effect of the digital economy on the structural upgrading of the service industry in the central and western regions is more significant.

The development of the digital economy has a positive impact on the employment of the service industry, especially through the expansion of the urban population scale and the promotion of the industrial structure of the service to increase the employment of the service industry ([Zhou et al., 2023](#)), but there are differences in the extent of the impact on different industries, and spatial effects are produced. And the digital economy is a new driving force to

promote the transformation and upgrading of the high-end service industry, and that a new pattern of high-quality development and modern industrial development can be realized through measures such as strengthening the top-level design, integrating digital elements, and developing industrial digital finance (Wang, 2023b).

#### **2.4. The Role of Digital Economy Development at the Level of Local High-End Service Industries**

From theoretical aspect, the digital transformation of industries brought about by the penetration and integration of digital technology into other industries (Shi, 2022), that is, industrial digitalization. The service industry can break down cross-industry barriers through the digital economy, provide accurate and efficient supply and demand matching, and realize the effective link between the supply side and the demand side, so that the supply side can achieve flexible production and provide personalized services for the demand side, forming a “long tail effect” (Zhao & Li, 2022), thereby improving transaction efficiency and reducing transaction costs (Zhang & Zhou, 2020). In addition, the use of digital technology can also optimize the internal division of labor structure of the service industry, promote the integrated development of the service industry and multiple industries, optimize the combination of multiple production factors, promote the integration of enterprise industrial chains, improve the efficiency of division of labor and collaboration, and realize the optimization and upgrading of the service industry structure.

From practical aspect, based on Shanghai experience, Wang (2023a) points out that the integration of digital economy and financial services tends to accelerate the layout of digital technology, promote digital governance. Greater Bay Area experience show that the rapid development of the digital economy provides an important opportunity for the integration of the two industries, and the digital economy has a significant role in promoting the integration of the two industries in the Greater Bay Area, which requires the implementation of dynamic and differentiated digital economy development strategies, the establishment of an integration mechanism, the acceleration of the digital economy’s efficiency change, power change, and quality change, and the promotion of the in-depth integration and development of the two industries (Jiao et al., 2023). The existing literature also suggests the digital economy plays an important role in the transformation and upgrading of the service industry and the improvement of labor productivity. First, the application of digital technology can accelerate the digital transformation of service industries and improve their efficiency and quality by promoting digital infrastructure development and digital financial development. Second, the development of the digital economy can meet the demand for labor quality in the service industry, promote the deepening of human capital, and attract outstanding talent by providing higher compensation and driving labor supply transformation. In addition, the digital economy can



promote the structural upgrading of the service industry, and optimize and innovate the service industry by promoting industry convergence, the development of new forms of business and the digitalization of the industry. The development of the digital economy provides important opportunities for the innovative development of high-end service industries. By promoting digital transformation, strengthening innovation and enhancing human capital, the optimization and upgrading of the service industry and the improvement of labor productivity can be achieved, and the high-quality development of the economy can be promoted. However, in the process of integrating the digital economy and the high-end service industry, it is necessary for the government, enterprises and all parties in society to make joint efforts and strengthen cooperation and innovation in order to promote the synergistic development of the digital economy and the high-end service industry, and to realize the goals of economic transformation and upgrading and sustainable development.

### **3. Development Status of Beijing's High-End Service Industry in the Era of Digital Economy**

In May 2015, the State Council approved the “Overall Plan for the Comprehensive Pilot Program for the Expansion and Opening-up of Beijing’s Service Industry”, according to which Beijing’s service industry will expand the comprehensive pilot project of opening up, and take the lead in promoting the priority development of six key areas: science and technology services, Internet and information services, cultural and educational services, financial services, business and tourism services, and health and medical services, so as to promote the overall development of Beijing’s high-end service industry.

#### **3.1. Digital Economy Development in Beijing**

##### 1) Disposable income and consumption status in Beijing

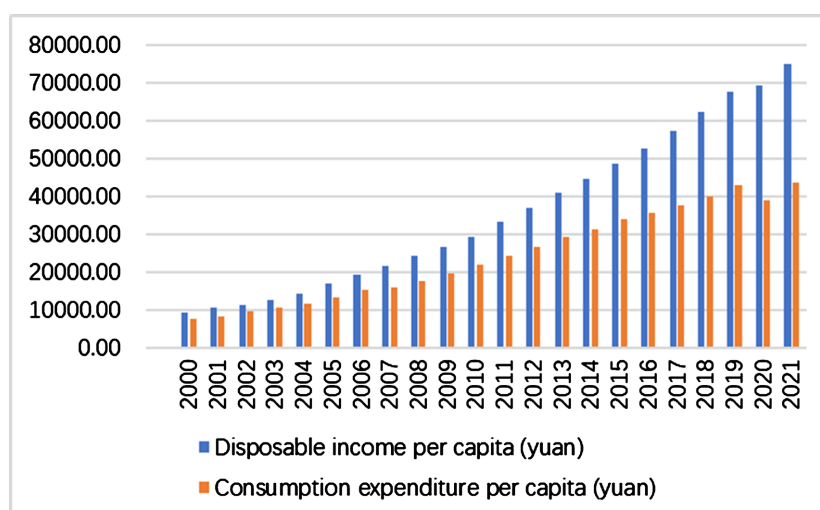
Beijing’s per capita disposable income experienced a steady increase from year 2000 to 2021 (**Figure 1**). Per capita disposable income shows a trend of increasing year by year, with a growth rate fluctuating between 6% and 15.77%. This indicates that the overall economic level is increasing and people’s income is increasing accordingly.

Compared with per capita disposable income, per capita consumption expenditure also shows a year-on-year growth trend. This shows that as the economy develops, people’s demand for consumer goods and services also increases (**Figure 1**).

##### 2) Digital economy size in Beijing

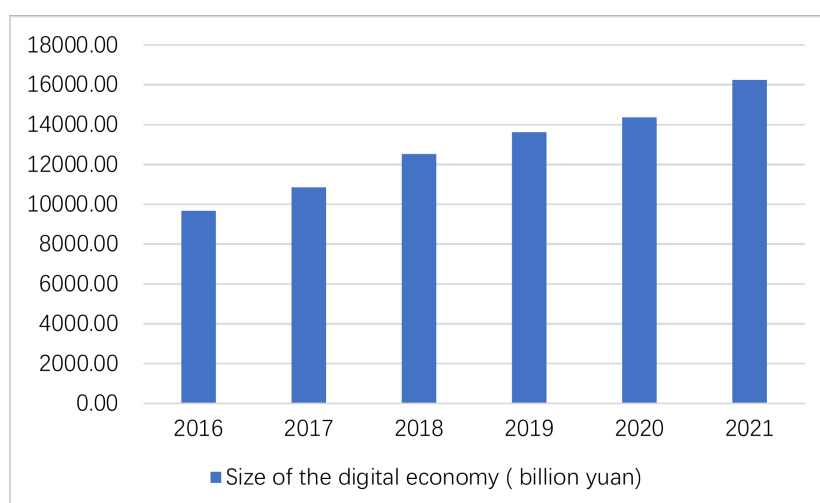
The data on the size of the digital economy from 2016 to 2021 shows that the size of the digital economy has continued to grow over the years. This reflects the rapid development and application of digital technology and the gradual increase in the contribution of the digital economy to the overall economy (**Figure 2**).





Data source: Beijing Statistical Yearbook (2001-2022).

**Figure 1.** Disposable income and consumption expenditure per capital.



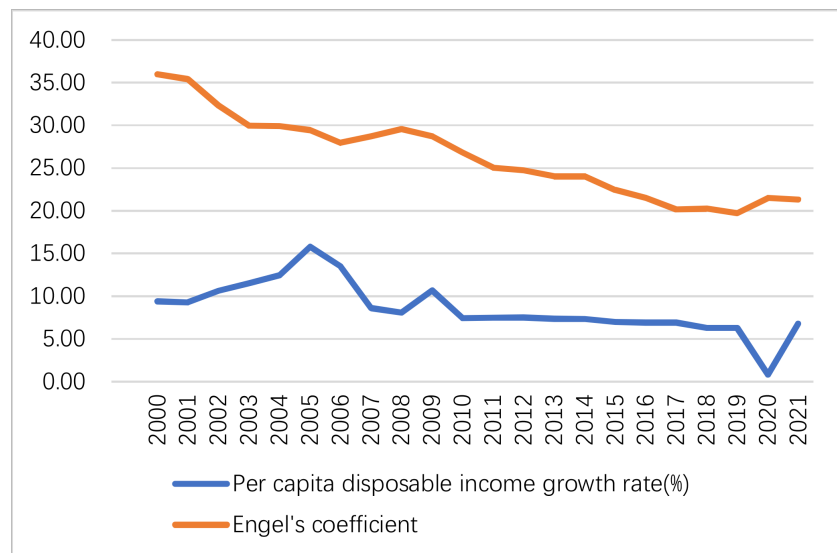
Data source: Beijing Statistical Yearbook (2017-2022).

**Figure 2.** Digital economy size (2016-2021).

### 3) Engel's coefficient

Engel's coefficient is a measure of the proportion of food expenditure in household consumption to total expenditure. From the data, the Engel's coefficient decreases from 35.98% in 2000 to 21.3% in 2021. This indicates that the proportion of total consumption expenditure spent on food has gradually decreased during this period, implying that people's living standards have improved and their consumption structure has diversified (**Figure 3**).

In summary, based on the data provided, we can see that the development of the digital economy and per capita disposable income have a positive correlation in the past few years. As the size of the digital economy grows, per capita disposable income also increases. This indicates that the development of the digital economy has provided residents with more economic opportunities and sources



Data source: Beijing Statistical Yearbook (2001-2022).

**Figure 3.** Disposable income growth rate and Engel's coefficient.

of income; the development of the digital economy has also had a positive impact on per capita consumer spending. With the growth of the size of the digital economy, per capita consumption expenditure has also increased, but the Engel coefficient is decreasing year by year, which indicates that the development of the digital economy provides residents with more consumption choices and consumption capacity. The development of the digital economy has therefore played a positive role in economic growth and the improvement of people's livelihoods.

### 3.2. General Development of Beijing's High-End Services

From 2000 to 2022 (Table 1), Beijing's gross domestic product (GDP) shows a year-on-year growth trend, with the Gross Regional Product (GRP) increasing from 327.78 billion yuan to 416.109 billion yuan; the growth rate of Beijing's GDP fluctuates, but the overall trend shows year-on-year growth. Despite the fluctuations in the growth rate, it remained positive overall; Beijing's GDP per capita also showed a year-on-year growth trend. The per capita GDP increased from 25,014 yuan to 190,313 yuan. To summarize, Beijing's economy has continued to grow over the past few decades, with GDP and GDP per capita showing year-on-year growth trends. This shows that the economy of Beijing has developed rapidly and the living standard of the residents has been significantly improved.

From 2000 to 2022, the proportion of added value of tertiary industry to GDP increases year by year from 66% at the beginning to 83%; the proportion of added value of high-end service industry to that of tertiary industry shows a rising trend from 81% to 90%; the proportion of added value of high-end service industry to GDP rises year by year from 54% at the beginning to 76%. To summarize,

**Table 1.** Gross regional product, GDP growth rate and GDP per capita.

Year	Gross regional product (billion yuan)	GDP growth rate (%)	GDP per capita (yuan/person)
2022	41610.90	1.38%	190313.00
2021	41045.60	14.20%	187526.00
2020	35943.30	1.41%	164158.00
2019	35445.10	7.07%	161776.00
2018	33106.00	10.79%	150962.00
2017	29883.00	10.51%	136172.00
2016	27041.20	9.13%	123391.00
2015	24779.10	8.08%	113692.00
2014	22926.00	8.48%	106732.00
2013	21134.60	11.09%	100569.00
2012	19024.70	10.68%	92758.00
2011	17188.80	14.87%	86246.00
2010	14964.00	15.99%	78307.00
2009	12900.90	9.21%	71059.00
2008	11813.10	13.31%	68541.00
2007	10425.50	24.31%	63629.00
2006	8387.00	17.30%	53438.00
2005	7149.80	14.35%	47182.00
2004	6252.50	18.71%	42402.00
2003	5267.20	16.38%	36583.00
2002	4525.70	17.20%	32231.00
2001	3861.50	17.81%	28097.00
2000	3277.80	--	25014.00

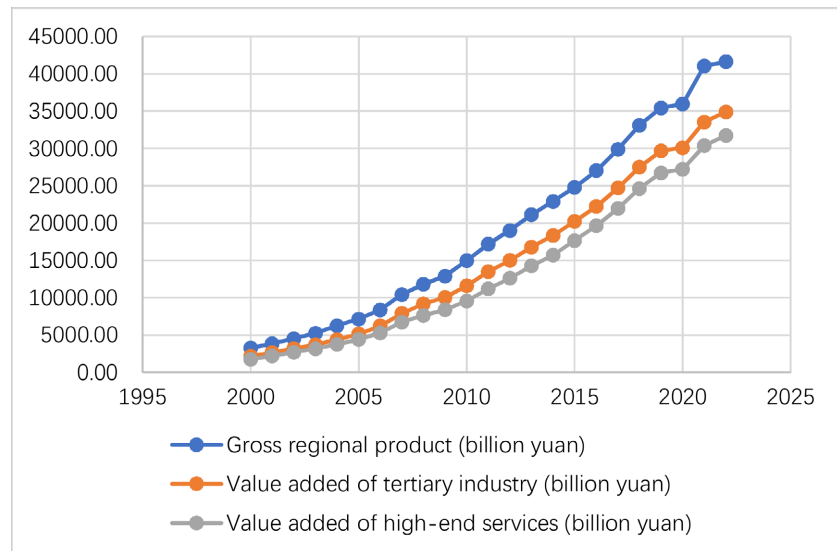
Data source: Statistics from the Beijing Municipal Bureau of Statistics (2001–2023).

Beijing's economic structure is gradually transforming to the tertiary industry, and the proportion of service industry in the economy is gradually increasing. The development of high-end service industry is relatively fast, and its contribution to economic growth is gradually increasing, becoming an important driving force for Beijing's economic growth (See **Figure 4** & **Figure 5**).

### 3.3. Regional Development of Beijing's High-End Services (Table 2)

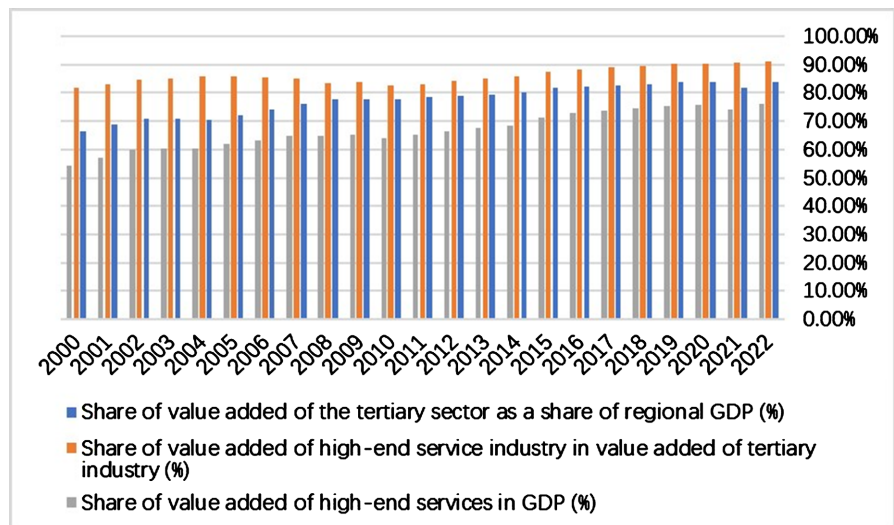
From the data, the gross domestic product (GDP) of each district in Beijing from 2007 to 2021 varies, for example:

In 2007, Xicheng District had the highest GDP of 149.8 billion yuan, followed by Haidian District and Chaoyang District with 182.875 billion yuan and 169.741 billion yuan, respectively, and Huairou District had the lowest GDP of 12.153 billion yuan; the value added of tertiary industry in Chaoyang District had the highest value of 145.999 billion yuan, followed by Haidian District and Xicheng District with 146.794 billion yuan and 133.266 billion yuan, respectively. Huairou District's added value of the tertiary industry was the lowest 4.273 billion yuan; Haidian District's added value of high-end service industry was the highest 133.832 billion yuan, followed by Chaoyang District and Xicheng District with 120.419 billion yuan and 120.575 billion yuan, respectively, and Huairou



Data source: Statistics from the Beijing Municipal Bureau of Statistics (2001-2023).

Figure 4. Value added of high-end services (1995-2022, billion yuan).



Data source: Statistics from the Beijing Municipal Bureau of Statistics (2001-2023).

Figure 5. Share of value added in high-end services (2000-2022).

**Table 2.** Comparison of regional growth of high-end services in Beijing (2007 and 2021).

Region	Year	Gross Regional Product (billion yuan)	GDP growth rate %	Value added of tertiary industry (billion yuan)	Value added of tertiary sector as %	Value added of high-end services (billion yuan)
Dongcheng district	2021	3193.05	8.72%	3100.41	97.10%	2760.53
	2007	807.05	13.43%	743.25	92.09%	629.73
Xicheng district	2021	5408.11	8.10%	5133.40	94.92%	4826.61
	2007	1498.00	22.45%	1332.66	88.96%	1205.75
Chaoyang District	2021	7617.81	8.25%	7092.48	93.10%	5823.64
	2007	1697.41	17.08%	1459.99	86.01%	1204.19
Fengtai District	2021	2009.74	8.72%	1680.07	83.60%	1515.04
	2007	463.23	11.94%	340.23	73.45%	293.55
Shijingshan District	2021	959.88	11.28%	801.66	83.52%	756.29
	2007	226.40	11.25%	73.94	32.66%	65.28
Haidian District	2021	9501.74	11.89%	8668.57	91.23%	8288.20
	2007	1828.75	20.08%	1467.94	80.27%	1338.32
Mentougou District	2021	268.78	7.91%	194.66	72.42%	175.12
	2007	56.57	15.16%	26.33	46.55%	23.67
Fangshan District	2021	818.35	9.09%	474.52	57.99%	435.80
	2007	210.78	7.01%	89.11	42.28%	78.69
Tongzhou District	2021	1206.35	8.63%	744.45	61.71%	664.87
	2007	186.76	15.36%	80.17	42.93%	64.74
Shunyi District	2021	2076.77	12.30%	1493.65	71.92%	1372.99
	2007	355.13	21.60%	143.49	40.41%	126.62
Changping District	2021	1286.98	11.73%	829.76	64.47%	778.62
	2007	269.82	20.20%	127.54	47.27%	117.57
Daxing District	2021	1461.84	57.01%	669.15	45.77%	611.09
	2007	194.30	15.02%	91.54	47.11%	80.66
Huairou District	2021	432.61	8.39%	258.11	59.66%	246.11
	2007	121.53	22.29%	42.73	35.16%	37.60
Pinggu District	2021	359.28	11.62%	261.50	72.79%	240.85
	2007	72.08	12.33%	30.86	42.81%	26.46
Miyun District	2021	360.31	8.07%	252.93	70.20%	233.81
	2007	94.64	11.49%	41.53	43.88%	34.60
Yanqing District	2021	204.74	4.62%	155.61	76.00%	141.32
	2007	51.08	11.95%	31.82	62.29%	27.97
Beijing Economic and Technological Development Zone	2021	2666.01	30.67%	781.99	29.33%	515.53
	2007	482.61	25.28%	159.26	33.00%	47.58

Data source: Beijing Statistical Yearbook (2008-2022).

District's added value of high-end service industry was the lowest 3.760 billion yuan; Changping District's added value of high-end service industry accounted for the highest proportion of the added value of tertiary industry 92.18%, followed by Haidian District and Shijingshan District with 91.17% and 88.29% respectively. Daxing District has the lowest share of 88.12%.

Xicheng District has the highest GDP of 540.811 billion yuan in 2021, followed by Chaoyang District and Haidian District with 761.781 billion yuan and 951.174 billion yuan respectively. Yanqing District has the lowest GDP of 20.474 billion yuan. Chaoyang District had the highest added value of the tertiary industry at 709.248 billion yuan, followed by Haidian District and Fengtai District at 866.857 billion yuan and 168.007 billion yuan respectively. Miyun District's added value of the tertiary industry was the lowest at 25.293 billion yuan; Haidian District's added value of high-end services was the highest at 828.820 billion yuan, followed by Chaoyang District and Xicheng District at 582.364 billion yuan and 482.661 billion yuan respectively. The value added of high-end service industry in Yanqing District is the lowest 14.132 billion yuan. Haidian District's value added of high-end service industry accounted for the highest proportion of value added of the tertiary industry of 95.61%, followed by Shijingshan District and Xicheng District with 94.34% and 94.02% respectively. Miyun District has the lowest proportion of 92.44%.

By comparing the data from 2007-2021, the following conclusions can be drawn about the status of high-end service industry development: Xicheng District, Haidian District and Chaoyang District are more prominent in terms of GDP, value added of the tertiary industry and value added of high-end service industry. These three districts have ranked high in the data of recent decades, indicating that they have sustained advantages in the development of high-end service industries. Huairou and Miyun Districts have relatively weak economic development. These two regions are ranked low in the data of recent decades, indicating that they are relatively lagging behind in the development of high-end service industries. From 2007-2021, Haidian District has the most significant growth in the value-added of its high-end service industry, from 13.332 billion yuan to 828.820 billion yuan, a large increase. And the value added of high-end service industry in Huairou District grows less, from 3.760 billion yuan to 14.132 billion yuan, a smaller increase. To summarize, Xicheng District, Haidian District and Chaoyang District have a greater advantage in the development of high-end service industry, and this advantage has been further consolidated in the past few years. On the other hand, Huairou and Miyun Districts are relatively weak in the development of high-end service industries and need to further strengthen development measures.

### **3.4. Sector Development of Beijing's Industry's High-End Services**

From 2000 to 2021, the added value of Beijing's tertiary industry showed a trend of increasing year by year (**Table 3**). In 2021, the added value of the tertiary

**Table 3.** Sector growth value of Beijing's industry's high-end services (billion yuan).

Sector	2021	2020	2014	2010	2005	2000
Value added of tertiary industry	33545.20	30095.90	20218.90	11608.10	5155.50	2174.90
Value added of wholesale and retail trade	3126.70	2840.30	2579.00	1995.40	718.90	387.50
Value added of transportation, storage and postal services	900.90	844.40	724.80	570.40	333.90	199.50
Value added of accommodation and food services	429.80	360.80	404.40	346.30	190.80	85.90
Value added of financial sector	7683.10	7057.10	3736.80	2038.10	879.90	449.80
Value added of real estate industry	2603.60	2459.00	1745.20	1261.40	573.40	163.20
Value added of information transmission, software and information technology services	6535.30	5601.50	2283.00	1314.10	637.40	164.40
Value added of rental and business services	2435.30	2286.20	1917.20	1055.70	379.90	118.80
Value added of scientific research and technology services	3198.20	2973.90	1628.90	940.20	373.30	123.00
Value added of water, environment and utilities management	307.00	303.90	159.60	85.20	43.50	23.40
Value added of residential services, repairs and other services	194.60	187.70	177.40	111.00	85.50	36.20
Value added of education	1964.80	1899.20	1000.10	594.50	312.90	102.30
Value added of health and social work	1078.50	1002.70	547.00	290.00	127.50	55.30
Value added of culture, sports and recreation	736.80	651.70	508.10	313.90	174.90	84.50
Value added of public administration, social security and social organizations	1669.50	1581.00	877.60	658.90	302.00	97.70

Data source: Beijing Statistical Yearbook (2008-2022).

industry will be 3354.520 billion yuan, an increase of 15 times compared with 217.490 billion yuan in 2000, which shows that Beijing has made significant progress in the development of its service industry. Special attention should be paid to the added value of Beijing's high-end service industry in 2015, showing a relatively obvious growth trend. In 2015, the added value of the high-end service industry was 2021.890 billion yuan, an increase of 1 trillion yuan compared with 1160.810 billion yuan in 2010. This shows that Beijing's high-end service industry has great potential for development. Among the high-end service industries, the added value of the financial industry and the information transmission, software and information technology services increased significantly. The added value of the financial industry increased from 44.980 billion yuan in 2000 to 436.550 billion yuan in 2015, an increase of nearly 10 times, and from 2015 to 2021 to 768.310 billion yuan, an increase of nearly 2 times, and an overall increase of more than 17 times; The added value of the software and information technology service industry increased by nearly 16 times from 16.440 billion yuan in 2000 to 260.000 billion yuan in 2015, and increased by nearly 3 times from 653.530 billion yuan from 2015 to 2021, with an overall increase of more than 39 times. This shows that the financial industry and information technology sector play an important role in the growth of Beijing's high-end service in-



dustry. To sum up, Beijing's high-end service industry has achieved significant development in the past few years, especially in the financial industry and information technology sectors. These digital economy industries have provided new impetus and opportunities for the development of Beijing's high-end service industry.

As for regional development of high-end services in key sectors, **Table 4** shows the value added of financial sector, information transmission, software and information technology services sector and scientific research and technology services sector, which present the fastest growth rate, the largest growth value and the most representative among the districts of Beijing.

In 2007, the value added of financial industry in Xicheng District was the highest 57.760 billion yuan, followed by Haidian District and Chaoyang District with 16.429 billion yuan and 15.196 billion yuan respectively, and the value added of financial industry in Beijing Economic-Technological Development Area was the lowest 130 million yuan; the value added of information transmission, software and information technology service industry in Haidian District was the highest 41.035 billion yuan, followed by Dongcheng District and Xicheng District with 12.625 billion yuan and 10.076 billion yuan, and the value added of information transmission, software and information technology services in Huairou District was the lowest at 0.04 billion yuan; the value added of scientific research and technology services in Haidian District was the highest at 30.783 billion yuan, followed by Chaoyang District and Dongcheng District at 11.208 billion yuan and 7.254 billion yuan, and that of Pinggu District was the lowest at 0.42 billion yuan. The value added of scientific research and technical services in Pinggu District was the lowest at 0.42 billion yuan.

In 2021, the value added of financial industry in Xicheng District was the highest 287.247 billion yuan, followed by Haidian District with 141.666 billion yuan and 96.777 billion yuan in Chaoyang and Haidian Districts, respectively, and the lowest 1.528 billion yuan in Yanqing District; the value added of information transmission, software and information technology services in Haidian District was the highest 381.598 billion yuan, followed by Chaoyang and Dongcheng Districts, respectively, of 97.127 billion yuan and 35.902 billion yuan, and the lowest value added of information transmission, software and information technology services in Yanqing District was 182 million yuan; the value added of scientific research and technology services in Haidian District was the highest at 118.307 billion yuan, followed by Chaoyang District and Dongcheng District at 62.870 billion yuan and 33.611 billion yuan respectively, and the lowest value added of scientific research and technology services in Yanqing District was 546 million yuan.

From 2007 to 2021, the added value of the high-end service industry of the tertiary industry in Beijing shows a year-on-year growth trend, in which the three most important items are the added value of the financial industry, the added value of the information transmission, software and information technology service industry and the added value of the scientific research and technology service

**Table 4.** Regional development of high-end services in key sectors from 2007 to 2021 (billion yuan).

District	Year	Value added of financial sector	Value added of information transmission, software and information technology services	Value added of scientific research and technology services
Dongcheng district	2021	946.95	359.02	336.11
	2007	123.84	126.25	72.54
Xicheng district	2021	2872.47	222.66	292.45
	2007	577.60	100.76	34.90
Chaoyang District	2021	1416.66	971.27	628.70
	2007	151.96	96.37	112.08
Fengtai District	2021	292.86	109.45	270.43
	2007	40.84	24.94	60.66
Shijingshan District	2021	182.26	277.97	53.84
	2007	11.59	10.64	9.85
Haidian District	2021	967.77	3815.98	1183.07
	2007	164.29	410.35	307.83
Mentougou District	2021	23.61	8.81	12.47
	2007	2.14	0.06	0.81
Fangshan District	2021	53.04	15.84	34.03
	2007	8.01	0.37	4.58
Tongzhou District	2021	117.91	10.89	32.09
	2007	9.69	0.46	1.81
Shunyi District	2021	334.17	62.72	50.06
	2007	16.46	1.00	9.70
Changping District	2021	92.21	83.56	120.50
	2007	10.35	9.77	17.80
Daxing District	2021	101.12	19.51	49.62
	2007	12.98	0.31	7.62
Huairou District	2021	23.11	33.37	25.80
	2007	3.50	0.04	1.85
Pinggu District	2021	16.74	57.44	12.70
	2007	3.15	0.10	0.42
Miyun District	2021	20.65	7.08	8.20
	2007	3.53	0.09	1.10
Yanqing District	2021	15.28	1.82	5.46
	2007	2.02	0.05	1.06
Beijing Economic and Technological Development Zone	2021	63.69	150.63	73.89
	2007	1.30	22.55	17.37

Data source: Beijing Statistical Yearbook (2008-2022).

industry. In 2021, the added value of the tertiary industry in Xicheng District will be 513.340 billion yuan, and the value of the high-end service industry will be 482.661 billion yuan. 482.661 billion yuan<sup>1</sup>; while the added value of financial industry is 287.247 billion yuan, accounting for 55.96% and 59.51% respectively, compared with 57.760 billion yuan in 2007, an increase of nearly five times more<sup>2</sup>; Haidian District's tertiary industry added value of 866.857 billion yuan, and the added value of high-end service industry is 82.880 billion yuan; while the added value of information transmission, software and information technology service industry The added value of information transmission, software and information technology service industry is 381.598 billion yuan, accounting for 43.94% and 46.04% respectively, compared with 41.035 billion yuan in 2007, an increase of more than 9 times; the added value of scientific research and technology service industry in Haidian District is 118.307 billion yuan, accounting for 13.62% and 14.27% respectively, compared with 30.783 billion yuan in 2007, an increase of nearly 4 times<sup>3</sup>. The sum of the added value of information transmission, software and information technology service industry and scientific research and technology service industry in Haidian District accounted for 57.56% and 60.31% of the added value of the tertiary industry and the added value of high-end service industry in Haidian District, which is much larger than the other proportion<sup>4</sup>.

### 3.5. Summary

There is a positive correlation between the growth of the digital economy and disposable income per capita. As the size of the digital economy grows, disposable income per capita increases. The development of the digital economy also has a positive impact on per capita consumption expenditure, and people's consumption demand increases. Engel's coefficient decreases year by year, indicating that people's living standards have improved, and the diversification of the consumption structure allows people to pursue more new high-tech products and pay more attention to the quality of life. Therefore, the development of digital economy indirectly promotes the development of high-end service industry. Beijing's economy has continued to grow over the past decades, with GDP and GDP per capita showing year-on-year growth. At the same time, Beijing's economic structure is gradually transforming to the tertiary industry, and the proportion of the service industry in the economy is gradually increasing. High-end service industry develops relatively fast, and its contribution to economic growth gradually increases, becoming an important driving force for Beijing's economic growth.

From 2000 to 2022, the added value of Beijing's tertiary industry continues to grow, and reaches RMB 348.943 billion in 2022, an increase of as much as 16

<sup>1</sup>Data sources: Beijing Statistical Yearbook (2022).

<sup>2</sup>Data sources: Beijing Statistical Yearbook (2006-2022).

<sup>3</sup>Data sources: Beijing Statistical Yearbook (2006-2022).

<sup>4</sup>Data sources: Beijing Statistical Yearbook (2006-2022).

times. The value-added of the high-end service industry grows from 178.140 billion yuan in 2000 to 317.3690 billion yuan in 2022, an increase of nearly 18 times. From 2007 to 2021, there are differences in the development of high-end service industry in various districts of Beijing. Xicheng District, Haidian District and Chaoyang District have outstanding performance and sustained advantages in terms of GDP, value added of tertiary industry and value added of high-end service industry. This is especially true for the financial industry, information transmission, software and information technology services, and scientific research and technology services. In the past decades, the added value of these three industries has shown a year-on-year growth trend. To summarize, Xicheng District, Haidian District and Chaoyang District have a greater advantage in the development of high-end service industries due to their outstanding advantages in innovative technologies. While Huairou and Miyun Districts are relatively lacking in new technologies, so the development of high-end service industry is relatively lagging and needs to strengthen the development measures.

## **4. Problems in the Development of Beijing's High-End Services Enabled by Digital Economy**

### **4.1. Uneven Regional Development**

The development of Beijing's high-end service industry has obvious differences between different regions, for example, in 2021, the value added of high-end service industry in Dongcheng, Xicheng, Haidian and Chaoyang districts will have the most obvious growth, which will be 276.063 billion yuan, 482.661 billion yuan, 828.820 billion yuan and 581.364 billion yuan respectively, while the growth in other regions is relatively low, especially in Yanqing and Mentougou districts, where the value added of high-end service industry added value of only 14.131 billion yuan and 17.512 billion yuan. These figures fully reflect the imbalance in the development of this region of Beijing as a whole, so it is necessary to urgently strengthen the development of high-end service industry in the lagging regions.

### **4.2. Lack of Educational Resources in Some Regions**

Beijing's high-end service industry has a high demand for talent, but there is currently a shortage of talent supply, for example, in 2021 in the education and culture, sports and entertainment industry spending, Beijing as a whole, in addition to Dongcheng, Xicheng, Haidian, Chaoyang four districts with a total expenditure of more than 20 billion yuan, the other districts and counties are only about 10 billion yuan inputs, and the Pinggu, Miyun, Yanqing and economic and technological development zones less than a total of 3 billion yuan, these relatively backward areas of education resources in the overall level of high-end service industry is substantially behind the educational resources of the dominant areas, so to enhance the educational resources of some areas are also urgently needed.

### 4.3. Insufficient Innovation Capacity across Regions

Although Beijing's high-end service industry has made certain achievements in the digital economy, the value added of scientific research and technology services reached 319.820 billion yuan in 2021, and the value added of developed regions was 271.077 billion yuan, accounting for 84.76% of the total, which shows that the innovation capacity of some areas in Beijing is weak. Developed areas of Dongcheng, Xicheng, Haidian, Chaoyang were 33.611 billion yuan, 29.245 billion yuan, 118.307 billion yuan and 62.870 billion yuan, the gap in value added between the four regions has been obvious, in contrast to the backward areas of Mentougou, Pinggu, Miyun, Yanqing were 1.247 billion yuan, 1.270 billion yuan, 820 million yuan and 546 million yuan, and the developed regions. In sharp contrast to the developed regions, the growth value of its scientific research and technological services is much smaller than that of the developed regions, which is basically negligible. This shows that there is a serious imbalance in the development of innovation in various regions of Beijing, so it is necessary to strengthen scientific and technological innovation in the backward regions, improve independent R&D capability, and promote the innovative development of high-end service industry.

### 4.4. Unreasonable Industrial Structure across Regions

The total value of Beijing's high-end service industry is 2973.740 billion yuan, of which the industries accounting for more than 8% include five, namely, financial industry; information transmission, software and information technology services; scientific research and technology services; real estate industry; and leasing and business services are the important components of Beijing's high-end service industry, accounting for 26%, 22%, 11%, 9%, and 8%, respectively, with a total proportion of 26%, 22%, 11%, 9%, and 8%, which is up to 76% of the total value of the high-end service industry. 76%. However, the financial industry and the information transmission, software and information technology service industry account for 63.16% of the five parts, while other industries account for up to 6%, and even more industries account for only 1%, so there are major problems in the structure of various industries, and some industries are lagging behind, so it is necessary to adjust the proportion of the structure of the various industries, and to improve the proportion of the lagging industries, and to ensure the relatively balanced development of the various industries. Therefore, there is a need to adjust the structural ratio among industries and improve the proportion of backward industries, so that the development of each industry is relatively balanced.

## 5. Experiences in Promoting the Development of High-End Services through the Digital Economy in Major Countries

To address the problems encountered in Beijing's high-end service empowered by digital economy, the development experience of the international digital

economy empowering the high-end service industry provides a useful reference for the development of Beijing's high-end service industry. The selection of countries follows the following three principles: 1) representativeness, that is, the comparators are from different countries or regions; 2) reference, that is, the comparison object has reference in the level of economic development and positioning, and has a high level of development of high-end service industry; 3) Feasibility, i.e., the relevant statistical data of the high-end service industry of the comparison object is available and relatively reliable. Based on the above three principles, this paper selects Japan, the United States, and Europe as reference objects, considering the development level of high-end service industries in metropolises of various countries, and considering multiple factors such as geographical location, city (country) positioning, population size, cultural level, and economic development.

### 5.1. Digital Economy Promotion Strategies in Major Countries

Lan et al. (2018) found that Japan continuously promotes the development of the digital economy through policy guidance and legal protection, so that Japan's digital economy development infrastructure leads the world, the digital economy has become the leading force in the Japanese economy, the overall digital informatization level of society is high, and the use of the digital economy to carry out structural reforms to promote the transformation and upgrading of the real economy. Wang and Tan (2021) found that the United States and the European Union through a sound digital economy organization, strengthen the strategic leadership highlighting the sense of competing for the first and the sense of worry, and promote the development of the digital economy ecological construction, as a way to make the digital economy in the development of the global forefront. Wang et al. (2022) believe that the digital economy is a new type of economic form following the agricultural economy and industrial economy, and that international cooperation to promote digital economic innovation not only covers the overall situation of the innovative development of the digital economy, but also focuses on the layout of domestic and foreign strategic pivots and the international rules and standards system.

The development of digital economy largely relies on policy guidance and legal protection to promote the development of digital economy, make it become the leading force of the economy, and promote the transformation and upgrading of the real economy. While the United States and the European Union and other developed countries and regions through the strengthening of the digital economy organization and strategic leadership, to promote the digital economy in the forefront of the world. In the current social digital economy has been to provide consumers with customized products and services, creating a new ecosystem, the digital economy is a new type of economic form, more need for international cooperation and rules and standards system support.

## 5.2. High-End Service Development Empowered by Digital Economy

Japanese government has promoted the development of the digital economy by increasing investment in the digital information industry, improving the use and application of the digital information industry in the economy and society, innovating the products, services and business of the digital information industry, and vigorously developing the export and overseas investment of the products and services of the digital information industry, which in turn promotes the development of the high-end service industry (Lan et al., 2018). It is held that the rapid development of the digital economy has led to the inability of the existing economic accounting system to accurately measure its scale, so international organizations and countries are constructing a new digital economy measurement system to promote the development of the high-end service industry by more precise means (Zhong, 2021). The United States, the European Union and other countries have centralized power and coordination among digital economy management departments, a sound system, a prominent leading role in the forefront of strategic documents, key core technology advantages, and a high degree of stability in the digital industry chain and supply chain, which enables them to exert overall synergy to promote the high-quality development of the digital economy and provide driving force for the development of the core areas of high-end service industry (Wang & Tan, 2021). To carry out equal and mutually beneficial international cooperation, accelerate the construction of a unified national market, support international cooperation with efficient domestic cooperation, and promote international cooperation in an orderly manner that considers the overall situation and the key points from a realistic point of view, will all help to create a favorable international digital economy atmosphere for the high-end service industry (Wang et al., 2022).

It can be concluded that different countries and regions have different responses to the application of the digital economy to the development of high-end service industries. The Japanese government promotes the development of the digital economy through investment and policy guidance to facilitate the development of high-end service industries. The digital economy of the United States, the European Union and other countries, because of its management department with centralized power, coordination and coordination characteristics, in the case of a sound system, with key core technology advantages, to promote the high-quality development of the digital economy in various aspects. However, with the rapid development of the digital economy has led to the existing economic accounting system cannot accurately measure its scale, so the relevant international organizations and countries are building a new digital economy measurement system, to promote the development of high-end service industry more accurately. At the international level, international cooperation of equality and mutual benefit and win-win situation is carried out to build a unified big market and create a favorable international digital economy atmosphere for the



high-end service industry. Through these digital economy tools, different regions and countries can promote the development of high-end service industry from multiple perspectives, multiple dimensions, all-round and deep levels.

In promoting the development of high-end service industries, Japan stimulates the investment of the digital economy in high-end service industries and promotes the development of high-end service industries by creating an environment conducive to the advancement of digital technology, strengthening the security of digital information as a way to ensure the sustainability of the digital economy, and providing capital support for the digital economy (Lan et al., 2018). Developed countries such as Japan, United States attach much importance to the all-round radiation-driven role of the digital economy, promote the development of the digital economy through strategies, policies and infrastructure construction measures, narrow the digital divide and strengthen network security, pay close attention to the link with the real economy, and safeguard the role of the digital economy in the promotion of high-end service industry (Du, 2020). Countries in European Union have fully absorbed the practical experience of international digital economy measurement, improved digital economy measurement and made further strategic choices based on the development needs of high-end service industries (Zhong, 2021). And it is important to enhance the strategic position of the digital economy, seize the opportunity of the new round of scientific and technological revolution and industrial change, promote the digital economy from quantitative to qualitative change, realize the high-quality development of high-end service industry, and vigorously enhance the competitiveness of the country in the digital era (Wang & Tan, 2021). And the empowerment effect of digital economy is more obvious compared with the improvement of the traditional services on the high-end services industry (Qian et al., 2022). The government intervenes appropriately in the capital market, develops the high-end service industry, and formulates different digital transformation policies for different industries. Relevant enterprises increase technology research and development, and actively explore the direction of digital transformation in the service industry. The government and enterprises should work together to promote the development of the high-end service industry.

### 5.3. Indications

The creation of an environment conducive to the progress of digital technology, the strengthening of digital information security and the provision of capital support for the digital economy can promote the development of high-end service industries. Developed countries guarantee the promotion of digital economy to high-end service industry through strategy, policy and infrastructure construction. Moreover, by absorbing international experience, they have improved the measurement of digital economy and made strategic choices according to the needs of high-end service industries. In promoting the qualitative leap of the digital economy to high-end service industry, the opportunity of scientific and

technological revolution and industrial change should be seized. As the digital economy will improve the high-end service industry more obviously, the government and enterprises should work together to promote the digital transformation of the high-end service industry.

The development of the digital economy abroad relies mainly on policy guidance and legal safeguards to promote the digital economy as the leading force in the economy and to facilitate the transformation and upgrading of the real economy. Developed countries have taken the lead in promoting the digital economy at the forefront of the world by strengthening digital economy organizations and strategies. Different countries and regions have different countermeasures for the application of the digital economy to the development of high-end service industries, but they all emphasize the role of the digital economy in promoting high-end service industries. International organizations and countries are constructing a new digital economy measurement system in order to more accurately promote the development of high-end service industries. At the international level, they are carrying out equal and mutually beneficial international cooperation to build a unified market and create a favorable international digital economy atmosphere for the high-end service industry. Creating an environment conducive to the progress of digital technology, strengthening digital information security, and providing capital support for the digital economy can promote the development of high-end service industry. The digital economy will improve the high-end service industry more obviously, and the government and enterprises should work together to promote the digital transformation of the high-end service industry.

Beijing is currently in a critical period of digital economy transformation, and high-end service industry as an important part of the digital economy, so drawing on foreign experience in digital economy transformation and high-end service industry development, and then combining with the actual situation in Beijing, it will provide brand new ideas for the digital economy of Beijing to empower the high-end service industry of Beijing, and further promote the growth of Beijing's economy.

## **6. Countermeasures for the Innovative Development of Beijing's High-End Service Industry Empowered by Digital Economy**

### **6.1. Adjusting Tax Rates to Provide Incentives**

Learn from developed countries to centralize and coordinate the power among the management departments of the digital economy, enhance the advantages of key core technologies, improve the digital industry chain, stabilize the supply chain, and promote the high-quality development of the digital economy in all aspects of different industries, to provide a driving force for the development of the core areas of high-end service industries. For example, for Fangshan, Huairou, Yanqing and other high-end service industry development is relatively

backward industry, the local government can reduce the local high-end service industry tax, and provide convenience such as R&D subsidies, talent subsidies, household registration policy, housing subsidies and other policies, so as to better attract foreign investment and technical personnel, and thus promote the development of local high-end service industry.

### **6.2. Improving Business Environment to Maximize Advantages**

Following the example of developed countries, through strategies, policies and infrastructure construction, to improve business environment so as to increase the attraction of foreign investment, and international cooperation on an equal and mutually beneficial basis, the domestic market should be integrated, a good market foundation should be established, and different digital transformation policies should be formulated for different industries, taking into account the overall situation and priorities, in order to create a favorable atmosphere for the digital economy in the high-end service industry. For example, Miyun, Pinggu and other regions should first facilitate cooperation between enterprises and governments to create a favorable environment for the development of the digital economy by improving the local industrial structure. Then, they should introduce corresponding foreign investment policies to attract foreign capital investment, and make new improvements for different regional characteristics, abolish unreasonable facilities and strategic plans to maximize their own advantages, to reduce the development gap between regions.

### **6.3. Strengthening Interregional Cooperation to Create Regional Complementarities**

Drawing on Japan's experience, we will increase investment in the digital information industry, improve the use and application of the digital information industry in the economy and society, thereby promoting innovation in the products, services and businesses of the digital information industry, creating an environment conducive to the advancement of digital technology, strengthening the security of digital information, providing capital support for the digital economy, vigorously developing the export of the products and services of the digital information industry and investing in overseas, and seizing the opportunity of the new round of technological revolution and industrial transformation to promote the digital economy from quantitative to qualitative leap and thus promote the innovative development of high-end service industry. Seize the opportunities of the new round of technological revolution and industrial change, promote the digital economy from quantitative change to qualitative change, and promote the innovative development of high-end service industry. For example, we should vigorously promote the cooperation of economic development among regions in Beijing, increase the investment of human and financial resources by combining the advantages of each region, complement each other's strengths in different industries, and jointly establish a safe and reliable environment for digital

economy, for example, Shunyi, Changping, and Daxing can carry out joint research and development and in-depth, and Haidian, a developed region, can provide technological and financial support for them. Different regions have different perspectives on issues based on different situations, and integrate multi-perspective and all-round thinking, to increase the output of innovative products, services and businesses.

#### **6.4. Intertwined Education Systems Promote the Exchange of Talent**

In terms of talents, the governments and enterprises of underdeveloped regions should cooperate to formulate policies for the introduction of talents, and increase investment in local education to enhance the level of local education. Developed regions should cooperate with underdeveloped regions to exchange talents, and introduce talents from developed regions into underdeveloped regions through the exchange policy of high welfare and high compensation to provide them with R&D talents, and the input of highly sophisticated talents will enhance the local innovation ability from the side. For example, the four regions of East, West, Hai and Chao and other underdeveloped regions should establish links between education, exchange of talents, and linkage of policies to promote the growth of talents.

### **7. Conclusion**

The study focused on the innovation and development of high-end service industry empowered by digital economy in Beijing. The digital economy plays an important role in the transformation and upgrading of the service industry and the improvement of labor productivity, and the development of the digital economy provides an important opportunity for the innovation and development of high-end service industry. As a city with sustained economic growth, the proportion of service industry in the economy has gradually increased, and high-end service industry has become an important driving force for Beijing's economic growth.

In the process of integration of digital economy and high-end service industry, it is necessary for the government, enterprises and all parties in the society to make joint efforts and strengthen cooperation and innovation in order to promote the synergistic development of digital economy and high-end service industry, which realizes the economic transformation and upgrading and provides an important support and impetus for sustainable development, and at the same time, it also provides an opportunity for the innovative development of high-end service industry. The article also discusses the problems and challenges faced in the integration process of digital economy and high-end service industry, and puts forward suggestions for the government, enterprises and social parties to work together to strengthen cooperation and innovation.

Finally, the article draws on foreign experiences in digital economy transfor-

mation and high-end service industry development, and combines them with the actual situation in Beijing to provide brand-new ideas for Beijing's digital economy to empower Beijing's high-end service industry, and to further promote the role of Beijing's digital economy in the promotion of the innovation and development of Beijing's high-end service industry.

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