

# Research on the Mechanism and Path of Digital Economy to Promote Consumption Upgrading

## -- Takes the Yangtze River Delta Region as an Example

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### Abstract

As a new economic form, digital economy has reconstructed all links of production, circulation, distribution and consumption of social economy, and has become a new engine and a new driving force for high-quality economic development. Starting from the concept and characteristics of digital economy, this paper explores the function mechanism and path selection of digital economy to promote consumption upgrading, which is of great practical significance to play the efficiency of digital economy, improve the adaptation of supply and demand in the new consumption field, cultivate a complete domestic demand system, and then boost the smooth operation of the domestic economy cycle. Taking the Yangtze River Delta region as an example, this paper analyzes the path selection of digital economy to promote consumption upgrading, constantly enhance the independent innovation ability of digital economy, boost the new consumption supply side structural reform, improve the digital economy governance mechanism, create a new consumption development environment, increase the construction of digital economy new infrastructure, strengthen the institutional support of digital economy, guide the new consumption tendency.

### Keywords

Digital Economy; Consumption Upgrade; Yangtze River Delta Region; Path Selection.

## 1. Introduction

In March 2017, the "digital economy" was first proposed in the Chinese government work report, the "digital China" was proposed for the first time in the 2018, and in the "digital economy" from 2019-2021, the "digital economy" appeared for three consecutive times. In June 2021, the National Bureau of Statistics issued the Statistical Classification of the Digital Economy and Its Core Industries (2021). All these show that the country has begun to attach great importance to the development of digital economy at the strategic level, and also pay more attention to the role of digital economy development in helping the economic structure. In this context, what is the role mechanism of digital economy development on consumption upgrading? Is there a spillover effect? These are all questions of concern.

## 2. Literature Review

In order to measure the development of digital economy scientifically and reasonably, many scholars and institutions at home and abroad have constructed the comprehensive evaluation system of digital economy and carried out relevant research based on the measurement index. Internationally, the main index evaluation systems are the European Union (EU) Digital Economy and Society Index (DESI), the Organization for Economic Cooperation and Development (OECD) Digital Economy Index System, the World Economic Forum (WEF)

Network Preparation Index (NRE) and so on. The establishment of the international index system has laid a foundation for the construction of China's comprehensive evaluation system of digital economy. However, due to the differences in industrial development level, industrial policies and comprehensive national strength, the different countries focus on the system construction. At home, the main index evaluation system has the China academy of information and communication of digital economy index (DEI), Tencent's "Internet +" digital economy index, Caixin think-tank China digital economy index (CDEI), etc., the index system contains the same index, also have different index, at the same time various institutions began to publish digital economy index year mainly concentrated after 2015.

In China, relevant scholars have also studied the construction of the comprehensive evaluation system of digital economy. Zhang Xueling and Jiao Yuexia [1] built a comprehensive evaluation system of digital economy with 5 first-level indicators and 19 second-level indicators, and concluded that the development of China's digital economy is on the rise but the growth rate is slowing down. Zhang Xun and other [2] have empirically studied the transmission mechanism of digital economy development to inclusive growth in China by building a digital inclusive finance index system. Liu Jun and other [3] constructed an evaluation system for digital economy development based on the inter-provincial statistical data from 2015-2018, and found that there is a serious "digital divide" in the development of China's digital economy. Zhang Shoucheng and Wang Family [4] studied the influence of digital economy development on the factor allocation level at the provincial level by constructing the evaluation system of 4 first-level factor layers and 12 second-level index layers. Zhao Tao and other [5] constructed a comprehensive evaluation system for digital economy development at the city level based on the dual perspective of Internet development and digital inclusive finance, and empirically analyzed the role and theoretical mechanism of digital economy development on high-quality development. Yang Huimei and Jiang Lu [6] constructed a comprehensive index system of digital economy development in China from 2004 to 2017 from the perspective of digital industrialization and industrial digitalization, and studied the impact of digital economy development on total factor productivity. Jiao Shuaitao and Sun Qiubi [7] constructed the inter-provincial digital economy development index evaluation system from the four-dimensional perspective of digital foundation, digital application, digital innovation and digital reform, and discussed the impact of digital economy development on the upgrading of industrial structure. Through combing the literature, it can be found that the research on the construction of the comprehensive evaluation system of digital economy development is still in the initial stage. At the same time, the research on the impact of digital economy development on all aspects of economy and society is not deep enough, and the research on the linkage mechanism of digital economy development and consumption upgrading is also less.

### **3. Theoretical Analysis**

#### **3.1. Analysis of the Effect of Digital Economy Development on Consumption Upgrading**

Digital economy has the characteristics of integration, permeability and synergy of [8]. From the perspective of digital industrialization and industrial digitalization, the development of the primary, secondary and tertiary industries is closely related to the degree of digitalization, and the consumption fields, investment fields and import and export fields are also closely related to the level of digitalization. The development of digital economy to consumption upgrading in all aspects of life, such as remote mountain residents can use e-commerce platform to buy their products and services, broaden the consumption and improve the consumption quality, people can use the network for contactless online video conference, distance learning education, telemedicine, digital economy can provide the development of DiDi, China and other shared

travel equipment, they provide personalized and convenient services for people. At the same time, the development of the digital economy will stimulate more new forms of business and new products, which can also provide new channels for residents to upgrade their consumption. Therefore, based on integration, penetration and synergy, we believe that the digital economy can help improve consumption upgrading.

### **3.2. The Role Mechanism of Digital Economy in Promoting Consumption Upgrading**

#### **3.2.1. The Digital Economy Promotes Consumption Upgrading by Upgrading Consumption Levels**

With the continuous improvement of the social and economic development level, Chinese residents' consumption follows the path mode of "development and shared service type" at the consumption level. The advent of the digital economy era has accelerated the improvement speed of the consumption level. At the present stage, Chinese residents' consumption is still in the development stage, and is gradually shifting to the sharing and service-oriented stage. Consumption activities in the era of digital economy show new consumption characteristics, which constantly promote the emergence of new consumption patterns and stimulate consumers' personalized and customized consumption. The digital economy with data and information as the core elements effectively realizes the process of industrial digitalization and digital industrialization, effectively expands the consumer market, improves consumers' consumption experience and happiness, and then improves the consumption level of consumers. Intelligent production, automatic production and digital production with digital technology as the core have achieved the dual improvement of the quantity and quality of new products and new services, and the social development effect has been shown. The new consumption mode with consumers as the core makes the consumption degree shift from low-end demand to high-end demand. Consumers will no longer carry out simple material consumption, but will pursue more spiritual consumption. As a new type of economy, supported by new technologies, the digital economy releases huge effects of social development, and promotes the implementation of the scientific and technological innovation-driven strategy, thus promoting industrial transformation and upgrading, and playing a positive role in improving the quality and efficiency of the Chinese economy. Digital economy acts on the social economy, causes new consumption explosion points, affects the consumption environment of consumers, promotes consumers to upgrade to a higher level of consumption, and thus promotes the overall upgrading of consumption.

#### **3.2.2. The Digital Economy Promotes Consumption Upgrading by Optimizing the Consumption Structure**

The development of digital economy permeates various fields of consumption. With the application of digital technology, the consumption structure has changed significantly. From the original material demand to the current spiritual support, the optimization effect of the consumption structure is obvious, and the trend of consumption upgrading is gradually clear. Digital technology in the digital economy continues to broaden the channels of consumer products and services, and new products and services emerge in an endless stream, opening up new consumption fields and consumption horizons for consumers, and promoting the optimization and upgrading of the consumption structure. First, new technologies, new models, new forms of business and new industries under the digital economy provide consumers with a broader choice space. The proportion of information consumption, online consumption and integrated online and offline consumption in the consumption structure has increased, and it has gradually become an important consumption content for consumers. Digital economy provides consumers with different forms of online consumption, which eliminates the offline travel, maximizes the time utility of consumers, breaks the regional restrictions of consumption,

realizes any time, any place and any form of consumption, and realizes the time spillover effect and space spillover effect of consumers. Second, the digital economy provides support for consumers to move forward to a higher level of consumer demand. The application of new technologies such as Internet technology, big data and other new technologies makes the channels for consumers 'self-demand in the digital economy open opened, the personalized requirements are met, and the degree of consumers' self-realization is deepened. Consumers' desire for food and clothing and other material needs has gradually decreased, replaced by spiritual supplies, constantly optimize the consumption structure, and thus promote consumption upgrading. Third, the digital economy has accelerated the transformation speed of the consumption structure from physical consumption to virtual service consumption. Online consumption, online consumption and platform consumption of digital economy encourage consumers to pay more attention to shopping experience and the enjoyment of consumption service process, and pay more attention to experience consumption and service consumption. They are no longer limited to physical consumption, but turn to virtual service consumption. In the digital economy, the popularization of modern communication technology and the widespread use of mobile terminals make the communication between people more convenient. They can take face to face video anytime and anywhere. Online education, online medical care and online sales have become the mainstream of consumption, gradually replacing the traditional consumption mode. The ability of the digital economy to create new services is also expanding, and virtual services such as online consumption are becoming more and more favored by consumers. The consumption structure changes from material demand to spiritual support, and the transformation from physical consumption to virtual service consumption is unstoppable.

### **3.2.3. The Digital Economy Promotes Consumption Upgrading by Shaping Consumption Methods**

Digital economy has given rise to new ways of consumption, such as platform economy, sharing economy, house economy and green economy, increase the selectivity and convenience, at the same time the new lending mode of digital economy provides consumers with different cross-period consumption mode, shape the consumption mode greatly meet the demand of consumers, fully released the technology innovation effect, and promote consumption upgrade. First, the digital economy has realized the transformation of the consumption mode from the traditional offline to the new online mode. Under the transmitted consumption mode, consumers must go to the consumption place for field purchase and consumption. However, the digital economy applies digital technology, through network collaboration and platform support, forms a platform economy, and consumers can buy without leaving home, and fully realize online consumption. Such as JD door-to-door delivery, Meituan delivery and other Internet platforms belong to this category. Second, the digital economy provides consumers with various forms of consumption choices, and forms new ways of consumption such as sharing economy and green economy. Digital economy uses digital technology to integrate information, which can provide consumers with accurate supply and demand matching, make full use of and effectively allocate social resources, reduce waste, and meet consumer needs. Intelligent and digital production under the digital economy is different from the traditional high-pollution and high-emission production. Green-friendly production and consumption are realized through digital technologies, the Internet of Things and other emerging technologies, making green consumption deeply rooted in people's hearts. For example, the agricultural intelligent Ecological Park in Yangling, Shaanxi Province has realized the whole traceability of pollution-free production mode and consumption mode from greenhouse to table. Third, the digital economy promotes the new lending and consumption, and expands the consumption media of consumers. Under the digital economy, Internet finance has risen rapidly, and new lending and consumption are constantly emerging, such as Alibaba's subsidiary of Ant Huabei

and Huabei, Jingdong, Meituan monthly payment and other credit consumption, forming a new consumption mode of "consumption first, payment later".

### **3.2.4. The Digital Economy Promotes Consumption Upgrading by Improving Consumption Levels**

Digital economy will consumption level from development to sharing and service, consumption structure from material demand to spiritual supplies, consumption mode from traditional offline to new online, provide new space, new scenes and new forms, and realize the consumption level from low-end level to high-end level, promote consumption upgrade. First, the digital economy has achieved the double improvement of the quantity and quality of the consumption level. Under the digital economy, the level of digital industrialization is constantly improved, and the level of intelligence and automation of production is constantly improved, improving the production efficiency and product technical complexity, greatly enriching the consumer object, and increasing the quantity and quality of consumer products and services. Second, the digital economy encourages consumers to form new consumption habits and preferences, the demonstration effect and ratchet effect appear, and the new consumption behaviors improve the consumption level. In the digital economy, the information dissemination speed is very fast, and consumers' information acquisition ability is greatly enhanced. New consumption hot spots can break out in the whole network in a short time. The demonstration effect of consumption will promote the convergence of consumer consumption behavior and make the consumption level rise accordingly. At the same time, the ratchet effect of irreversible consumption because of consumption habits will also play a role, thus promoting consumption towards the high-end level.

## **4. Theoretical Analysis**

### **4.1. Analysis of the Effect of Digital Economy Development on Consumption Upgrading**

The core driving force of the development of the digital economy is the mastery of key digital technologies. Enhancing the capacity for independent innovation and improving the independent and controllable capacity of digital technologies will help promote supply-side structural reform in the new consumption sector, meet the market demand for new consumption, and achieve the goal of expanding the quality of the consumer market and upgrading consumption. At present, China's digital technology external dependence is very high, "neck" problem is prominent. Xin Guobin, vice minister of China's Ministry of Industry and Information Technology and director of the Office of the National Leading Group for Building a Manufacturing Power, said: " China's manufacturing sector is not very innovative, and the shortage of core technologies has not fundamentally changed.

### **4.2. Improve the Governance Mechanism of the Digital Economy and Create a New Type of Healthy and Sustainable Development Environment for Consumption**

The development of any new things is not smooth sailing. Only by constantly breaking the old restrictions in the development can the change of the old be accelerated. Digital economy to promote the development of new consumption will also bring new problems and contradictions, digital economy for new consumption provides new development space at the same time, increase the new demand of information regulation and financial regulation, which needs to improve the digital economy governance mechanism, strengthen the digital economy related laws and regulations, build a new consumer credit system and regulatory system, healthy and sustainable development environment for new consumption.

### **4.3. We Will Intensify Efforts to Build New Infrastructure for the Digital Economy and Improve Our Capacity to Ensure New Consumption Infrastructure and Services**

The new infrastructure in the digital economy is different from the traditional infrastructure, with the particularity of integrating digital technologies such as the Internet, big data, cloud computing and the Internet of Things. The National Development and Reform Commission has clarified for the first time that the category of "new construction" mainly includes information infrastructure, integrated infrastructure and innovative infrastructure. At the current stage, China's new infrastructure in the digital economy is still lagging behind and insufficient, especially the construction of digital platforms, big data, 5G, artificial intelligence and other infrastructure related to the consumer sector. At the same time, there are still obvious urban and rural differences and regional imbalance in the new infrastructure of digital economy. The construction of new infrastructure in digital economy greatly affects the realization of new consumption, but also plays a key role in the realization of consumption upgrading. Therefore, we should continue to strengthen the construction of new infrastructure of digital economy, and improve the capacity of new consumption infrastructure and service guarantee.

### **4.4. We Will Strengthen Institutional Support for the Digital Economy and Guide New Consumption Tendencies**

Institutional innovation is the key guarantee to stimulate the market vitality and expand the innovation space. The long-term development of digital economy is inseparable from institutional support. The development of digital economy has its own characteristics, which needs to be supported by different new systems, so as to guide new consumption tendencies and help the realization of consumption upgrading. First, we will strengthen institutional guidance for the deep integration of the digital economy and the real economy, and expand the space for new consumption. The 14th Five-Year Plan and the outline of the 2035 Vision targets proposed to create new advantages of the digital economy, emphasizing that "give full play to the advantages of massive data and rich application scenarios to promote the deep integration of digital technology and the real economy", indicating that the development of the digital economy has been upgraded to a national strategic position. In this context, it is necessary to continuously strengthen the innovation of digital economy system, continuously accelerate the process of industrial digitalization through the introduction of relevant guidance systems, and encourage enterprises to flexibly implement the strategy of digital transformation.

## **Acknowledgments**

Entrepreneurship and Innovation Training program for college students. Program No.: 202110378194.

Program Name: Empirical analysis of consumption upgrading in Yangtze River Delta region under digital economy pattern.

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