



# The Study of Consumer Psychology in China from the Perspective of Informatics

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## Abstract

The purpose of this study is to investigate the status of consumer psychology research in commercial marketing in China. Using the network open source data and the bibliometric method of informatics, the relevant results are obtained to support the in-depth investigation. Based on the effective research results, the paper discusses macroscopically and gives suggestions on promoting consumption from three levels: state, institution, and individual.

## Subject Areas

Behavioral Economics, Marketing

## Keywords

Information Science, Consumer Psychology, Metrology

## 1. Introduction

With the increasing popularity of live marketing in China, more and more scholars in the field of marketing have begun to pay attention to sales behavior with the help of social media. Actively cultivating consumption capacity and consumption environment will help expand and stimulate domestic demand and effectively recover and upgrade the economy hit by the epidemic, which is undoubtedly beneficial to the national economy and people's livelihood [1]. Therefore, it is very meaningful to strengthen the research of consumer psychology. The content of consumer psychology is very rich, we should pay attention to the following points. There are four main types of consumer purchases based on the combination of consumer involvement and product differences [2]. 1) Complex purchases. It occurs when consumers first buy those products with a high degree of involvement and large brand differences. Most consumers know little about

this kind of goods, but because it is expensive and belongs to durable consumer goods, the choice decision before purchase is very cautious, and it takes time to collect a lot of information and choose and compare in multiple directions. This is the most complex purchasing decision [3]. 2) Harmonious buying. It occurs when consumers buy goods with a high degree of involvement but little brand difference. As long as the price of different brands of goods is in the same grade, there is little difference in quality function, so there is no need to collect a lot of information or evaluation, and the high degree of involvement is mainly caused by high commodity prices or infrequent purchases. Decision-making focuses on whether to buy, and what grade to buy, and does not care about what brand to buy, and is more concerned about whether it can get price concessions, whether the purchase time and place are convenient, and so on [4]. 3) Multi-variant purchase. It occurs in products with large brand differences and low levels of involvement. Consumers often switch brands of goods they buy, mainly out of the randomness of trying something new and avoiding boredom. Consumers generally do not take the initiative to collect relevant information before purchasing such goods, but passively accept information through advertising and other publicity media. The evaluation of the goods also occurs after the purchase, and even if they feel good about the purchased goods, they may still change the brand when they buy the next time [5]. 4) Habit buying. When consumers buy goods with low involvement and small brand differences, it is a habitual reaction behavior formed after multiple purchases. Consumers often buy a certain brand, not out of loyalty, but out of habit, and when this item is not available on the shelf, consumers will not hesitate to buy another product that looks very similar [6]. Obviously, for different types of consumer buying behavior, enterprises have different opportunities and different emphases on promotion.

Informatics was developed in the late 1950s and early 1960s based on information work and Western philosophy. At present, the research of informatics begins to focus on economic activities and management [7]. Information economics, which mainly studies the production, distribution, exchange, and consumption of information products, has made remarkable achievements, and new branches have emerged one after another. Among them, Internet statistics and bibliometry are two important methods, which can help to understand the development of related professions [8].

By using the above two tools, the macro-analysis of Chinese consumer psychology research helps obtain all kinds of high-value research reference information, to grasp the trend of research development in general and provide advice for commercial marketing.

## 2. Materials and Methods

### 2.1. Internet Statistics

For domestic investigation and research, with the help of “The Baidu Index” and

“360 Trend” can produce greater convenience.

“Baidu Index” is a data analysis platform based on Baidu’s massive Internet user behavior data. It is one of the most important statistical analysis platforms in the modern Internet and even the whole data era. Since its release, it has become an important basis for many enterprises’ marketing decisions [9]. The main function modules of the Baidu Index are trend research based on a single word, demand mapping, public opinion management, and crowd portrait; General trends are based on industry, geographic distribution, demographic characteristics, and search time characteristics [10].

“360 Trend” is a big data demonstration platform based on the massive user data of 360 products, which can quickly obtain hot trends through keyword search, understand the real user needs, and understand the attributes of keyword search crowds [11].

## 2.2. Bibliometric Method

Bibliometrics refers to the interdisciplinary science of quantitative analysis of all knowledge carriers by mathematical and statistical methods [12]. It is a comprehensive knowledge system that integrates mathematics, statistics, and philology and pays attention to quantification. Its measurement objects are mainly: the amount of literature (various publications, especially journal papers and citations), the number of authors (individual collectives or groups), and the number of words (various literature identifiers, among which descriptors are most). The most essential feature of bibliometrics is that its output must be “quantity” [13]. Bibliometrics is based on several empirical statistical laws. For example, Lotka’s Law (1926), which characterizes the distribution of authors in the scientific literature; Zipf’s law for word frequency distribution in literature (1948); Bradford’s Law (1934) for determining the distribution of papers in a subject in a journal. Bibliometrics has been developing around these laws in two directions: one is to verify and improve these empirical laws; the second is to expand and popularize the practical application of these empirical laws. Bibliometrics is widely used. Micro applications include determining core documents, evaluating publications, examining the utilization rate of documents, and realizing the scientific management of the library and information department [14]. The macro application includes designing a more economical information system and network, improving the efficiency of information processing, finding the drawbacks and defects in literature service, predicting the direction of the publication, developing and perfecting the basic theory of information, etc. [15].

The concept of National Knowledge Infrastructure (CNKI) was proposed by the World Bank in 1998 [16]. Cnki integrates a large number of Chinese and foreign literature, including more than 90% of Chinese knowledge resources, such as Journals, academic dissertations, conference papers, newspapers, year-books, patents, standards, achievements, books, ancient books, laws and regulations, government documents, enterprise standards, scientific and technological

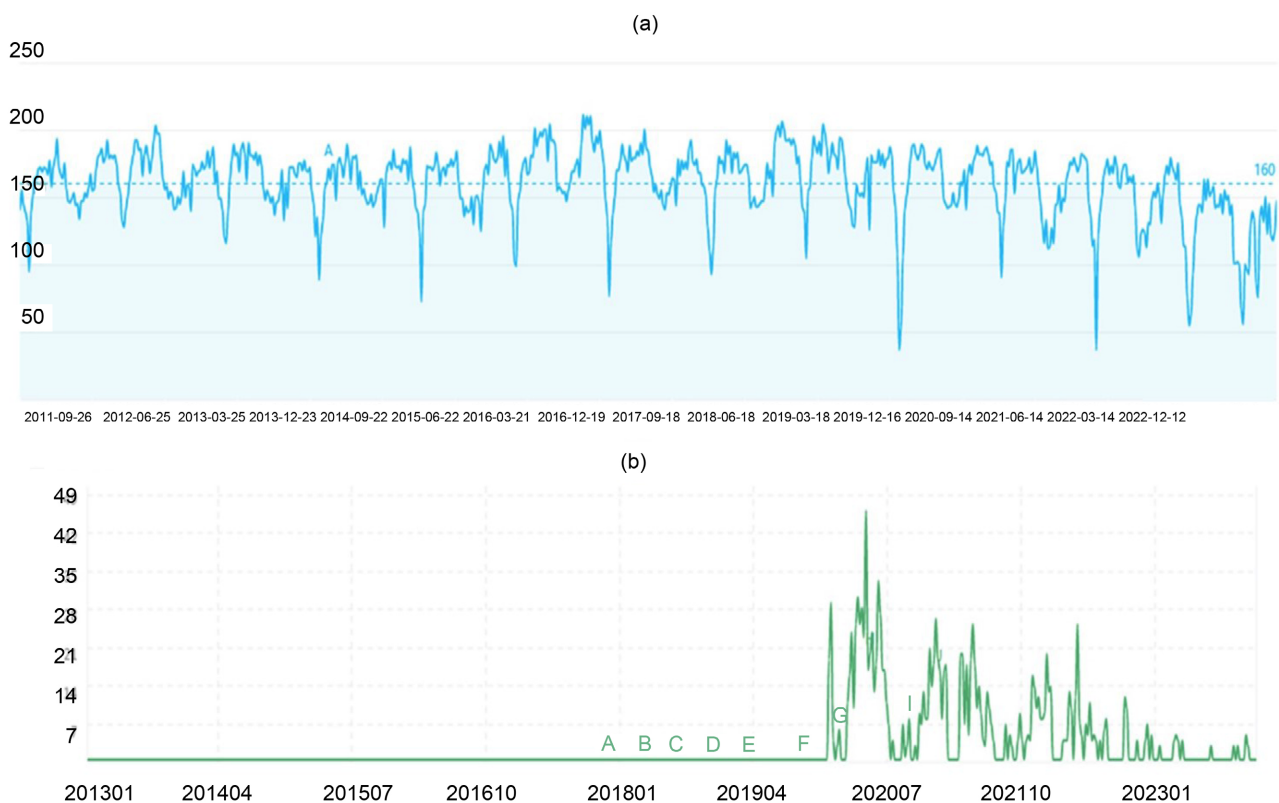
reports, government procurement and other resource types, as well as more than 70,000 journals from more than 600 publishing houses in 65 countries and regions (covering 90% of SCI, More than 80% of SCOPUS), millions of books, and more than 300 million Chinese and foreign literature [17].

### 3. Results and Analysis

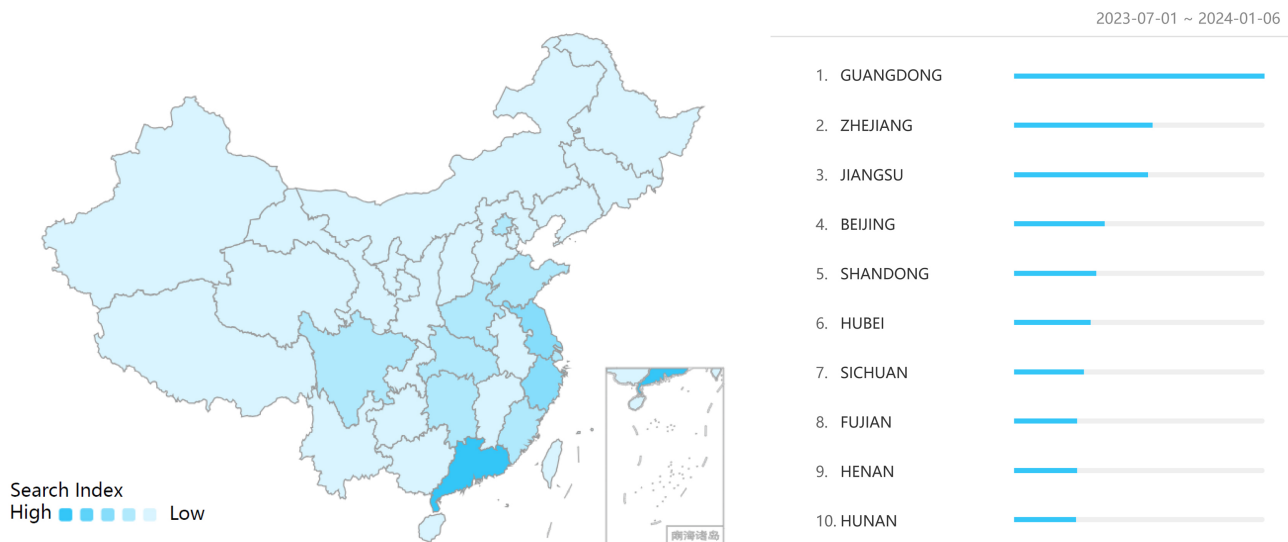
#### 3.1. Internet-Based Data Analysis

From the perspective of domestic attention, the “Baidu Index” is used for analysis, and the corresponding results are shown in **Figure 1**. Using the “360 Trends” analysis, the corresponding result is shown in B in **Figure 1**. It can be found that since the data was included in the Baidu index in 2011, although the search volume of consumer psychology has declined slightly in recent years, it has been in an overall high state. This shows that all sectors of society are full of motivation and interest in the study of consumer psychology, and also shows the exuberance of macro consumption from one side.

As can be seen from **Figure 2**, from the statistical data of 20130701 to 20231212 of the Baidu Index, Guangdong Province pays the highest attention to consumer psychology; followed by Zhejiang and Jiangsu; then came Beijing, Sichuan, Shandong, Henan, Shanghai, Hubei and Fujian, the provinces with the largest populations and economies. This also shows from one side the degree of



**Figure 1.** Analysis results based on “Baidu Index” and “360 Trend” (Screenshot from “Baidu Index” and “360 Trend” website analysis results).



**Figure 2.** Analysis results of the “Baidu Index” based on the regional standard (Screenshot from “Baidu Index” website analysis results).

attention to consumer psychology and the vast research needs of the corresponding regions. The more developed the economy is, the more demand there is for the study of consumer psychology.

### 3.2. Bibliometric Analysis

With the help of CNKI, this knowledge base analysis can carry out the statistical research work of the corresponding research.

As can be seen from **Figure 3**, the number of research papers on “consumer psychology” began to increase significantly after 2000 when using CNKI for bibliometrics analysis, which indicates that after entering the 21st century, research on consumers has been attached importance by social and commercial organizations, and the early 21st century is indeed a period of good development of the global economy.

As can be seen from **Figure 4**, in terms of the three main factors of consumption—“consumer”, “consumer psychology” and “consumer psychology”, relevant literature occupy the top three, which directly indicates the importance of consumption to social and economic activities and shows high research value. This shows how much attention society pays to the topic of “consumption”.

As shown in **Figure 5**, from the perspective of discipline distribution, the disciplines that research consumer psychology include various social and economic fields such as trade economics, enterprise economics, and industrial economics, covering a wide range. The wide coverage of subjects in this field also shows the interactivity of research in this field, so the cross-disciplinary correlation generated is conducive to the output of various achievements.

As shown in **Figure 6**, the influential institutions in this field include Nanjing Normal University, Jiangnan University, Wuhan University, and other universities. There are no social research institutions, including think tanks, which show

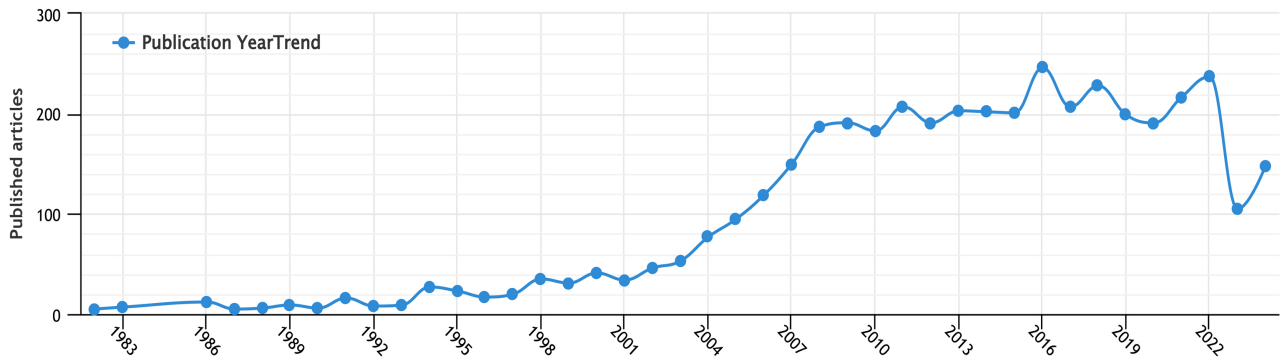


Figure 3. China National Knowledge network statistics (Screenshot from the results of analysis on the CNKI website).

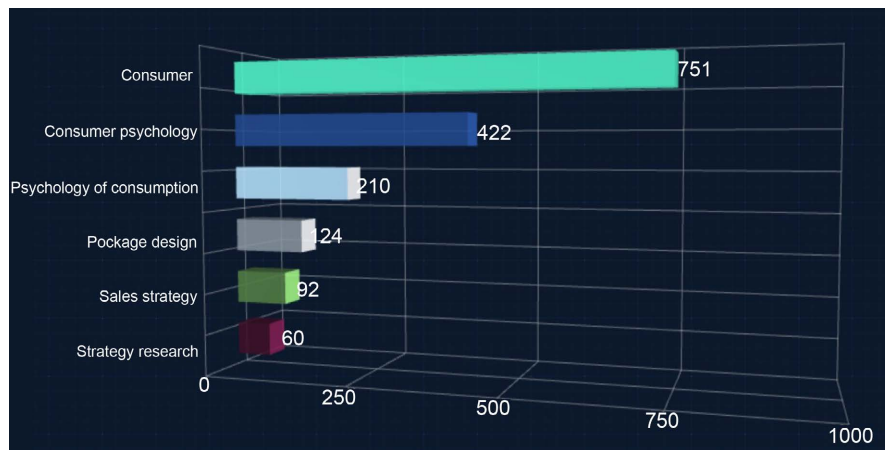


Figure 4. Statistics for each research topic (Results from analysis by CNKI website).

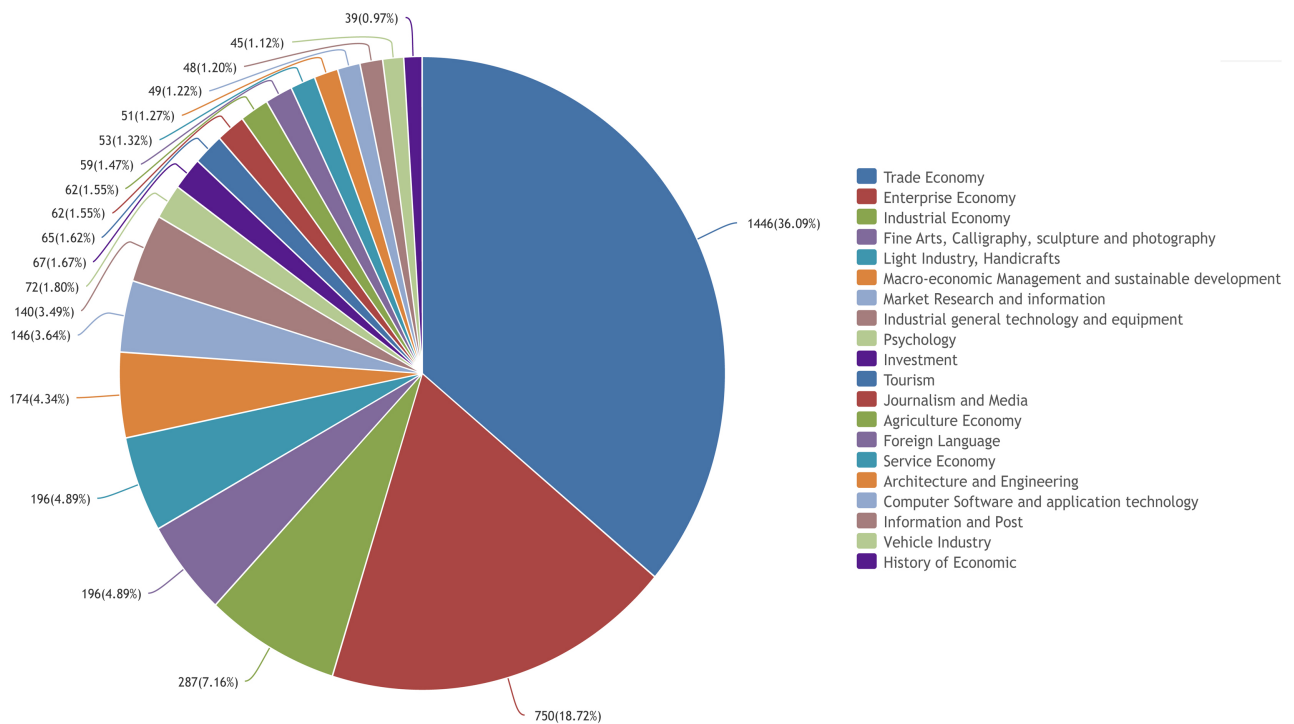
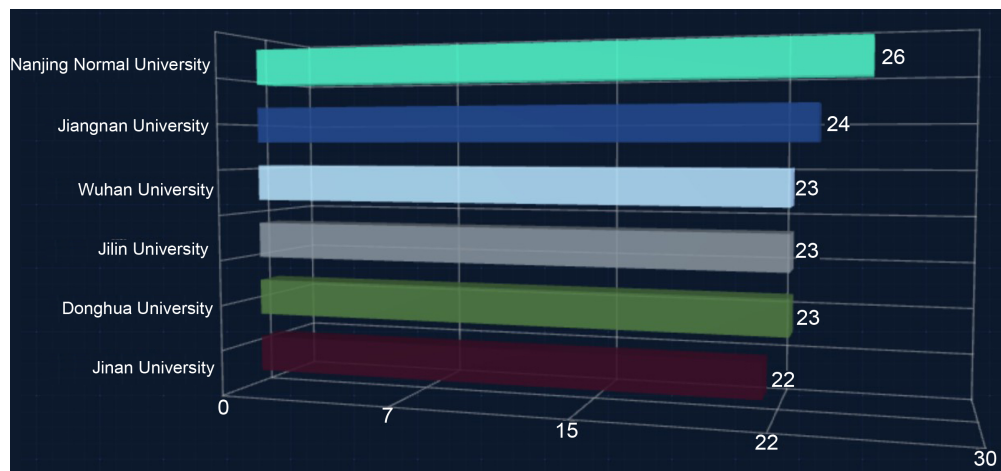


Figure 5. Distribution of related subjects (Results from analysis by CNKI website).

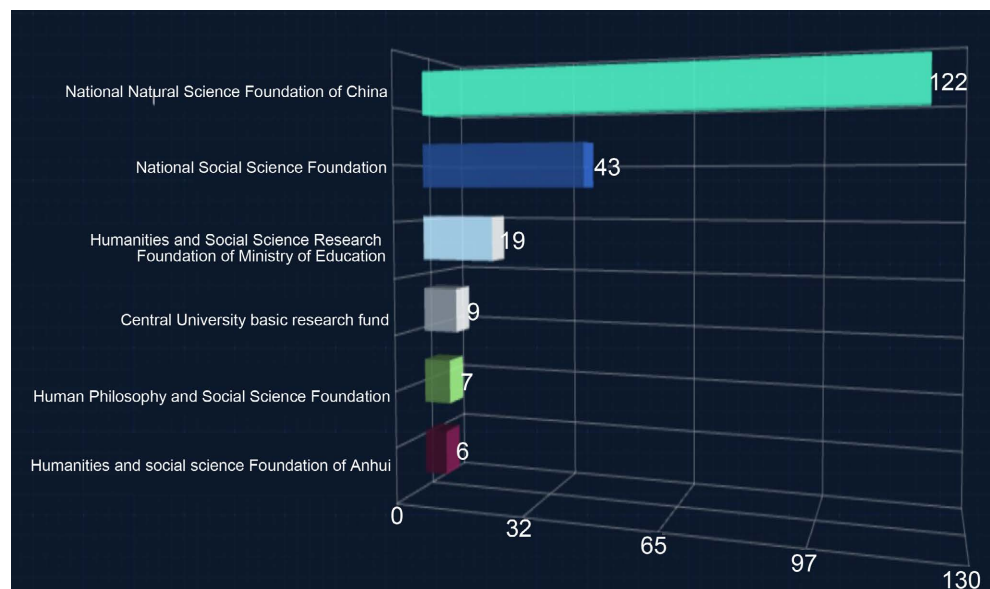
that universities are the main force in the field of consumer psychology research and have a high voice in the formulation of relevant policies.

As can be seen from **Figure 7**, all the supporting funds for various research results come from the national level, especially the National Natural Science Foundation and the National Social Science Fund, which account for an absolute majority of the results, which shows the importance of the state in this field.

Through various data, it can be seen that all kinds of institutions in China pay more attention to the study of consumer psychology, the relevant theoretical achievements are more prominent, various sales methods are more effective, and various research results have been effectively applied in real life. This shows from one side the exuberance and huge Chinese consumer market, and from the realistic level shows the vitality of China's economy. It has been continuously improved with the development of China.



**Figure 6.** Documents issued by various agencies (Results from analysis by CNKI website).



**Figure 7.** Various types of fund support (Results from analysis by CNKI website).



## 4. Suggestions and Reflections

In the previous chapter, results supported by a large number of data are obtained, and relevant conclusions can be summarized as follows:

### 4.1. Support for Research in Non-Teaching Institutions Should Be Enhanced

As teaching institutions, all kinds of colleges and universities have more resources, but they are not in the production line, and relevant statistical data are often not first-hand resources. It is suggested to properly enhance the support for institutions such as banks and statistical departments, and the research report data generated by the masked frontline business departments will be more conducive to the formulation of auxiliary policies.

### 4.2. The Research on Consumer Psychology Should Be Strengthened Continuously

In the current relatively sluggish economic environment, stimulating domestic demand is an important part of revitalizing the national economy, with the in-depth study of consumer psychology, through more effective means to encourage and stimulate people's consumption, which will be an important measure to boost the economy! The support of funds and resources from the national level will be an important support for the in-depth development of this field.

### 4.3. Consumption Should Be Boosted through a National Coordinated Approach

For the stimulation of residents' consumption, the importance of economic development is self-evident, in addition to the southeast coast of Beijing and Shanghai and other traditional consumption areas, the country and the central and western regions with relatively lagging consumption power. While maintaining the advantages of the strong, taking appropriate measures to enhance the ability of the weak will help achieve the development and promotion of domestic consumption power.

## Conflicts of Interest

The author declares no conflicts of interest.

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