

Analysis on the Business Environment of Sinking Markets in Hebei Province under the Background of Poverty Alleviation

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ABSTRACT. 2020 is a year of great importance during the decisive stage in building a moderately prosperous society in all respects and winning the battle against poverty. In recent years, under the background of China's rapid economic growth and upgrading macroeconomic consumption, the development of townships and village-level sinking markets in relatively backward areas has become a new circuit for capital competition. Although there are many audiences in the sinking market, due to the scattered population, restricted consumption capacity, poor profitability and low operating costs, it can be said that the business environment of the sinking market is both an opportunity and a challenge. Through the investigation of retail market in Hebei Province, this research uses a combination of on-site research and index method to analyze the retail business environment of its sinking market, hoping that the research results of this paper can play a guiding role in the construction of sinking market business environment in Hebei Province, so as to contribute to the completion of the poverty alleviation work in Hebei Province.

KEYWORDS: Poverty alleviation, Sinking market, Business environment

1. Introduction

On October 18, 2017, General Secretary Xi Jinping pointed out that by 2020 we will fully build a well-off society and achieve the goal of the first century. Since the 18th National Congress of the Party, the Party Central Committee has made poverty alleviation a key task and a landmark indicator for a comprehensive well-off society and made a series of major deployments. After the 19th National Congress of the Communist Party of China, the Central Committee of the Party took the poverty alleviation as one of the three major battles for building a well-off society in an all-round way. 2020 is a decisive year to build a moderately prosperous society in an all-round way and win the battle against poverty.

China's retail industry has always occupied an important position in the development of national economy. In recent years, China's retail industry has also been actively innovating, as well as the new retail concept industry. Omni channel and supply chain model have been widely used in retail industry, which is ushering in new changes.

According to data from the National Bureau of Statistics, the population of China's first-tier cities and second-tier cities account for approximately 18.1% of the total population, while urban and rural population of the third tier and below account for more than 80%.[1] The so-called sinking market refers to markets in cities, counties, and rural areas below the third tier. A large scattered market and high service costs are the basic characteristics of this market. As the carrier of offline traffic, stores and business centers in cities below the third tier have begun to be wildly encircled by various forces. In the past, shopping malls and commercial complexes in the third- and fourth-tier cities, which have been struggling and seldom cared for, are beginning to be re-examined for their potential under consumption upgrade. At the same time, small shops that focus on vertical industries such as mother and baby, fresh food, household appliances and other community consumption are also used by market giants as important means for sinking market. The grip takes on the burden of diversion. The sinking market, although large in terms of audience, has not attracted strong commercial enterprises due to scattered population and costs. The lack of a certain scale of regular funding to develop the FMCG market in towns and villages below the county level, is both an opportunity and a challenge.[2]

This study aims to analyze the basic environment of the retail business in Hebei Province. At the same time, employee interviews and field visits are conducted on retail terminals with different business models such as different large-scale shopping complexes, large-scale shopping malls in towns, and convenience stores in rural households in sinking markets in Hebei Province. This research uses a combination of field research and index method. In the later period, 11 prefecture-level cities, 163 districts and counties under the jurisdiction of Hebei Province are evaluated and classified based on principal component analysis, factor analysis and k-means cluster analysis method, hoping the

results of this study can be used to guide the construction of a sinking market business environment in Hebei Province, thereby contributing to the completion of poverty alleviation efforts in Hebei.

2. Background

The total resident population of Hebei Province has reached 75,560,000. With the continuous improvement of people's living standards and education level in our country, new changes have taken place in consumers' consumption awareness and consumption concepts. Moreover, the consumption concept of the public has shown a more diversified and healthy development trend, which has gradually transformed from price-oriented to value-oriented and personalized-oriented. Consumers no longer blindly pursue low prices, and the demand for high-end products is gradually increasing.

At this stage, the retail enterprises that dominate the sinking market in Hebei Province are basically private enterprises and self-employed businesses, and no state-owned enterprises have joined in.^[3]The market in Hebei province is still dominated by private commercial entities with private capital in the province. Foreign-funded and large domestic commercial enterprises have not yet opened the rural grassroots retail market. The management of retail enterprises mainly relies on traditional management methods and methods, lacks innovation ability and market segmentation, and lacks standardized management in terms of product mix, service standards, prices, promotions, and store layout. In addition to individual companies using simple information software for scientific management, some stores still rely entirely on manual management.^[4]Enterprises in sinking markets have not yet adopted modern management methods.

The more influential and better operating retail formats in Hebei Province are medium-sized complexes with an area of less than 20,000 square meters. Most of the market is occupied by major retail enterprises such as Credit Tower Commercial Building, Xinhe Department Store and Xindongan Mall. This type of complex has its own construction and rental properties, occupying the main commercial street in the county or the main commercial area in the development zone, mostly low-rise buildings below five floors, and most of them open supermarkets on the first floor or on separate floors. Supermarkets adopt a self-operated plus joint-venture model, except for a few supermarkets, most of which use direct supplier logistics, and there are some inventory areas in the store. The second and above parts of the complex are department stores or shopping malls.

After more than ten years of cultivation and development, it has gradually established a better brand and trust among consumers, and some companies rely on the government to attract investment. From the government's perspective, the retail and catering services industry as a competitive industry has certain positive incentives for local economic development and resource utilization. The development direction, development scale and development form of retail enterprises are entirely determined, adjusted and adjusted by the market.^[5]Even so, no large international commercial enterprises and hypermarket supermarkets and domestic national retail enterprises have entered the retail market in Hebei Province, and there is a greater risk of operating competition for the new large-scale commercial complexes and supermarkets to be entered.

3. Methodology

3.1 Method Selection

This study adopts principal component analysis and clustering methods for data processing. Principal component analysis is a multivariate statistical analysis method that selects several important variables from multiple variables through linear transformation.^[6]It examines the correlation between multiple variables to find comprehensive indexes that can reflect the vast majority of the original variables, and the comprehensive indexes are not related to each other, so that the comprehensive indexes can be named according to professional knowledge and the meaning reflected by the indexes. To achieve the purpose of dimensionality reduction, simplify the complexity of the problem.

Clustering is a multivariate statistical method to study individual classification according to the characteristics of things. In principle, samples with the same or similar attributes are classified into one category, and individuals classified into one category have higher similarity, and individuals between different categories have larger difference. If you want to get an ideal classification result, you must determine appropriate indexes to quantitatively determine the closeness of the relationship between individuals. Common clustering methods include K-means clustering and system clustering. K-means clustering method is fast and efficient, especially for large amounts of data, but can only produce clustering results of a specified number of classes. Systematic clustering method is the most widely used clustering method at home and abroad. It will produce a series of clustering results for different numbers of clusters, and can generate a clustering tree diagram, making the clustering results very clear. Therefore, this study selected the method of systematic clustering.

3.2 Selection of Indexes

The consumption level of residents refers to the degree to which residents meet the needs of people's survival, development and enjoyment during the consumption of material products and labor services. The quantity and quality of the material products and services consumed are reflected.

The main indexes reflecting the consumption level of residents are:

Average physical consumption index. The average annual consumption of major consumer goods per capita, the average number of durable consumer goods per 100 households, per capita living area, average per capita living water consumption, average electricity consumption for people's lives, etc.

Popularity indexes of modern living facilities. Tap water penetration rate, gas penetration rate, average number of major household appliances owned per 100 households, telephone penetration rate, etc.

Consumption structure indexes reflecting consumer level. The proportion of food in consumption expenditure, the ratio of cultural life service expenditure in residents' living consumption expenditure, the consumption ratio of consumption crystals of different quality, etc.

Value indexes of average consumption. The average per capita consumption fund, the average per capita living consumption, the average per capita expenditure for various living consumption, etc.

With reference to all the data and indexes included in the statistical yearbooks of the municipalities in Hebei Province, this study selected population density, GDP per capita, rural per capita disposable income, urban per capita disposable income, and per capita retail sales of social consumer goods as evaluation indexes. The indexes are shown in Table 1.

Table 1 Selection and Interpretation of Indexes.

Index	Unit	Interpretation
The population density	Ten thousand people per square kilometer	Resident population per square kilometer.
GDP per capita	Ten thousand yuan per ten thousand people	The ratio of the regional GDP achieved during the accounting period to the resident population within the scope.
Rural per capita disposable income	Ten thousand yuan	After deducting related expenses, the total household income is finally the total income of all rural residents.
Urban per capita disposable income	Ten thousand yuan	The total income of urban residents after deducting the personal income tax paid and various social security expenditures.
Retail sales of consumer goods per capita	Ten thousand yuan per ten thousand people	The ratio of total retail sales of social consumer goods to the resident population within the range.

4. Results & Analysis

According to the analysis results, the consumption levels of Handan, Langfang, Shijiazhuang and Tangshan in 11 prefecture-level cities in Hebei Province are relatively high. The consumption levels of Zhangjiakou, Qinhuangdao, Cangzhou, Hengshui and Baoding are medium, while the consumption levels of Xingtai and Chengde are low.

According to the results of a separate cluster analysis of 11 prefecture-level cities in Hebei Province, 46 districts such as Sanhe City, Xinji City, and Qiaoxi District are at a high level of consumption in the subordinate prefecture-level cities. 48 districts such as Huailai District, Nanhe District are at a medium level of consumption in subordinate prefecture-level cities, and 69 districts and counties such as Yongnian District, Pingshan District and Changli District are at a low level of consumption in subordinate prefecture-level cities.

Taking into account the clustering results of prefecture-level cities and the urban areas under its jurisdiction, this study divides 163 districts in Hebei Province into three levels of markets. The primary market covers 54 county-level urban areas, consisting of 22 prefecture-level cities with relatively high consumption levels that are at a relatively high and moderate consumption level, and 32 prefecture-level cities with moderate consumption levels. A higher level of subordinate urban areas; the secondary market covers 69 county-level urban areas, composed of 36 prefecture-level cities with higher consumption levels, and 27 sub-level urban areas with lower consumption levels. The prefecture-level cities are under the jurisdiction of moderate consumption level and the 6 low level prefecture-level cities are at the high consumption level. The tertiary market covers 40 county-level urban areas and consists of 18 The prefecture-level cities with medium consumption levels are composed of subordinate urban areas with lower consumption levels and the 22 subordinate prefecture-level cities with moderate consumption levels and lower consumption levels.

5. Conclusions

The income level of residents in sinking markets is generally low. Existing stores are generally affected by factors such as consumption level and consumption habits, and their operating conditions are generally poor. In such areas, the proportion of young people is relatively low, so the large, avant-garde retail business model is not yet suitable for large-scale promotion in this area. The sudden entry of large-scale supermarket chains may not only have a greater impact on the existing retail ecological environment, but it is also very likely to be unacceptable, and the operating risk is high.

Therefore, the development of the sinking market requires the government to actively guide, firstly to ensure that the supply of commodities can meet the demand in time, and secondly to ensure the standardization of commodity operations, and use big data to understand consumer demand.^[7] Individual regions have long distances and a small population, and the overall supply cost of commodities is too high. For this type of region, online deployment and logistics cooperation are more needed. Large-scale stores can establish cooperation with retail stores in various regions, establish contacts layer by layer, and allocate resources reasonably.

As a major national strategy, Beijing-Tianjin-Hebei integration is to form an integrated construction of transportation, market, system, public service, industry and other areas in the Beijing-Tianjin-Hebei region to achieve regional coordinated development. As the largest province in the region, Hebei Province faces many opportunities and challenges. Economic development drives people's consumption level to rise. Similarly, the increase in people's consumption level also has a stimulating effect on economic development. Reasonable allocation of retail business resources in Hebei Province can not only drive its economic development, but also bring free riders in the Internet era to create more jobs and improve the quality of life of the people.

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