

## Study on Getting Wealth Pattern and Optimization Path of “Internet+” Mango Industry in Baise, Guangxi

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### Abstract

As an important mango producing area in China, Guangxi Baise has achieved rapid development of mango industry and increased farmers' income with the help of “Internet +” in recent years. Through field research and data analysis, this study explores the present situation, getting rich pattern, and optimization path of “Internet +” mango industry in Baise. The results show that: Firstly, the “Internet +” pattern has a significant effect on promoting the development of mango industry, increasing farmers' income and poverty alleviation. Secondly, Baise facilitates the development of mango industry by establishing a series of models combined with the Internet, including creating production and sales models, establishing unified regional brands, empowering the creation of cultural brands, establishing a community of shared interests, developing industrial clusters, and so on. Thirdly, There are several problems in its development process, including insufficient market promotion, lack of e-commerce talents, short industrial chain, and high transportation and storage costs. Finally, based on above conclusions, we find a feasible path for “Internet +” mango industry in Baise, Guangxi.

### Keywords

Internet +, Mango industry, Getting wealth pattern, Path.

### 1. Introduction

With the rapid development of information technology and the Internet, “Internet +” has become a significant way to promote agricultural modernization and informatization. The application of “Internet +” technology has brought possibilities for improving agricultural production efficiency, reducing production costs, optimizing the circulation channels of agricultural products, and so on, which contributes to the development of rural economy, the increase of farmers' income, and the improvement of agricultural product quality. Nowadays, as an important development strategy of China, “Internet +” has been deeply integrated with rural agricultural industry, which enables to promote poverty areas economic development and to achieve poverty alleviation by upgrading, transforming, and enhancing the agricultural industry chain through digital means.

Baise is located in the western part of Guangxi, with relatively lagging economic development and a large number of the poor. However, the region has unique natural conditions and climatic advantages, making it suitable for the cultivation of tropical fruits such as mangoes. Therefore, developing the mango industry has become one of the crucial ways for poverty alleviation in Baise. As one of the key areas for targeted poverty alleviation and an important mango producing area in China, Baise has actively used the power of “Internet plus” since 2020 to promote the rapid development of mango industry and provide more employment opportunities and income sources for local farmers. Although “Internet +” has brought unprecedented development opportunities for Baise's mango industry, there are still many challenges and problems in practice. Through field investigation and data analysis, we deeply

explore the present situation, wealth pattern and existing problems of Baise “Internet +” mango industry, providing useful reference for relevant decision-making and practice.

## **2. Present situation of “Internet +” mango industry**

### **2.1. Overall present situation of Baise mango industry**

Recently, the Baise mango industry has made a leap forward in its development under government’s support. The overall planting area of mango shows a continuous growth trend, from 27.10 thousand hectares in 2012 to 91.30 thousand hectares in 2022, an increase of 3.37 times. This trend reflects the enormous development potential of the mango industry. Over the years, the development of the mango industry has come from government support, technological innovation, market expansion, and the efforts of fruit farmers. At the same time, With the continuous increase in demand and the gradual expansion of domestic and international markets, the mango industry has unprecedented development opportunities. Not only has it achieved significant expansion in planting area, but the Baise mango industry has also achieved remarkable results in yield. During the period of 2011-2022, mango production achieved a leapfrog growth, increasing from the initial 101100 tons to 1055800 tons. In 2022, the production accounted for 46% of the total fruit production, highlighting the position of the mango industry in the agricultural industry of Baise, fully demonstrating the strong demand and widespread recognition in the market.

### **2.2. Present situation of “Internet +” special mango industry**

Firstly, With the wide audience coverage and rapid communication ability of new media platforms such as Toutiao, Tiktok and Watermelon Video, the mango sales platform will be extended from the traditional offline channels to the online field. Through questionnaire analysis, it was found that most farmers hold a positive attitude towards the government’s efforts in promoting the construction of regional mango brands. Specifically, the proportion of farmers who hold a highly recognized attitude is relatively low, accounting for only 16%. Half of the farmers believe that the municipal government’s efforts to promote the construction of mango regional brands are “good”, with a proportion of 45%. This indicates that the municipal government has made certain achievements in promoting the construction of mango regional brands, which has been recognized by a considerable number of farmers. 37% of farmers chose “average”, reflecting that there is still room for further improvement in the municipal government’s efforts to promote the construction of mango regional brands. Only a few number of farmers believe that the municipal government’s efforts to promote the construction of mango regional brands are “poor”, with a proportion of only 2%. But overall, farmers still hold a positive attitude towards the promotion efforts of the municipal government. However, overall, farmers still hold a positive attitude towards the promotion efforts of the municipal government.

Secondly, Most farmers are aware that there are relatively few enterprises in Baise which have the conditions to carry out mango deep processing. Most farmers believe that the main challenge facing the current mango deep processing industry is the low level of technology. Specifically, 55% of farmers consider that low technological level is the main challenge facing the current mango deep processing industry. 34% of farmers hold the opinion that it is due to market demand fluctuations, which reflects their concerns about market uncertainty. Farmers have lower concerns about unstable raw material prices (5%) and intense competition (3%).

Thirdly, “Internet +” mango industry has gained certain achievements in increasing farmers’ income. The income of most farmers has increased, with the increase mainly concentrated at the medium to high level, accounting for 76%. There are 46% of farmers raising income between 10% and 30%, and 22% of farmers have an income exceeding 30%. While farmers

with an increase of less than 10% still accounted for 28%, which indicates that the effect of “Internet +” mango industry in promoting farmers’ income still has room for further improvement. The income of most farmers has increased, but there is still 4% of farmers’ income decreasing, which means that in the process of promoting the “Internet +” mango industry, several farmers may not benefit fully due to various reasons, such as technical threshold, market adaptability, and so on.

### **3. Getting wealth pattern of “Internet +” mango industry**

#### **3.1. Creating a production and marketing pattern combined with the Internet**

By innovating the marketing pattern of “Internet + offline promotion” and relying on the strategic positioning of “buy Baise and sell nationwide”, Baise mango has effectively expanded its market influence. This pattern integrates online and offline promotion activities, enabling deep interaction between leading enterprises and consumers, which drives sustained growth in sales of Baise mango. By using the e-commerce platform to carry out live sales, the focus of mango sales has been shifted to the Internet through the operation mode of “enterprise + cooperative + fruit farmer”. At the same time, offline sales have been supplemented to further expand the mango sales channels. By holding the National Youth (College Students) Rural Revitalization Baise Mango Network Marketing Innovation and Entrepreneurship Summit (Competition), “Internet + Baise Mango Festival” and other activities, a large number of young people and college students were attracted to participate. By means of live broadcast with goods and online store sales, the sales of Baise Mango were significantly increased.

#### **3.2. Building specific cultural brands**

Baise strives to strengthen technological innovation and has established the Baise Mango Research Center. By hiring renowned mango experts as consultants, the organization provides technical training services for fruit farmers. In addition, strict control of planting techniques is also implemented to effectively ensure the quality of mangoes. Baise uniformly uses the Baise Mango regional public brand logo and agricultural product geographical indication registration logo. At the same time, a unified time limit and sales strategy for picking and marketing Baise mangoes have also been established. Baise uniformly uses the Baise Mango regional public brand logo and agricultural product geographical indication registration logo. At the same time, a unified time limit for the picking and marketing of Baise mango, as well as a sales strategy, has been established. In addition, Baise cleverly combines the historical and cultural environment of revolutionary old areas with mangoes for promotion, launching cultural and creative products based on popular mango varieties, such as mango dolls, comic characters, etc. This meets the diverse needs of consumers and further enhances the popularity and influence of Baise Mango.

#### **3.3. Developing industrial clusters**

With the continuous growth of market demand for mangoes, Baise relies on the power of science and technology parks and leading enterprises to jointly build a mango industry supply chain service platform, aiming to connect multiple entities and form a community of industrial interests. So as to improve the operational efficiency of the entire industry and ensure that fruit farmers and buyers participating in the supply chain system can benefit. Baise adopts a business model of “leading enterprises + bases + professional cooperative organizations + farmers”, actively guiding fruit farmers to join mango professional cooperatives. Besides, cooperatives and large growers are encouraged to invest in leading enterprises. This not only establishes a close benefit linkage mechanism between leading enterprises, cooperative organizations, and farmers, but also promotes the large-scale development of the mango industry.

#### 4. Main issues in “Internet +” mango industry

Relying on “Internet +” to develop the mango industry, Baise has made remarkable achievements, but there are still several problems to be solved in the process of becoming wealth.

Firstly, the market promotion of Baise Mango industry is insufficient, and brand building efforts need to be strengthened. Although the “Internet +” mango industry has great development potential, the lack of market promotion and brand construction has become the bottleneck restricting its further development. At present, there is a lack of influential mango brands, and the existing brands need to improve their visibility and reputation in the market, making it difficult to form brand loyalty and word-of-mouth effects. The shaping and dissemination of brand image lack unity and coherence.

Secondly, the mango industry of “Internet +” lacks e-commerce talents, and it is difficult to transform farmers’ ideas. For one thing, “Internet +” has provided new development opportunities for the mango industry, but the requirements for professional knowledge and skills in the e-commerce field are also relatively high. Baise’s e-commerce talent pool is insufficient, and there is a lack of comprehensive talents who understand both the mango industry and e-commerce operations. For another thing, The difficulty in transforming the mindset of farmers is also a crucial factor hindering the development of the Baise mango industry. Farmers have been accustomed to traditional planting and sales models ever since a long time ago, resulting in low acceptance of emerging e-commerce sales methods.

Thirdly, “Internet +” mango industry chain is short and lacks deep processing capacity. First of all, the number and scale of mango deep processing enterprises, whose technical level and equipment conditions are relatively backward, are insufficient. The above issues directly limit the types and quality of deep processed products. Subsequently, there is insufficient research and development of deep processed mango products, resulting in a lack of innovation. What is more, The integration of deep processing and marketing of mangoes is not close enough, leading to limited market share.

Fourthly, the logistics system is not yet perfect, and transportation and storage costs are high. For one thing, the imperfect logistics system directly affects the transportation efficiency and cost control of the mango industry. The logistics network in Baise has not yet formed comprehensive coverage, especially in remote areas and rural areas, where logistics facilities and services are relatively lagging behind. For another, the high transportation and storage costs pose a serious challenge to the profitability of the Baise mango industry. Mango requires a significant investment of manpower, material resources, and financial resources during transportation and storage. The investment costs in packaging materials, transportation equipment, cold chain technology, and other aspects are relatively high, which undoubtedly increases the overall cost of the product.

#### 5. Optimization path of “Internet +” mango industry

Firstly, strengthen market promotion strategies and mango brand construction. For one thing, exploring diversified promotion methods can effectively enhance the effectiveness of mango market promotion. It can also expand product awareness and influence to attract more potential consumers. For another, Strengthening the brand building of Baise Mango is of great significance for enhancing consumer awareness and trust in the brand. Based on the needs and preferences of the target consumer group, create an attractive brand image and form a brand personality. Design a unified and eye-catching brand logo and visual image to ensure consistency of the brand in various promotion channels.

Secondly, it is crucial to building an e-commerce talent team and promoting the transformation of farmers' concepts. Training e-commerce talents, such as organizing regular e-commerce knowledge training courses and inviting experts in the e-commerce field to give lectures, aims to enhance the understanding and operational ability of local talents in e-commerce operations. Subsequently, establish a mechanism for introducing e-commerce talents. Introduce preferential policies to attract comprehensive talents who understand both the mango industry and e-commerce operations to develop in the Baise region, and encourage them to cooperate with local farmers. What is more, Build a platform for school enterprise cooperation. Collaborate with local universities or vocational training institutions to offer courses or majors related to mango e-commerce, and cultivate e-commerce talents with practical operational abilities.

Thirdly, strengthening the construction and development of mango deep processing enterprises enables to promote the integration and synergy of the mango industry chain. First of all, Expand the scale and quantity of enterprises. Attracting external investment to build deep processing enterprises and increasing deep processing capacity can help expand the production scale of existing mango deep processing enterprises. Furthermore, improve technical level and equipment conditions. Guide enterprises to increase investment in technological research and development, introduce advanced processing technology and equipment, in order to improve the technical level and product quality of mango deep processing. Finally, increase policy support. The government can introduce relevant policies on providing financial subsidies, tax reductions, and other preferential measures for mango deep processing enterprises to reduce their operating costs.

Fourthly, improve the construction of logistics system and reduce transportation and storage costs. To begin with, government introduces a series of stimulus policies for infrastructure spending in remote rural areas, establish more logistics nodes, so as to shorten the transportation path of mangoes and improve transportation efficiency. Additionally, introducing advanced logistics management systems and information technology to achieve real-time sharing and efficient coordination of logistics information, reducing barriers to information transmission and coordination. In the end, Optimize the mango transportation process and reduce transportation costs by simplifying transportation processes, reducing transit times, and shortening waiting times.

## 6. Conclusions and policy implication

With the gradual participation of "Internet +" in various fields, studying the development of mango industry under the background of "Internet +" plays a pretty significant role in promoting the transformation and upgrading of mango agriculture. Through field research and data analysis, this study explores the present situation and getting rich pattern. Based on the analysis of questionnaire survey charts, on-site interviews, and relevant references, combined with the actual development situation of Baise, the following corresponding suggestions are proposed: Firstly, strengthen market promotion strategies and mango brand construction. Secondly, it is crucial to building an e-commerce talent team and promoting the transformation of farmers' concepts. Thirdly, strengthening the construction and development of mango deep processing enterprises enables to promote the integration and synergy of the mango industry chain. Fourthly, improve the construction of logistics system and reduce transportation and storage costs.

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## References

- [1] GUO Limei, HUANG Guodi, LI Riwan, et al. Development Status and Strategy of Mango Industry in Guangxi [J]. Journal of Guangxi Academy of Sciences, 2023, 39(02): 119-127+213.
- [2] JIANG Yingying. Research on the Development Status and Countermeasures of Mango in Tianyang, Guangxi [J]. CHINESE JOURNAL OF TROPICAL AGRICULTURE, 2023, 43(05): 114-119.
- [3] CAI Yuqing. Research on the Development Path of Agricultural Economy under the Background of "Internet Plus" [J]. Shanxi Agricultural Economy, 2023, 347(11): 68-70.
- [4] LIANG Qingqing. Case Study on the Third Party Market Mode of Agricultural Products E-commerce in China under the "Internet plus Industry Chain" [J]. Journal of Zhejiang Agricultural Sciences, 2023, 64(03): 757-760.
- [5] WANG Yulin. Research on Application of E-Commerce in Agricultural Economy Under the Background of "Internet + Agriculture" [J]. World Tropical Agriculture Information, 2021, 534(12): 84.

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