Asia Pacific Science Press

Critical Humanistic Social Theory
ISSN(O):3005-9291
ISSN(P):3005-9283
Vol. 3 No.4 (2026)

Innovative Operation Ideas of Guangxi Agricultural Assistance Platform from a Demand-Side Orientation: A Case Study of "Mang Xiaozhong"

Yufei Li*

Media College of Guangxi University for Nationalities, Nanning, Guangxi Zhuang Autonomous Region, 530000, China

Corresponding author: Yufei Li, 2313703181@qq.com

Copyright: 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY-NC 4.0), permitting distribution and reproduction in any medium, provided the original author and source are credited, and explicitly prohibiting its use for commercial purposes.

Abstract: In recent years, with the deep penetration of the digital economy into rural areas and the rapid development of agricultural e-commerce in Guangxi, the demand-side oriented agricultural assistance model has emerged as an innovative form of agricultural product circulation. In response to problems in the upward distribution of characteristic agricultural products in Guangxi—including disconnection between production and marketing, high loss in circulation links, difficulties in brand transformation, and seasonal capital shortage at the production end—the "Mang Xiaozhong" platform constructs four interconnected operation strategies: customized pre-sale, two-way exchange among production areas, rule-based trust design, and consumer-side pre-purchase crowdfunding. These strategies adapt to the industrial reality of decentralized smallholder production and staggered listing of multiple categories in Guangxi. The research shows that the demand-side oriented, asset-light third-party service model can address the practical bottlenecks of county-level agricultural assistance e-commerce in Guangxi, and has reference value for the construction of similar platforms.

Keywords: Demand-Side Orientation; Agricultural Assistance Platform; Mang Xiaozhong; Operation Strategy

Published: Nov 1, 2026

DOI: https://doi.org/10.62177/chst.v3i4.1791

1. Practical Significance of the Mang Xiaozhong Platform for the Development of Characteristic Agricultural Products in Guangxi

1.1 Facilitating Sales Transformation of Characteristic Agricultural Products in Guangxi

Guangxi is located in the southwest karst landform area. Landmark products such as Rong'an kumquat, Wuming mandarin, Baise mango, and Liuzhou Luosifen (river snail rice noodles) have both industrial scale and market popularity, laying a unique resource foundation for the endogenous development of the industry. According to monitoring data from the Department of Commerce of Guangxi Zhuang Autonomous Region for January–November 2025, the online retail sales of agricultural products in the region increased by 14.7% year-on-year, and rural online retail sales increased by 16.4% year-on-year. Online channels have become the core pathway for agricultural products to leave villages and enter cities. According to 2025 data from the Statistics Bureau of Guangxi Zhuang Autonomous Region, the per capita disposable income of rural residents in the region reached 21,149 yuan, with a real growth rate of 6.3% after deducting price factors. E-commerce has become a key driver of farmers' income growth. The e-commerce performance of categories such as Liuzhou Luosifen and Rong'an kumquat confirms the role of production-marketing linkage in promoting the release of regional public brand value.

From the perspective of the production end, farmers' decision-making under the traditional production mode mostly relies on past prices and neighborhood experience, lagging behind changes in market demand. The misalignment of production and marketing information disconnects production from the market, making it difficult to stably transform resource advantages into income advantages. Research on the development of county-level agricultural e-commerce platforms in Jiangsu Province by Yan et al. shows that county-level e-commerce platforms generally face common problems such as insufficient production-marketing matching and lack of brands among small and medium-sized entities[1], and this judgment also applies to the situation in Guangxi. Most county-level agricultural assistance platforms still remain at the level of online transaction matching, failing to accurately transmit consumer demand in reverse. There is a significant gap between small-scale production and large markets, which restricts the release of endogenous industrial momentum. National and Guangxi policies clearly require promoting agricultural production from supply-driven to demand-led, which is highly consistent with the design logic of Mang Xiaozhong: empowering the sales transformation of Guangxi's characteristic agricultural products through reverse support from the demand side.

1.2 Improving the Circulation Efficiency of Characteristic Agricultural Products in Guangxi

The expansion of e-commerce scale further exposes the shortcomings of traditional circulation links. The 14th Five-Year Plan for Logistics Development in Guangxi (Guizheng Ban Fa〔2022〕No. 26) issued by the General Office of the People's Government of Guangxi Zhuang Autonomous Region points out that counties in Guangxi have insufficient supply of cold chain storage facilities, low coverage of commercial processing facilities such as pre-cooling and grading, and post-harvest loss of fresh agricultural products higher than the national average. Under the traditional multi-level distribution mode, fresh agricultural products have to go through multiple intermediaries from origin to terminal, which erodes farmers' profits layer by layer while raising terminal prices. Referring to similar calculations, the decay rate of fruits and vegetables in traditional multi-level wholesale circulation is about 20%–30%, and loss continues to consume industrial value.

These shortcomings force the reconstruction of the circulation mode, and demand-oriented direct production-marketing connection has thus become a key path. The All-China Federation of Supply and Marketing Cooperatives has proposed guiding business entities to establish long-term and stable production-marketing docking relationships, develop origin direct procurement, centralized joint procurement, and direct supply and distribution, shorten the circulation chain, and promote production through sales. Research by Yan et al. also shows that the direct production-marketing connection mode can effectively reduce circulation costs and improve circulation efficiency of county-level agricultural products[1], which has clear practical value in the circulation scenario of characteristic agricultural products in Guangxi. Direct production-marketing connection can open up the docking between producing areas and consumption terminals, cut redundant links, and tilt circulation profits to both ends of production and marketing. The pre-sale order aggregation mode can lock in demand in advance, cooperate with origin grading and sorting, and reduce the risk of product backlog and loss from the source.

1.3 Enhancing Brand Value of Characteristic Agricultural Products in Guangxi

Guangxi has a number of characteristic agricultural products with geographical indication attributes, such as Rong'an kumquat, Wuming mandarin and Baise mango. Regional public brands such as Liuzhou Luosifen and Rong'an kumquat have formed a certain national influence. Among them, the total industrial chain sales revenue of Liuzhou Luosifen reached 81.31 billion yuan in 2025, with a brand value of 15.051 billion yuan, initially verifying the market value of agricultural product branding. Research by Yuan et al. points out that effective empowerment of platform digital technology can bring significant gains to agricultural product supply chain operation and brand building[2]. However, a large number of small and medium-sized farmers in Guangxi still lack standardized quality control and brand operation experience. Most local agricultural assistance platforms stay at the level of low-price promotion, the cost of consumer trust is high, and the value of regional public brands has not been fully filtered down through e-commerce channels.

In response to these shortcomings, the demand-oriented interactive mode provides a low-cost path for agricultural product brand building. Through public batch traceability information, scenario-based consumption display and standardized after-sales commitment, it can fully present the quality and regional cultural connotation of Guangxi agricultural products, establish emotional connection and trust accumulation with consumers, and promote the transformation of brands from traffic

exposure to trust precipitation. Guangxi is promoting the shift of agricultural e-commerce focus from product sales to brand building by relying on the "Digital Commerce Boosting Agriculture" Initiative, and cultivating new agricultural business entities, which provides policy guidance and practical direction for Mang Xiaozhong to strengthen regional brand value through model innovation.

2. Demand-Side Oriented Operation Strategies of the Mang Xiaozhong Platform

Based on the above analysis, the core pain points in Guangxi's agricultural e-commerce field can be summarized into four dimensions: "production-marketing disconnection – inefficient circulation – weak trust – capital shortage". These problems share the common features of county-level agriculture and also have the local particularity of decentralized multi-category production in Guangxi. In existing agricultural assistance practices, JD Fresh, Pinduoduo, Xiaoxiang Supermarket, and Douyin E-commerce's "Shanhuo Shangtoutiao" have formed representative paths, but the large-scale models of mainstream platforms are difficult to fully adapt to local needs in Guangxi. Based on this industrial landscape, Mang Xiaozhong takes reverse traction of the production end from the demand side as its core logic, adheres to the asset-light third-party service positioning, and builds a four-in-one operation strategy of customized pre-sale, two-way exchange among production areas, rule-based trust design, and consumer-side pre-purchase crowdfunding, forming a new closed-loop service paradigm of "production-marketing docking – resource allocation – quality control – capital replenishment".

2.1 Opening Customized Pre-Sale Channels for Mutual Convenience of Both Sides

The misalignment of production and marketing information is the core contradiction restricting the release of endogenous momentum of Guangxi's characteristic industries. Order resources in Guangxi are highly concentrated in staple crops such as sugarcane and high-quality rice. Characteristic fruits and vegetables such as mandarin, mango and passion fruit are mostly planted by scattered households, making it difficult to form stable order contracts. Farmers' production decisions often rely on previous years' purchase prices, which easily leads to follow-the-trend planting and oversupply after concentrated listing. There is an obvious docking gap between small-scale production and large markets.

Although mainstream platforms have established various production-marketing docking paths, their differentiated advantages are difficult to adapt to the local situation in Guangxi at the same time. Xiaoxiang Supermarket carries out origin direct procurement and order-based planting relying on its self-operated system, mainly connecting with large-scale bases. It is more suitable for contiguous bases and difficult to cover scattered small farmers in Guangxi's hilly areas. Douyin E-commerce's "Shanhuo Shangtoutiao" completes agricultural product exposure and order conversion through short videos and live streaming, but live streaming highly relies on traffic investment and personal IP incubation. Farmers in Guangxi's counties generally lack live streaming operation capabilities, and it is difficult for small and medium-sized farmers to obtain sustained and stable orders through live streaming. JD Fresh and Pinduoduo carry out origin centralized procurement relying on warehouse distribution networks and traffic advantages respectively, but they set strict thresholds for supply volume and supply continuity. A case study of "Huinong Zhubofang" by Peng et al.[3] shows that, although county-level live streaming agricultural assistance is applicable, it mostly focuses on a single category, making it difficult to serve the staggered listing pattern of multiple categories such as mango, kumquat and passion fruit in Guangxi.

In response to the above supply gap, Mang Xiaozhong establishes a hierarchical customized pre-sale channel to open up the transmission path of consumer demand to the production end. For bulk procurement entities and long-term consumers, the platform supports both supply and demand parties to independently agree on varieties, specifications, harvesting cycles and other factors. At the same time, it launches long-cycle products such as fruit tree adoption and annual fruit supply packages, transforming one-time transactions into stable production cooperation relationships, matching the production rhythm of perennial crops such as mandarin and mango in Guangxi. For scattered consumer groups, the platform aggregates demand by urban communities, forms community batch orders and then uniformly docks with production area cooperatives, reducing the docking and communication costs of scattered farmers, and realizing mutual convenience for both supply and demand ends.

Research on customized green agricultural product supply chains by Zhou et al. shows that identifying and responding to consumers' heterogeneous preferences can effectively improve the matching degree of supply and demand and the overall performance of the supply chain. The demand-preceded production organization mode can reduce the risk of product backlog

from the source[4], providing theoretical support for the effectiveness of Mang Xiaozhong's pre-sale mode. The community order aggregation mode of Mang Xiaozhong reduces the threshold of order docking through small-scale demand aggregation, provides convenient market access channels for scattered farmers, and also conforms to the development direction of quality improvement and upgrading of county-level e-commerce in Guangxi.

2.2 Implementing Two-Way Exchange Mode to Optimize Resource Allocation

Guangxi's mountainous terrain leads to fragmented distribution of production areas. At the county level, the supply of cold chain storage, origin pre-cooling, and grading facilities is insufficient, and post-harvest loss of fresh agricultural products is higher than the national average. The short board of circulation infrastructure further amplifies the regional unsalable risk brought by concentrated listing of categories such as mandarin, lychee and passion fruit. In some producing areas, there is even a supply-demand mismatch where "low prices hurt farmers" while consumers in other regions still find it difficult to buy affordable fresh fruits. Pinduoduo's "Duoduo Zhunong" and Douyin E-commerce's agricultural assistance zone push regional surplus products to the national market relying on traffic prioritization; Xiaoxiang Supermarket focuses on rapid scheduling and local digestion at the city end relying on its front warehouse network. However, both belong to one-way export of surplus products. Cross-regional transportation drives up circulation costs, and resource allocation efficiency is low.

In view of the limitations of the above one-way allocation mode, Mang Xiaozhong introduces the logic of resource exchange and establishes a two-way circulation channel for agricultural product sharing and adjustment. At the production area end, merchants from different producing areas can submit unsalable products to the platform for value evaluation and matching exchange, so as to enrich the supply structure of both sides through category complementarity, digest excess inventory, and avoid costs and losses caused by cross-regional long-distance transportation. At the consumer end, consumers can have their surplus household agricultural products verified and valued by the platform to deduct purchase payments, expanding the realization channels of idle agricultural products. In the landing link, the platform takes urban community outlets as local digestion nodes for unsalable products, quickly matching regional supply with community demand, and structurally alleviating regional unsalable problems.

Compared with the traditional one-way promotion mode, Mang Xiaozhong's two-way exchange mode pays more attention to the optimal allocation of circulation resources, and achieves the dual effects of unsalable product digestion and supply enrichment through production area category complementarity. The 14th Five-Year Development Plan of Guangxi Zhuang Autonomous Region Supply and Marketing Cooperatives points out that regional unsalable problems are prominent, circulation obstruction and information asymmetry are the main causes, and promoting cross-production-area supply-demand adjustment and improving the inter-regional allocation system are important ways to improve circulation efficiency. This judgment confirms the practical value and promotion feasibility of Mang Xiaozhong's sharing and adjustment mode.

2.3 Designing Transaction Trust Rules to Support Brand Building

Guangxi has a number of geographical indication characteristic agricultural products such as Rong'an kumquat, Wuming mandarin and Baise mango. However, a large number of small farmers lack standardized management capabilities and brand operation experience. Product quality is uneven, and inconsistency between quality and promotion occurs from time to time, raising the cost of consumer trust. Research by Yan et al. further points out that insufficient trust construction is a common problem of county-level agricultural e-commerce platforms, and the lack of brands among small and medium-sized entities directly increases consumer decision-making costs[1]. Xiaoxiang Supermarket builds trust barriers through on-site quality control, full-link detection and pre-warehouse inspection relying on its self-operated mode, but it is heavy-asset investment and mainly serves its own supply sources. Douyin E-commerce relies more on anchors' personal IP to build consumer trust, but IP trust is highly bound to the anchor individual, making it difficult for farmers in Guangxi's counties to incubate independently. JD Fresh and Pinduoduo reduce consumption risks relying on platform rules and third-party after-sales services, but they have limited binding force on settled small farmers, making it difficult to control quality from the source.

In response to these trust construction difficulties, Mang Xiaozhong designs trust mechanisms with transaction rules as the core, exploring a low-cost brand support path. The platform implements a "use first, pay later" transaction rule: consumers complete payment deduction after receiving and verifying satisfaction. The automatic deduction mechanism greatly reduces

decision-making concerns. At the same time, a batch traceability system is established, with each batch of products corresponding to origin information, inspection certificates and logistics trajectories, realizing traceable quality information. The after-sales link relies on community layout outlets to provide nearby return and exchange services, shortening the trust repair cycle and allowing brand trust to accumulate in every transaction.

Research by Liu and Chai shows that perceived trust in live streaming scenarios has a significant positive impact on consumers' purchase intention, and trust is a key variable driving purchase decisions in agricultural product live streaming[5]. The 2023 Consumption Survey Report on Commodity and Service Quality of Guangxi Community Group Buying Platforms issued by the Guangxi Consumer Rights Protection Committee also points out that there are outstanding problems in fresh food consumption through community group buying, such as inconsistency between quality and promotion and delayed after-sales service. High trust costs have become a realistic obstacle to the continuous expansion of fresh agricultural product e-commerce in Guangxi. The rule-based trust model of Mang Xiaozhong essentially offsets the impact of information asymmetry with clear institutional design, is more suitable for small and medium-sized farmers lacking brand accumulation, and can provide platform support for the realization of regional agricultural product brand value.

2.4 Establishing Crowdfunding and Adoption System to Alleviate Production Pressure

A large number of small-scale growers and cooperatives in Guangxi generally face seasonal liquidity gaps. Categories such as mandarin, mango and passion fruit need concentrated funds in the stages of agricultural materials, field management and harvesting. However, traditional financial institutions have high credit thresholds, making it difficult to meet small short-term capital needs. Digital financial products such as JD Supply Chain Finance's "Jingbaobei" and Wangshang Bank's "Dashanque" provide credit support for farmers relying on platform transaction data or agricultural remote sensing data, but their risk control models and credit lines are more oriented to large-scale entities, and the coverage of scattered small farmers is still limited. Xiaoxiang Supermarket focuses on self-operated procurement and has not opened inclusive financial tools to scattered small farmers. Although the agricultural adoption model that has emerged in recent years has opened up a consumer-side financing channel, its adaptability in county scenarios still needs to be improved. Research by Yuan et al. points out that platform digital technology empowerment can provide new ideas for agricultural product supply chain operation and financing strategies[2], but how to introduce consumer-side resources into county-level production is still a topic worthy of in-depth exploration.

The above capital constraints constitute a key bottleneck for the stable development of the production end. Mang Xiaozhong combines the crowdfunding model with agricultural product adoption to create a consumer-oriented production fund support system: farmers can release production crowdfunding projects through the platform, and consumers participate in the form of pre-purchase investment. Crowdfunding funds are used for key links such as agricultural materials and production, and investors can obtain corresponding quotas of agricultural products, membership benefits or fruit tree adoption qualifications. The platform undertakes the responsibilities of fund supervision and progress disclosure, and regularly feeds back crop growth, production and processing dynamics to investors to ensure transparent use of funds. At the same time, it relies on community groups to maintain investor relations, and transforms a single financing behavior into long-term brand relationship precipitation through continuous interaction.

Research by Liang and Zhao shows that the pre-sale and crowdfunding combination model can effectively alleviate the financial pressure on the production end and improve the overall income of the supply chain under certain conditions[6], providing empirical evidence for the feasibility of consumer-side financing. The 14th Five-Year Plan for High-Quality Development of New Agricultural Business Entities and Service Entities in Guangxi also points out that new business entities generally have seasonal liquidity gaps, and small short-term capital needs are difficult to meet through traditional financial channels. The essence of Mang Xiaozhong's crowdfunding model is to convert idle funds at the consumer end into working capital at the production end, while realizing user binding. It has dual functions of financing and customer relationship management, and can alleviate farmers' financial pressure in key links such as agricultural materials and harvesting.

3. Conclusion

Based on the actual development of e-commerce of characteristic agricultural products in Guangxi, this paper addresses

practical pain points such as “high yield but poor harvest”, high circulation costs, lagging brand building, and capital constraints at the production end. Taking the college student entrepreneurship project Mang Xiaozhong as a research sample, it systematically explores the operation strategy of county-level agricultural assistance platforms under demand-side orientation. The four strategies proposed in this study—customized pre-sale, two-way exchange among production areas, rule-based trust design, and consumer-side pre-purchase crowdfunding—are interconnected to form a closed-loop system of “production-marketing docking – resource allocation – quality control – capital replenishment”. It adapts to the industrial characteristics of decentralized smallholder production and staggered listing of multiple categories in Guangxi, addresses the bottlenecks of local industrial development in a targeted manner, and provides localized design ideas and references for the innovation of county-level agricultural assistance e-commerce models in Guangxi. Since the research is still at the conceptual stage, the actual operation effect of the platform needs to be further verified and iteratively optimized after pilot implementation.

Funding

This work was supported by the 2024 Guangxi Zhuang Autonomous Region College Student Innovation and Entrepreneurship Training Program “Mang Xiaozhong” (Project No. S202410608061X).

Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

Reference

[1] Yan, Q. J., Yuan, Z. C., Huang, H. Y., et al. (2026). Research on the development mode and countermeasures of county-level agricultural e-commerce platforms in Jiangsu Province. Anhui Agricultural Science Bulletin, 32(3), 139–141. https://doi.org/10.16377/j.cnki.issn1007-7731.2026.03.033 (in Chinese)

[2] Yuan, X. Y., Ma, R. Y., He, X. Y. (2026). Operation and financing strategies of agricultural product supply chain enabled by platform digital technology. Control and Decision, 41(1), 175–185. https://doi.org/10.13195/j.kzyjc.2025.0296 (in Chinese)

[3] Peng, M. J., Xie, D. F., Wen, J. J. (2025). Research on innovation of agricultural product sales mechanism under the background of live-streaming agricultural assistance: A case study of "Huinong Zhubofang". Grain, Oils and Feed Science and Technology, (18), 53–55. (in Chinese)

[4] Zhou, L. N., Zhou, G. G., Zheng, J. Z., et al. (2026). Equilibrium study on customized green agricultural product supply chain considering consumers' heterogeneous preferences. Chinese Journal of Management Science, 34(2), 275–286. https://doi.org/10.16381/j.cnki.issn1003-207x.2023.1162 (in Chinese)

[5] Liu, Y., Chai, S. J. (2026). Research on the influence mechanism of real-time live-streaming interaction on consumers' purchase intention of agricultural products. Journal of Xinyang Normal University (Philosophy and Social Sciences Edition), 46(4), 57–61. (in Chinese)

[6] Liang, Y. X., Zhao, L. D. (2026). Combined financing strategy of pre-sale and crowdfunding for fresh agricultural product supply chain under capital constraints. Journal of Southeast University (English Edition), 42(2), 257–268.