Advances in Social Science and Culture
ISSN 2640-9682 (Print) ISSN 2640-9674 (Online)
Vol. 8, No. 3, 2026
www.scholink.org/ojs/index.php/assc

Original Paper

Research on the Blockage Mechanisms and Governance Pathways of Smallholder Farmers' E-commerce Participation in the Context of Rural Revitalization

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Received: April 19, 2026 Accepted: May 29, 2026 Online Published: June 10, 2026

doi:10.22158/assc.v8n3p119 URL: http://dx.doi.org/10.22158/assc.v8n3p119

Abstract

In the context of digital technology's deep integration into agricultural industry chains, e-commerce for tea is viewed as a crucial engine for rural revitalization. However, the prosperity of e-commerce at the macro level has not automatically translated into widespread benefits for small-scale farmers. Instead, a significant digital dual structure has emerged between county-level and village-level entities, as well as between top streamers and ordinary tea farmers. This paper takes Gongong Village in Mengku Town, Shuangjiang County, Yunnan Province, as a case study and, based on field research data, provides an in-depth analysis of the underlying mechanisms driving the marginalization of small-scale farmers in the e-commerce wave. The findings reveal that small-scale farmers face not only a digital infrastructure access gap but also skill gaps resulting from aging, organizational gaps due to atomized production, and traffic gaps caused by platform algorithms. These four types of gaps combined have led to the emergence of a sales gap. Therefore, empowering rural revitalization through e-commerce needs to shift from inclusive growth to inclusive development in order to bridge the digital divide and achieve an organic connection between small-scale farmers and modern agriculture.

Keywords

e-commerce empowerment, rural revitalization,smallholder farmers, digital divide, tea

1. Introduction

The report of the 20th National Congress of the Communist Party of China emphasized the need to accelerate the development of the digital economy, promote deep integration of the digital and real economies, and

comprehensively advance rural revitalization. The No. 1 Central Document of 2025 explicitly called for the implementation of a special action to strengthen agriculture, benefit farmers, and raise rural incomes through digital rural development, to promote high-quality development of rural e-commerce, increase farmers' incomes, and narrow the urban–rural digital divide. The No. 1 Central Document of 2026 further deployed the implementation of a high-quality rural e-commerce development project, stressed the need to regulate live-streaming sales of agricultural products, and clearly mandated the implementation of a high-quality digital rural development action to improve network coverage in rural and remote areas. From 2025 to 2026, the Ministry of Commerce and other departments successively introduced policies to deepen the "Digital Commerce Revitalizing Agriculture" project, establish county-level e-commerce live-streaming bases, encourage platform empowerment at the grassroots level, and guide the coordinated development of rural e-commerce and rural specialty industries.

Against this backdrop, emerging business forms represented by live-streaming e-commerce have risen rapidly in the agricultural sector, particularly for specialty products such as tea, profoundly reshaping traditional production and marketing patterns. In 2025, e-commerce sales of tea in Shuangjiang Autonomous County, a core production area of Pu'er tea, exceeded 1.4 billion yuan, giving rise to six benchmark live-streaming rooms with annual sales exceeding 100 million yuan. The total tax revenue of the tea industry reached 57.52 million yuan, a year-on-year increase of 168%, and the per capita net income of tea farmers in the county reached 13,000 yuan. It appears that this remote tea mountain region, driven by digital technology, has entered a fast track of income growth and prosperity. However, this county-level e-commerce boom has not effectively translated into tangible benefits at the village level through trickle-down effects. As the original site and core production area of the Mengku large-leaf tea variety, Gongnong Village possesses 29,000 mu of tea gardens, of which ancient tea gardens over a century old account for as much as 70%. Farmers endowed with such high-quality resources should logically be primary beneficiaries of the e-commerce dividend. Yet, most villages under the jurisdiction of Gongnong Village Committee are generally faced with low tea prices and sluggish sales. Even Xiaohusai, a natural village that retains the largest and most intact ancient tea gardens and enjoys a certain level of recognition, struggles with falling tea prices and lackluster market channels. Behind the frenzied scene of the entire county's live broadcast, where products sold out within 10 seconds, numerous ordinary tea farmers continue to rely on high-quality fresh leaves and traditional channels within a society of acquaintances to reduce costs and maintain meager profits. This coexistence of prosperity and hardship reveals a core issue: why have some small farmers been left behind as digital technology becomes deeply integrated into agricultural industry chains? This is not simply a matter of technical access; it involves deeper structural exclusions related to capabilities, organizations, and systems.

2. Literature review

2.1 The Dual Narrative of Empowerment and Differentiation

Early research highlighted the "empowerment" effect of e-commerce on small-scale farmers. Wang Yanqi et al. (2023). From both the theoretical logic and micro-evidence perspectives, participation in rural e-commerce

operations significantly contributes to increased farmer incomes. Its macro-level pathways include solidifying the foundation of essential resources, promoting county-level resource integration, and facilitating farmer employment and entrepreneurship. The micro-mechanisms manifest as expanding farmer profit margins, reducing circulation intermediaries, enhancing resource allocation efficiency, and lowering operational risks. Fu Weihan (2025), using PSM analysis based on CRRS data, found that the development of rural e-commerce has a positive effect on increasing farmers' income and significantly raises their operating income. Xiong Yafen (2021) employed the PSM-DID method to confirm that participation in e-commerce increases per capita income of rural households by 57.46%-62.42%, with the average growth rate of sales revenue rising by 312%.

However, a growing body of research has noted the internal differentiation in the distribution of e-commerce dividends. Sun Bochi and Yin Han (2025) found that while the development of digital villages promotes the income growth of farmers, it also widens income inequality among them, with the digitalization of the rural economy playing the most prominent role in increasing income while expanding disparities. He Shui et al. (2024) [5] similarly pointed out that digital village development can significantly raise the absolute income level of farmers, but it also enlarges relative income gaps, and the digitalization of both the rural economy and rural life exhibits a clear "pro-rich" characteristic. Cai Jie et al. (2024) found that the endogenous development capacity of smallholder farmers plays a mediating role in their integration into the e-commerce value chain to promote common prosperity, and this common prosperity effect varies by income level, being more significant for middle-income smallholders. Dai Mengting et al. (2025) discovered that the impact of rural e-commerce industry agglomeration on farmers' income follows an "inverted U-shaped" pattern: moderate agglomeration helps increase income, while excessive agglomeration generates negative effects due to congestion.

2.2 Exploration of Benefit Distribution Mechanisms

The rise of live-streaming e-commerce has opened new channels for the upstream movement of agricultural products, but has also sparked new discussions regarding benefit distribution mechanisms. Ma Jiujie et al. (2025) constructed a quality and safety gatekeeping model for agricultural products in live-streaming e-commerce, finding that within the live-streaming e-commerce value chain, platforms and streamers, acting as digital gatekeepers, hold key controlling power. However, due to unreasonable benefit structures and inadequate incentive mechanisms, they may lose the willingness and ability to fulfill their gatekeeping responsibilities, leading to gatekeeping failure and triggering quality and safety issues in agricultural products. Han Zongling and Lu Yuanyuan (2024), using a game-theoretic model, found that the probability of streamers choosing to market agricultural products honestly is positively correlated with the severity of penalties imposed by farmers and the potential losses. By increasing the punishment for dishonest streamers and compressing the profit margins arising from cost differences in their sales, the dishonest and speculative behaviors of streamers can be effectively curbed. Wang Yiru (2024), taking the Yingde tea industry as the research object, found that tea farmers generally lack professional skills such as video shooting and live-streaming marketing, and have high demand and expectations for new media technologies.

2.3 Research on Farmers' E-commerce Participation Behavior

Whether farmers can successfully connect to e-commerce markets depends largely on their digital literacy and skill levels. Yang Jiali and Wu Congliang (2023), based on 528 survey responses from the Hunan and Guangdong regions, found that digital literacy has a significant positive effect on farmers' willingness and degree of e-commerce participation, with e-commerce cognition playing a partial mediating role and digital training exerting a positive moderating effect. Luo Sheng et al. (2024), using CRRS data, further confirmed that mastery of digital skills significantly increases the probability of smallholder farmers participating in e-commerce markets, and that a favorable rural environment, enhancement of farmers' skills, and cultivation of an e-commerce atmosphere are important mechanisms driving this empowerment process. Jiang Jiejie et al. (2024) found that digital skills significantly and positively influence farmers' e-commerce participation decisions and extent, with information acquisition playing a partial mediating role, and that this facilitating effect is more pronounced among farmers with higher income and higher education levels. Liang Wei (2025) Based on the case study of Yunnan's flower industry, it is evident that government leadership, enterprise involvement at the grassroots level, and coordination between different entities can effectively facilitate the organization of small farmers to connect with the e-commerce market. Through the integration of resources, each entity enhances its ability to connect, relies on contracts to share benefits and share risks, and concentrates on spreading costs to reduce transaction costs.

Overall, existing research has made significant progress at various levels. However, much of the focus has been on the positive effects of e-commerce empowerment, with relatively little attention given to the internal disparities resulting from unequal empowerment. This paper shifts its attention to ordinary tea farmers who have been left behind in the digital wave. By analyzing the gaps they face in terms of capabilities, resources, organization, platforms, and systems, it highlights the structural limitations of e-commerce empowerment, providing a theoretical basis for the targeted and inclusive development of policies related to e-commerce for agricultural products.

3. Transformation and Segmentation of Tea Sales Models

3.1 Traditional Sales Models and Their Limitations

The Gongong Village Committee is located in the western part of Mengku Town. It oversees 7 rural villages and 11 subgroups, comprising 629 households and 2,512 individuals. Among them, ethnic minorities account for 59.7%. The village is a multi-ethnic settlement. Tea cultivation is the primary industry in the village, with the area of tea gardens increasing from 10,700 mu (acres) in 2017 to 29,000 mu in 2025. Of these, 23,000 mu have been certified as organic, and 70% of the ancient tea gardens are over 100 years old. In 2024, the per capita annual income of the entire village was 15,800 yuan, slightly higher than the average for tea farmers throughout the county. Prior to the rise of e-commerce, tea sales in Gongnong Village Committee were heavily dependent on social networks of acquaintances. Tea farmers sold fresh leaves or preliminary processed maocha to tea merchants who purchased directly from households, with prices unilaterally determined by the buyers. The drawbacks of this model are evident: information asymmetry prevents farmers

from knowing the true market price; weak bargaining power leaves them vulnerable to price suppression even in bountiful harvest years; and a single sales channel means that once merchants withdraw, tea stockpiles accumulate. The declining tea prices and sluggish sales faced by Xiaohusai Natural Village in 2025 are a direct consequence of the contraction of these traditional channels.

3.2 The Rise of E-commerce and the Achievements of the Entire County

Since 2023, Shuangjiang County has taken the revolution in work style as a breakthrough point and vigorously regulated the tea e-commerce market. In 2024, a tea testing, evaluation, and traceability center was established to implement the Nine-Step Selection Method. Over 21,000 tea samples were processed, and more than 10,000 tea products were promoted for sale. In 2025, the e-commerce association developed a live broadcast reporting system, requiring dual reporting for 273 live broadcast rooms. The overall return rate of tea broadcasts decreased to one-third of the national average. Under this system, the growth of tea e-commerce in Shuangjiang witnessed explosive expansion. In 2025 alone, the payment volume on Douyin reached 1.54 billion yuan, with 6 live broadcast rooms ranking among the top 10 in the national tea rankings. Yunnan Bifang Ge's annual sales exceeded 300 million yuan, benefiting more than 2,600 tea farmers. Yi Yao Tea Industry expanded from a team of 11 people to 170 employees, with annual turnover of 180 million yuan and tax payments of 13 million yuan. The official account of China Shuangjiang Bifang Tea Association achieved a total transaction volume of 270 million yuan. The county now has 1,569 e-commerce business entities, with over 3,000 direct employees and nearly 10,000 people employed. The tax revenue from the tea industry has increased from 7.50% of the county's total tax revenue to 16.59%.

3.3 The Current State of e-commerce Participation among Tea Farmers in Gongong Village Committee

In contrast with the data for the entire county, the participation of e-commerce in Gongong Village Committee exhibits a pattern of scattered penetration and overall lag. There are 205 tea processing facilities in Gongong Village Committee, but the number of e-commerce business entities is unclear. In December 2025, the County Federation of Overseas Chinese and the Vocational and Technical Education Center held a door-to-door e-commerce training session in Xiaoshuisa Natural Village. 43 tea farmers learned how to shoot short videos and conduct live broadcasts. This was the only reported large-scale training session in Gongong Village Committee. After the training, some tea farmers began experimenting with live broadcasts. One Douyin account received over 180,000 likes, but such success stories were extremely rare. Most tea farmers still relied on traditional channels. Xiaoshuisa Natural Village has 223 households with a total population of 934 people and 6,456 acres of tea plantations and 8,869 ancient tea trees over 100 years old. However, due to oversupply in the market, prices have declined. The village adopts a cooperative model where 5-10 households work together in rotation to harvest tea without paying wages or providing meals, solely to save costs. This informal mutual aid system highlights the pressure tea farmers face during periods of low prices.

3.4 Multidimensional Manifestations of the Sales Gap among Tea Farmers

The sales gap is first reflected in the distribution of sales revenue. In 2025, the e-commerce sales of tea in Shuangjiang County exceeded 1.4 billion yuan; however, the direct contribution of e-commerce from Gongnong Village to this total is extremely low. Although the per capita net income of Gongnong Village

reached 15,800 yuan in 2024, slightly above the average for tea farmers across the county, this figure may mask severe internal differentiation within the village. The income of a small number of farmers participating in live-streaming has increased substantially, while the majority who rely on traditional channels have experienced sluggish or even declining income growth. Second, the gap is evident in both price and sales volume. Although Xiaohusai Natural Village, under the jurisdiction of Gongnong Village, possesses a large number of ancient tea trees over a century old, it faces the predicament of falling tea prices and lackluster sales.In the first quarter of 2026, Gongtong Village's tea production amounted to 780 metric tons, marking a 9.4% year-on-year increase. However, all of the products were green tea, with a single variety structure and a lack of high-value specialty categories, further weakening the tea's price resilience. Lastly, from an employment perspective, the impact of e-commerce on the return of new farmers to Gongtong Village has been extremely limited. While the village's tea processing facilities have become established, the number of e-commerce business operators is scarce. Most tea farmers still primarily engage in selling fresh leaves and initial processing. The percentage of farmers participating in live streaming is extremely low. Local young people are more inclined to seek employment outside the village rather than returning to engage in e-commerce entrepreneurship. This means that the e-commerce wave has not yet established effective mechanisms for employment absorption and talent return in Gongtong Village.

4. Triple Logic of Structural Exclusion

4.1 Aging and the Intergenerational Gap in Digital Skills

In Gongnong Village Committee, there are 196 residents aged over 65, accounting for 7.8% of the total population, and party members aged over 60 constitute 27% of all party members. This demographic structure creates a natural physiological barrier to the adoption of digital technologies. Although mobile phone penetration is high, smallholder farmers generally lack advanced digital literacy such as video shooting, algorithm management, and live-streaming presentation skills. The case of Xiang Peng, head of Yiyao Tea Industry, teaching a tea farmer in his fifties how to start a live-stream—with the old farmer feeling "as if in a dream"—vividly illustrates the difficulty of such skill transfer. Although the county has organized e-commerce training sessions, reaching a total of 1,082 participants countywide in 2025, Gongnong Village Committee received only one session with 43 participants, concentrated in a few natural villages. The vast majority of tea farmers have never received systematic guidance on e-commerce operations. Moreover, for older tea farmers with a relatively high average age, short-term, cramming-style training is unlikely to be transformed into sustained self-sustaining capacity. They know how to grow tea and process tea, but not how to tell compelling tea stories in front of a camera, placing them at an inherent disadvantage in the competition for traffic. A village cadre remarked bluntly that many tea farmers do not understand how to manage operations and can only stand by helplessly. This precisely illustrates that bridging the capability gap requires highly individualized and sustained support, which large-scale training sessions are ill-equipped to provide.

4.2 Dual Squeeze of Organizational Deficiency and Platform Logic

Although Gongnong Village possesses high-quality resources in the form of over 20,000 mu of ancient tea

gardens, smallholder farmers struggle to translate these assets into tangible market benefits. Amid the grand narrative of county-level e-commerce prosperity, they instead suffer a dual squeeze from platform algorithms and market rules, falling into a structural predicament of having good tea but being unable to sell it at a fair price.

On the one hand, live-streaming e-commerce is fundamentally an attention economy, and its recommendation algorithms inherently favor high-interaction, high-conversion top-tier live-streaming rooms, creating a Matthew effect where the strong grow stronger. Although Shuangjiang County has witnessed the emergence of top-tier streamers such as Yiyao Tea Industry and Bingdao Brother Afu, each achieving hundreds of millions in annual sales, this very success reinforces the concentration of traffic distribution. Building a brand requires sustained investment in traffic acquisition, packaging design, and logistics support—areas in which smallholder farmers generally lack capital accumulation. Top streamers have professional teams and fan bases accumulated over years, whereas smallholder farmers have neither an initial following nor the capacity to consistently produce high-quality content, trapping their live-streaming rooms in the cold-start predicament of single-digit viewership. AFOGO's intense investment of seven hours a day in live broadcasting is an unattainable luxury for small farmers who also need to juggle tea plantation maintenance and family livelihoods, and a series of barriers cause small farmers to face high barriers of funding, skills and time to enter the live broadcast circuit. In the absence of a flow alignment, small farmers have been forced into the survival logic of low-price competition, and even as the government tries to crack down on chaos such as "9.9 yuan Icelandic tea," the price war inertia deep within the market persists. The decline in the price of smallholder ceuta is a reflection of this inertia. Due to the lack of brand endorsement, small farmers' tea has become a homogeneous product in the eyes of consumers, and can only passively follow the price reduction, which seriously compresses profit margins. The SC certification, testing costs, packaging upgrades and other compliance costs required to establish brands objectively constitute the institutional exclusion of small farmers.

On the other hand, the theoretically functioning "party committee + cooperative + farmers" linkage mechanism has become alienated in Gonglou Village, although there are five tea cooperatives in the village that process and sell 300 tons of wool tea annually, but their functions are still mainly limited to raw material acquisition. This lowly integrated organization means that small farmers are still locked at the bottom of the value chain, selling only raw materials, not brands, earning hard money, not premium prices. In contrast to the "Bongmu Xiaozhu" model, the Nakamura Party Chief's highly organized path of directly operating accounts, unified quality control, and profit return has overcome the weakness of individual farmers through collective action, and realized the transition from selling raw materials to selling experience. The disposable income of the collective economy in Gongnong Village is only 198 thousand yuan, which is difficult to support the large-scale infrastructure construction and brand marketing investment. As a result, small farmers are still in a state of atomized competition, unable to form a collective force against platform capital.

4.3 Standardized Governance and Barriers to Entry for Small-scale Farmers

The Three-One Model of Shuangjiang has been highly effective in regulating the market and building trust.

While its rigorous quality control and reporting systems have purified the market ecosystem, they have also raised the entry barrier for businesses. For large enterprises with annual sales in the millions, submitting samples for testing, obtaining SC certification, and ensuring label compliance are necessary brand-building investments. However, for smallholder farmers who rely on selling a few thousand catties of fresh leaves or running small processing workshops to make a living, these procedures entail prohibitive time costs and financial barriers. Gongnong Village has set its government work targets for 2026 on adding SC-certified tea enterprises and enterprises above a designated size, while providing little detail on targeted support measures for smallholder farmers. This policy orientation objectively channels resources toward leading enterprises. In the tide of market standardization, smallholder farmers lacking capital strength face the risk of being "cleansed" by compliance requirements. Policy resources tend to favor supporting the strong and the excellent, with the expectation that leading enterprises will generate trickle-down effects. However, in practice, such trickle-down effects are often delayed and unevenly distributed.

5. Path Optimization from Traffic-driven to Institutionally Inclusive Approaches

In the face of the numerous challenges faced by small-scale farmers in terms of e-commerce participation, simply providing technical training or support for traffic is no longer sufficient to fundamentally turn the situation around. Small-scale farmers not only lack digital skills but also lack the bargaining power and organizational support needed to engage with platform capital. Short-term assistance that amounts to giving someone a fish cannot address structural issues. There is an urgent need to shift from a logic of externally driven growth driven by traffic to an internally driven development path that is inclusive of institutions. Through systematic institutional restructuring, we can lower the entry barriers for small-scale farmers, enhance their organizational level, and foster differentiated competitive advantages, so that the empowerment provided by e-commerce truly benefits every tea farmer.

5.1 Reducing Institutional Transaction Costs

Local governments should actively respond to the practical needs of rural e-commerce development by providing integrated services such as sorting, packaging, and testing, thereby reducing market transaction costs for the sale of agricultural products and facilitating the upward flow of agricultural products. (Liang, 2025) On one hand, we should fully leverage the public service functions of existing product recommendation and origin tracing centers and establish dedicated green channels for small farmers. Considering the characteristics of small farmers' small-batch, multiple-batch sales, simplified and low-cost testing and reporting models can be developed. The collective village organization can send small batches of samples for testing under the auspices of the village committee's tea association, significantly reducing the time and cost associated with individual testing. For online reporting systems with high operational barriers, simplified tools such as voice input reporting or scanning and one-click reporting can be developed to lower the system compliance costs for small farmers. On the other hand, with collective villages or cooperatives as the main entities, regular unified sampling and quality rating of small farmers' teas can be conducted, with collective brands serving as endorsements for qualified products. This collective endorsement helps bridge the trust gap

between consumers and small farmers' products, freeing small farmers from individual credit difficulties. By integrating scattered small farmers into a unified quality control system, it addresses the practical challenges of who tests and how testing is conducted. The establishment of a quality control system forces small farmers to improve their cultivation and processing methods, creating a positive cycle of testing feedback, process improvement, and quality enhancement. Quality analysis reports also help tea farmers understand their tea's strengths and weaknesses. Targeted training can be organized for existing quality defects, enabling tea farmers to continuously enhance their ability to create high-value products.

5.2 Building a Multi-level Collaborative Support System

The healthy and sustainable development of tea e-commerce cannot be achieved without a sound policy environment and effective resource integration (Liu, 2026). If reducing institutional transaction costs solves the problem of how to get in, innovative organizational vectors solve the problem of where to stand. The key to small farmers' access to the e-commerce market for agricultural products is to achieve effective organization and stable cooperation. Compared with the weak quality of small farmers, local governments, e-commerce enterprises and farmer cooperatives have significant resource and organizational advantages, and should rationally allocate benefits and bear more organizational costs on the basis of improving the market connectivity of small farmer enterprises. Thus, organization is not simply a technology access, but a systematic project involving the coordination of interests and capacity building. In the practice of e-commerce in Shuangjiang County, the Bunmu Xiaozhu model of Bunmu Kimura provides a highly enlightening example of organizational innovation. This model uses the village collective as a credit endorsement and organizational vehicle, freeing scattered small farmers from the low-end link of selling raw materials through unified quality control, unified sales, and profit return, so that the value-added gains of the industrial chain remain in the village and distribute to farmers. Building on this experience, the commune village should further strengthen the resource integration function of the organizational vehicle. First, government departments should strengthen top-level design and improve the policy support system. A special fund for the development of tea e-commerce will be set up to provide appropriate subsidies and tax incentives to eligible e-business entities, while financial institutions are encouraged to develop financial products adapted to the characteristics of tea ecommerce, alleviating the financing difficulties of small and medium-sized operators. Second, we should strengthen infrastructure construction, improve network coverage and logistics facilities conditions in main tea producing areas, optimize cargo collection capacity and distribution services, and solidify the hardware foundation for the development of tea e-commerce. In the field of talent development, we should abandon the large-scale centralized training model and promote the manual training path of talent development. Specifically, small farmers with a willingness and potential can be selected to establish a partnership with established anchors or professional agencies in selecting crops, setting prices, broadcasting their pitches, The fan operation, after-sales service and other aspects conduct full-process tracking and guidance, at the same time implementing a coordinated training model of theoretical teaching and practical training, promoting learning through e-commerce skills competitions and entrepreneurial competitions, and cultivating a new type of composite tea farmer who both understand tea and are proficient in e-business.

5.3 Developing a Differentiated Competitive Strategy through Tea–tourism Integration

In today's increasingly serious competition for agricultural products, how to achieve differentiated competition by tapping cultural added value has become an important issue for the development of tea industry everywhere. Gonglong Village boasts a wealth of Pu'an culture and ancient tea tree resources, which provides it with unique advantages for developing innovative tea products. Learning from the development trend of tea-tourism integration, Gongyou Village should fully utilize the unique value of national cultural and cultural and tourism resources, and shift the livestreaming content from a single tea seller to an integrated tea mountain life. Specifically, the national cultural characteristics and tea stories of each natural village can be explored, and a differentiated tea system of "one village, one dish" can be developed, so that each piece of tea carries unique cultural symbols and traditional memories. Using the existing 3A-level scenic spots and other hardware facilities, we will create an integrated tea tourism experience scene such as tea garden sightseeing, tea production experience, ethnic culture exhibition, tea and meal tasting, and realize the value transformation from selling tea to selling experience. On this basis, the ancient tea tree maintenance program can be further launched, allowing consumers to claim a traditional tea tree of their own through an online platform and receive custom tea produced by the tree on a regular basis. The foster care model translates one-time purchases into a sustained emotional connection, establishes a deep relationship between the consumer and the product and the place of origin through foster care, and effectively bypasses low-price competition with standardized products. At the same time, the ancient tea tree can be shown to caregivers the environment in which it grows, through live online or offline activities. The picking process and manufacturing processes give insight into the story behind each piece of tea, which helps to protect the precious ancient tea tree resources while achieving win-win economic and ecological benefits. In addition, a series of immersive experience activities can also be designed, such as tea garden walking, artisanal tea classes, tea culture lectures, etc., which can be shared with more consumers who cannot visit the scene through live broadcasting, forming an interconnected mode of online attraction and offline experience. This online and offline integration marketing strategy can not only enhance consumers' sense of participation and belonging, but also help tea farmers gain a place in the fierce market competition. It is worth noting that in the implementation process, attention should be paid to improving relevant laws and regulations, making clear the rights and responsibilities of both parties, and ensuring the standardized operation of the project.

6. Conclusion and Prospects

This study systematically examines the three-fold challenges faced by small-scale farmers in online sales of agricultural products and proposes targeted solutions, focusing on optimizing the transition from a flow-driven approach to one that embraces institutional inclusivity. The research demonstrates that mere skill training is insufficient to address the underlying issues faced by small-scale farmers in their digital transformation. Instead, institutional restructuring is necessary to reduce transaction costs, enhance organizational efficiency, and strengthen market competitiveness. Specifically, the study proposes three core optimization paths: first, by establishing a green channel for small-scale farmers, simplifying compliance processes, and having the

government take responsibility for quality control, which significantly reduces their institutional transaction costs. Second, innovating organizational frameworks by drawing inspiration from the Bamboo Village leader model and implementing a mentorship system for talent cultivation, enabling small-scale farmers to shift from selling raw materials to offering experiences, thereby enhancing their digital operational capabilities. Third, developing a differentiated competitive strategy that integrates tea tourism, leveraging unique cultural elements, and achieving differentiation through online and offline integration. These measures collectively form a systemic framework centered on institutional inclusivity, providing a feasible path for small-scale farmers to sell their agricultural products.

In the future, the applicability and limitations of institutional inclusivity can be further explored, and the long-term effects of the mentorship talent model can be assessed. At the practical level, attention should be focused on the challenges of implementing policies such as the green channel and tea tourism integration. Additionally, digital solutions can be refined by incorporating technologies like blockchain and artificial intelligence. From a cross-disciplinary perspective, the study can integrate insights from sociology and economics to examine the behavioral logic of small-scale farmers, the reconfiguration of their social networks, and the comprehensive impact of institutional restructuring. Overall, further research is needed to support agricultural modernization and rural revitalization.

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