Proceedings of ICEIPI 2025 Symposium: Understanding Religious Identity in Educational Contexts
DOI: 10.54254/2753-7048/2025.ND23980

Operational Models and Social Interactions of Shared Platforms under the Urban-Rural Sharing Economy: A Case Study of the Shared Fishpond in Village W

Huiwen Yu[1*], Xiali Du[1]

[1]Shenyang Normal University, Shenyang, China
**Corresponding Author. Email: 2903808472@qq.com*

Abstract: The sharing economy optimizes resource allocation through internet technologies and offers new opportunities for traditional agricultural development. This paper focuses on the "sharing + platform agriculture" business model by examining the shared fishpond project in Village W. It analyzes the mechanisms of agricultural supply-demand integration and social interaction under the trend of urban-rural integration. By establishing interest-based virtual communities, the shared fishpond model efficiently integrates urban and rural resources, creating a closed loop from production to sales. This model overcomes the bottlenecks of traditional agricultural production and distribution and innovates social relations between urban and rural communities. It broadens agricultural product sales channels, increases farmers' income, and promotes rural revitalization. Despite its significant value in enhancing urban-rural development and reshaping social relations, the model still faces practical challenges such as poor management, low levels of digitalization, and insufficient infrastructure. Institutional innovation and technological support are urgently needed to foster sustainable development.

Keywords: Shared fishpond, Urban-rural sharing economy, Agricultural product sales, Social interaction

1. Introduction

As a traditional industry, agriculture faces numerous developmental challenges. Revitalizing the primary sector has become a key goal of rural revitalization. The introduction of the sharing economy presents an effective solution to rural industrial issues. In Village W, a novel model of agricultural production and sales has emerged—the shared fishpond. This initiative breaks through the conventional boundaries of agricultural production and sales by reallocating fishpond resources, enabling urban consumers to participate in both agricultural production and consumption processes. This model not only boosts the rural industry but also creates new spaces and opportunities for social interaction between urban and rural populations. Through the shared fishpond, urban residents gain a deeper understanding of agricultural production and experience rural life, while rural residents leverage the urban consumer market and its resources to sell their agricultural products and increase income. This paper uses the shared fishpond in Village W as a case study to describe its operational model and social foundations. From a sociological perspective, it analyzes the platform economy's social interactions and their significance, explores the existing problems, and proposes

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recommendations. The aim is to contribute to the development of the agricultural sharing economy and the improvement of agricultural production and marketing models.

2. Literature review

The sharing economy refers to market platforms established by third parties based on information technology, where suppliers offer the right to use idle resources in exchange for additional income, while consumers fulfill their needs at an appropriate cost [1]. What is traded in the sharing economy is not ownership but the right to use a product or service. This approach maximizes the utility of goods and achieves a win-win outcome for both parties involved. The concept of the "sharing economy" first emerged in 1978 and has since gained increasing attention in China with the advancement of the "Internet Plus" strategy and related policies such as facilitating the movement of agricultural products to urban areas and industrial products to rural areas. Agricultural platforms based on sharing concepts have gradually attracted the attention of domestic scholars, though relevant studies are still in an exploratory stage, with limited research output. Ding Linlin, based on the nature of seamless information flow in the sharing economy, proposed a platform-based agricultural system with information-sharing functions. This model aggregates fragmented agricultural information technologies to generate scale effects and uses the platform as an intermediary to match the supply and demand of agricultural technologies, land, and other resources [2]. Lu Qianwen and others have theoretically analyzed agricultural development models within sharing platforms. Platform-based agriculture, supported by platform technologies, achieves "zero marginal cost." As the scale of platform agriculture expands, massive amounts of agricultural data are generated. These data can be reused and matched at no additional cost, revitalizing rural economic vitality, improving resource utilization, extending the agricultural industrial chain, optimizing the value chain, and enhancing the income of rural populations [3]. Zhao Liling, guided by the "Internet Plus" strategy, proposed three agricultural information-sharing strategies: producer-participant sharing, operator-producer sharing, and consumer sharing [4]. Producers need to stay aware of market trends, operators must continuously adjust and improve products according to market dynamics, and consumers should help improve market transparency by supervising the quality of agricultural production.

Existing literature on the sharing economy largely focuses on its characteristics, business models, and sustainability. Most discussions revolve around shortening the industrial chain and enhancing the value chain to reduce costs and increase profits. The sharing economy separates usage rights from ownership, transforming consumers into operators similar to enterprises and facilitating multi-party collaboration in transactions. However, current research on sharing platforms mainly centers on virtual communities and e-commerce platforms, often neglecting offline, physical platforms. Most prior studies use case analysis or empirical methods to examine the factors affecting consumer-business interactions. Yet, from the perspective of the sharing economy, there is still a lack of research on interaction behaviors—particularly among users themselves rather than between users and businesses [5].

Although platform-based agriculture can enhance the efficiency of agricultural sales through sharing concepts, many developmental challenges remain. For example, Ding Cunzhen pointed out issues such as unclear positioning of agricultural platforms, coexistence of legitimate and illegitimate platforms, sluggish regulatory systems, and homogeneous business models—all of which hinder the advancement of platform agriculture [6]. Hu Yongsheng and others identified further problems in the development of agricultural platforms, including lagging policy systems, legal conflicts with innovation, vague boundaries in shared agriculture leading to regulatory blind spots, contradictions between activating idle resources and consuming new resources, and the difficulty of safeguarding the basic rights of small- and medium-sized farmers [7].

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3. The operational model of the shared fishpond in Village W

The shared fishpond project in Village W was initiated in 2018. It successfully consolidated the village's previously scattered fishpond resources and introduced an innovative business mechanism by adopting a "online reservation + offline experience" hybrid model. The online platform plays a crucial role as both a marketplace and an information hub. Potential customers can clearly view the available services, pricing structures, and event schedules provided by the shared fishpond, enabling them to make informed decisions and reservations in advance. The offline component is the core of the customer experience. It not only provides fishing enthusiasts with a satisfying angling experience but also offers thoughtful value-added services, such as on-site dining, allowing customers to enjoy the freshly caught fish immediately—thereby enhancing the overall consumption experience. The adoption model allows customers to adopt a portion of a fishpond or a batch of fish fry. The fishpond owner then provides customized services based on the adopter's preferences. This model includes basic adoption fees as well as value-added service packages, forming a modern cooperative mechanism of "risk-sharing and benefit-sharing." The experience options include: A pure fishing model, a combination of adoption and fishing, and a comprehensive leisure model. These activities create a "third social space" beyond work and home, reconstructing the daily lives of urban consumers through immersive rural experiences.

4. Urban-rural interaction on the shared platform

4.1. Resource reciprocity

The shared fishpond leverages a sharing economy platform to share usage rights of fishponds and provide related services, thereby generating increased income. Its key function lies in connecting urban and rural actors, facilitating mutual resource exchange through internet technologies, and achieving reciprocal benefits. At a deeper level, this interaction embodies the dynamic exchange of social capital: Urban residents convert their economic capital (rental payments) into symbolic capital (the pastoral experience of rural life), while rural villagers transform their cultural capital (aquaculture skills) into economic capital (increased income). The shared platform acts as a bridge for social resource transformation, breaking the traditional pattern of unidirectional urban exploitation of rural areas. Instead, it enables the mutual complementarity of heterogeneous resources. As a result, local villagers' incomes rise, underutilized resources are efficiently activated, and related industries such as local dining and tourism are also stimulated—creating a virtuous cycle of rural economic growth.

4.2. Role transformation

Resource reciprocity within the shared fishpond system extends beyond simple economic exchange. It creates a complex field where urban and rural groups engage in periodic spatial migration and contextual role transformation. The platform redefines the traditional temporal and spatial boundaries of production relations, facilitating a dynamic role-playing mechanism between urban consumers and rural participants: High-income urban dwellers enter rural spaces as "experiential producers." During weekends or holidays, they engage in ritualized activities such as fishing or farming, transitioning from "urban professionals" to "rural cultivators." This not only fulfills their desire for green food and eco-healing but also reshapes their understanding of rural values. Meanwhile, rural villagers shift from being producers to becoming "ecological stewards" and "cultural guides." Through organizing fishing activities and teaching traditional breeding techniques, they transform production knowledge into cultural capital. These two groups engage in ongoing dialogue, both in the physical space of the shared fishpond and on digital platforms (e.g., cloud-based adoption systems). Their interactions lead to new forms of labor collaboration—for example: Urban users participate in decisions such as fish

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fry stocking through crowdfunding, while farmers expand sales channels via e-commerce platforms. These dynamics also reshape the ethics of social exchange between urban and rural groups, achieving a nuanced balance between modern commercial contracts and traditional networks of rural kinship and reciprocity.

4.3. Symbolic interaction

The shared fishpond is not merely a site of economic exchange; it also serves as a carrier of cultural symbolism. Through experiences such as recreational fishing, urban users symbolically transform the shared fishpond into a "marker of escape from urban life," enabling a temporary spatial shift and offering a degree of spiritual relief. This platform facilitates a role transformation—from consumer to producer. Terms like "pond owner" and "fish steward" reconfigure the traditional binary of "consumer–producer." Through repeated interaction, these new role identities gradually become normalized and institutionalized, establishing a discourse system grounded in equal and collaborative participation.

Driven by digital technology, the shared fishpond fosters a new form of social connectivity. It gathers individuals with shared interests to form temporary communities, which retain the urban population's individualism while reshaping a sense of collective identity through shared engagement. The social interactions occurring on the platform transcend the binary opposition between urban and rural spheres. The fleeting emotional bonds formed between urban and rural participants during these interactions challenge previously rigid, structured social connections.

Moreover, the shared fishpond is not only a business innovation but also a critical platform for reconfiguring urban-rural social relations in contemporary society.

5. Challenges and recommendations

At present, the shared fishpond initiative in Village W has achieved initial success, but its development still faces several challenges. One major issue is the shortage of professional personnel and digital operation teams. The current team lacks sufficient digital knowledge reserves, yet the platform's growth inevitably demands more complex digital operations. This limitation presents a bottleneck to the project's long-term sustainability. It is recommended that the village organize digital training programs to provide villagers with free assistance in digital operations, thereby improving their digital literacy. Additionally, the implementation of talent recruitment policies could attract more young people to return to their hometowns and engage in entrepreneurship, further contributing to rural revitalization.

Another significant constraint is the underdeveloped infrastructure. The density of rural logistics networks is only one-fifth that of urban areas, and the 5G base station coverage rate is below 40%, resulting in an agricultural product loss rate of 18% during distribution. This paper proposes launching a "New Infrastructure Enhancement Plan" through government-enterprise collaboration to establish cold-chain logistics centers, and to accelerate the implementation of the "Digital Countryside" network project. This would involve building a three-tier logistics system consisting of county-level hubs and village-level service stations, alongside establishing a technology transfer mechanism to facilitate the creation of joint laboratories between urban research institutions and rural cooperatives.

In terms of value creation, there is a contradiction between the platform's dependence on traffic and the insufficient depth of value extraction. Currently, 70% of the platform's GMV (Gross Merchandise Volume) comes from promotional activities, indicating weak product premium capacity. To address this, it is recommended to establish a "quality-based premium system", using blockchain traceability technology to visualize the production process and offering customized aquaculture

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services—such as member-exclusive fishponds—to create a line of high value-added products. Furthermore, a profit-sharing mechanism should be developed to feed back sales data to producers, thereby establishing a value cycle of "data–production–consumption."

6. Conclusion

This study has analyzed the operational model, social foundations, social interactions, and existing challenges of the shared fishpond initiative in Village W. Field investigations reveal that the platform adopts a hybrid model of "online reservation + offline experience." Customers can pre-order agricultural products online, or they may opt for offline adoption models and participatory experiences. Under the adoption model, customers adopt a portion of a fishpond or a batch of fish fry, and the pond owner provides personalized services based on the adopter's preferences. This model involves basic adoption fees and offers value-added service packages, forming a modern cooperative mechanism of "risk-sharing and benefit-sharing." Experience options include pure fishing, a combination of adoption and fishing, and comprehensive leisure packages. By integrating digital platforms with aquaculture, this model has significantly activated rural resources and boosted farmers' income. Guided by the principles of the sharing economy, this model achieves precise matching between underutilized rural resources—such as fishponds and labor—and urban demand. It greatly improves resource allocation efficiency. Fishponds that previously lay idle due to a lack of suitable utilization channels have now become valuable resources for urban residents, offering both leisure experiences and access to green agricultural products. The value of these resources has thus been fully developed and enhanced.

Field visits indicate that the success of the shared fishpond economy in Village W can be largely attributed to the traditional kinship and geographic social networks, which naturally provide a foundation of trust for the project's operations. Additionally, through the development of a triadic mechanism of "technology-enabled trust, institutional safeguards, and emotional cultivation," Village W has transformed the traditional acquaintance-based trust system into an institutional trust system aligned with the modern market economy, fostering a new form of social connectivity. The shared platform has created a new space for social interaction, offering urban and rural residents more opportunities for direct communication. Urban residents enter the countryside to experience rural life and understand agricultural production processes, while rural villagers gain exposure to urban culture and consumption concepts. Such interactions deepen mutual understanding and trust between urban and rural populations, promote cultural exchange, and break down longstanding barriers between the two groups. In essence, the shared platform is not only an innovative model of agricultural production and sales, but also a crucial site for reconstructing urban-rural relations. With the support of digital technology, it has fostered a new form of urban-rural reciprocity: cities bring capital, technology, and market demand to rural areas, while villages provide high-quality ecological resources and agricultural products to urban populations. This reciprocal relationship breaks the previous pattern of one-way flow from urban to rural and establishes a bidirectional exchange marked by mutual benefit.

References

[1] *Zuo, W., Huang, F., & Bi, L. (2020). Influencing factors of value co-creation behavior under the sharing economy: A case study of ride-hailing services. Nankai Business Review, 23(5), 183–193.*

[2] *Ding, L. (2017). Two development directions of shared agriculture in China. China Rural Science and Technology, (10), 43–45.*

[3] *Lu, Q., & Zhang, Y. (2018). Agricultural platform economy: Emerging models, existing problems, and development strategies. China Science and Technology Forum, (9), 128–133.*

[4] *Zhao, L. (2019). Research on information sharing strategies of agricultural e-commerce based on "Internet Plus." Business Economics Research, (13), 111–114.*

DOI: 10.54254/2753-7048/2025.ND23980

[5] Huang, L. (2021). Platform agriculture model, development barriers, and innovation research under the sharing concept. Hunan Social Sciences, (3), 105–111.

[6] Ding, C., & Xiao, H. (2019). Transaction characteristics, farmers' industrial organization mode choices, and income effects: Analysis based on multinomial Logit and MTE models. Journal of Nanjing Agricultural University (Social Sciences Edition), 19(5), 130–142+159. https://doi.org/10.19714/j.cnki.1671-7465.2019.0078

[7] Hu, Y., Wang, F., & Bian, L. (2018). Economic logic, practical exploration, and prospects of shared agriculture. Business Economics Research, (21), 185–188.