How Community Group Buying Can Deeply Penetrate Lower-Tier Markets in the Post-Pandemic Context: Postprint

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Abstract

Following the COVID-19 pandemic outbreak in 2020, the national economy has entered a deeper digital era. The rise of community group buying has not only prevented crowding among individuals purchasing daily necessities but also gained widespread public approval through lower prices. Since 2020, internet companies such as Meituan, Didi, and Pinduoduo have successively entered the community group buying sector, aiming to make significant strides in fresh produce e-commerce. Community group buying has become a crucial strategic deployment for numerous internet companies in this domain. This paper explores how community group buying can deeply penetrate lower-tier markets to promote national economic development and proposes multi-dimensional recommendations for future development by examining competitive advantages in lower-tier markets, current cold-chain e-commerce development status, existing challenges, and other relevant aspects.

Full Text

How Community Group Buying Can Deeply Cultivate Lower-Tier Markets in the Post-Pandemic Era

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Following the COVID-19 pandemic, China's economy has entered a deeper digital transformation, and the rise of community group buying has not only prevented crowds from gathering for daily purchases but also won public favor through lower prices. Internet giants such as Meituan, Didi, and Pinduoduo have successively entered the community group buying sector, aiming to make significant strides in the fresh produce e-commerce domain. Community group buying has become a crucial strategic deployment for numerous internet companies in this field. This paper examines how community group buying can deeply cultivate lower-tier markets to promote national economic development, analyzing competitive advantages in these markets, current development status of cold-chain e-commerce, existing problems, and offering multi-dimensional recommendations for future development.

Keywords: Community group buying; lower-tier markets; social e-commerce; post-pandemic era

Lower-tier markets, known as the "final traffic dividend" of the internet industry, are being rapidly cultivated by new e-commerce models. Generally characterized by numerous third- and fourth-tier cities with widely dispersed populations, these markets primarily comprise middle-aged and elderly individuals, women, and rural-urban residents.

Community group buying represents a novel group purchasing model that connects suppliers and demanders through a digital platform. Operating on a "pre-order placement, backend fulfillment based on user demand" model, it satisfies user needs through WeChat groups, mini-programs, or dedicated apps. According to relevant data, community group buying users have reached hundreds of millions, with market size exceeding billions, demonstrating continuous expansion. However, as community group buying achieves initial success in first- and second-tier cities, attracting major players to enter the market, its future battleground will concentrate on lower-tier markets. After years of development, community group buying has taken shape, and the competition for cold-chain fresh products will focus on these markets, which may reach hundreds of billions in value. Capturing user volume in lower-tier cities has become an imperative strategic need.

I. Competitive Advantages for Developing Community Group Buying in Third- and Fourth-Tier Cities Under the Pandemic

(A) Favorable Regional Characteristics Aligned with Market Development Trends

According to the Ministry of Commerce, China's consumer market grew rapidly, with rural retail sales outpacing urban areas, highlighting the increasing contribution of lower-tier markets. Following pandemic prevention and control measures, third- and fourth-tier cities demonstrate strong economic development potential closely tied to demographic characteristics.

First, these cities cover vast territories with large populations, rising income levels, and significant growth potential. Data shows that third- and fourth-tier cities are numerous and geographically dispersed, with substantial total populations including county-level regions, creating solid purchasing power. Moreover, these cities contain large numbers of young and middle-aged residents whose work rhythms, lifestyles, and consumption habits are constantly evolving, making online shopping an increasingly popular choice among youth. As disposable incomes continue rising in cities below the third tier, consumption capacity has greatly strengthened. Furthermore, many young people have chosen to return to third- and fourth-tier cities with less life pressure, further diffusing new consumption concepts locally. "Small-town youth" have been identified as a demographic with both consumption capacity and willingness, expressing demands and individuality through consumption and naturally becoming a focus for the consumer market. Consequently, two primary consumer groups exist in these cities: young people with strong consumption desires and married women with money and leisure time. Lower-tier cities feature community-based interpersonal communication that facilitates propagation—through active sharing among community users and reliance on trust-based relationships, new consumption methods attract residents' curiosity, and word-of-mouth effects enhance the influence of convenient purchasing methods. Since families in lower-tier cities are larger, and community group buying primarily targets household users and married women who need daily groceries and household items with high family expenditures, particularly for county, township, or rural residents who struggle to access quality frozen products like chicken, duck, pork, beef, wild mushrooms, edible fungi, dried seafood, and fresh frozen aquatic products at reasonable prices, community group buying offers an affordable consumption upgrade. Therefore, lower-tier cities possess substantial potential users for community group buying.

Second, interpersonal interactions in lower-tier markets are more frequent, with tighter-knit 熟人 relationships (acquaintance networks). Complex interpersonal networks formed among relatives, friends, and neighbors create familiarity and willingness to engage, enabling strong fission capabilities. Price sensitivity remains high—despite significantly improved living conditions and income levels, residents remain extremely sensitive to commodity prices, where minor price fluctuations can alter consumption decisions. Additionally, during their ample leisure time, residents can engage in online shopping through media contact. The slower pace of life in lower-tier cities, particularly regarding food consumption, provides sufficient time and willingness to buy and cook ingredients themselves. Taking Hunan's "Xingsheng Youxuan" as an example, its reputation for affordability and good service has established excellent word-of-mouth in Hunan. Based on familiar commercial rules grounded in blood and geographical relationships, partners and consumers in the chain have accumulated valuable trust and emotional connections through long-term engagement with Xingsheng Youxuan, making them difficult to disperse through short-term interests. Examining its cooperative development in towns and villages, although shopping channels in vast rural areas are singular with limited categories and slow logistics, "Xingsheng Youxuan" community group buying not only supplements existing store merchandise effectively but also delivers goods the next day, including time-sensitive seafood products. With relatively few competitors in lower-tier cities, many store owners are willing to cooperate, helping the platform gain massive loyal users in Hunan's lower-tier markets.

Third, residents in third- and fourth-tier cities have relatively more leisure time but fewer entertainment facilities, often gathering together and willing to mobilize relatives and friends for small discounts or rewards without considering it a waste of time. Consequently, they prefer cost-effective products. Although consumption capacity is relatively lower due to income levels and consumption concepts, they are willing to spend money and understand that cheap goods may lack quality. Therefore, moderately priced products with high cost-performance ratios and good service more easily win favor in lower-tier markets.

According to surveys, community group buying WeChat mini-program user profiles show that users aged 25-45 account for 74.8% of all ages, while users from third- and fourth-tier cities account for 49.9% of all cities, with lower-tier cities ranking top three among city tiers. This demonstrates promising development prospects for community group buying in future lower-tier markets. In recent years, China has accelerated urban development, continuously improving infrastructure. Both hard indicators like transportation and postal facilities and soft indicators like business environments, residential communities, and public life services can meet community group buying development needs. Improved infrastructure combined with substantial demographic dividends creates tremendous development potential.

(B) Independent Transportation Channels Opening New Markets

Traditional resource-based third- and fourth-tier cities still rely on resource-intensive and energy-dependent extensive manufacturing industries. Under pandemic impact, these cities face accelerated resource depletion, dual energy consumption controls, and dual carbon targets that constrain sustainable development. *People's Daily Commentary* emphasizes enhancing consumption's foundational role in economic development by adapting to upgrading consumption trends, promoting traditional consumption, cultivating new consumption models, focusing on quality brands, and encouraging green, healthy, and safe consumption development while supporting new consumption patterns and business forms.

To accelerate digital empowerment in lower-tier markets and achieve industrial upgrading, transformation toward high-tech, high value-added, and intensive industries is necessary. Compared with other online channels, community group buying advantages concentrate in three aspects: First, home delivery logistics fulfillment costs are high for platforms like Hema Fresh, JD Daojia, and Missfresh, whereas community group buying's pre-sale plus self-pickup model reduces logistics links and costs. Second, community group buying "tuanzhang" (community leaders) undertake traffic introduction and user operation functions, reducing platform customer acquisition and operational costs. Third, community group buying products are priced cheaper than other fresh produce e-commerce channels, focusing on "high cost-performance ratio within certain time efficiency," making it easier to penetrate third-tier and below cities and attract price-sensitive users. Additionally, in the digital era, platforms accelerate innovation in new-generation information technologies like big data, cloud computing, internet, and artificial intelligence, continuously expanding radiation scope and influence, promoting digital industry development in lower-tier cities, thereby advancing poverty alleviation strategies and improving people's happiness index.

Since the COVID-19 outbreak, China's economic development entered a "stagnation period," with the pandemic's "black swan effect" spreading globally, comprehensively impacting and reshaping the global economic structure and industrial system. According to data from the Ministry of Commerce of the People's Republic of China and Guosheng Securities Research Institute, during the pandemic, fresh produce e-commerce and community group buying penetration rates increased from 15.5% and 11.9% respectively, with consumer trial rates for fresh produce and packaged food and beverages increasing by 33.1% and with retention rates as high as 85% during the pandemic period. Meanwhile, after years of development and industry consolidation, leading enterprises (represented by Xingsheng Youxuan and Shihuituan) have rapidly scaled orders in core regions, continuously optimizing profit models. According to Xingsheng Youxuan's public presentations, by March 2021, its national daily orders reached 30 million, achieving profitability within regions.

In this context, China's digital economy has rapidly emerged, demonstrating clear economic advantages and vitality, generating numerous new digital economy business models including community group buying that have played unique and irreplaceable roles in promoting post-pandemic economic recovery and national economic development. Therefore, how to coordinate regional development and security, stimulate industrial innovation vitality, promote economic structure transformation and upgrading, and open new prospects for high-quality regional economic development in traditional resource-based third- and fourth-tier cities has become an urgent issue.

II. Current Development Status of Community Group Buying in Lower-Tier Markets

(A) Market Potential Gradually Stimulated, but Regulatory Oversight Remains Lax

With digital technology development and application of big data, cloud computing, and artificial intelligence, the media contact cost for community group buying has become increasingly low, enabling convenient online shopping through a single smartphone. Statistics show that per capita smartphone ownership in areas below the third tier has exceeded one unit, and through information exchange, consumption trends in these cities have almost synchronized and diversified with first- and second-tier cities, with this mobile internet-based consumption surpassing physical sales in reality. As transportation infrastructure improves, logistics system layouts expand, and internet coverage broadens, conditions are provided for e-commerce enterprises to accelerate market 下沉 (penetration into lower-tier markets). This vast territory with a population exceeding one billion has become a blue ocean chased by numerous merchants and a dividend 洼地 (low-lying area) of the internet era. Additionally, from the supply side, targeted marketing campaigns by e-commerce platforms for lower-tier markets continuously stimulate and drive demand. With richer products, more timely responses, faster logistics, and more affordable prices, all changes indicate favorable prospects for lower-tier market development. However, can lower-tier markets, having accepted the sharpness of the internet era, truly drive consumption through spontaneous growth and achieve the ideal of expanding domestic demand? Obviously, residents' own consumption capacity is insufficient.

From both macro and micro perspectives, the challenge for lower-tier markets in community group buying operations is how to activate market vitality under national macro-control and market supervision, enabling healthy, orderly, and sustainable development in lower-tier cities, thereby truly achieving autonomous, healthy, and orderly development of community group buying and realizing rural revitalization. Regarding service and supervision issues: First, where do community group buying products in lower-tier cities come from, and are transportation processes safe? In an industry with highly complex practitioner backgrounds, management is extremely difficult. Suppliers, truck drivers, warehouse managers, warehouse workers sorting goods, and private store owners all earn hard money—the scale of market supervision determines fairness in the community group buying circulation chain. Second, how to resolve numerous disputes caused by inadequate services? Can tuanzhang communicate effectively with residents and gain their trust? When product quality issues arise, who should residents contact and where should they go for solutions? Third, how can the intensity and precise delivery of national policy support be implemented? Lower-tier markets represent a huge undifferentiated cake, with giants entering and intense market competition leading to unfair industry competition that squeezes the survival space of small vendors, harming fair market competition.

(B) Consumption Structure Continuously Upgrading, but Precise Product Placement Needs Improvement

Community group buying development from 2020 to 2021 saw increased participation, enriched supply chains, and industry consolidation, with tuanzhang gradually transitioning from individuals to store owners and widening gaps between enterprises. Catalyzed by the 2020 pandemic, the industry exploded again, with third- and fourth-tier cities showing high growth indices, becoming potential markets for community group buying. In China's 14th Five-Year Plan and long-range objectives through 2035, the strategy of expanding domestic demand is explicitly emphasized. Particularly after completing poverty alleviation goals in 2020, rural residents own their homesteads and built courtyards, mostly without mortgage pressure, enjoying considerable disposable income, ample leisure time, and strong consumption willingness. Many have moved from simple daily necessities consumption to diversified housing, transportation, entertainment, and quality consumption, transforming from price-sensitive groups to those sensitive to product quality and branding.

Regarding this consumption willingness transformation, how the market itself adjusts market mechanisms through environmental changes concerns healthy and orderly market development, representing a dilemma for internet giants competing for market share. For instance, lower-tier market users have different product and service needs from first- and second-tier city users, preferring low-priced, high cost-performance ratio, and easy-to-use products with good after-sales guarantees while meeting quality requirements. These issues require careful consideration and resolution. From the perspective of how first- and second-tier consumption patterns affect lower-tier markets, it's evident that some community group buying products and services may not appeal to lower-tier cities. For example, imported cold-chain foods may lack demand in inland lower-tier cities where residents can purchase daily groceries from nearby markets and daily necessities from downstairs convenience stores. Thus, decision-makers cannot simply assume lower-tier markets are replicas or extensions of first- and second-tier internet development models. Internet enterprises must find business models and product-service categories truly suitable for lower-tier markets to genuinely meet their needs, capture development dividends, and stimulate rural economic revitalization.

(C) Low Entry and Customer Acquisition Costs, but Terminal Household Units Remain Unreached

As community group buying primarily represents channel innovation, accelerating channel construction can secure first-mover advantages. Facing markets for daily necessities, agricultural products, and seafood that are commonly used, easily purchased, and widely applicable, capable enterprises can enter the market, gaining their own territory through investment and patience. Community group buying relies on stores, with tuanzhang leveraging certain popularity and social media platforms with fan bases to integrate information, establish WeChat groups or other online communities, and quickly gather community customers. Except for minimal investment in offline promotion activities, customer acquisition costs are almost zero, offering considerable price advantages. Since group members join through tuanzhang relationships, they trust the tuanzhang and naturally purchase recommended products without excessive decision-making. Additionally, tuanzhang recommend products through WeChat malls, which are lightweight, easily disseminated, have low development costs, enable rapid iteration, and require no registration—only user authorization—greatly reducing user behavioral costs and facilitating customer acquisition. Moreover, community group buying giants generally establish independent logistics systems for convenient and fast distribution, with the last mile arranged by tuanzhang for unified delivery, achieving next-day delivery for same-day orders or evening delivery for morning orders. This ultra-fast delivery at low prices significantly reduces logistics personnel costs. According to a CITIC Securities Research Department survey comparing prices of fresh produce, dairy products, and carbonated drinks between a large-scale supermarket in a Changsha county and the Xingsheng Youxuan platform (including some activity subsidies), the average terminal price difference reaches approximately 15%. Most products, especially high-frequency fresh ingredients for daily diets, offer more attractive prices through community group buying, demonstrating significant price advantages compared with traditional channels.

Currently, China's e-commerce reaches only to townships, not to villages below township level, as the single-order-single-package fulfillment model cannot yet penetrate vast and dispersed villages where order volume remains unconsolidated. However, aside from extremely poor households, most rural families have complete household purchasing needs. The value of community group buying lies in its first efficient and economical solution that shows promise in becoming a one-stop purchasing channel for rural households, with potential to penetrate even deeper to the most terminal units.

IV. Future Development Recommendations for Community Group Buying in Lower-Tier Markets Under the Pandemic

(A) Technological Dimension: User Profiling and Interface Optimization

Over the past decade, community group buying development has essentially been a battle of business digitalization. Competing for consumers means competing for consumer digitalization. The front-end determines first impressions, while the back-end determines platform operational sustainability—both indispensable for internet companies competing in digital markets. Regarding front-end technical design, as consumers' first contact point with community group buying, whether interface design is reasonable, aesthetically pleasing, and information arrangement is sufficient and necessary directly affects consumer media impact and determines possibilities for future contact. Compared with first- and second-tier cities, lower-tier markets have different characteristics and target audience consumption orientations, requiring market participants to master platform algorithms and data, understand community users' consumption habits and capacities, conduct detailed analysis of lower-tier market users through big data and cloud computing technologies, outline user profiles, construct consumption preferences for third- and fourth-tier cities, and achieve precise push of group buying information that directly addresses lower-tier city audience pain points. Regarding current imperfect end-delivery technology where item sorting relies mainly on tuanzhang manual sorting, leading to missed or wrong deliveries, technological development can be promoted through multiple approaches. First, taking Meituan Youxuan as an example, currently presented as a subsidiary section of Meituan, the information richness provided to users is clearly insufficient, leaving substantial technical 挖掘 space for product visualization and content diversification.

(B) Offline Dimension: Logistics and Acquaintance Networks

Product transportation is undoubtedly one of the most indispensable links in e-commerce operations. Lower-tier cities are numerous, widely dispersed, and feature fresh produce with short shelf lives that easily deteriorates and gets damaged. Special traffic conditions and long transportation times in lower-tier markets make logistics costs higher than in first- and second-tier cities. Therefore, how to ensure product freshness while supplying at low prices and controlling damage represents a major test for internet community group buying platforms' supply chains in lower-tier cities. To solve this problem, community group buying can adopt two mitigation approaches for lower-tier markets. The first method is to 打通 (open up) county-city logistics chains, shorten logistics intervals, and reach the last mile. Currently, under the leadership of large e-commerce enterprises, a warehouse-distribution integration system from "first mile" to "last mile" has been formed. Fresh produce e-commerce enterprises should further streamline intermediate links, reduce unnecessary damage, improve agricultural product circulation efficiency, shorten supply and distribution paths, and save costs. By shortening the journey from "farm fields" to "national dining tables" and designing supply contract models based on local consumption conditions, the flow of short-shelf-life and easily perishable fresh foods can be transferred to other high-profit categories, achieving a "fresh produce attracts traffic, standardized products generate profit" industrial chain. The second approach is to increase category diversity according to local consumption conditions, designing supply contract models that adapt to regional characteristics.

(C) Product Dimension: Goods and Services

Product quality control directly relates to product quality for lower-tier city group buying platforms and is key to guaranteeing platform product quality. Strict control over product access thresholds must be maintained to ensure commodity quality while expanding product varieties to fully cater to consumer preferences. While ensuring users' high-frequency needs for fast-moving consumer goods and daily chemical products are met, gradually adding niche commodities such as fresh foods can open up blue oceans in lower-tier markets. This enables community group buying to not only provide local necessities and meet different user needs but also offer hard-to-find yet affordable, quality-guaranteed products. Whether providing high-quality or high cost-performance ratio goods, lower-tier market community group buying must understand lower-tier city group needs, allowing different consumers to genuinely perceive community group buying as useful, convenient, and safe, thereby filling a gap in the e-commerce market and laying foundations for further integration and development of fresh produce e-commerce and social e-commerce.

The tuanzhang is the key figure for community group buying to grasp lower-tier markets and the first window to lower-tier consumers. Familiar with regional consumer preferences and shopping psychology, tuanzhang can be selected from local convenience store owners and community cadres to organize resident group buying, communicate cordially with customers, and cooperate with platform promotional methods to disseminate group buying information. After regular professional skills training, they can protect consumer rights, popularize community group buying knowledge, enhance digital application capabilities, and promote rural revitalization development.

(D) Policy Dimension: Encouragement and Supervision

Since the spread of COVID-19 in 2020 and the national isolation period, China's market economy, especially lower-tier cities and small-medium enterprises, suffered severe blows. To win this battle, the state introduced multiple policies to support small-medium enterprises and encourage online retail development. For example, the State Council's joint prevention and control mechanism press conference on February 14, 2020, introduced increased financial support for pandemic prevention and control, including greater tax support and financial assistance for enterprises affected by the pandemic, particularly small-micro enterprises. During the pandemic, community group buying improved logistics efficiency and reduced crowd gathering, receiving recognition from citizens and governments. Additionally, the 13th Five-Year Plan explicitly proposed new requirements and goals for actively building new smart cities: "using new concepts to guide urban construction, new economies to prosper urban development, and new lives to enrich urban connotations." Therefore, governments need to provide more policy support for community group buying in lower-tier markets regarding procurement, logistics, tuanzhang management, and after-sales circulation to ensure residents' normal lives and promote development.

If government encouragement is the driving force for market development, then government supervision is the constraint. Third- and fourth-tier cities are far from core cities, making effective supervision difficult and potentially inducing market monopolies. Community group buying development trends require governments to strengthen control, formulate laws and regulations, provide legal frameworks for new business 下沉 development, and protect consumer rights. On December 22, 2020, the State Administration for Market Regulation and Ministry of Commerce jointly convened an administrative guidance meeting on community group buying order, explicitly requiring platform enterprises to strictly comply with the "Nine Must-Nots" regulations. The first article emphasizes that platform enterprises must not implement monopolistic behaviors violating fairness. Simultaneously, the "Nine Must-Nots" require platforms to price reasonably and maintain market order. In March 2021, the State Administration for Market Regulation issued fines to five community group buying platforms—Chengxin Youxuan, Duoduomaicai, Meituan Youxuan, Shihuituan, and Shixianghui—for unfair price competition, explicitly stating platforms must not sell products below cost to disrupt fair and orderly market environments. Currently, future industry supervision will become stricter and more standardized, directly impacting platform expansion speed and profitability. Community group buying platforms must monitor regulatory policies, strictly standardize their operations, and jointly promote healthy and sustainable industry market environments.

In the post-pandemic era, as COVID-19 continues to recur but trends toward moderation, Shihuituan's community orders in lower-tier markets have continued increasing, exceeding 100% growth, proving that user acceptance of community group buying only increases. This means community group buying development in lower-tier cities will become a popularized and normalized new fresh produce business format. Under pandemic-normalized new orders, promoting domestic and international dual circulation patterns places higher demands on lower-tier market cold-chain industries. Against the backdrop of new global integration, how to blueprint the global cold-chain industry will be the next question for consideration.

References

1. Research on the "First Mile" of China's Fresh Agricultural Products Cold-Chain Logistics. *Commercial Economics Research*, 2021(11):82-87.
2. Discussion on Private Domain Traffic Cultivation Strategies for Social E-Commerce Based on Marketing Theory. *Commercial Economics Research*, 2021(34):36-37+52. DOI:10.13939/j.cnki.zgsc.2021.34.036.
3. Research on Community Group Buying Development Under the "Internet+" Model—Taking the "Jinzhou Hotline Platform" as an Example. *National Circulation Economy*, 2021(05):94-102. DOI:10.19609/j.cnki.cn10-1324/tp.2021.05.019.
4. Where Should Traditional Resource-Based Third- and Fourth-Tier Cities Go Under the Digital Economy Background? *Logistics Technology and Application*, 2021(05):133-134+137.
5. Exploration of Community Group Buying Business Models. *Enterprise Technology and Development*, 2021(08):176-178. DOI:10.14013/j.cnki.scxdh.2021.08.062.
6. "Night Economy" in China's Third- and Fourth-Tier Cities in the Post-Pandemic Era. *Jiangsu Science and Technology Information*, 2020, 37(15):32-34.
7. Research on the Reverse Driving Effect of Lower-Tier Market Development on Rural Revitalization—Taking Bengbu City, Anhui Province as an Example. *Jiangsu Science and Technology Information*, 2022(02):114-117.
8. Analysis of Development Model Strategies for Community Group Buying Under the Pandemic. *Jiangsu Science and Technology Information*, 2020(08):47-55. DOI:10.19632/j.cnki.11-3953/a.2020.08.008.
9. Analysis of Characteristics and Rise Reasons of Lower-Tier Markets. *Jiangsu Science and Technology Information*, 2021(24):90-92.
10. Chinese Financial Risk Hidden Dangers and Prevention Under the COVID-19 Pandemic. *Jiangsu Science and Technology Information*, 2021(23):100-102.