

# To Study the Development and Problems of Community Group Buying after the Epidemic

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## ABSTRACT

Due to the outbreak of the epidemic, the public have a new understanding of social group buying, and accept this consumption shopping mode, and social group buying has become rapidly popular. This paper will study the development of social group buying after the epidemic and the problems it faces. Social group buying because of the outbreak becomes popular, many well-known enterprises have invested to the industry, and combined with subsidies, let the potential of new market is growing, but due to the large number of investment makes Internet giant bankruptcy and exit some businesses, and some preferential activities caused the vicious competition of low price, so the Chinese government started to standardize the market. Social group not only buying promotes the development of society, but also brings many problems. Businesses in this industry need to further improve this consumption shopping mode, so that social group buying can develop for a long time.

**Keywords:** Community group buying, Impact of epidemic.

## 1. INTRODUCTION

### 1.1. Background

With the development of science and technology in modern life, as early as many years ago, businesses in many fields and different industries have started to establish social group buying, and its achievements are quite fruitful. The sudden outbreak of Covid-19 ushered in new opportunities and great challenges in the field of social group buying. At the same time, with the improvement of the construction foundation based on the Internet and the popularization of mobile payment, the community group purchase service of non-contact purchase and distribution has become popular rapidly, and many business opportunities have emerged. In the context of the epidemic, many community group-buying enterprises took this opportunity to increase marketing costs, create a lot of commercial profits, and greatly expand the market scale. Under this trend, the investment in the field of social group buying in the world is getting higher and higher. More and more capitalists devote themselves to this industry, forming a complete industrial chain and triggering hot discussions in the society.

### 1.2. Related Research

In recent years, community group buying has developed rapidly and attracted the attention of many scholars.

Jing and Xie studied a new social interaction sales mechanism, group purchase, which is a new unique sales strategy, buying alone cannot enjoy the preferential price of group purchase, so consumers often choose to find friends to buy together. The secondary sales strategy can not only meet the needs of consumers, but also benefit from the social interaction of consumers and bring more customers or sales channels for themselves [1].

Liu et al. made a research on the community group buying marketing Model of fresh agricultural Products in Jilin Province from the perspective of internet marketing and retail. This research analysis two marketing model, which are 'Community store + platform shopping' and 'Community group-buying + centralized pickup'. Liu suggested than within the internet development, people start to try O2O model or use APP for the promotion and marketing. Also, within the accelerating pace of life, people start to use fragmented time to buy fresh food, and convenience is the prime factor that they will consider, so

community marketing model has emerged. This model benefit the community by providing opportunities for neighbors to contact and communicate, and provide farmers a channel to sell their products [2].

Byers compiled by monitoring Groupon over several weeks and analysis points to the importance of considering incentives other than price in optimizing deal sites and similar systems. To push consumers to buy in a group, it is necessary to make them aware of the difficulty of the opportunity and limit the duration of the group purchase [3].

Many enterprise platforms survey people's willingness and trust in social group buying through different ways.

Shiau used partial least squares (PLS) analysis researched the factors affecting online group buying intention and satisfaction, sellers can predict whether they can better participate in the social group buying service by the satisfaction and trust degree of consumers, which also shows the importance of customer satisfaction and trust degree [4].

Wen et al. through interaction, interactive environment, key opinion leader (KOL), and flow experience to study the key factor that cause repurchase intention in community groupon. This study questionnaire to collect data from 283 respondents and set a model to analysis the data. We find that consumers are more willing to engage in interaction when they feel a positive interactive environment in the community. Also, consumers are more likely to participate in interaction under the influence of KOL. This study also suggest that the groupon leaders should create a good interactive environment, like speak actively in WeChat groups to activate the group chat atmosphere and promote interaction between consumers [5].

Yen et al. aimed to explore members' stickiness intention of online group buying marketplace by linking justice theory and trust. They research model is based on Social cognition theory (SCT) and trust related literature. The research find that member's stickiness intention was predicted by trust in marketplace, trust in initiator, collective efficacy, and conformity. Procedure justice and distribute justice both influence members' trust in marketplace [6].

Group purchase can reduce the risk of purchase, so that goods are more secure

Hao et al. made a research on the impact of online food shopping to the food stockpile. This research used bivariate probit models to empirically investigate the impact of online purchasing channels on Chinese urban consumer food hoarding behaviors with random survey samples. They find the fresh food ecommerce channel can not satisfy the individual consumer demand, in contrast, community group buy has larger purchasing

power than individual consumers and it saves risk of getting affected in supermarkets and grocery stores, group buyers may feel more secure with the food supply [7].

Juan worked on the data by applying the methods of factor analysis and regression analysis to study the influence of social identification and personal perceived factors on group-buying behavior through the internet. Research shows that online group buying can not only reduce the price of goods, but also effectively reduce the risk of online shopping [8].

The influence of social group buying on society.

Cheung et al. studied the impact of online group buying on the retail. They used questionnaires and face to face surveys to collect data from customers in Hong Kong, and set a model to show how the likelihoods of using group buying and returning to the same retailer are affected. The study find that customers view group buying as a channel to try new products or services. If the products bought in group buying suit their preferences, they are less concerned about price and are more willing to return to the product or service provider directly without group buying and retailer benefits on it [9].

Erdogmus researched the benefits of online group buying to consumers, results indicated that customers mostly based their decisions on price advantage and discount amount. For consumers, group buying allows them to buy goods at a lower price, while for sellers, it is a new sales mode of promotion and pricing, which creates more profits by increasing product sales and lowering the price. Therefore, social group buying can make sellers and customers form a situation of common interests [10].

Li et al. analyzed how competition and waiting cost can effect the pricing of community group buying. This study use the variation of the Hotelling-type linear city model to formulate a two-stage pricing game in which retailers announce rates in stage one and consumers choose their preferable purchasing channels in stage two. This study find that in a monopolistic market, group buying is mainly used to reduce transaction (operation) costs; however, in a competitive market, the function of group buying is not significant when multiple retailers operate the same channels [11].

Yang and Bing constructed the game models of e-commerce enterprises' traditional platform and social group buying platform respectively to explore the impact of social group buying model on enterprise's platform. The social group-buying model is not the reason for the decline of product quality on the platform. Because social group buying platforms are very sensitive to price requirements, some low-quality enterprises cannot gain more profits through social group buying platforms, while some high-quality enterprises cannot gain profits through social group buying platforms [12].

### 1.3. Objective

This paper will discuss the development and competition status of social group buying, and give suggestions, hoping to have some guiding significance for the future development goals of social group buying industry.

## 2. DEVELOPMENT STATUS OF COMMUNITY GROUP BUYING

### 2.1 What is community group buying, how it becomes popular

Social group buying is a kind of shopping and consumption behavior of real residents in the community. Consumers can buy things with people nearby at a low price compared to the traditional retailers, and sellers can also achieve the effect of small profits per unit with the compensation of large sales. For consumers, community group buying is characterized by convenience and efficiency. Placing orders directly on mobile phones can save the time to go to the supermarket. The price is relatively low and the logistics speed is fast, and the products purchased by group buying have better quality assurance. Merchants can use the powerful shopping network to bring more consumer groups, improve visibility at the same time can increase sales, reduce the amount of fresh loss, all these factors make social group

buying more and more popular. But because of the 2020 epidemic, which let originally hot community group began to rapid freezing, first started out of stock markets and shops and other supply sources and out of business, and sealing of village road let logistics driver cannot work normally, these problems make the social group had to make the corresponding solutions, from the original delivery member to the door to the user to the head of the self-mention. Offline supermarkets have been closed, so consumers can only buy daily supplies and food online. This irresistible factor has given community group buying a bright future in the epidemic.

### 2.2 Development status: AMU, investment and subsidy

The market of community group-buying is expanding, many famous businesses like Alibaba, Meituan and Pingduoduo had invested in this industry. Table 1 shows some information about the investment from internet companies to their community group buying APP. In 2020, Meituan invested about 10 billion yuan in 'Meituan Youxuan', and this amount might rise to 20 billion yuan in 2021. Alibaba integrate two community group-buying channels 'Hema Jishi' and 'Taobao Maicai' into a new brand called 'Taocaicai'. Alibaba also announced that they did not set the maximum input limit, in 2021, they plan to invest at least 20 billion yuan in this market, and they aim to become the top 3 community group-buying business in China.

**Table 1.** Internet companies investment in Community group buying APP

Community group buying APP	Company	2020 GMV	Investment
Meituan Youxuan	Meituan	More than 15 billion yuan	10 billion yuan in 2020, expected to invest 20 billion yuan in 2021
DuoDuo Maicai	Pingduoduo	More than 15 billion yuan	6 billion yuan in 2020
Chengxin Youxuan	DIDI	5-15 billion yuan	-
Hema Jishi	Alibaba	-	No limited, at least 20 billion yuan in 2021
Xingsheng Youxuan	Tencent, JD	More than 15 billion yuan	-

The frenzy of these businesses is because they realize the potential of this new market. In 2020, because of the impact of the pandemic, the community group-buying market is developing rapidly, and the market size is expected to reach 72 billion yuan, experts predict the market size will reach 100 billion yuan in 2022. Subsidies also become a key factor that boosts this market, Table 2 shows the price of common goods in different community groups buying APP and local

market. Using Meituan Youxuan as an example, they often issue discounts for their customers. The price of 500g tomatoes in a local supermarket is 2.8 yuan, but on Meituan Youxuan, the price become 2.25 yuan. In this situation, the monthly active user of Meituan Youxuan jumps from 43 million to 95 million between November 2020 to December 2020. In the first week of 2021, the number of daily orders reached 20 million.

**Table 2.** The price of common goods in different community group buying APP and local market

Goods	Duoduo Maicai	Meituan Youxuan	Xingsheng Youxuan	Local market
Tomatoes (yuan/500g)	2.29	2.25	2.99	2.8
Chicken breast (yuan/500g)	6.99	6.99	8.99	9.9
Tissue (yuan/6 pack)	9.9	9.9	13.9	18.4

### 3. COMPETITION STATUS OF COMMUNITY GROUP BUYING

The epidemic in 2020 pushed social group buying into a new development trend, which enabled many enterprises to see business opportunities. Alibaba, Meituan, Pingduoduo and other capitals have made a large amount of investment in community group buying. Due to the joining of many large enterprises, the competition of social group buying in the market is becoming more and more fierce, but the biggest competition is the perfection of its own platform, so it is necessary to strictly control the quality and service, and create good credit. Sales methods are also constantly improving, some businesses in the social group purchase mode to carry out live with goods, combined with group purchase price, second kill and other marketing tools, the use of dual interests driven to mobilize the enthusiasm of users, bring more sales. The competition for social group buying is in lower tier cities, as more first-tier city residents seek high-quality services rather than preferential prices. Although the second and third tier cities are also developing rapidly and people's consumption level is gradually improving, most residents still tend to buy good and inexpensive goods, so the social group-buying model is more attractive to them.

Due to a large amount of investment by Internet giants, some community group-buying enterprises began to go bankrupt. In August 2021, Community group-buying enterprise Group Group announced that it would close down its business in 21 urban areas across the country. On September 5 of the same year, The Orange Heart Priority, which Didi invested heavily in, contracted in batches due to poor prospects. But Alibaba is in such a severe situation to continue to increase, there is a social

group to fight to the end of the momentum.

As the market size of community group buying is growing, many companies want to grab more market shares in this new area. In this situation, competition is becoming more and more fierce, some top internet companies invest in this area, within the financial support, community group buying APP started to use low prices to attract customers.

As more and more top companies enter this market, some companies can not afford the huge amount of investment. In July 2021, Tongcheng Shenghuo was declared insolvent. In September 2021, Chengxing Youxuan, which is a company invested by DIDI, decided to close their operation in 60% of existing cities, which means Didi decide to leave this market. In this period, the whole market has been dominated by the top companies like Alibaba and PIngduoduo, small companies will have less space for survival.

### 4. REGULATION AND FUTURE DEVELOPMENT

In the early period, in order to gain more users, community group buying APP release huge amounts of subsidies to their new customers. For the new customer, APP will offer some discount activities, like 0.99 yuan for 4 eggs or 500g vegetable for 1 yuan. These low prices cause vicious competition, harm the revenue of the local supermarket and farmer, disrupt the market order. Therefore, on December 22th 2020, the Chinese government start to regulate this market. In December 2020, the Chinese government set up nine regulations of community group buying APPs, Table 3 shows the content of this regulation.

**Table 3.** Nine regulations of community group buying APPs

New regulations	
1	Not to abuse independent pricing power.
2	Not to illegally reach or implement any form of monopoly agreement.
3	Not to abuse market dominance without justified reasons.
4	Prohibited to illegally implement concentration of undertaking, eliminate or restrict competition.
5	Forbidden to engage in unfair competition behaviors.
6	Not allowed to use the advantages of data to "kill familiarity".
7	Technological means must not be used to damage the order of competition and hinder the normal operation of other market entities
8	Prohibited to illegally collect and use consumer personal information.
9	Prohibited to sell counterfeit and shoddy goods.

Selling the goods below the cost to exclude competitors or monopolize the market is no longer allowed. As the result of the regulation, the price level of goods on those APP back to the normal level, but the competition on price never abate. They stop setting the low price directly, instead of that, they will send some red packet to their customer. For example, the new user of Meituan Youxuan can get a full return when they complete their first order.

The competition is just like a bottomless pit. The financial statement of Meituan shows that the net profit in 2020 was 7.8 billion yuan, which was lower than 11.909 billion in 2019. The reduction is mainly because of the investment in community group buying. This information reduces the investor's enthusiasm and makes the other companies find other ways of competition rather than price competition. In the early period of competition, most of the community group buying APPs are providing similar services, which is selling agricultural products, meat and daily necessities. They do not have unique selling points, in this situation, focusing on pricing strategy is a reasonable way to attract consumers. However, homogeneous competition is not good for future development, differentiation seems to be the next step of the competition.

Unlike other competitors who cooperate with businesses in supply sectors, DingDong Maicai launched their own brand in 2021, build their own supply chain. This brand focuses on crayfish products and other semi-

finished products. These products satisfy people's demand for convenience, help Dingdong to increase customer stickiness. In two months, this brand help Dingdong achieves more than 80 million GMV.

Another example is Hema. In July 2021, Hema released their new project 'HEMA linli'. This is a new shopping mode. People need to order online and choose a local pick-up station to pick their items. The pick-up station is only for storage, and the area is usually a few dozen square meters, so the operating cost is lower than a normal shop. Therefore, Hema can open this kind of station in some remote areas, which other competitors have not done.

These two examples indicate the direction of future development of the community group buying market to some extent. Whether it is creating own brand or opening the local pick-up station, the supply chain is the priority thing to consider. Without the support of supply chain, Dingdong and Hema are not able to achieve their plan. The next step of the competition will be around the supply chain and differentiated customer services.

## 5. CONCLUSIUON

In conclusion, this article analysis the development of the community-group buying industry. Because of the pandemic, community-grouping buying starts to become popular, many businesses invest in this market, like Meituan and Pingduoduo. In the early period, because of

lack of regulation, businesses used prices that were lower than the cost to attract customers, which caused vicious competition. After new regulation was released and the fierce competition, some businesses started to introduce new services to customers rather than focusing on pricing. For instance, Dingdong Maicai launched their own food brand and successfully increased customer stickiness. However, this brings more challenges for supply chain management. In the future, businesses in the community group buying industry should focus on improving the supply chain the introducing new services to make people's more convenient.

## REFERENCES

- [1] Jing, X., & Xie, J. (2011). Group Buying: A New Mechanism for Selling Through Social Interactions. *Management Science*, 57(8), 1354–1372.
- [2] Liu, L., Zhang, F., Li, H., & Wen, C. (2021, May). Research on the Community Group Buying Marketing Model of Fresh Agricultural Products in Jilin Province from the Perspective of Internet Marketing and Retail. In *IOP Conference Series: Earth and Environmental Science* (Vol. 769, No. 2, p. 022054). IOP Publishing.
- [3] Byers, J. W., Mitzenmacher, M., Potamias, M., & Zervas, G. (2011). A Month in the Life of Groupon. *ArXiv Preprint ArXiv:1105.0903*.
- [4] Shiau, W.-L., & Luo, M. M. (2012). Factors affecting online group buying intention and satisfaction: A social exchange theory perspective. *Computers in Human Behavior*, 28(6), 2431–2444.
- [5] Wen, H., Jiang, Y., Wang, L., Zhou, Y., & Ma, Y. (2021, March). Community Groupon: Interaction Makes Customers More Willing to Re-purchase. In *2021 10th International Conference on Industrial Technology and Management (ICITM)* (pp. 8-13). IEEE.
- [6] Yen, C., Chang, C. M., & Chiang, M. C. (2014, August). Members' Stickiness Intention of Online Group Buying Marketplace. In *Proceedings of the Sixteenth International Conference on Electronic Commerce* (pp. 80-84).
- [7] Hao, N., Wang, H. H., & Zhou, Q. (2020). The impact of online grocery shopping on stockpile behavior in Covid-19. *China Agricultural Economic Review*.
- [8] Juan, H. C. (2009). The influences of social identification and personal perceived factors on group-buying behavior through the internet.
- [9] Cheung, T., Wong, W. H., Wong, R. S., & Zhu, J. (2016). Does online group buying benefit or destroy retail businesses?. *International Journal of Business and Economics*, 15(1), 1.
- [10] Erdoğmus, I. E., & Çiçek, M. (2011). Online Group Buying: What Is There For The Consumers? *Procedia - Social and Behavioral Sciences*, 24, 308–316.
- [11] Li, Y. M., Jhang-Li, J. H., Hwang, T. K., & Chen, P. W. (2012). Analysis of pricing strategies for community-based group buying: The impact of competition and waiting cost. *Information Systems Frontiers*, 14(3), 633-645.
- [12] Yang, Z. H. A. N. G., & Bing, X. U. (2019). Does Social Group-Buying of “Buy Together” Style Decrease the Quality of Platform Goods? From the Perspective of Platform Selection for E-Commerce Enterprises. *Commercial Research*, 61(5), 10.