

The Development Path, Model and Enlightenment of Fresh Food E-commerce In China

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- *Development Status*
- *Driving Factors*
- *Case Sharing*
- *Suggestions*



The Development of Fresh E-commerce in China



➤ **By 2020, the online retail sales of agricultural products nationwide reached 800 billion yuan, 4.6 times the growth rate of the total retail sales of consumer goods during the same period.**

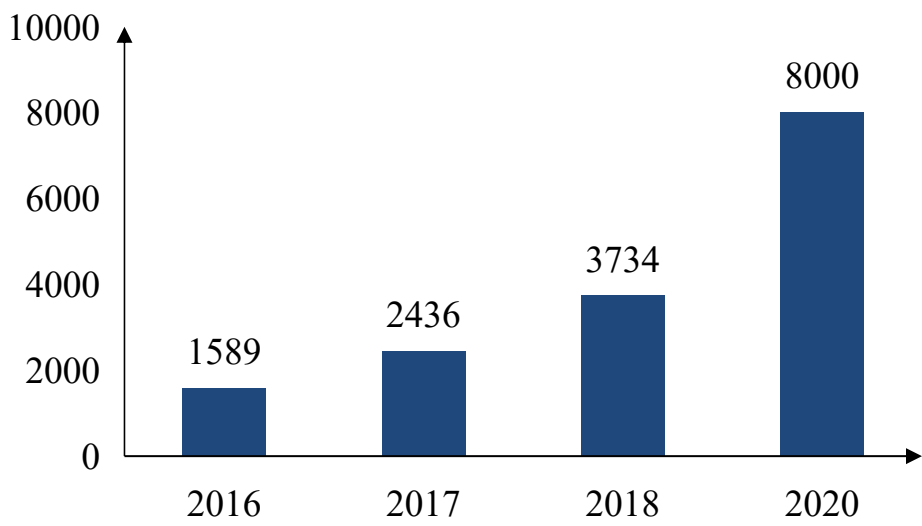


Fig 1. Online Retail Sales of Agricultural products in China from 2016 to 2020
(100 million yuan)

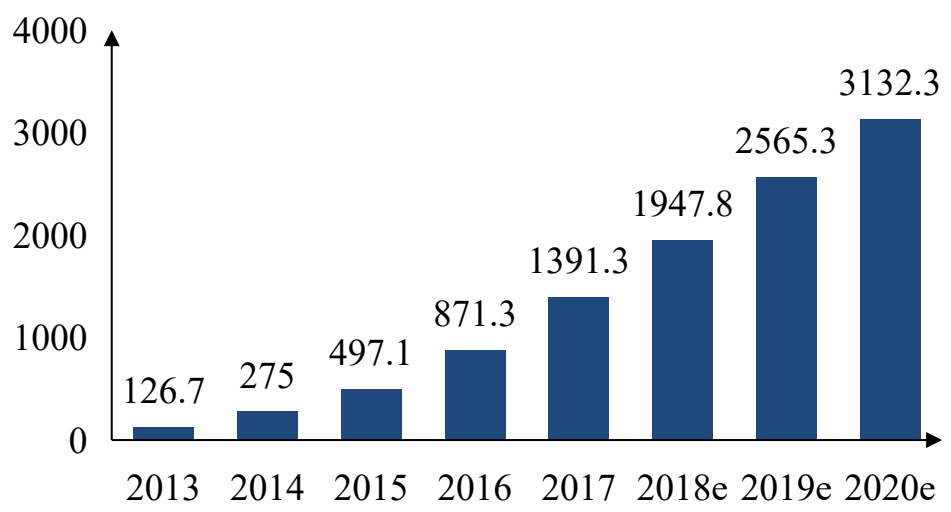


Fig 2. Total Transaction size of China fresh Food E-commerce Market
(100 million Yuan)

Source: Brick



➤ **Since 2018, the e-commerce sales of all categories of agricultural products have increased significantly, with fruits accounting for the largest proportion.**

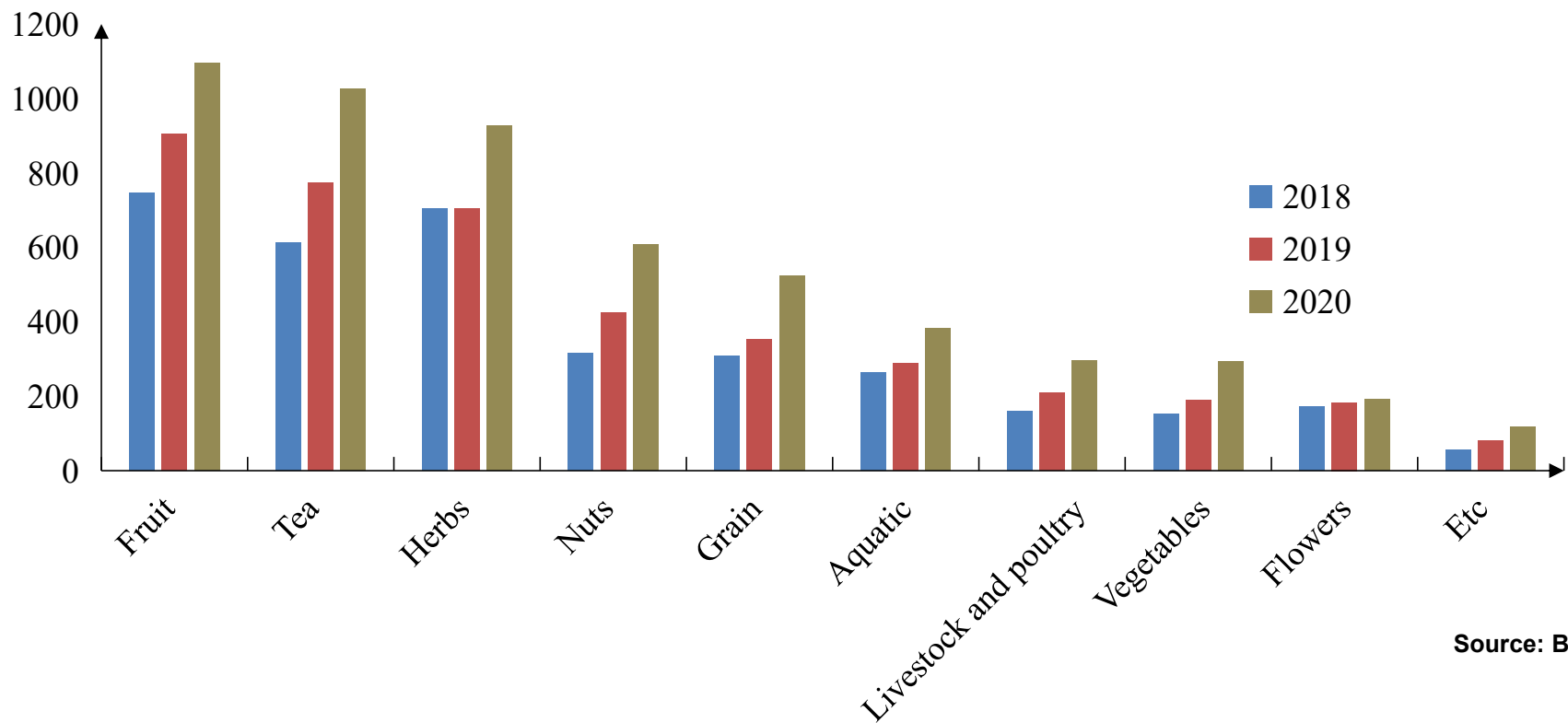


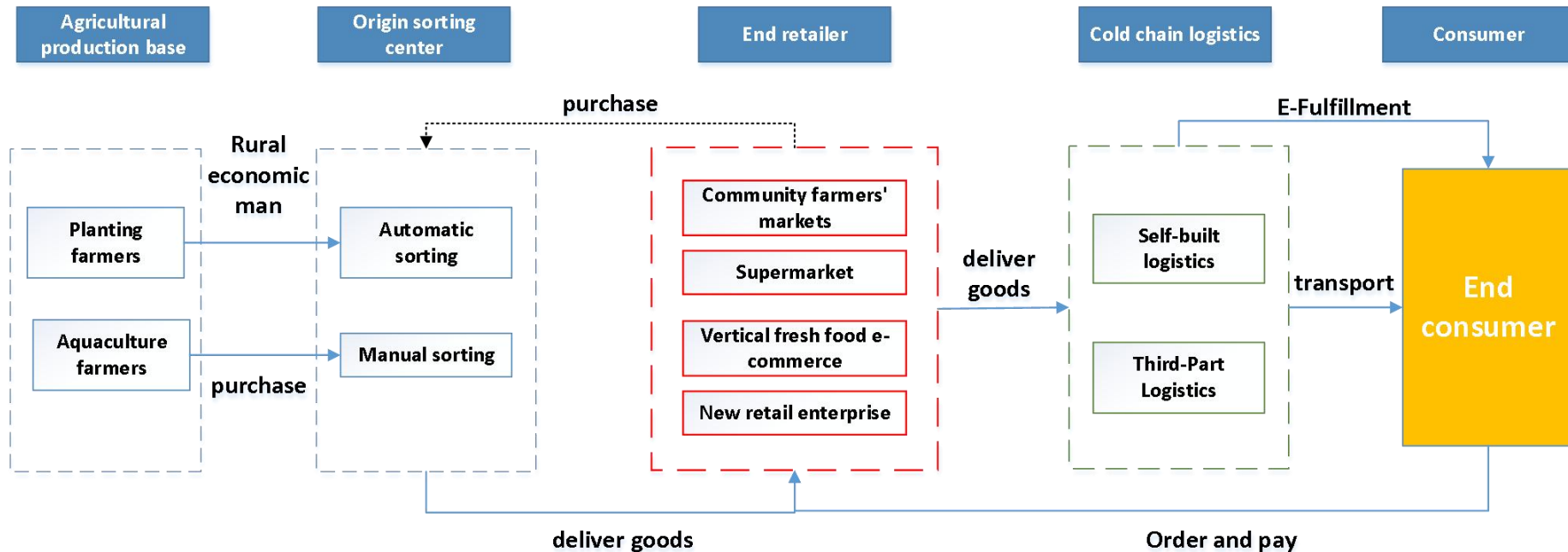
Fig 3. China's E-commerce Retail Sales of Agricultural Products by Sector in 2018-2020 (100 million Yuan)





The Development of Fresh E-commerce in China

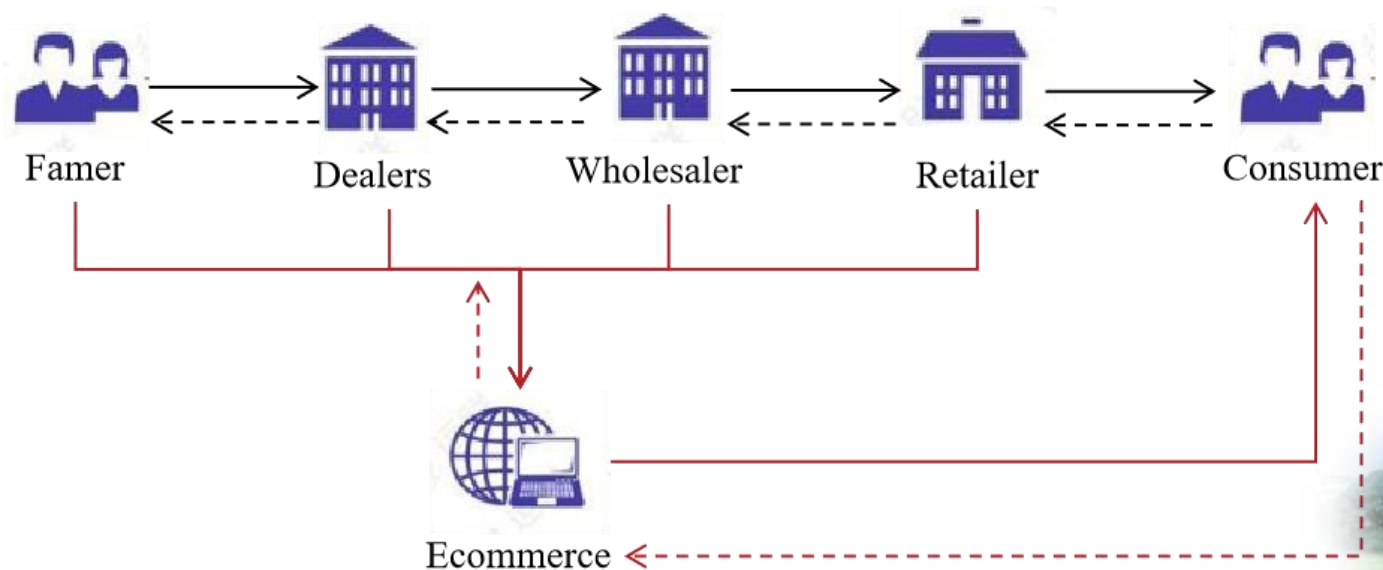
- China's agricultural products are mainly distributed through traditional channels. But in recent years, the penetration rate of fresh e-commerce has increased year by year, reaching 7.91% by 2021.





Significance of Fresh E-commerce Development

- Through traditional channels, the marketing cost of fresh products in China accounts for 70% of the total cost, which is 20% higher than that in the world.
- The research shows that for every 1% increase in the development status of e-commerce, the marketing efficiency of agricultural products will increase by 0.434 units.



➤ Consumers can quickly retrieve similar products and refer to the evaluations of previous buyers so that they can obtain multiple information of products more efficiently. It is conducive to expand the sales radius and achieve high quality and high price.



t**5

4天前评价

已购商品：单果重量：【大果普通装】单果重100-120g
单箱规格：净重9斤

猕猴桃还是挺好的，一个个的都十分的新鲜！没有坏果，这家的猕猴桃是我吃过的猕猴桃里味道最好，比平常吃的好吃多了，外形匀称，果肉色泽金黄，果实饱满，汁多水分足，成熟的果子口感好甜的，肉质嫩，而且汁多咬一口吃着太满足啦，都不错



5图
查看全部

商家回复：一路走来有您的陪伴，我们就不会孤单，有您的鼓励，我们就有动力，有您的认可，我们...展开

799次浏览

分享

1

评论



t**2

5天前评价

加入购物车

马上抢
限时券后¥10起



¥43.8 限时券后¥26.20

3.18 10:00-14:00前500件超级秒杀

3人评价“密封很完美”

全部(20万+)

单箱规格

尝鲜3斤

净重5斤

净重9斤

24枚礼盒装（送礼力荐）

单果重量

【中大果】单果重80-100g

【大果普通装】单果重100-120g

【大果精选装】单果重100-120g

【特大果普通装】单果重120-150g（优选爆款）

【特大果精选装】单果重120-150g（商超品质）

【果王普通装】单果重150g以上（吃货专享）

【果王精选装】单果重150g以上（果农力荐）

【中果】单果重60-80g（果小介意慎拍）

购买数量（限购9999件）有货

1

当前商品可使用 满15减10 商品优惠券 等优惠

确认

猕猴桃

聚划算 品牌 产地 包装方式

抢！爆甜大果

超值大箱 净重9斤

天猫 陕西周至绿心猕猴桃新鲜包邮10大果当季

品牌新客补贴，当日有效

¥26.2 首单 2万+人付款

广告 首单 直降1元

¥1 新客直降 去购买

陕西眉县徐香猕猴桃正宗特级新鲜包邮斤半

眉县猕猴桃 | 徐香 绿心果

¥69 2000+人付款

领券 满158减5 包邮

直播中 王小二旗舰店

陕西大果正宗整箱 包邮红心猕猴桃

猕猴桃回购榜·第3名

聚 ¥16.8 9000+人付款

领券 满158减5 包邮

直播中 王小二旗舰店

正宗徐香猕猴桃

品质好果

首件拍下13.8元起 香甜多汁！软糯爽口

天猫 鲜嫩爽口，酸甜多汁！徐香猕猴桃

入选猕猴桃回购榜

聚 ¥18.8 5000+人付款

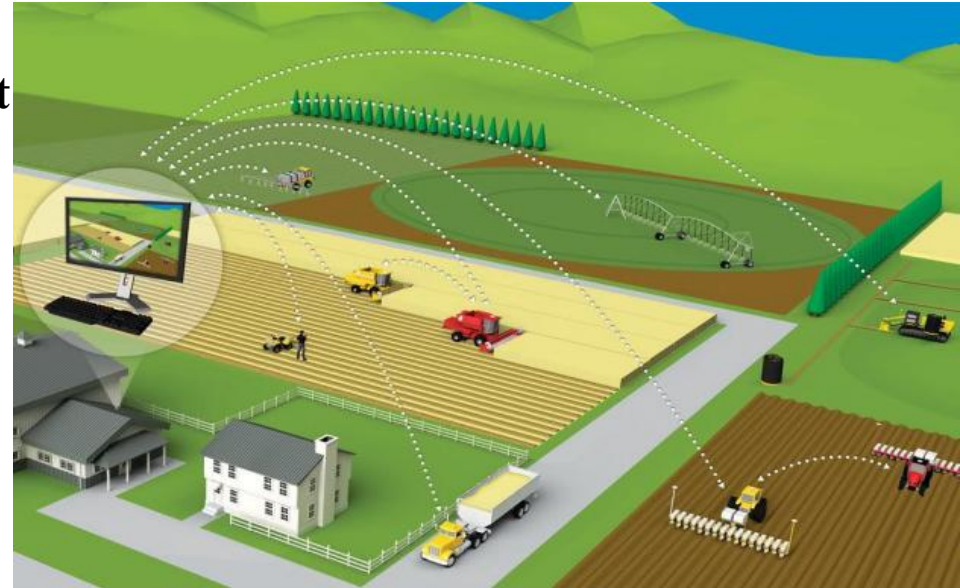
领券 满158减5 包邮

直播中 王小二旗舰店

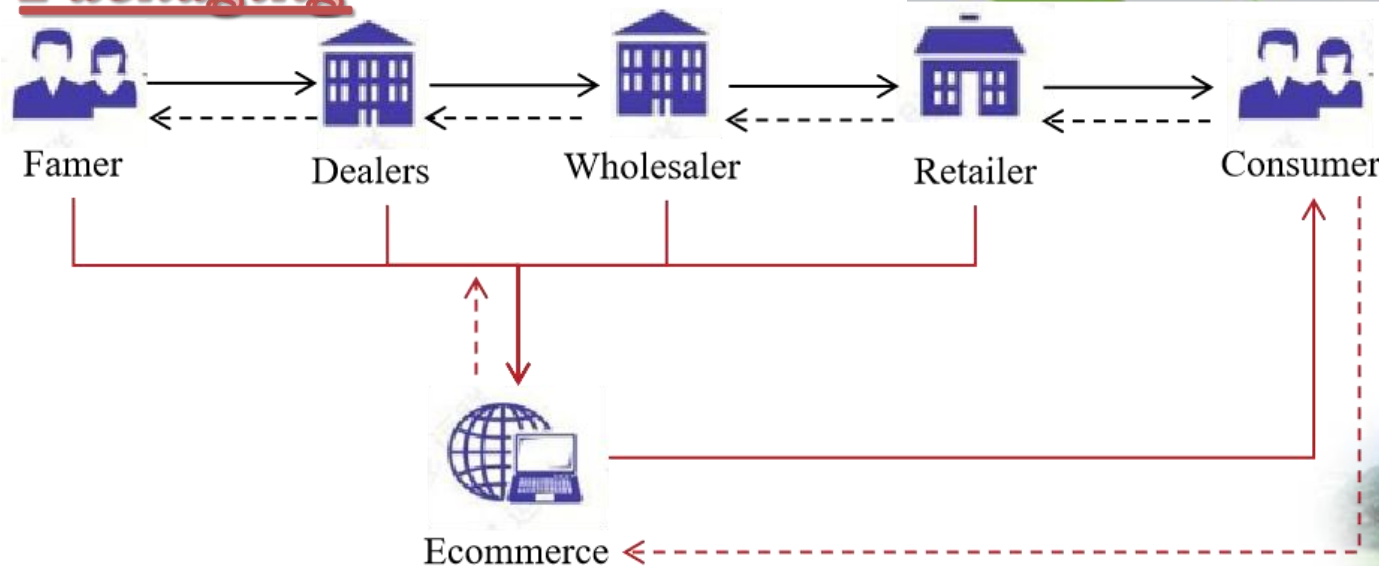


Significance of Fresh E-commerce Development

- Feedback consumers' demand in time
- Accelerate the adjustment of planting at the production end.
- For example, "Pinduoduo" has expanded the planting area of passion fruit in China tenfold.



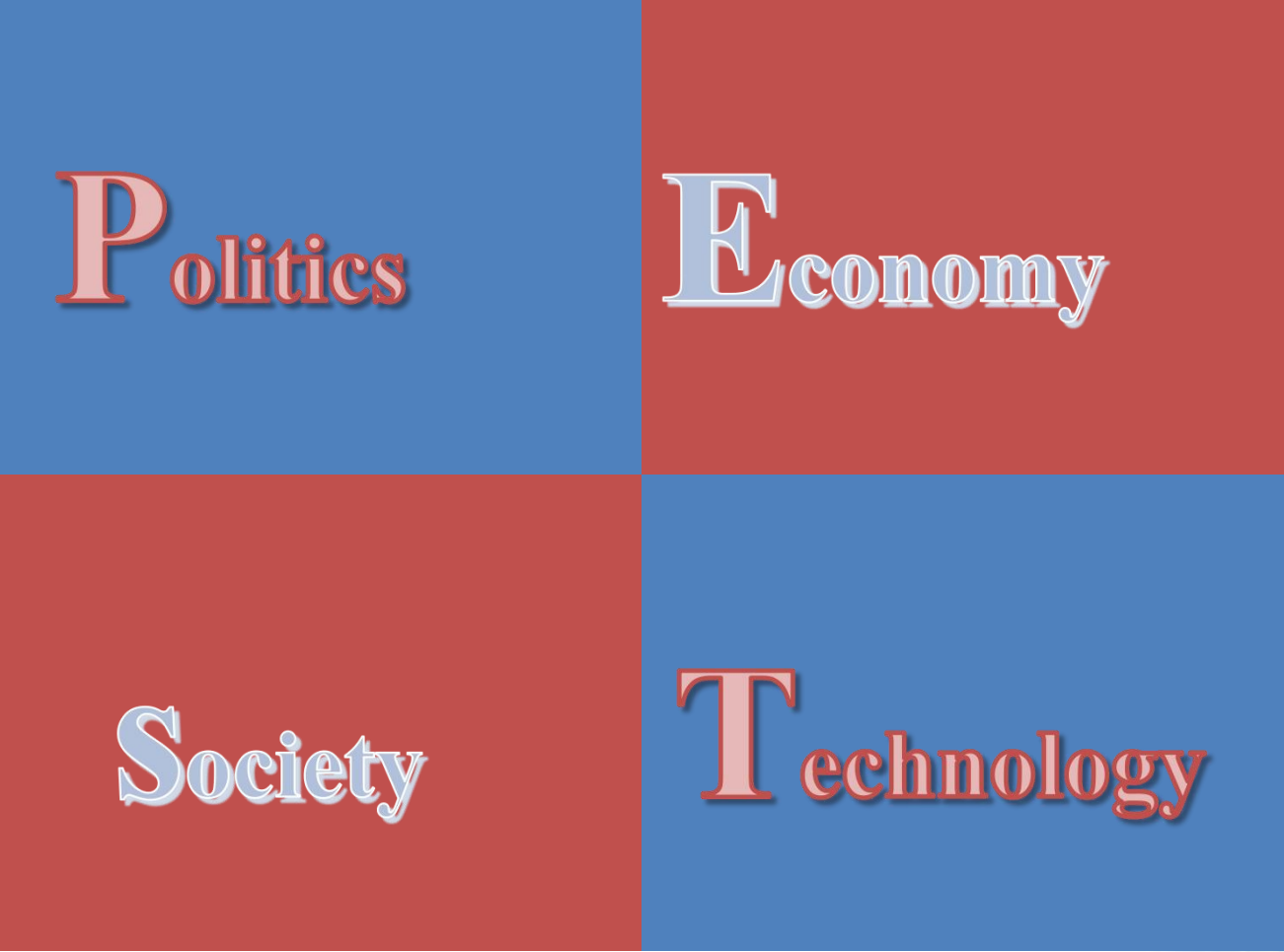
Variety? Taste? Size?
Packaging



Driving Factors of Fresh E-commerce



Driving Factors of Fresh E-commerce



Direct Subsidies

- E-commerce poverty alleviation policy
- E-commerce into rural areas policy
- Agricultural products out of villages into cities policy



Direct Subsidies



- Take Anhui province as an example:
1. E-commerce business entities whose rural products go up more than 10 million yuan will be given a one-time reward of less than 1% and up to 1 million yuan according to the online sales.
 2. For counties (cities, districts) that organize rural e-commerce production and marketing docking, live promotion and other activities, a subsidy of 5% of each activity's online sales and a cumulative maximum of CNY100,000 will be given.
 3. A one-time reward of CNY10,000 will be given to poor village outlets with annual online sales 100,000 yuan.



- In 2019, China built the world's largest optical fiber and mobile communication network, with more than 98% of administrative villages receiving optical fiber and 4G.
- The number of Internet users in China was 904 million, of which 255 million were in rural areas, accounting for 28.2%.

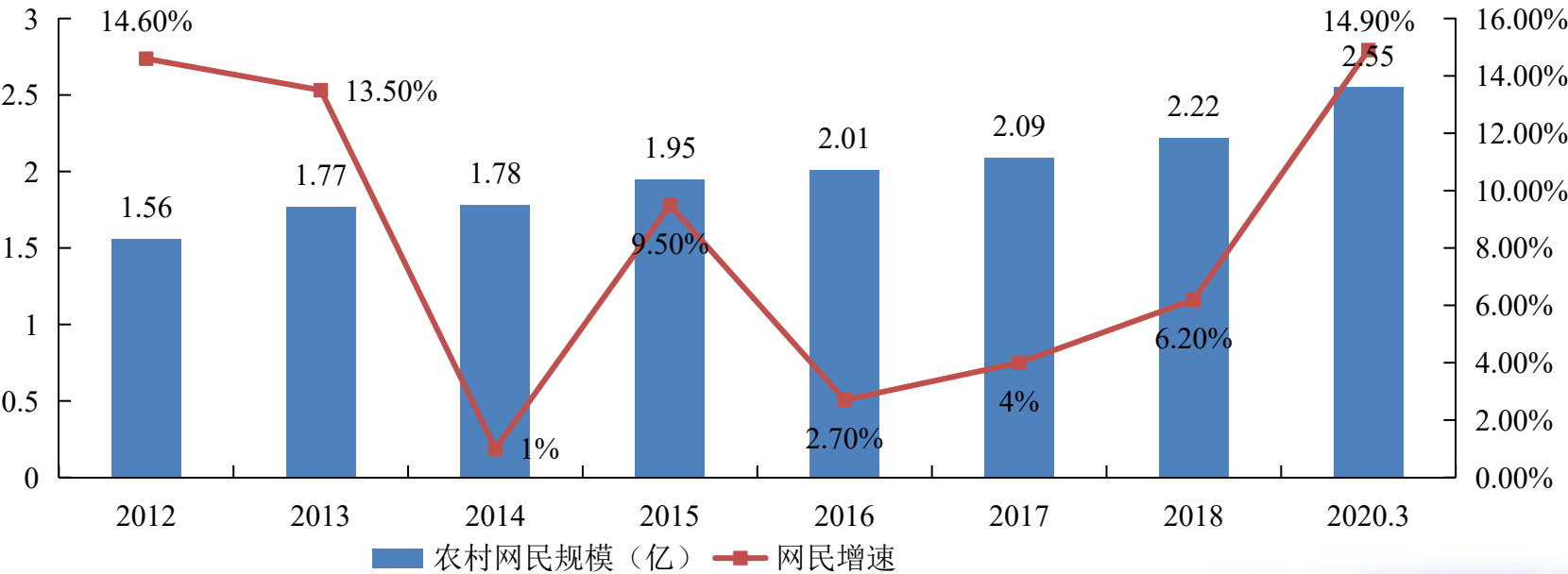


Figure 4 Size and growth rate of Rural Internet users in China from 2012 to 2020



Infrastructure
Construction
—Cold Storage

- Cold storage are repaired in many places to alleviate the loss of perishable agricultural products.
- According to the type and capacity of cold storage, the government gives subsidies ranging from CNY10,000 to CNY350,000.

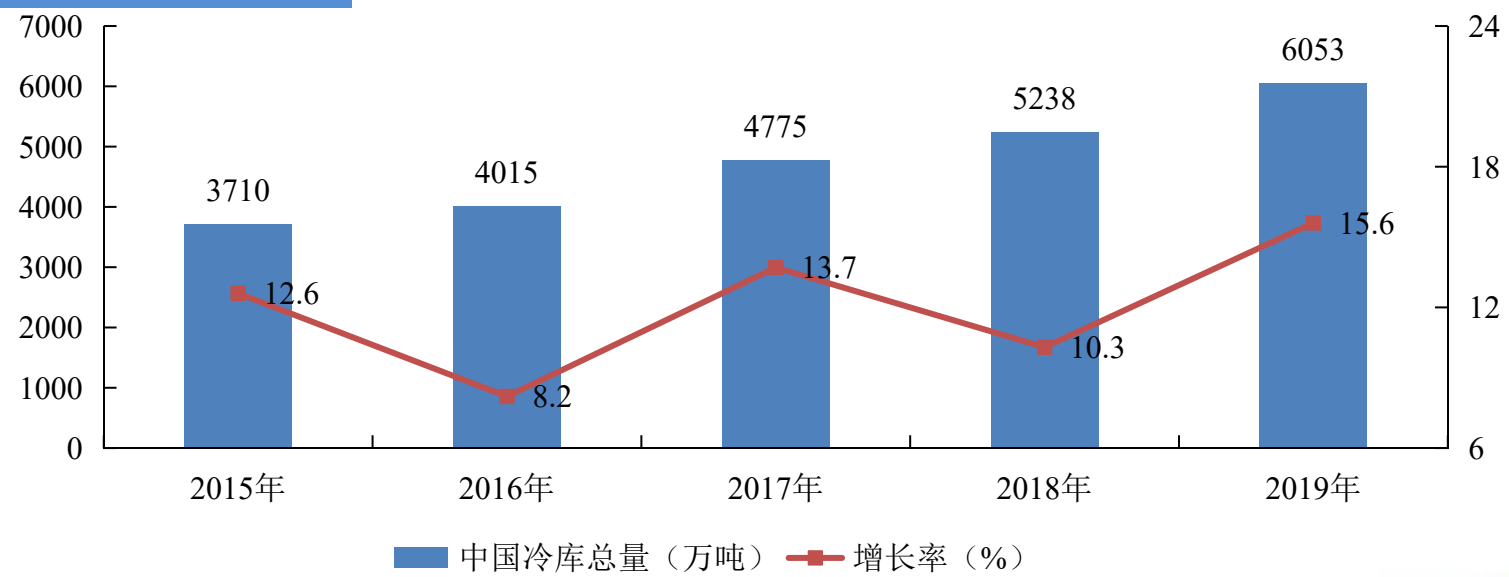


Figure 5 Statistics and growth of total cold storage volume in China from 2015 to 2019

数据来源：前瞻产业研究院





Driving Factors of Fresh Food E-commerce-Politics

冷链物流产业流程图



辽报制图 / 董昌秋



Infrastructure Construction

-Express Delivery

- Rural roads were built and rural express delivery stations were established and improved.
- Open greenway for fresh vegetables, fruits, fresh aquatic products, live livestock and poultry, fresh meat, eggs and milk.

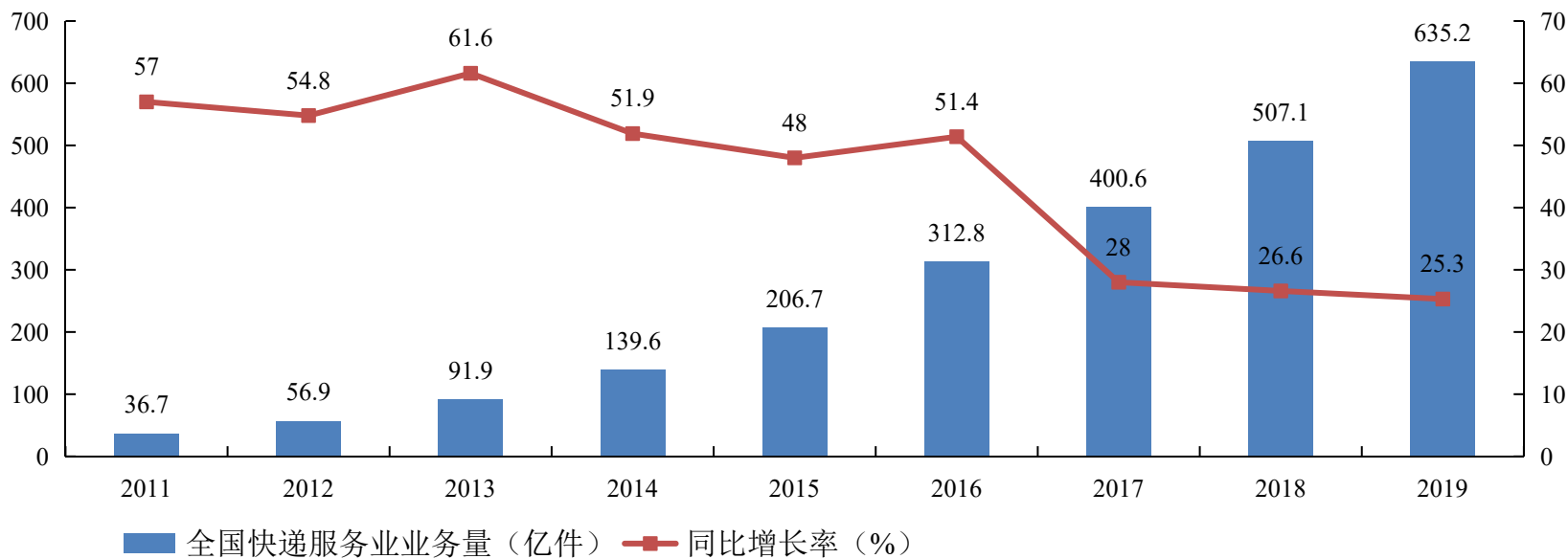
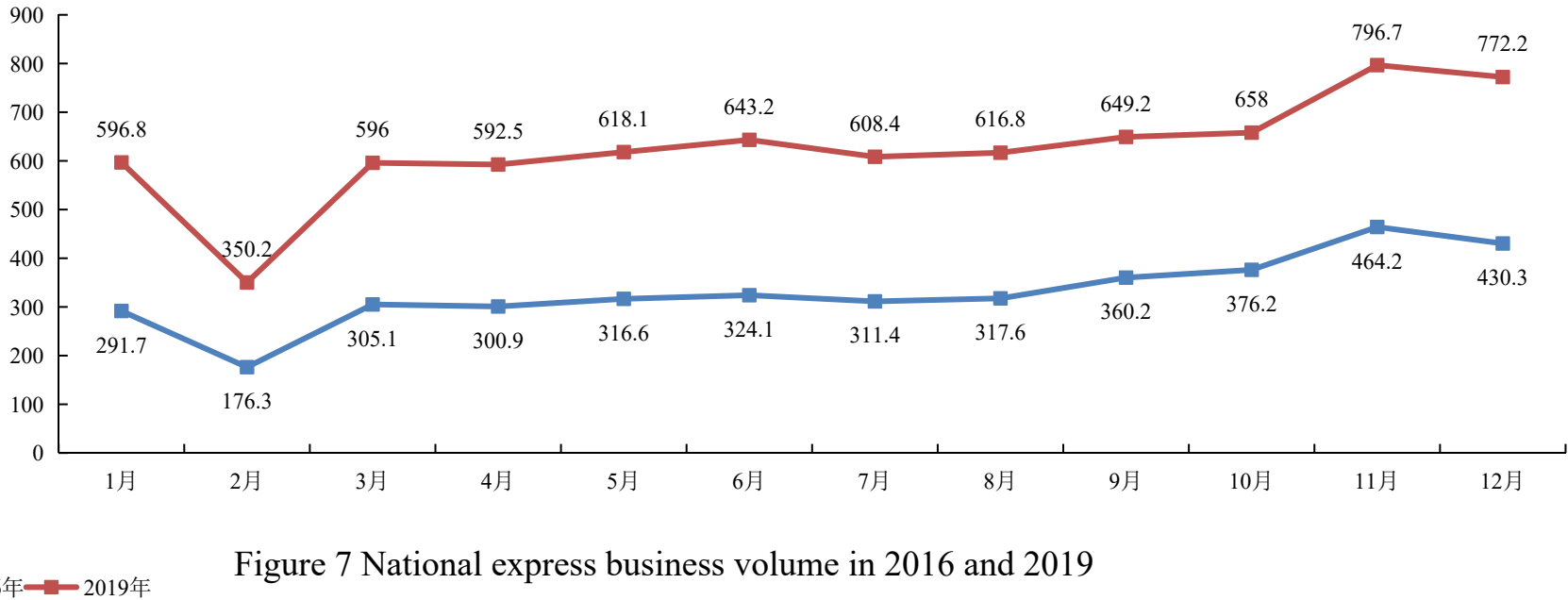


Figure 6 Business volume of National Express service enterprises from 2011 to 2019

Source: State Post Bureau

Infrastructure Construction

-Express Delivery



Source: State Post Bureau

Source: China Logistics Information Center.



Infrastructure Construction

-Express Delivery

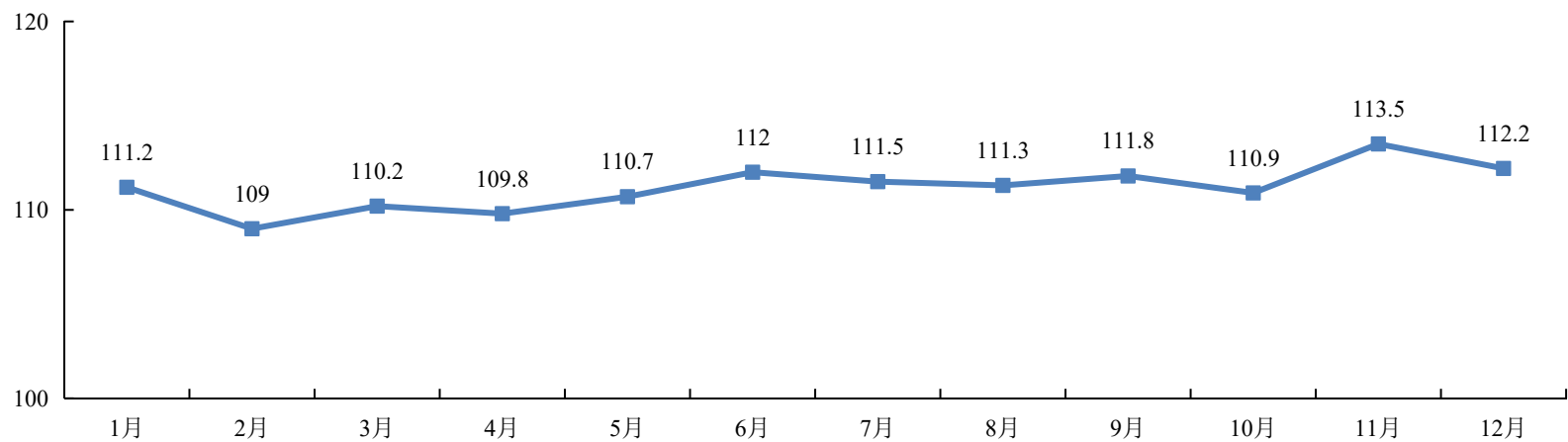


Figure 8 China's e-commerce logistics Performance Index in 2019

Source: State Post Bureau

Source: China Logistics Information Center.





Driving Factors of Fresh Food E-commerce-Politics

菜鸟全球包裹网络

全球智能物流骨干网升级为“战时状态”，一边是“民用”，保障中小企业运输商品不断航；一边是“军用”，正在向140多个国家（地区）紧急运送医疗救援物资。



欧-中进口货量

关隘咽喉头程 考拉进口
列日生态进口货量 其他

欧洲干线网络

菜鸟杭州包机一周五班，双向
中欧班列郑州-列日，一周两列，双向
中欧班列义乌-列日，一周一列，双向



Infrastructure Construction -Service

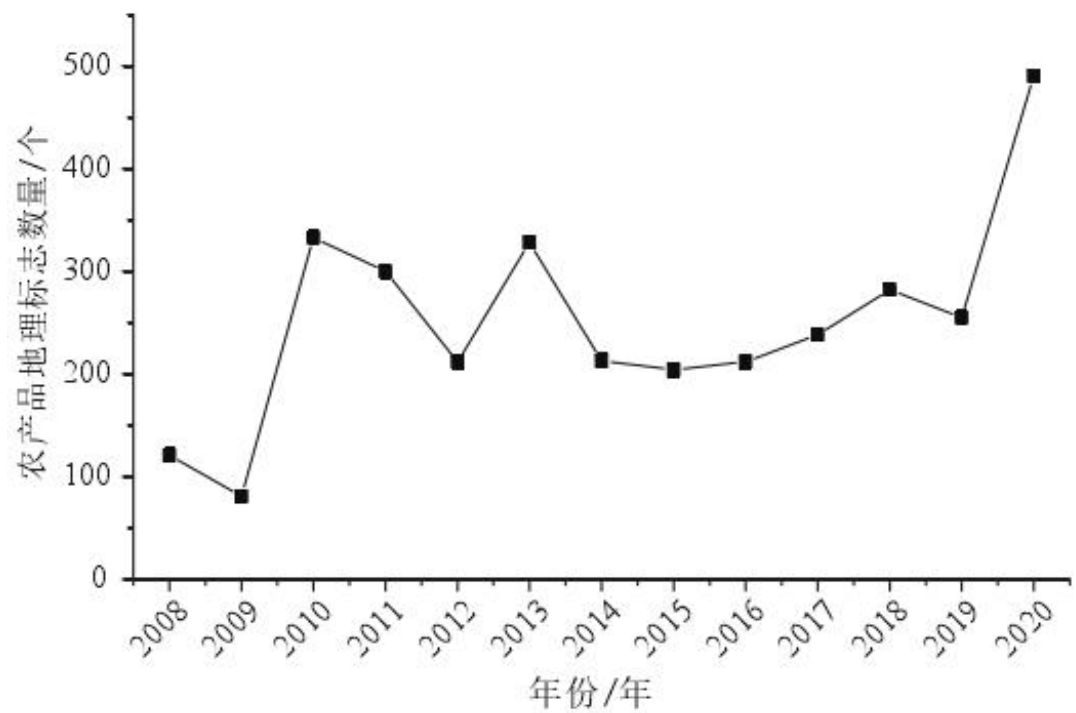
- Set up rural e-commerce service sites and e-commerce cooperatives.
- Organize e-commerce training
- Encourage migrant workers to return home to start businesses, based on talent subsidies.



Infrastructure Construction

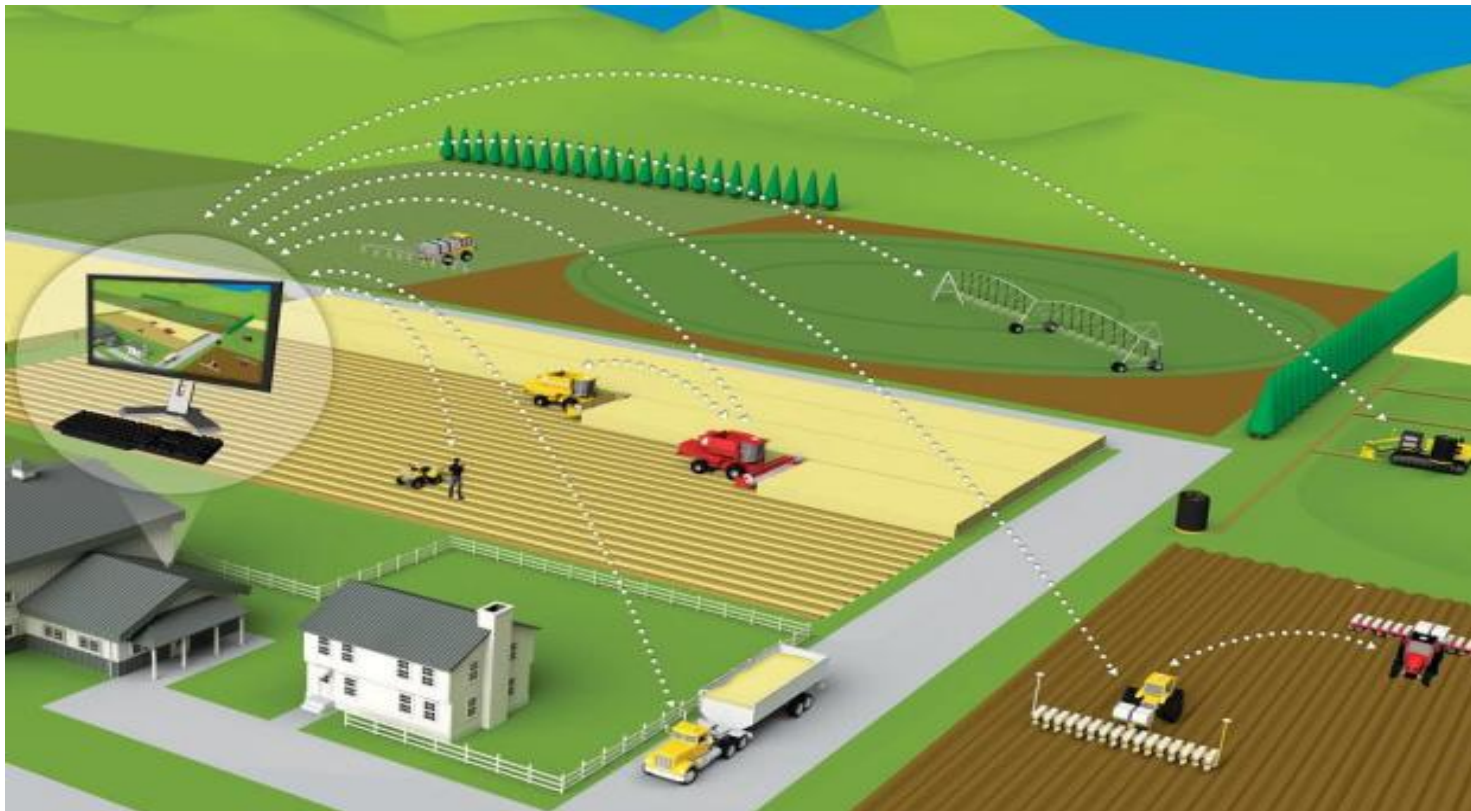
-Brand

- Promote the certification of Geographical Indications Brand of agricultural products
- Establish traceability system of agricultural products



Agricultural Production Optimization

- Encourage land marketing and promote the standardization, scale and organization of agricultural production.
- Strengthen the construction of digital villages and promote “Internet + ” agriculture.



- In 2019, the total retail sales of consumer goods in China reached CNY41.16 trillion, up 8% year-on-year, and the online retail sales reached CNY 10,632.4 billion, up 16.5% over the previous year.

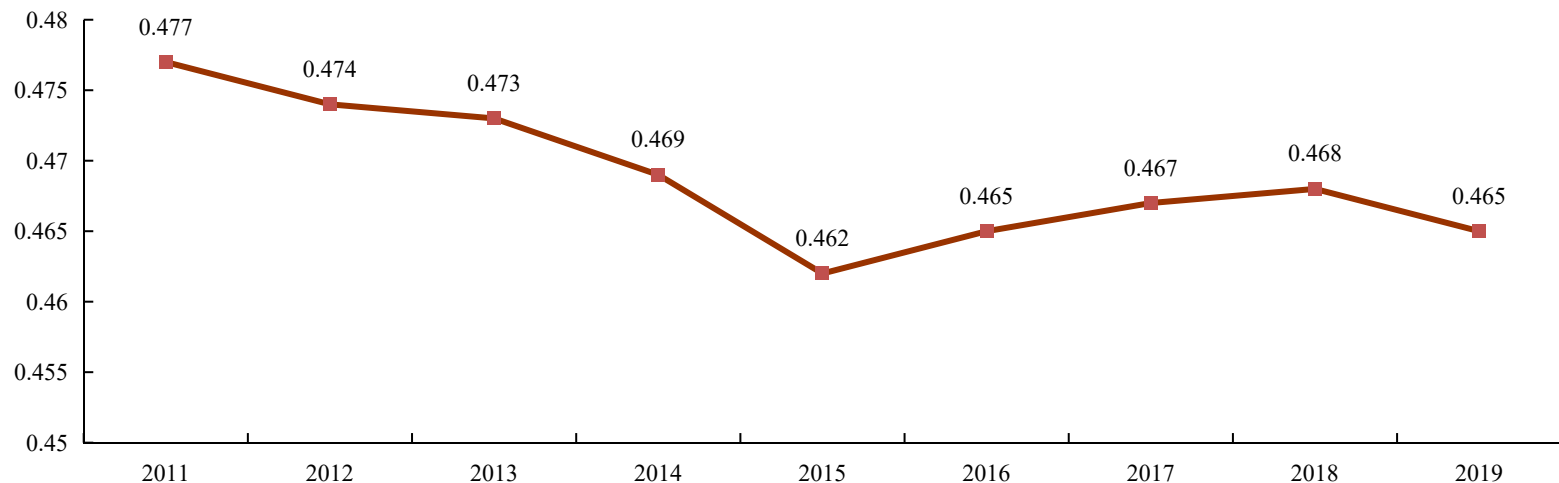


Figure 10 Gini coefficient of National household income from 2011 to 2019



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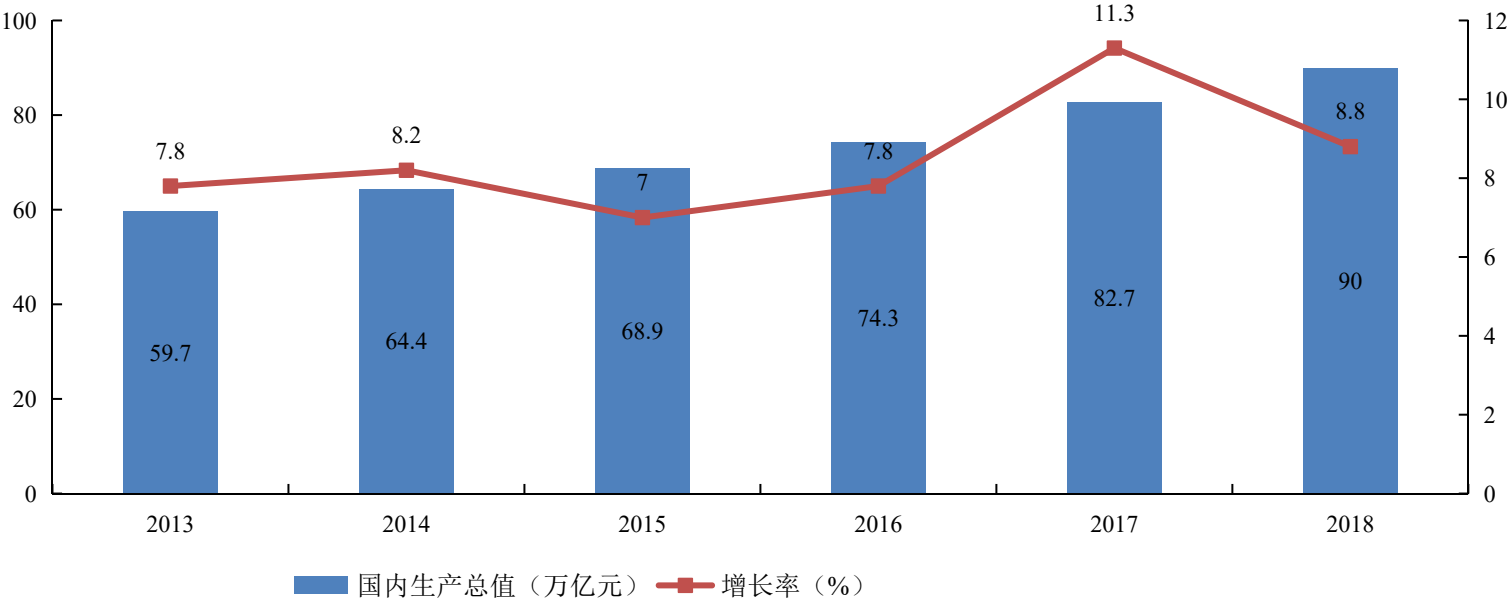


Figure 11 China's GDP from 2013 to 2018

Source: National Bureau of Statistics



➤ In 2019, the total retail sales of consumer goods in China reached CNY41.16 trillion, up 8% year-on-year, and the online retail sales reached CNY 10,632.4 billion, up 16.5% over the previous year.

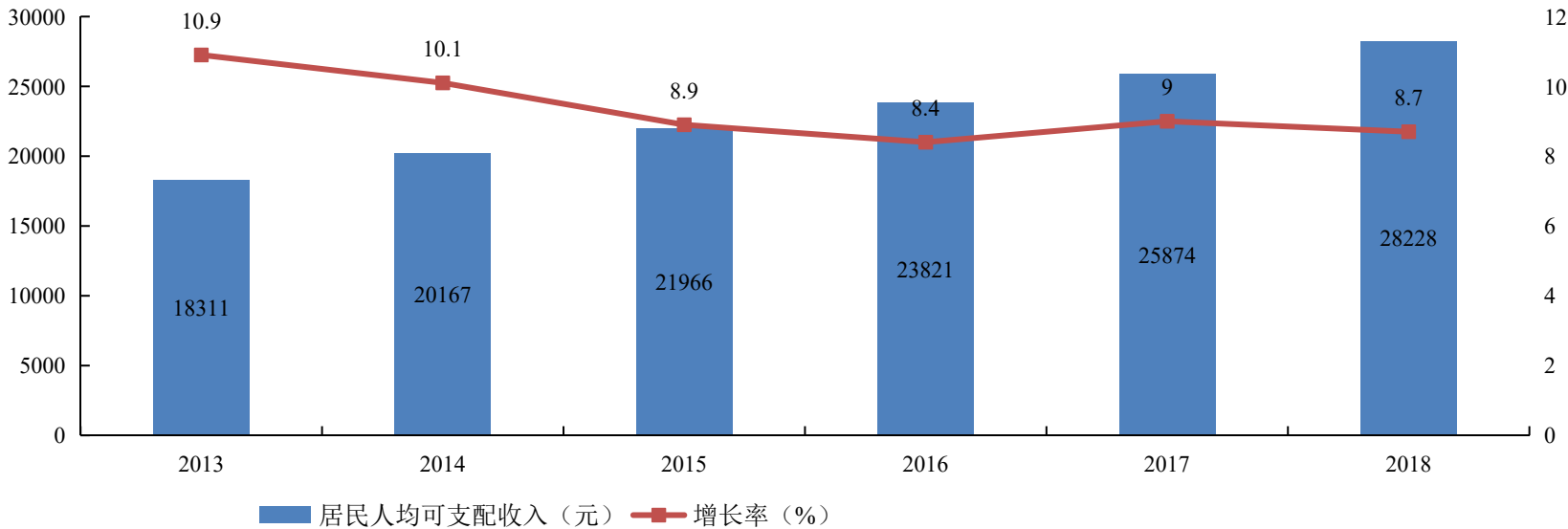
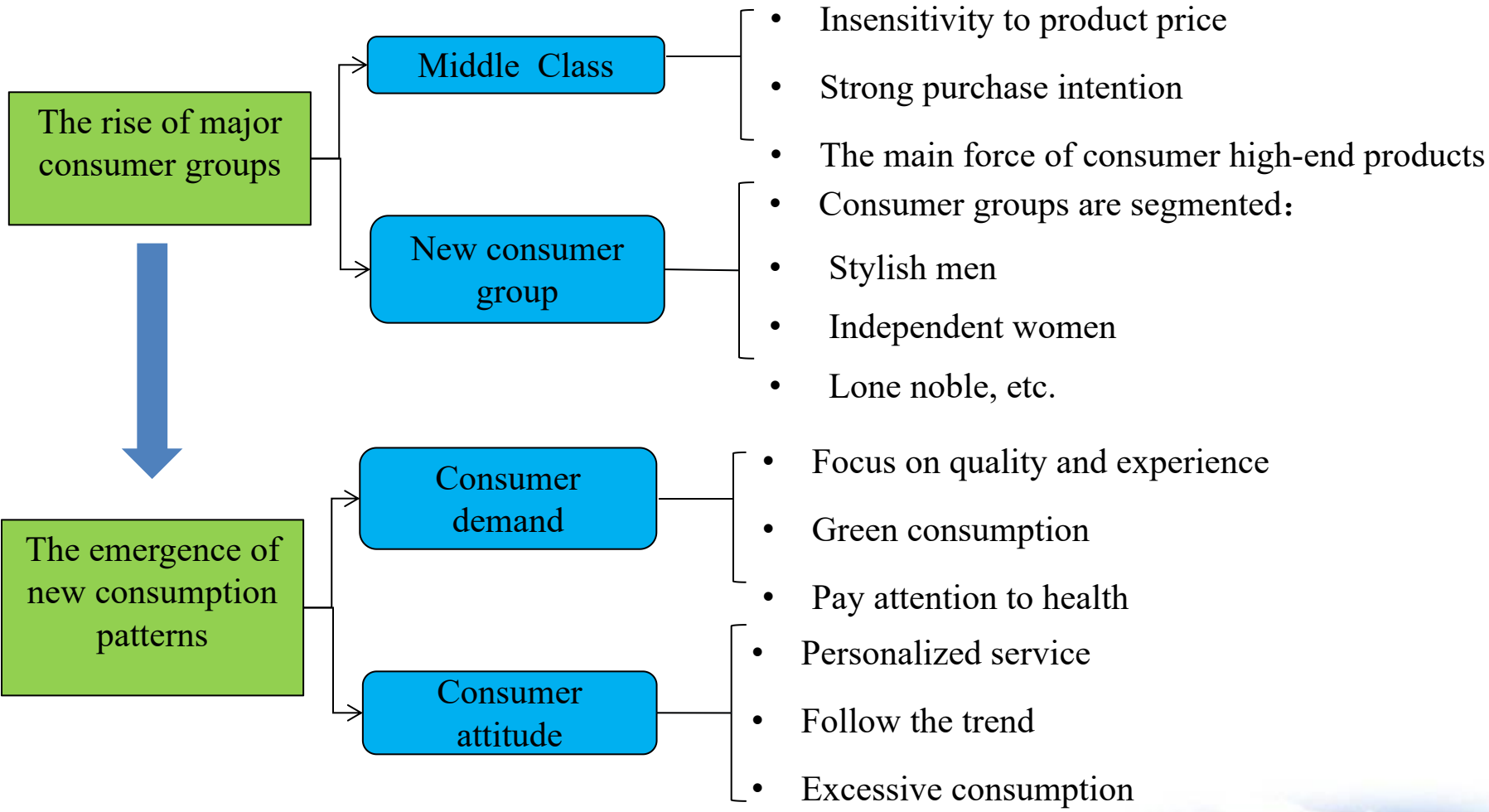


Figure 12. Per capita disposable income of Chinese households, 2013-2018





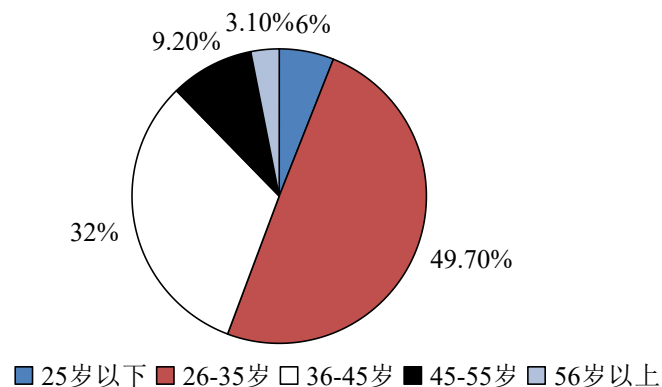


FIG. 13 Age distribution of Fresh e-commerce users in China in 2021

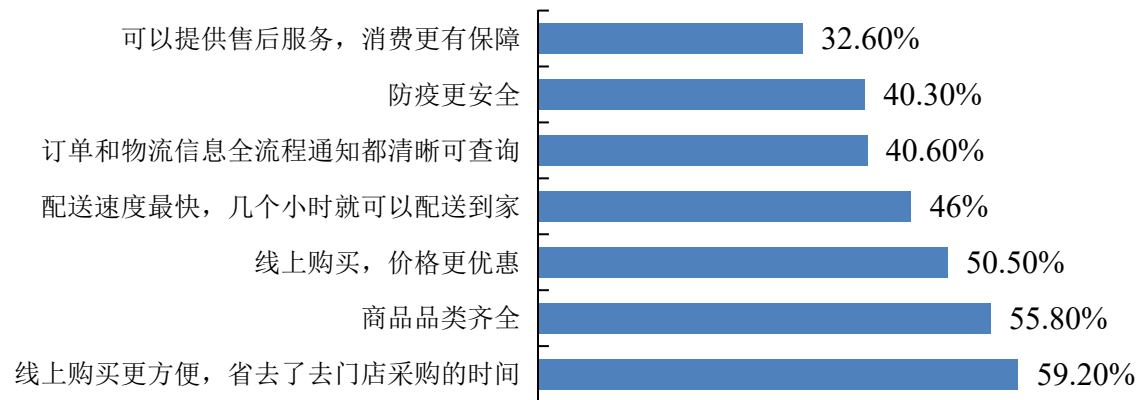


FIG. 14 Reasons for fresh online purchase by post-80s and post-90s fresh e-commerce users in China in 2021

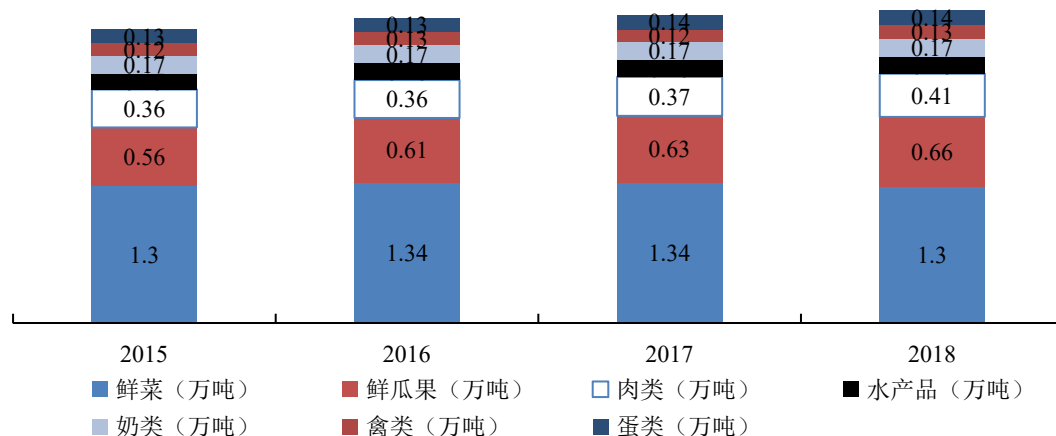



Figure 15 Fresh food consumption of Chinese residents from 2015 to 2019

➤ At present, China's post-80s to post-00s population exceeds 600 million, accounting for 45.6% of the total population.







Nanjing Agricultural University

南京農業大學


Driving Factors of Fresh Food E-commerce-Technology




Cloud Computing



Internet of Things




Mobile Payment



微信支付

VS



支付宝

- Analyze user data
- Insight into consumer demand
- Supply chain upgrade


- Online and offline integration
- Store Location Reference
- Logistics efficiency improvement

- Face recognition
- Collecting consumer data

- Operational efficiency improvement
- Personalized recommendation

- Alipay
- WeChat pay
- Unionpay cloud flash payment

- Unmanned Supermarket
- Payment process optimization



誠朴勤仁



Driving Factors of Fresh Food E-commerce-Technology



Case Sharing of Fresh Food E-commerce



Operation mode of Fresh Food E-commerce in China

Pattern Classificati on	Characteristic	Representative Company	Operation Plan
C2C	Low entry cost and poor customer stickiness.	WeChat, Pinduoduo, Taobao, Tik Tok, etc.	Farmers directly open online sales channels and directly sale to consumers.
Vertical platform class	Quality control is high and customer experience is good, but the cost is too high.	Missfresh, Original Life, Fruit Day, etc.	B2C is the main mode, followed by B2B mode of providing services for dealers, F2C mode of direct sales between manufacturers and farms to consumers and mixed mode .
O2O	Community connection, low attrition rate, but weak management and supervision.	Meituan, Dingdong, JD Daojia, etc.	Sell fresh food in cooperative supermarkets and convenience stores; Establish sites in the communities and deliver goods from the front warehouse; Integration of community supermarkets and convenience stores.
Comprehensive platform class	Product variety, low quality control.	Suning Fresh, TMall Fresh, JD Fresh, etc.	Utilize the point-to-point mode of traditional online shopping, implement the mode of combining the third-party merchants' settlement and platform self-operation.





Case Sharing of Fresh E-commerce

Retail electricity

Near field electricity

Far field electricity

Near field community electricity

Instant retail electricity

Shelves electricity

Content electricity

Community group buying

Platform model

Proprietary model

Fresh retail

Super online proprietary



Customer to Consumer (C2C) Case Live Stream Commerce



- Since 2020, the number of online live broadcast users in China has reached 550 million, and the growth rate of users exceeded 9.2%.
- From news anchors, stars, Internet celebrities to leading cadres, and even farmers, they have participated in Live Commerce.
- In the first quarter of 2020, for example, there were more than 4 million live broadcasts related to agricultural products on major e-commerce platforms, and more than 100 county heads walked into the live broadcast room to "endorse" local agricultural products.

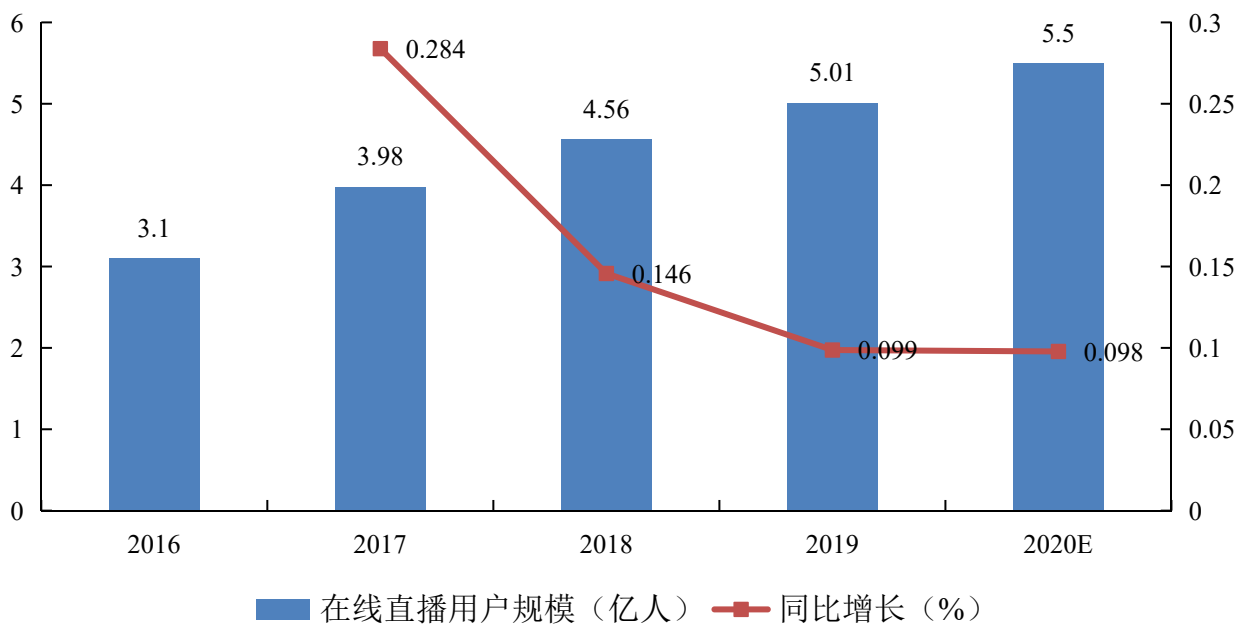


Figure 16 Scale and forecast of Online live broadcast users in China from 2016 to 2020



C2C Case-Live Stream Commerce





C2C Case-Live Stream Commerce



- In March of this year, Tao Guanghong, the county magistrate of Dangshan County, Suzhou City, Anhui Province, walked into the live broadcast room to introduce the history, unique natural growing environment and different eating methods of Dangshan pear to platform consumers.
- During the event, 600,000 consumers poured into the live broadcast room, and the store's sales volume reached more than 27,000 orders that day, selling nearly 140,000 kilograms of Dangshan pears.
- At present, there are 1,370 e-commerce enterprises in Dangshan, with more than 50,000 online stores and Wechat business. A large number of well-known e-commerce brands such as Taoruyi, Fresh Fruit Time, Aofei, Longruntang and Liduobao have emerged, driving more than 100,000 people to engage in e-commerce and other related industries.
- In 2019, the online sales of agricultural products reached 4.356 billion yuan. Dangshan County becomes a well-known e-commerce county in China.



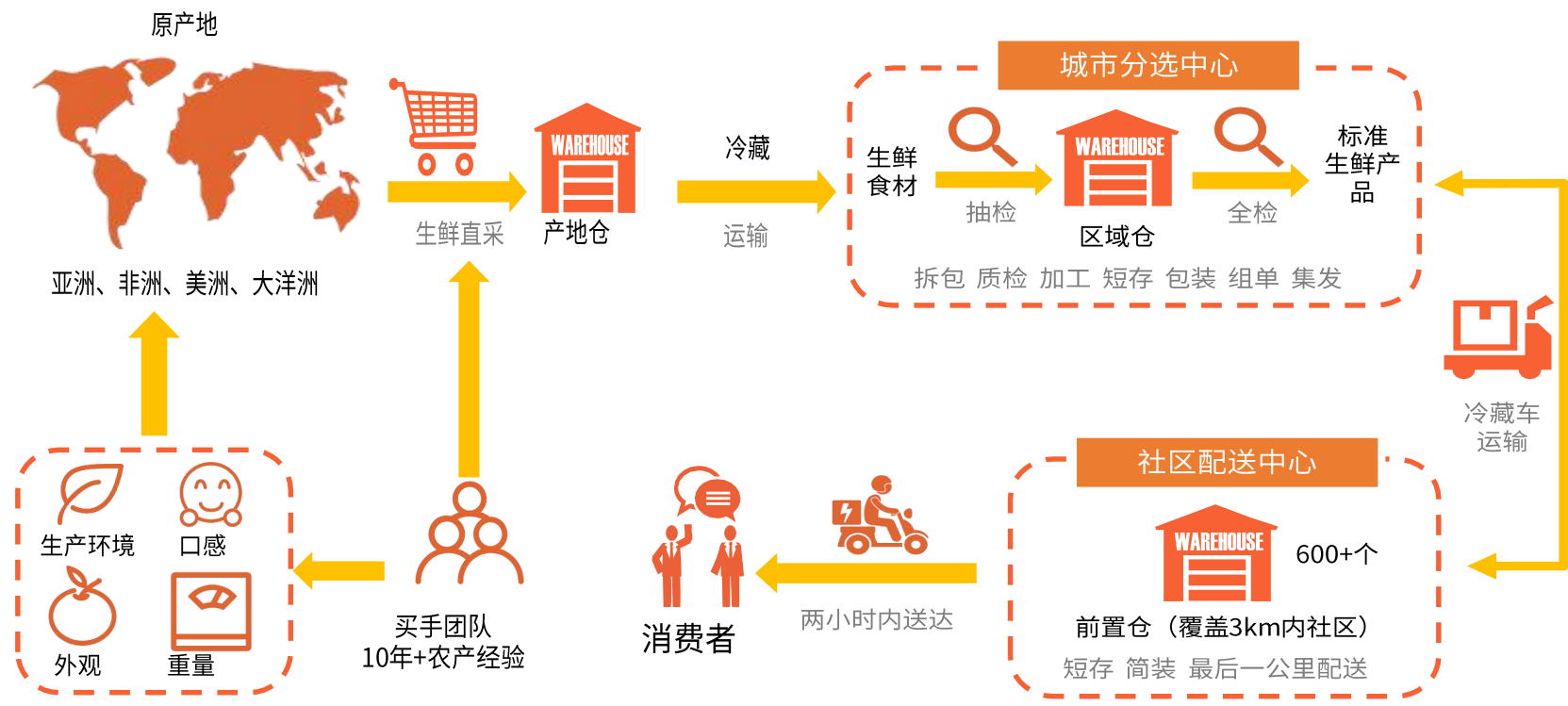
Vertical E-commerce Case-Missfresh




➤ Missfresh, affiliated to Beijing Youxian E-commerce Co.,Ltd., focuses on high-quality fresh mobile e-commerce. It has established more than 150 community distribution centers in 8 cities across the country, ensuring that the sites radiate to users within 3 kilometers. All the distribution processes are completed by its own personnel, and it promises to deliver goods to the customers within 2 hours.



➤ **Community pre-warehouse mode:** "2-hour fast delivery" meets the needs of consumers in the top ten core cities in China.





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Vertical E-commerce Case-

Missfresh

➤ Membership system:


✓ Members' privileges are mainly reflected in the preferential price of goods and the shortened delivery time.

✓ Users are attracted to register members due to a lower price of CNY8 per month or CNY30 per year, which satisfies the psychology of users who want to obtain differentiated services at low cost.

✓ Maintain high customer stickiness and 80% repurchase rate.

Table 3. Comparison of daily rights and interests of excellent fresh members and non-members

Project	Member	Non-member
Price of commodities	Most products have discounts, the lowest discount can be up to 50% of the normal selling price, and the gross profit margin of the promised exclusive products is 13.9%.	normal price
Distribution timeliness	1 hour extremely fast delivery	2-hour delivery
Cash back	Cash back 5% of every order	no
After-sales service	3-hour speed refund	48 hours treatment



Online to Offline (O2O) Case Community Group Buying



➤ **Community group purchase is an online and offline consumption behavior of residents' groups in residential communities. And it is a regionalized, niche, localized and networked group purchase form relying on real communities.**

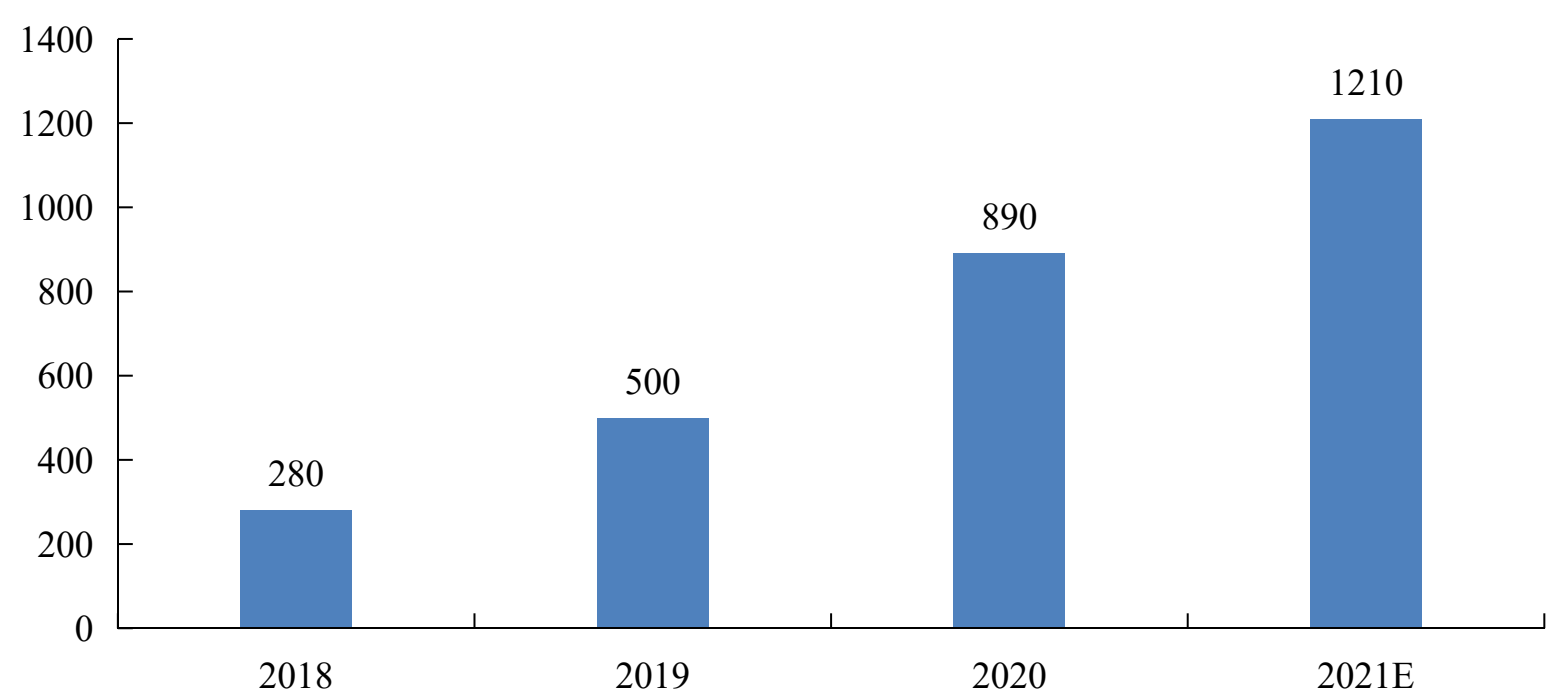
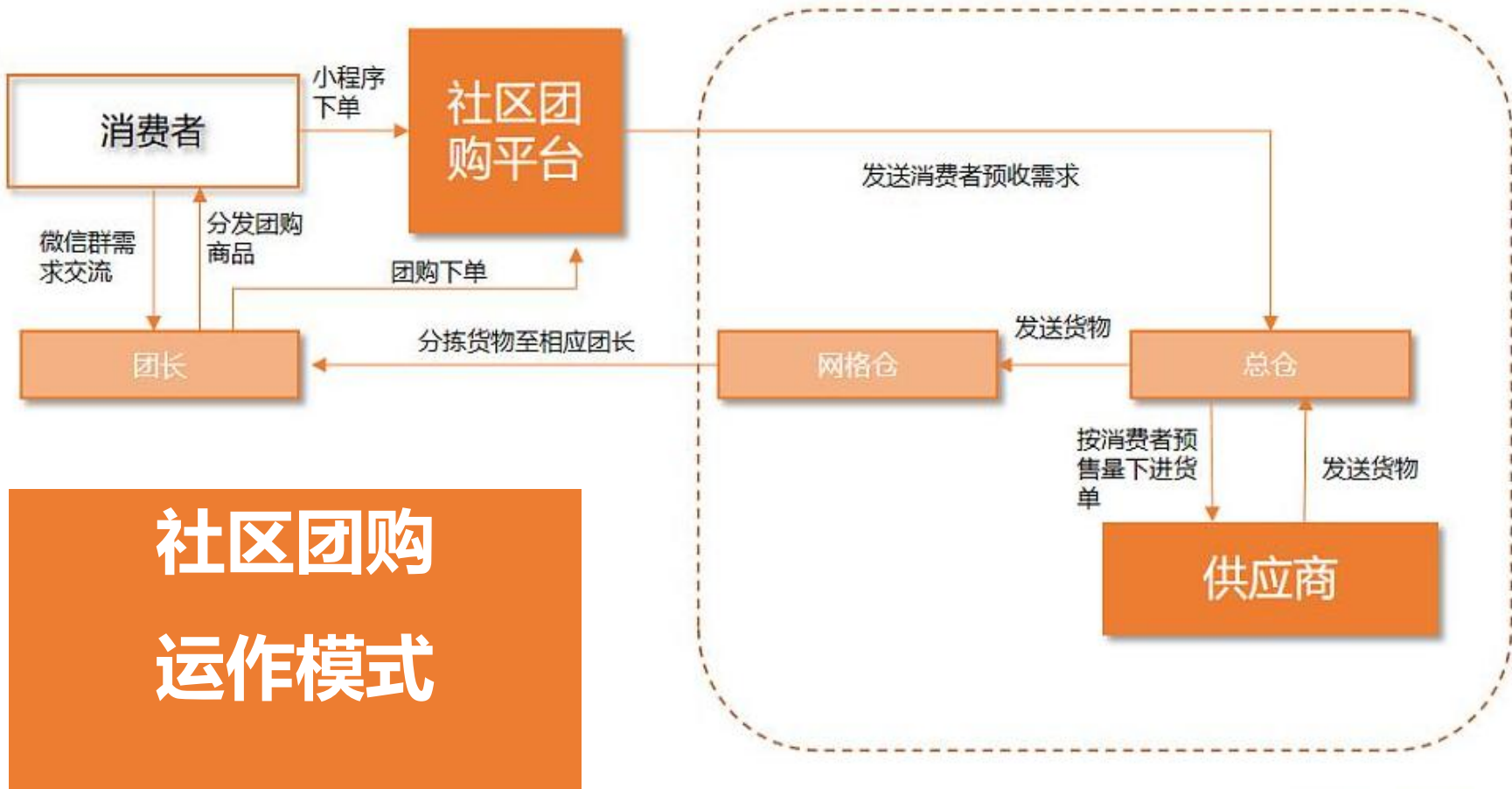


Figure 17 2018-2021 Market size of community Group purchase (100 million Yuan)

Source: Prospective Industry Research Institute





Category	Community E-commerce Channel	Traditional Distribution Channel
marketing cost	Less intermediate links and low cost	High marketing cost
Efficiency	Higher	Lower
Convenience degree	High degree of convenience	Low degree of convenience
Material flow (the process of transferring agricultural products from producers to consumers)	Most of them build their own logistics systems or cooperate with logistics companies for transportation.	Transportation by middlemen at all levels
Time spent on purchasing	Generally, the next day , the order placed before 23: 00 or 22: 00 on the first day will be delivered before 11: 00 the next morning (211 mode).	Buy it as soon as possible, and spend less time.
Consumer group	People who know how to use smart phones	There is no limit, the elderly generally only choose this channel.
Consumer trust	What you see is not necessarily what you get, Like opening a "blind box"	What you see is what you get. Buy at ease.
Transportation and sales loss	Relatively lower	The annual loss is 300 billion .





O2O Case-Community Group Buying—MMC

Consumer Management: Multiple Entry Points with Various Shopping Scenarios

运营力：线上多端多场景

Entry Points

Taobao App



Taobao Deals App



Mini Program



Shopping Scenarios

Community Shopping Group



Livestreaming



Social Commerce Channel Development & Operations: Multi-format Services for Local Communities

渠道力：线下多业态服务社区

Store Owner
Pick-up Points

560 K

Stores⁽¹⁾

Integrated Operation of Community Group
and Physical Store



Synergy with
Cainiao Posts

45 K+

Posts within Taocaicai Service Areas⁽²⁾

Upgrade from Parcel Pick-up Service Providers to
Social Commerce Group Leaders



Coverage of
Counties and Townships

40%

Taocaicai Penetration Rate⁽³⁾

Enhanced Integration of Logistics & Commerce by
Leveraging Cainiao Capabilities in Rural Areas

Cainiao Rural

Local Service
Providers

Community Group
Leaders



Product & Supply Chain: High Quality, Rich Assortment

商品力：更好更丰富

Non-perishables

Taobao Deals:
Value-for-money
Merchandise



Daily Household
Necessities



Sun Art: Synergy in Procurement and Supply



~1.6 K

Brands in joint
Procurement Program⁽¹⁾



3.5 K+

Private-label
Products⁽²⁾



FMCG, Packaged Food ...

40+

Regional Procurement
Teams⁽³⁾



Third-party
Procurement

Localized by Region

City-specific Assortment

Competitive Bidding





O2O Case-Community Group Buying—MMC

Product & Supply Chain: High Quality, Rich Assortment

商品力：更好更丰富

🚲 Perishables

Direct Procurement from Farms:
7 Years of Experience

700+

Agricultural Bases⁽¹⁾

Shaanxi Apple



Sichuan Kiwi



Yunnan Orange



Shandong Apple



Aiyuan Orange



Sun Art: Co-operated Perishables Processing Centers (PPC)



PPC for Each
Distribution Center



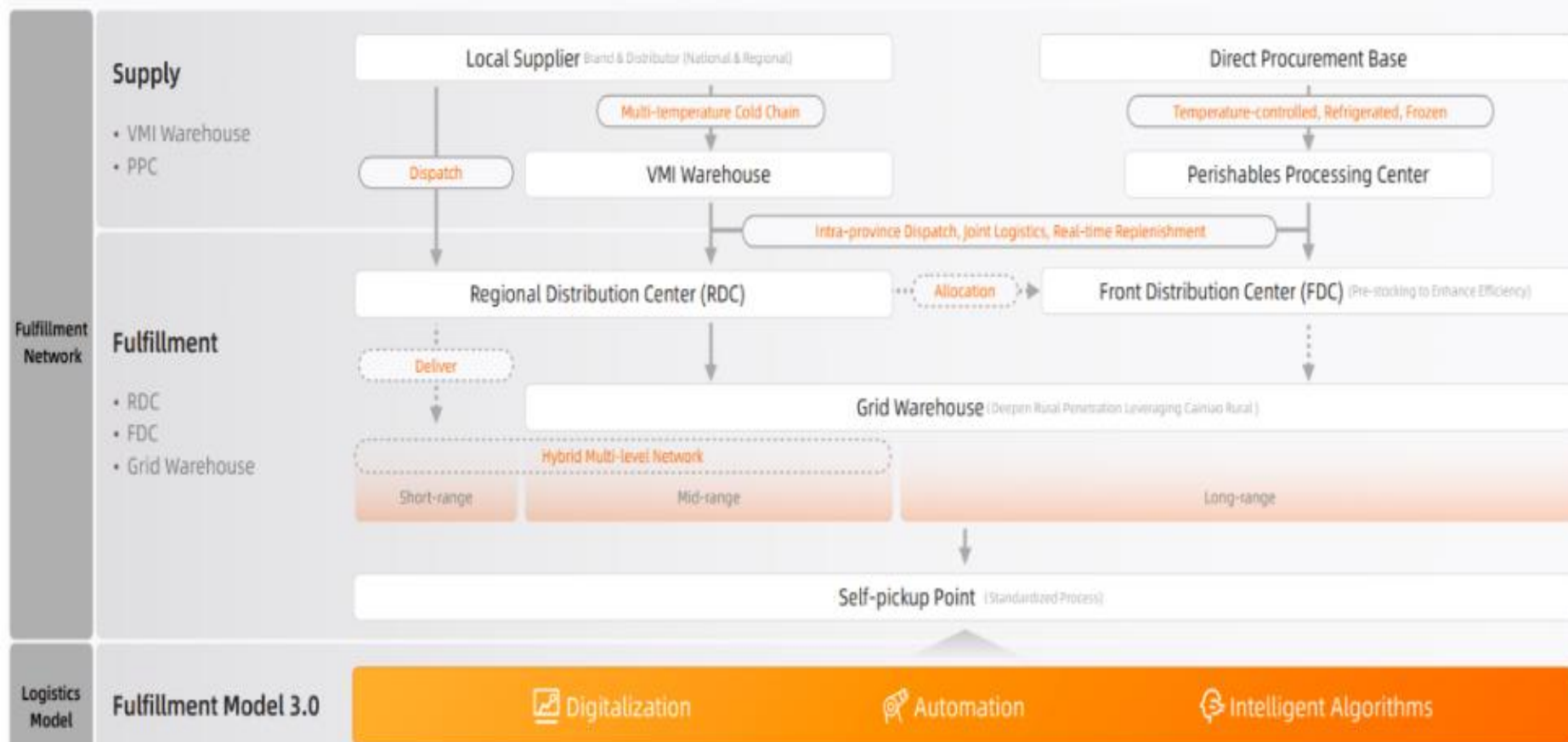
Digitalized & Automated
Freshness Preservation
Technology



Automated Grading &
Sorting Lines for Fruits &
Vegetables

Fulfillment & Delivery: Effective, Efficient, Reliable

履约力：高效、准时、可靠



Continuous Upgrade of Fulfillment Infrastructure

履约基础设施持续升级

Integrated Inbound and Outbound Fulfillment Network for Rural Areas



First-mile: Warehouse Operation

Automated Sorting, Processing, Conveying
→ Reduce Cost & Enhance Efficiency



Last-mile: Fulfillment

Shared Warehouse & Delivery Resources,
Serving County, Township & Village Levels
→ Deeper Coverage

Comprehensive Platform Case- FRESHIPPO





Comprehensive Platform Case-FRESHIPPO

- **FRESHIPPO** is a new online and offline integration retail format supported by big data, which is completely reconstructed by Alibaba for offline supermarkets. It mainly sells fresh products.
- At present, **FRESHIPPO** has opened 152 offline stores nationwide, covering 22 cities including Beijing, Guangzhou and Shanghai. Its customers are mainly employees of companies and institutions between 30 and 40 years old.



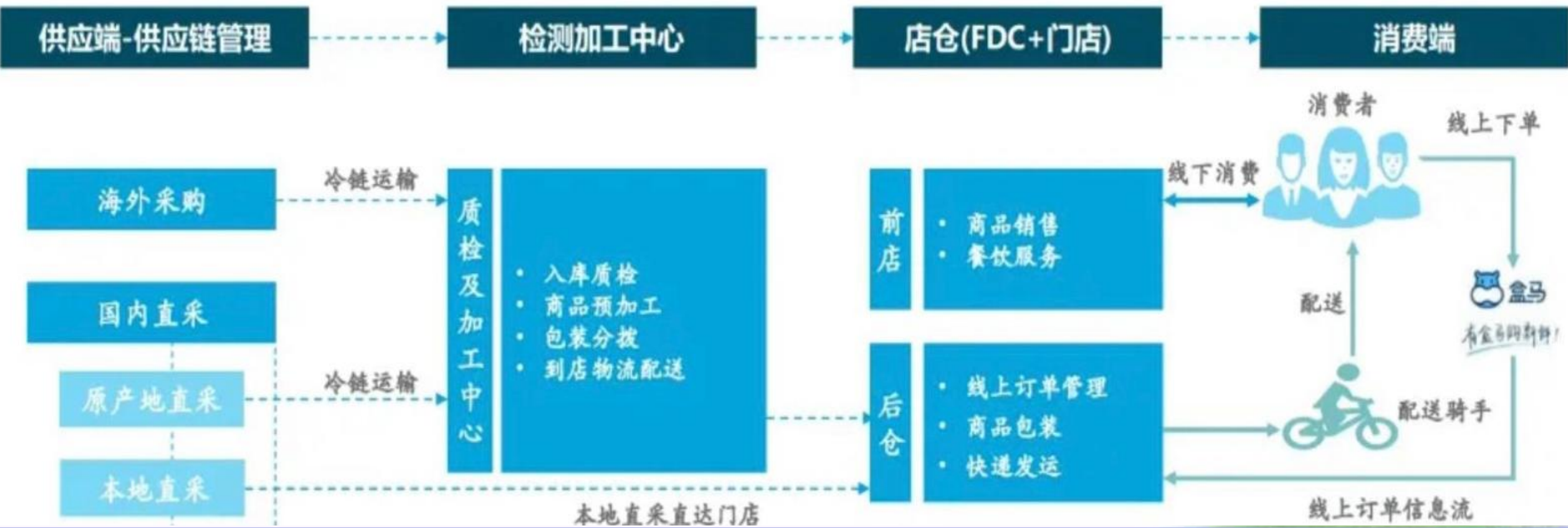
“仓店一体化” 模式



“线上线下一体化” 模式



“餐饮销售一体化” 模式



➤ **"Online and offline integration"**

- ✓ Guide consumers to order online and experience offline. And realize the closed-loop consumption mode of two-line flow integration.
- ✓ Adopt electronic price tag to realize unified online and offline management.



Hema APP installation guide



Scan QR code



Online ordering





Comprehensive Platform Case-FRESHIPPO

➤ "Integration of warehouse and store"



- ✓ The warehouse is the store, and the store is the warehouse.
- ✓ Full-automatic suspension chain logistics system
- ✓ 30 minutes full temperature layer refrigerated delivery





Comprehensive Platform Case-FRESHIPPO

➤ "Integration of catering and sales"

- ✓ Combine supermarkets with restaurants and introduce 3R industry (Ready to cook, Ready to heat, Ready to eat). Through the pretreatment and pre-packaging of food materials, consumers can cook, heat or eat immediately after purchasing the goods.
- ✓ Seafood, beef, etc. purchased by customers can be processed on the spot, which realizes the "from shelf to table" of ingredients.
- ✓ A special department-3R Commodity Center was set up, which made a second innovation on the goods of Freshippo.

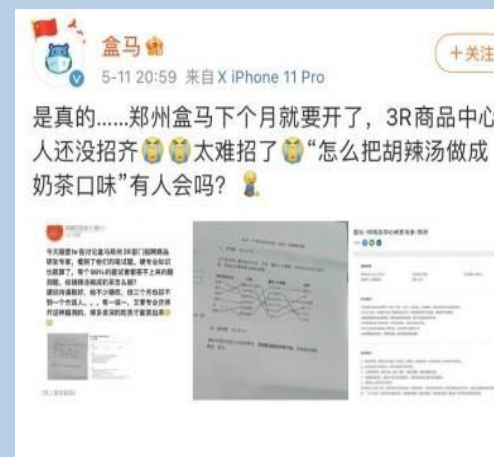
Expand profit margin with freshness

Reengineering products to gain independent pricing power



Enhance brand quality with fun

Challenge the traditional food taste innovation, maintain brand popularity



Development Challenge of Fresh E-commerce





Development Challenge

- Rapid expansion, serious homogenization, blind "price war" and vicious competition.

Fresh e-commerce companies such as Fresh Life, Wonderful Life, Jiji Fresh, etc. are expanding too fast, resulting in follow-up problems such as overall operation, product quality, user experience, after-sales service, etc. And the supply chain can't keep up in time which accelerate the fall of the companies.



2019 年农产品电商关闭一览表

时间	企业	事件
2019-3	顺丰优选	关闭了上海、武汉、青岛、成都等一些城市门店
2019-4	小象生鲜	关闭无锡、常州两地门店，仅留北京门店
2019-5	盒马鲜生	首次关店
2019-7	安鲜达	裁员、拖欠员工工资
2019-7	鲜生友请	涉嫌非法吸收公众存款
2019-9	爱鲜蜂	高损耗、低毛利
2019-10	迷你生鲜	经营不善、上期亏损、暂停运营
2019-11	鲜来多	京东撤资、资金链断裂
2019-11	妙生活	关闭上海 80 家门店
2019-11	呆萝卜	资金链断裂，关店，2019 年 12 月 9 日宣布恢复运营
2019-12	易果生鲜	拖欠 1400 万债务，被法院列为执行人
2019-12	吉及鲜	融资失败，规模盈利远远达不到预期，大规模裁员、关仓



➤ It is difficult to keep food fresh. The logistics, packaging and distribution can't keep up.

Compared with the traditional e-commerce logistics, the specialty of fresh logistics is relatively prominent. The production, storage, transportation, sales and other environmental requirements of the whole supply chain are relatively high. However, the current fresh-keeping, refrigerated transport carriers and the whole logistics system are not perfect.



➤ regional development difference

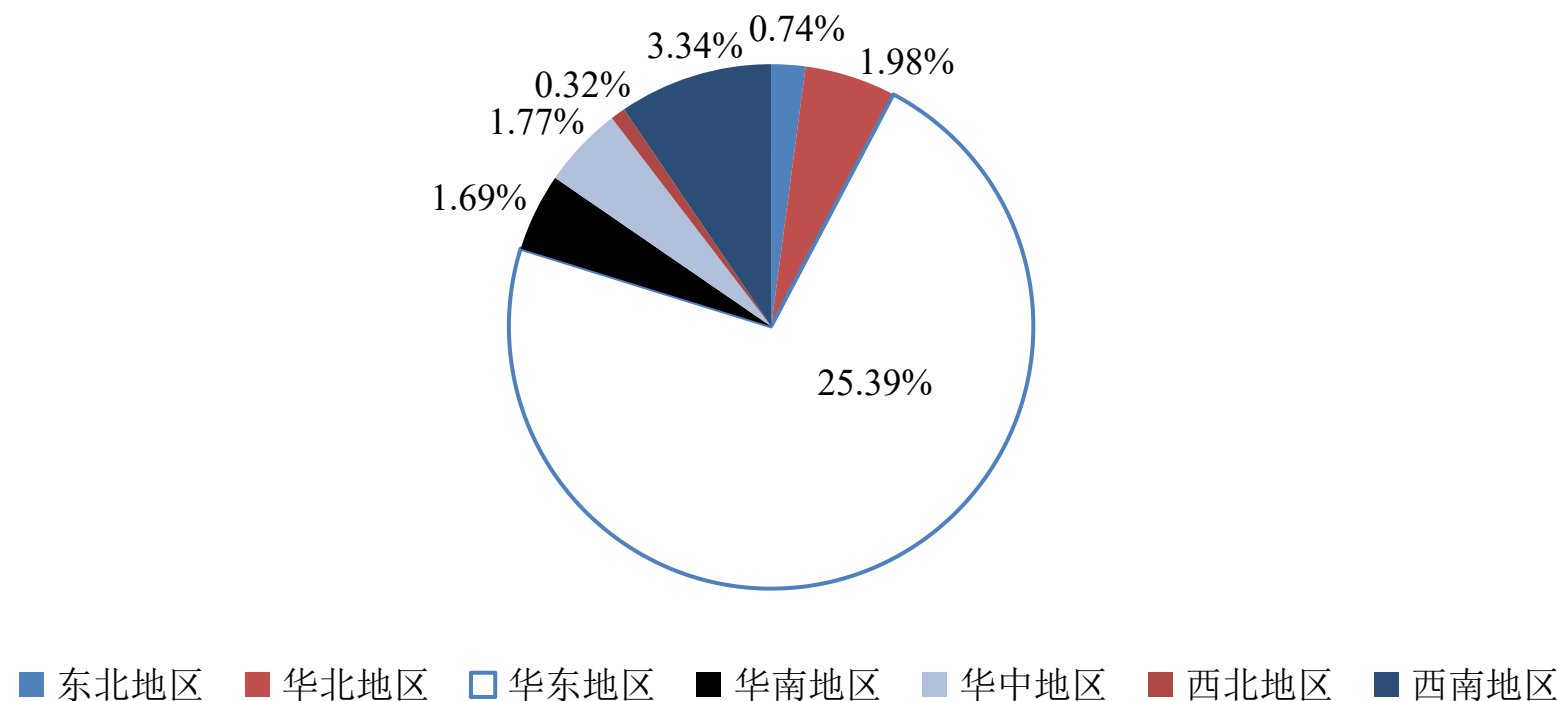


Figure 18 Regional distribution of online retail sales of agricultural products in TOP100 counties in 2019

Source: Prospective Industry Research Institute

