DOI: https://doi.org/10.61841/06ctyh91 Publication URL: https://nnpub.org/index.php/BMA/article/view/2542

AN EMPIRICAL RESEARCH OF CONSUMER EXPERIENCES OF FRESH-PRODUCT E-COMMERCE PLATFORMS: BASED ON TIME, CONVENIENCE AND PERCEIVED PRICE, EXEMPLIFIED BY COMMUNITY GROUP SHOPPING

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To Cite This Article: Sun, S., & Sun, A. (2025). AN EMPIRICAL RESEARCH OF CONSUMER EXPERIENCES OF FRESH-PRODUCT E-COMMERCE PLATFORMS: BASED ON TIME, CONVENIENCE AND PERCEIVED PRICE, EXEMPLIFIED BY COMMUNITY GROUP SHOPPING. Journal of Advance Research in Business, Management and Accounting (ISSN: 2456-3544), 11(1), 1-13. https://doi.org/10.61841/06ctyh91

ABSTRACT

This paper examines the consumer experiences of representative E-commerce platforms for fresh products and groceries in mainland China using the framework of the nine factors of business activities. The paper breaks down the analysis into three major attributes of consumer experiences: waiting time, convenience and perceived price level, which isolate the specific factors that affect consumer behaviour and, hence, the channels in which E-commerce managers could engage to improve their performances. This paper summarises the consumer experience by conducting anonymised large-scale online questionnaires and analyses the empirical data using descriptive statistics. The paper has spotted the shortcomings and inefficiencies in the operation of these e-commerce platforms and proposed targeted optimisation strategies to improve consumer experiences based on the empirical evidence and justified their feasibility. This paper aims to benefit both sides of the online grocery market by delivering more affordable prices and greater satisfaction to consumers and improved brand loyalty and core competitiveness to the E-commerce companies.

Keywords: *Online grocery shopping, Community group shopping, Fresh-product e-commerce, Consumer experience, Business model optimisation.*

INTRODUCTION

BACKGROUND OF CHINESE FRESH PRODUCT E-COMMERCE

E-commerce has been the inevitable trend to replace bottle-necked traditional retailing in China, given the rapid development of big data and Internet applications and the diminishing comparative advantage of its large population. E-commerce has proven its convenience, trustworthy quality and affordability to consumers and started to become the first choice of shopping for thousands of households. However, the conventional e-commerce industry also faces the challenge from the continuous iterations of e-commerce mode, and, finally, social e-commerce emerged as one of the most competent challengers in the retail market.

Social e-commerce is a new type of e-commerce based on social networks, primarily facilitated by social media traffic. In addition to conventional e-commerce features, social E-commerce integrates social media and mobile payments. To some extent, it alleviates a major difficulty in e-commerce: the problem of trust. Consumers can now share their shopping experience within their social network, thus generating new traffic and causing a proliferation of user base. After 2018, social e-commerce entered a full development phase following social networks' universal popularity in China. Given this new context of the retail market, a new subgenre of social E-commerce, community group shopping, has emerged with community residents as the main consumer group characterised by regional and localised social networks, which transfer real-life social connections to online shopping communities.

During the unprecedented event of the COVID-19 pandemic, social e-commerce, especially community group shopping, played an irreplaceable role in guaranteeing basic grocery supply with its unique advantages. It mainly relies on the popularity of third-party software platforms and traditional community business clusters, which first appeared in 2016 and quickly popularised countrywide. In recent years, community group shopping has built up a substantial user base for fresh food groceries. As a result, tech giants like Alibaba, Meituan, Jingdong, and Pinduoduo have also constructed their community group shopping platforms through their corporate advantages of unified management hierarchy, cost-effective logistics and mature network infrastructure. These community group-buying platforms take vegetables and fruits, rice, flour, oil, meat, aquatic products, daily groceries and other commodities as the main sales categories, based on convenience stores near local communities, advertise through social network groups, and provide services to users with the workflow of ‘pre-ordering and integrating orders + unified procurement + self-pickup.”

The COVID-19 pandemic has become a major turning point for many consumers to switch to e-commerce platforms to purchase fresh food and groceries. Combined with the existing user base of online shopping, it has accelerated the exposure of fresh product E-commerce platforms to more consumers. Since then, fresh food e-commerce, especially community group shopping, has also ushered in exponential growth. As of March 2023, there were a total of 285 community group shopping e-commerce platforms in mainland China. Though benefiting consumers with convenience and affordability, this exponential growth of the community group shopping market has also given rise to intense competition among platforms to compete for market share. Moreover, the entrance of tech giants significantly shrank the space for SMEs and individual community shopping platforms, given their existing problems in management, for example, recruitment for shopping group leaders, quality control, warehousing and logistics.

PURPOSE AND SIGNIFICANCE

This research focuses on exploring consumer experiences with fresh-product e-commerce platforms, specifically examining the aspects of time, convenience, and perceived price, using community group shopping as a representative example. The rapid growth of community group shopping has introduced a new, highly competitive landscape within the e-commerce industry, particularly in the fresh-product segment. Although existing studies on e-commerce are extensive, there is limited research specifically addressing consumer perceptions of time efficiency, shopping convenience, and price expectations within this emerging shopping model.

Moreover, this paper aims to identify the problems that exist in the management and marketing processes of fresh-product e-commerce, as exemplified by community group shopping. By leveraging large-scale consumer census data gathered through questionnaires, the study seeks to diagnose existing inefficiencies and challenges. Based on these empirical findings, the research will propose feasible optimisation strategies to improve platform performance and enhance consumer satisfaction. These insights are expected to guide e-commerce platforms in refining their offerings, thereby gaining a competitive edge in an increasingly dynamic market.

LITERATURE REVIEW

COMMUNITY GROUP SHOPPING

Community group shopping, alongside the rapid development of China's e-commerce sector, has entered a phase of accelerated growth. This business model, which primarily focuses on the sale of fresh products, is driven by factors such as the rise of rural E-commerce, the widespread adoption of information technology, advancements in logistics and express delivery, shifts in consumer demographics, the growing use of WeChat mini-programs, the impact of the COVID-19 pandemic, and the overall maturation of industry conditions. As a result, traditional e-commerce is now transitioning into the realm of social e-commerce.

According to Li (2021), social e-commerce is a new type of e-commerce model first introduced by Yahoo. It differs from traditional e-commerce by leveraging social networks for dissemination and promotion. Community group shopping is a prime example of this social e-commerce model. Using the platform DuoDuo Grocery as a case study, Chen (2022) identified internal and external pressures faced by the platform and proposed optimisation strategies, such as improving the quality of group leaders, enhancing supply chains, and creating customer profiles. Additionally, Zheng and Liu (2020) offered recommendations and countermeasures for the development of community group shopping, while Wang and An (2022) proposed practical suggestions for the future expansion of fresh-product community group shopping.

Currently, the domestic e-commerce model is still evolving through continuous experimentation and testing, and this exploration will continue into the foreseeable future. In the simultaneous development of social and traditional e-commerce, social e-commerce companies must strive to understand consumer needs and habits, ensuring effective communication with customers. This approach helps reduce marketing costs, deepens engagement with potential customers, and strengthens the loyalty of existing ones.

REVIEW OF CHINESE E-COMMERCE

Shen et al. (2023) emphasised that community e-commerce is a crucial segment of the e-commerce industry, playing an indispensable role in both community and broader commodity markets. Zuo (2023) highlighted that public health emergencies have further accelerated the growth of community e-commerce. Gao (2022) argued that competition within community e-commerce is fundamentally a competition of supply chains. The value of the supply chain extends beyond simply providing goods—it also includes offering quality service, which is essential for enhancing competitiveness in the supply chain environment.

Que and Hu (2022) proposed six strategies for the sustainable and innovative development of community e-commerce, including recognising market opportunities, optimising customer relationships, improving supplier quality, and enhancing shop services. Lu (2022) suggested a synergistic approach between fresh agricultural products and community e-commerce, utilising information technology to boost revenue and management efficiency. Liu (2022) pointed out that online shopping carries more risks and uncertainties compared to offline shopping, leading consumers to adopt a "follow-the-crowd" mentality to mitigate information asymmetry.

Liu (2022) observed a year-on-year increase in community e-commerce transaction volumes and suggested that the “community + shop” model represents a future trend for the sector. By examining consumer preferences across five dimensions—perception, satisfaction, e-commerce platforms, market environment, and personal characteristics—researchers aim to propose targeted improvement measures and marketing strategies. Yang (2022) noted that community e-commerce addresses the everyday consumption needs of residents through a "pre-sale online + self-pickup offline" model, ensuring demand-driven production. This model integrates online, offline, and community channels, using geographic relationships to support customer relationship management. The use of mini-programs further bridges the gap between social engagement and e-commerce, facilitating precise marketing and achieving win-win outcomes.

Xia and Liu (2021) argued that the rapid development of network technologies in the real economy has led to the widespread integration of new technologies with traditional business models. This integration is reshaping economic production relationships and social life. Particularly after the COVID-19 pandemic in 2020, fresh-product e-commerce and community group shopping have seen rapid growth, becoming new choices for daily consumption and new forms of community economies.

Xu (2021) proposed analysing the components of a community e-commerce omnichannel business model from nine aspects, including value propositions, key operations, core resources, partnerships, customer relationships, and channel pathways. By leveraging big data analytics, platforms can better connect with business partners and target customers. Establishing smooth channels through precise selection and integration of online and offline operations can ultimately fulfil the value propositions of retailers.

In summary**,** the existing research in this field is extensive, with numerous scholars providing foundational theories and practical insights into community group shopping and community e-commerce. Building on this foundation, this paper takes a practical perspective by analysing specific cases to understand the current state of community group shopping and e-commerce. It identifies both strengths and weaknesses and proposes optimisation strategies that can serve as references for the operation and marketing strategies of community group shopping platforms and community e-commerce businesses. This research aims to enrich the study of community group shopping platforms’ marketing strategies and support their sustainable development.

In the following content of this paper, section 2 provides an overview concept definition of the subject matter and the theoretical foundation. It introduces the marketing environment analysis tool to be used in this study—the Business Model Canvas—thereby establishing a theoretical basis for the research. In section 3, we will explain the methodology used in this paper. Section 4 is based on data collected through a questionnaire focused on various aspects such as consumer demographics, daily shopping behaviours, usage patterns of online shopping apps/mini-programs, customer satisfaction, and suggestions for improvement. The survey explores consumers' preferences for traditional retail, fresh food E-commerce, and other online shopping apps/mini-programs, examining the reasons for their choices and gathering other key insights. This analysis aims to identify the current marketing situation of fresh-product e-commerce platforms and highlight existing challenges, providing a foundation for proposing effective optimisation strategies. Section 5 concludes the research, summarising the findings and presenting recommendations. It proposes strategies for optimising marketing efforts on fresh-product e-commerce platforms, along with specific measures to ensure the effective implementation of these strategies.

CONCEPT DEFINITION AND THEORETICAL FOUNDATION

CONCEPT DEFINITIONS

COMMUNITY GROUP BUYING

Community group buying is a distinctive e-commerce model that leverages social networks to drive bulk purchases among consumers within the same neighbourhood or community. This model is characterised by its highly localised approach, focusing on small, geographically concentrated groups to optimise both pricing and delivery logistics. Unlike traditional e-commerce, which primarily relies on individual purchases and home deliveries, community group buying integrates elements of both online convenience and offline community interaction.

The process typically begins with consumers placing orders through digital platforms like mobile apps or social media groups, often coordinated by a local representative known as the "group leader." These group leaders play a pivotal role by organising orders, liaising with suppliers, and coordinating deliveries to designated pick-up points within the community. By centralising the procurement process, community group buying platforms negotiate better prices directly with suppliers, allowing consumers to enjoy significant discounts. This bulk purchasing approach not only reduces costs but also minimises waste and optimises logistics.

Moreover, the community group buying model enhances consumer engagement by fostering a sense of community. Group leaders often trusted members of the neighbourhood, facilitate communication, promote products, and handle customer service. This personal touch differentiates community group buying from conventional e-commerce, creating a more socially interactive and trust-based shopping experience. The model gained significant traction during the COVID-19 pandemic, as it offered a safe, efficient, and socially connected way for people to procure essential goods while maintaining social distancing.

The advantages of community group buying include cost savings, faster delivery due to localised distribution, and the ability to cater to specific community preferences. However, it also presents challenges, such as the need for efficient supply chain management, the dependency on group leaders, and the potential for quality control issues due to bulk purchasing. Nonetheless, with the growing adoption of digital technologies and mobile payment systems, community group buying is becoming an increasingly popular model in urban and semi-urban areas, transforming the way consumers purchase fresh products.

COMMUNITY E-COMMERCE

Community e-commerce is an innovative blend of traditional commerce and digital technology aimed at leveraging offline community networks to drive online sales. This model utilises internet platforms to connect consumers with local suppliers, bridging the gap between the digital and physical worlds. Unlike conventional e-commerce, which primarily focuses on nationwide or global markets, community e-commerce emphasises hyper-localization by targeting consumers within specific neighbourhoods or communities.

At its core, community e-commerce builds on the principles of social engagement, using platforms like WeChat, social media groups, and dedicated apps to create a seamless shopping experience. It enables consumers to browse products, place orders, and interact with sellers or fellow buyers in real-time, enhancing the sense of community. The model relies heavily on social networks for marketing, leveraging word-of-mouth promotion and user-generated content to build trust and drive sales.

The key advantage of community e-commerce is its ability to combine the convenience of online shopping with the familiarity of local markets. By catering to the specific needs and preferences of local consumers, it fosters customer loyalty and repeat purchases. For instance, community e-commerce platforms often focus on delivering fresh products, leveraging the proximity to consumers to ensure faster delivery times and fresher produce compared to conventional e-commerce platforms.

Moreover, the integration of offline pick-up points and flexible delivery options further enhances the customer experience. Consumers can choose to pick up their orders from nearby collection points, reducing the costs and inefficiencies associated with last-mile delivery. This flexibility is particularly appealing in densely populated urban areas, where consumers value both convenience and speed.

However, community e-commerce also faces challenges, such as managing inventory for localised demand, ensuring product quality, and maintaining a high level of customer service in a decentralised system. As the model evolves, companies are investing in technologies such as AI and big data analytics to better understand consumer behaviour, optimise inventory management, and personalise the shopping experience.

THE BUSINESS MODEL CANVAS

To analyse the business models of fresh-product e-commerce platforms, this study employs the Business Model Canvas (BMC) developed by Alexander Osterwalder and Yves Pigneur. The BMC is a strategic tool that helps businesses visualise, analyse, and optimise their models by breaking them down into nine interconnected components. These components are designed to provide a comprehensive overview of how a business creates, delivers, and captures value. By applying the BMC framework, this study aims to identify the strengths and challenges of fresh-product e-commerce platforms and propose strategies for optimising their operations.

The value proposition of fresh-product e-commerce platforms focuses on connecting high-quality suppliers with consumers, creating transparency and reducing transaction friction. These platforms cater to community-based consumers' daily needs by providing access to a wide range of fresh products, allowing for a convenient one-stop shopping experience. However, their customer segments are relatively narrow, as they primarily target tech-savvy consumers who are comfortable with online shopping. Older individuals, bulk buyers, and those in areas lacking access to pick-up points are often excluded, limiting the platforms' reach.

Channels play a critical role in delivering value by establishing strict supplier selection criteria, optimising logistics, and leveraging centralised delivery systems. The community group shopping model focuses on "centralised delivery and self-pickup," reducing logistics costs and fostering neighbourhood interactions. This model shifts away from the traditional "one-order-one-delivery" approach, enhancing efficiency while strengthening community ties.

Maintaining customer relationships is vital for these platforms, which rely on various marketing tactics like discounts, cashback offers, and promotional programs to boost customer loyalty and acquisition. Community group shopping, in particular, benefits from zero-cost entry for group leaders, attracting local shops and individuals who can drive consumer engagement through social networks. This strategy not only expands the user base but also leverages the trust within communities to enhance customer retention.

Fresh-product e-commerce platforms rely on key resources, including advanced logistics systems and cold chain infrastructure, to manage the distribution of perishable goods. Despite these efforts, challenges in maintaining product quality due to supply chain delays remain significant. Efficient inventory management is essential to minimise waste and costs, but balancing stock with fluctuating demand continues to be a challenge.

Core competencies focus on delivering convenience, competitive pricing, and rapid delivery, distinguishing these platforms from traditional shopping methods. Community group shopping leaders leverage social networks to drive sales, thereby reducing marketing costs and enhancing customer conversion rates. The use of key partnerships is also crucial; government policies supporting agricultural e-commerce and community initiatives help these platforms grow. Additionally, the increasing social acceptance of online shopping has broadened its market reach, allowing platforms to capitalise on shifting consumer behaviour.

Revenue streams primarily come from online sales of fresh products, complemented by partnerships, commission-based sales, supply chain services, and targeted advertising. The focus on "community-based" consumption has been accelerated by the pandemic, indicating long-term potential for growth. However, competition remains high due to the substitutability of products across platforms. Finally, the cost structure includes investment in technology, procurement, platform development, and logistics management. By utilising pre-order systems and digital tools like WeChat mini-programs, these platforms reduce overhead costs while optimising inventory turnover.

In conclusion, the application of the Business Model Canvas reveals that while fresh-product e-commerce platforms have unique strengths in logistics and customer engagement, they also face challenges related to supply chain management, narrow customer segments, and intense competition. Addressing these challenges will require platforms to differentiate their offerings, optimise their supply chains, and deepen customer relationships to sustain growth in a competitive market.

METHODOLOGY

This study involves a series of research methods designed to collect and analyse data on consumer preferences and experiences in purchasing fresh products. Through a detailed survey, the study examines various demographic factors (such as gender, age, occupation, income, and region of residence), along with consumers' shopping frequency, methods, satisfaction levels, convenience ratings, perceived prices, and the influence of promotional activities. Analysing these survey results provides insights into consumer shopping habits and preferences, helping businesses refine their marketing strategies and improve services.

QUESTIONNAIRE DESIGN

We designed a comprehensive survey comprising 22 questions for this study. Questions 1 to 7 gather demographic information about the respondents, while questions 8 to 22 focus on their shopping habits related to fresh products and their satisfaction with online fresh-product platforms. This section explores factors such as shopping frequency and consumer perspectives on specific factors affecting their choices. The survey consists of a combination of Likert scale questions, binary response items, and Likert scale matrix multiple-choice questions. All responses were anonymised to protect participant privacy and ensure data security. The full content of the survey can be found in the appendix.

LITERATURE REVIEW METHOD

The literature review method was employed to gather information on community group shopping, community e-commerce, and business model theories. By consulting resources from academic databases (e.g., CNKI) and libraries, a simplified theoretical framework was constructed to support the subsequent case studies. This review organised existing knowledge on community e-commerce and business model optimisation, thereby enriching the theoretical foundation of the study and laying the groundwork for subsequent analysis.

CASE STUDY METHOD

This research primarily utilises a case study approach, conducting a systematic analysis of several fresh-product community group shopping platforms in mainland China. The focus is on examining their business models and evaluating their practical effectiveness in community e-commerce. By analysing the operational performance of different fresh-product shopping models, the study identifies their strengths, challenges, and potential solutions.

QUALITATIVE RESEARCH METHOD

The study adopts qualitative research methods by designing a survey to assess user experiences on fresh-product e-commerce platforms. The data collected from the survey were analysed to gain insights into consumer behaviour and satisfaction levels. These findings were combined with an analysis of the actual operational practices of fresh-product e-commerce platforms to explore their advantages, identify current challenges, and propose actionable solutions for improvement.

DESCRIPTIVE STATISTICS AND OPTIMIZATION STRATEGIES FOR FRESH-PRODUCT E-COMMERCE PLATFORMS

This chapter begins with an analysis of descriptive statistics from the consumer survey, followed by strategic recommendations for optimising the business models of fresh-product e-commerce platforms. By utilising insights into consumer preferences and behaviours, platforms can align their strategies to enhance product offerings, optimise pricing, improve distribution channels, and boost overall customer satisfaction.

DESCRIPTIVE STATISTICS AND ANALYSIS

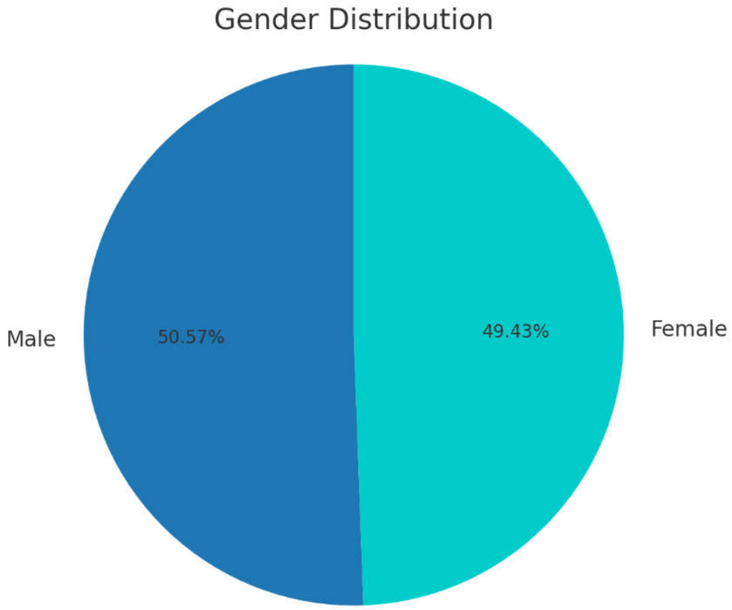

Figure 4.1.1 Gender

The survey included 174 respondents, with a nearly balanced gender distribution of 50.57% male and 49.43% female participants. This balance indicates that fresh-product e-commerce platforms appeal equally to both genders, suggesting that inclusive marketing and product strategies are crucial for maintaining a broad and diverse customer base. By ensuring that their offerings cater to the interests of both men and women, platforms can optimise their reach and engagement.

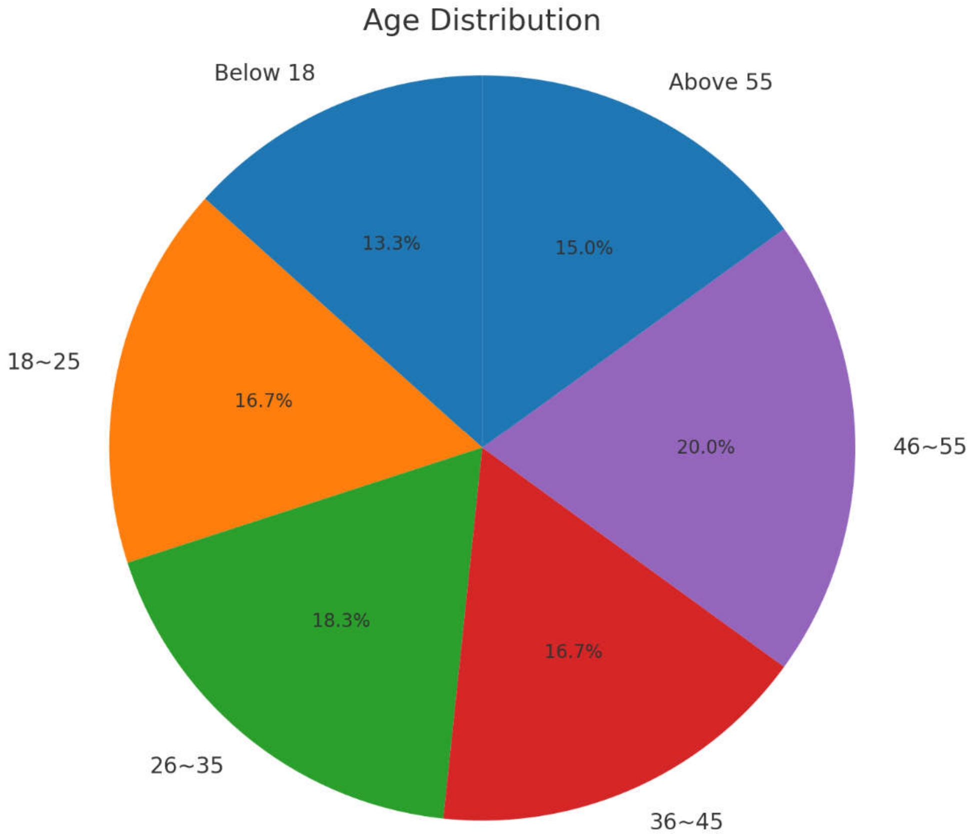

Figure 4.1.2 Age

In terms of age distribution, the majority of users fall within the 26 to 55 years age range, comprising 64% of the total respondents. This middle-aged group is likely the core market segment for fresh-product e-commerce, as they tend to value convenience, quality, and efficient delivery due to their busy lifestyles. The data also shows a significant portion of younger users aged 18 to 25 years (16.7%) and older users over 55 years (15%). To attract and retain these groups, platforms can introduce features such as interactive promotions for younger users and simplified, user-friendly interfaces for older consumers who may be less familiar with online shopping.

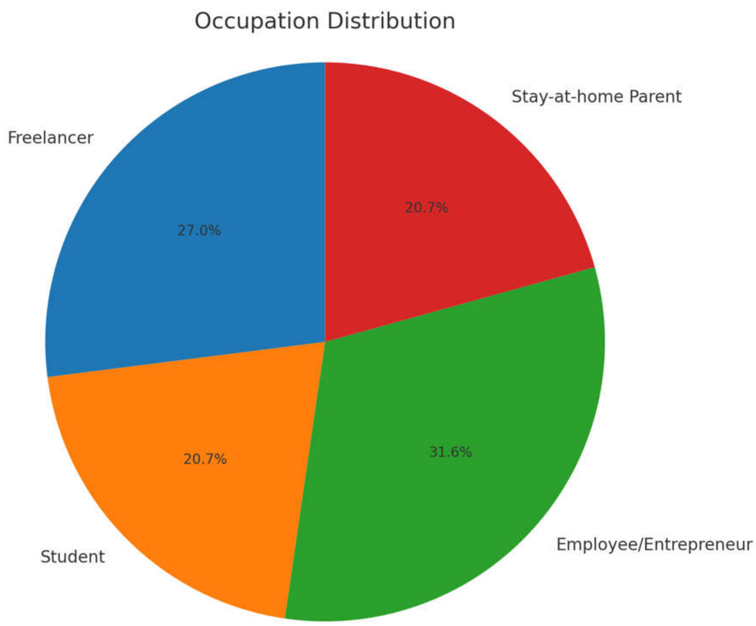

Figure 4.1.3 Occupation

Regarding occupation, 58.6% of respondents are working professionals or freelancers. This demographic, characterised by high purchasing power and busy schedules, prioritises convenience and efficiency in their shopping experience. The survey also highlights that 20.7% are students, while 20.7 are stay-at-home parents. Notably, there are no retirees who responded to this survey, which implies potential selection bias of digital surveys. Given the dominance of professionals, platforms should focus on offering quick delivery, curated product selections, and membership programs tailored to their needs. Additionally, expanding services to better cater to retirees by simplifying the ordering process and offering personalised assistance could tap into an underserved market segment.

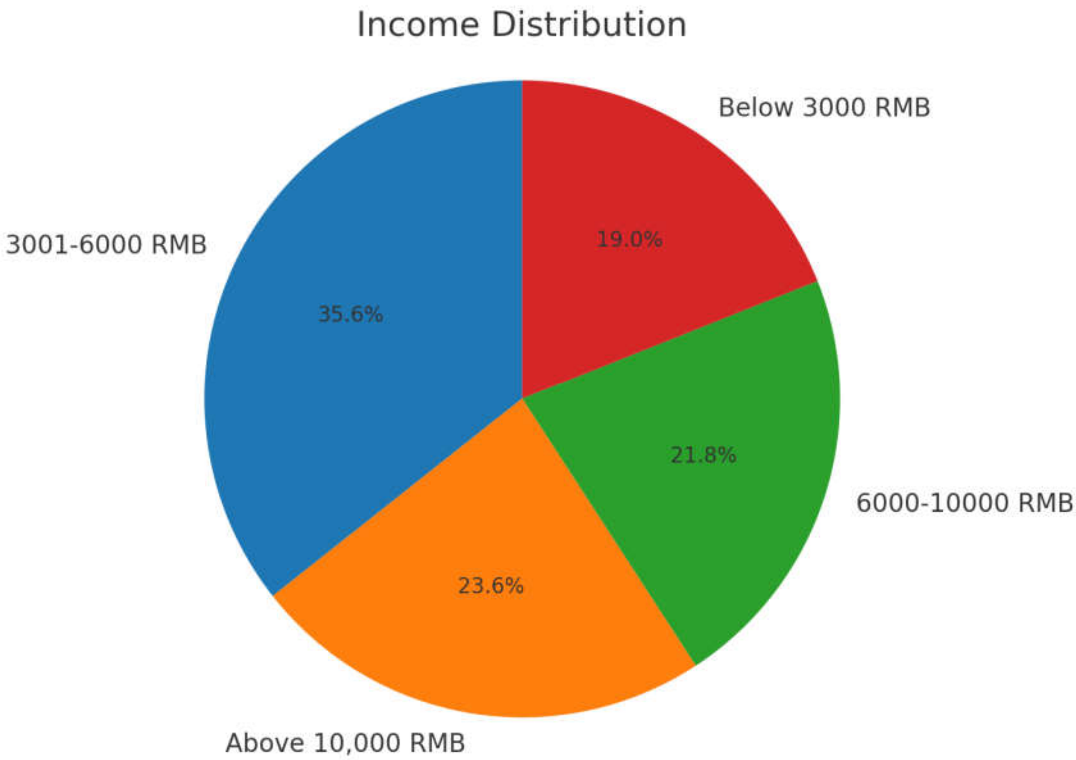

Figure 4.1.4 Income

Income demographics reveal that the majority of users belong to the middle-income group (3,001 - 6,000 RMB), which accounts for 35.6% of respondents, while 23.6% are in the high-income bracket (10,000+ RMB). These findings suggest that platforms primarily cater to middle- and high-income consumers. To optimise engagement, platforms can adopt a tiered product strategy that offers both premium products for high-income users and cost-effective bundles for middle-income shoppers. Additionally, exclusive loyalty programs and personalised subscription services can be developed to enhance user retention in these segments.

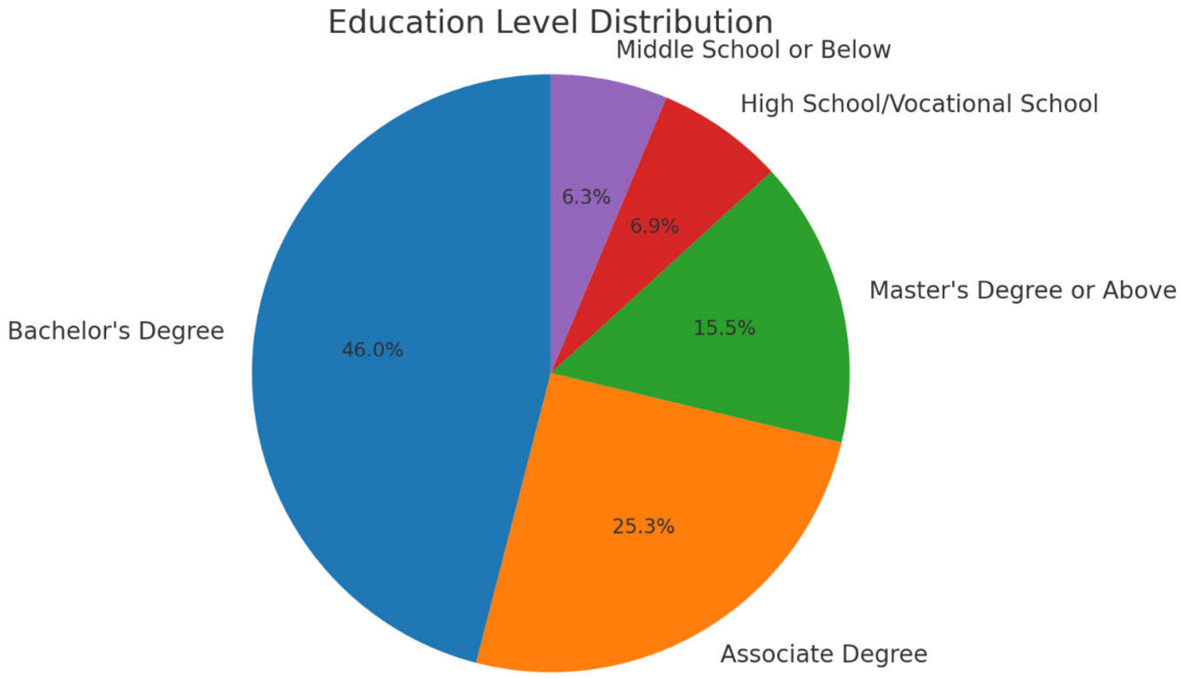

Figure 4.1.5

The education level distribution among survey respondents shows that the majority hold a Bachelor's Degree (46%), followed by those with an Associate's Degree (25.3%). A smaller proportion of respondents have attained a Master's Degree or higher (15.5%). Additionally, there are respondents with High School/Vocational School education (6.9%) and Middle School or below (6.3%). This indicates that the survey primarily engaged individuals with higher education qualifications, reflecting a demographic that is likely more familiar with online shopping platforms and digital services. The data suggests that fresh-product e-commerce platforms may attract a customer base with relatively high educational attainment, potentially influencing their preferences for convenience, product quality, and digital engagement.

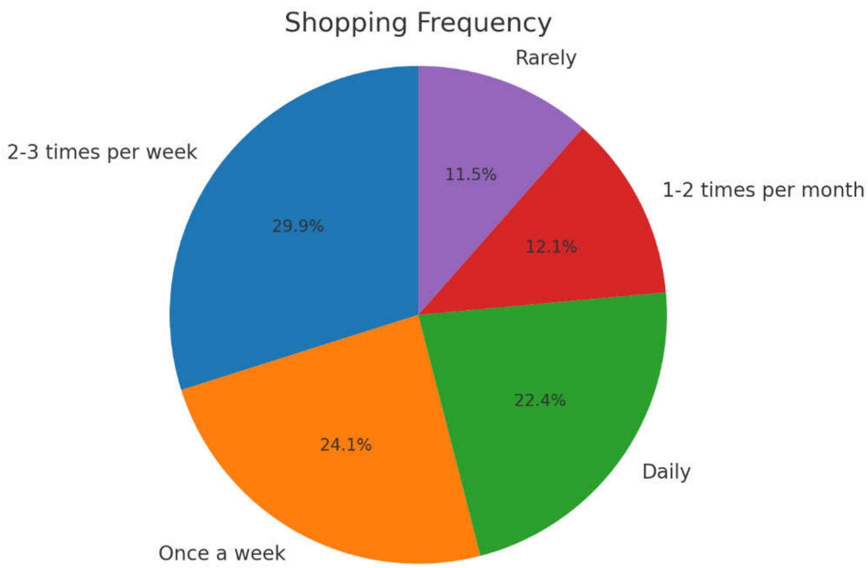

Figure 4.1.6 Shopping Frequency

The survey indicates that nearly half of the respondents are high-frequency shoppers, purchasing fresh products 2-3 times a week or more. These frequent shoppers, making up 52.3% of the sample, prioritise product quality, fast delivery, and diverse offerings. On the other hand, 11.5% of respondents shop less frequently, making purchases only once a month or less. Platforms can target high-frequency shoppers with loyalty rewards, cashback offers, and exclusive discounts to encourage repeat purchases, while lower-frequency shoppers can be enticed with targeted promotions and bundled deals.

In terms of shopping venue preferences, 58.62% of respondents favour online shopping, yet a higher percentage, 63.22%, still rely on offline supermarkets for fresh products. This suggests that while online platforms are gaining traction, offline stores continue to hold a significant share due to the immediacy of product availability. Additionally, 17.24% of users engage in community group buying, while 15.52% utilise food delivery services. To increase the appeal of online platforms, improvements in user experience, such as optimised app interfaces, personalised product suggestions, and streamlined payment options, are essential. For community group buying, enhancing delivery speed and product quality could attract more users.

Regarding delivery times, more than 69% of respondents expressed dissatisfaction with current delivery speeds. The majority prefer delivery within 1-2 days, with only a minority seeking ultra-fast delivery options within 2 hours. This indicates that while speed is important, reliability and product freshness are equally valued. Platforms can optimise logistics by investing in cold chain infrastructure, centralised warehousing, and efficient delivery route management to meet these expectations and improve customer satisfaction.

Satisfaction levels varied across shopping methods, with offline supermarkets receiving the highest score of 4.07 out of 5 in terms of user satisfaction. Community group buying and food delivery services received lower ratings, reflecting issues with delivery times and product quality. Enhancing the online shopping experience through better product displays, customer support, and after-sales services can help increase satisfaction levels. Additionally, providing tailored promotions and improving logistics for community group buying could enhance its appeal.

In terms of convenience, offline supermarkets and food delivery services were rated the highest, with scores of 4.07 and 4.05, respectively. Online shopping and farmers' markets received lower convenience scores of 3.98 and 3.95, indicating that there is room for improvement in areas like app usability, checkout processes, and personalised shopping lists. By addressing these areas, platforms can compete more effectively with traditional shopping options.

OPTIMISATION STRATEGIES FOR FRESH-PRODUCT E-COMMERCE BUSINESS MODELS

The fresh-product e-commerce sector faces intense competition driven by evolving consumer expectations, technological advancements, and the need for efficient supply chains. Based on the survey data, this section proposes several optimisation strategies that can help platforms enhance their business models, focusing on product offerings, pricing, channels, promotions, and logistics.

PRODUCT STRATEGY OPTIMIZATION

The survey results indicate that product quality is a top priority for consumers, particularly for those who frequently purchase fresh products online. Ensuring high product standards is essential for building customer trust and long-term loyalty. Platforms should implement comprehensive quality control systems, including regular product inspections, supplier audits, and real-time customer feedback monitoring. This can involve establishing dedicated quality assurance teams and leveraging customer reviews to identify areas for improvement.

To cater to diverse consumer preferences, platforms should focus on expanding product diversity beyond staple items to include premium and niche products. By analysing purchasing patterns and consumer feedback, platforms can introduce exclusive product lines, such as organic produce, exotic fruits, or speciality cuts of meat, which can attract high-income segments. Additionally, offering seasonal products can enhance the freshness appeal and provide consumers with variety throughout the year.

Data analytics can play a crucial role in optimising product recommendations. By utilising AI-driven algorithms to analyse browsing history, purchase behaviour, and demographic data, platforms can deliver personalised product suggestions that align with individual consumer preferences. For example, platforms can recommend healthier food options to fitness enthusiasts or promote convenient meal kits to busy professionals. This level of personalisation not only improves the shopping experience but also drives repeat purchases and customer loyalty.

PRICING STRATEGY OPTIMIZATION

With a significant portion of the surveyed users falling into the middle- and high-income brackets, a tiered pricing model can effectively address the diverse purchasing power of these consumers. Platforms can segment their products into different pricing tiers, such as budget-friendly options, mid-range items, and premium selections. For high-income consumers, platforms can introduce luxury goods or exclusive product bundles that justify higher prices while still delivering value.

To attract price-sensitive users, especially in the middle-income segment, platforms should offer value-based pricing through cost-effective bundles, discounts on bulk purchases, or subscription-based models. These can include benefits like free shipping, exclusive access to sales, or early product releases, which can incentivise loyalty and encourage consumers to opt for subscription services.

Dynamic pricing can also be employed to optimise revenue. By adjusting prices in real-time based on demand, inventory levels, and competitor pricing, platforms can maximise profitability without alienating budget-conscious consumers. Additionally, flash sales, limited-time offers, and special discounts for loyal customers can drive short-term sales spikes while enhancing long-term customer retention.

CHANNEL STRATEGY OPTIMIZATION

The survey highlights a strong consumer preference for online shopping, yet offline supermarkets still hold significant appeal due to their convenience and immediacy. To bridge this gap, platforms should focus on creating a seamless omnichannel experience that integrates both digital and physical touchpoints. For instance, platforms can allow users to order products online and pick them up at a nearby store, blending the convenience of online shopping with the immediacy of in-store purchases.

Community group buying is an emerging trend that leverages social networks to drive purchases. By empowering local community leaders to manage group orders, platforms can enhance customer engagement and trust. These community leaders can act as brand ambassadors, organising promotions and encouraging neighbours to participate. This model not only reduces last-mile delivery costs but also strengthens community ties.

Investing in user-friendly apps and optimising website interfaces is crucial to enhancing the digital shopping experience. Platforms should focus on improving navigation, simplifying checkout processes, and providing features like live chat support to assist users in real time. Additionally, interactive content, such as cooking tutorials, product videos, and recipe suggestions, can keep users engaged and encourage them to explore new products.

PROMOTIONAL STRATEGY OPTIMIZATION

The survey reveals that over half of the respondents shop across multiple platforms, indicating low brand loyalty. To address this challenge, platforms should leverage AI-driven customer analytics to design highly personalised promotions. By analysing user behaviour and purchase history, platforms can send targeted offers, such as birthday discounts, personalised product recommendations, or location-based promotions, to keep customers engaged.

Social media and influencer collaborations can effectively attract younger consumers who are more likely to engage with platforms through visual content. Platforms can collaborate with influencers to showcase product benefits, run exclusive giveaways, or host live-streaming events that promote new arrivals or limited-time offers. This approach not only boosts visibility but also creates a sense of urgency among consumers.

To enhance loyalty, platforms can introduce tiered membership programs that reward frequent shoppers with exclusive perks, such as free shipping, priority customer service, and access to premium products. By offering incentives for higher spending, such as cashback rewards or points that can be redeemed for future purchases, platforms can foster greater customer retention and increase the average order value.

SUPPLY CHAIN AND LOGISTICS OPTIMIZATION

The survey indicates significant dissatisfaction with current delivery times, emphasising the need for platforms to optimise their logistics networks. To address this issue, investing in a robust cold chain logistics system is essential to ensure that perishable items reach customers in optimal condition. Platforms should also consider strategically located warehouses to reduce delivery times and enhance service efficiency.

Optimising delivery routes through AI and machine learning can further streamline the logistics process, reducing transportation costs and improving delivery accuracy. By analysing traffic patterns, weather conditions, and historical delivery data, platforms can dynamically adjust routes to ensure timely deliveries, especially during peak demand periods.

Implementing a pre-order model can help platforms manage inventory more effectively, reducing waste and ensuring product availability. Encouraging users to place orders in advance allows platforms to optimise stock levels and reduce the risk of overstocking or stockouts. Platforms can incentivise pre-orders by offering discounts or priority delivery slots for early orders.

To cater to diverse customer needs, platforms can introduce tiered delivery options. For instance, offering premium same-day delivery for urgent orders and more economical options for non-urgent deliveries can balance customer satisfaction with operational efficiency. Additionally, platforms can promote environmentally friendly delivery practices, such as consolidating deliveries to reduce carbon footprints, which can appeal to eco-conscious consumers.

CONCLUSION

By integrating descriptive insights from the survey with targeted optimisation strategies, fresh-product e-commerce platforms can significantly enhance their service offerings, customer satisfaction, and market positioning. Addressing key areas such as product quality, personalised engagement, competitive pricing, and logistics efficiency will be crucial for sustaining growth and achieving a competitive advantage in the dynamic e-commerce landscape.

In particular, leveraging data analytics to tailor product recommendations, promotions, and pricing models can enhance consumer loyalty and increase repeat purchases. Moreover, optimising supply chains and enhancing the logistics infrastructure will ensure timely deliveries, which is critical for retaining customer trust in fresh-product categories. As consumer behaviours continue to evolve, platforms that prioritise flexibility, customer-centricity, and technological integration will be best positioned to thrive in this competitive market.

Looking forward, the sustainable growth of fresh-product e-commerce will depend on platforms' ability to adapt to changing consumer demands, technological advancements, and the evolving regulatory landscape. By focusing on continuous improvement and leveraging digital innovations, these platforms can meet the growing expectations of modern consumers, ultimately ensuring long-term success in a competitive market.

CONCLUSIONS AND FUTURE DIRECTIONS

RESEARCH OUTCOMES

This study has explored the current state and potential optimisations for fresh-product e-commerce platforms, with a particular focus on community group shopping as a case study. The core value of these platforms lies in enabling consumers to shop for everyday essentials at more competitive prices and with greater convenience. By examining the business models of fresh-product e-commerce through a comprehensive analysis of product offerings, pricing, channels, and promotional strategies, we identified several areas for improvement and provided practical recommendations to enhance the platforms' competitive advantage and user satisfaction.

Our analysis revealed that optimising marketing strategies in these four key areas—product, price, distribution channels, and promotions—can significantly improve the platforms' market performance. To ensure effective implementation, we proposed supportive measures to guarantee these strategies are executed efficiently, thereby strengthening the platforms' core competencies and enriching the consumer shopping experience. This study also offers insights for other players in the industry by examining the evolution of social e-commerce, community group shopping, and the social retail landscape.

The primary conclusion drawn is that, under the Chinese government's strong support for e-commerce development, fresh-product e-commerce platforms are presented with a rare growth opportunity. The shift in consumer behaviour towards online shopping, accelerated by external factors such as the COVID-19 pandemic, has created a dependency on these platforms. If platforms can address existing shortcomings in product quality, pricing, and customer service, they are poised to become the mainstream shopping choice for consumers in the future, potentially leading to sustained growth and market dominance.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

RESEARCH LIMITATIONS

While the study offers valuable insights into optimising the business models of fresh-product e-commerce platforms, it also has several limitations. Existing academic research on optimising these platforms' business models is still relatively limited, particularly in the context of the Chinese market, which has only recently begun to see significant scholarly attention in this area. Although consumer demand for fresh-product e-commerce surged during the COVID-19 pandemic, there remains a lack of comprehensive theoretical and practical frameworks to guide the optimisation of community group shopping platforms like DuoDuo Grocery.

Currently, the coexistence of online e-commerce and traditional offline retail presents both challenges and opportunities for China's retail industry. The effectiveness of a business model is a critical determinant of a company's success in today's complex commercial environment. However, despite some literature discussing new retail models, community group buying, and social commerce, research focused specifically on the optimisation of fresh-product e-commerce platforms remains scarce. There is also a notable gap in understanding the consumer behaviour specific to these platforms.

Due to constraints in the author's expertise and access to comprehensive resources, this study acknowledges its limitations, particularly in the depth of theoretical exploration. Further research is needed to develop a more robust theoretical framework and practical insights into optimising these platforms to adapt to evolving market dynamics.

FUTURE RESEARCH DIRECTIONS

Looking ahead, it is essential to focus on the sustainable development of fresh-product e-commerce platforms. Efforts should be directed towards refining business models to enhance customer engagement and loyalty, which are crucial for securing long-term profitability. By leveraging advancements in data analytics, AI-driven personalisation, and logistics optimisation, platforms can further strengthen their market position.

We anticipate that with collaborative efforts from both companies and the broader market, the future of fresh-product e-commerce will see continued growth. Community group shopping platforms, in particular, will adapt to market shifts by offering more affordable, high-quality products and even more convenient shopping experiences. The key will be maintaining agility in response to changing consumer preferences and market conditions.

FINAL REMARKS

This research utilised case studies, literature analysis, and qualitative methods to examine fresh-product e-commerce platforms, with a particular emphasis on community group shopping. By applying marketing theories and the Business Model Canvas framework, we analysed the internal and external competitive environment of these platforms. Using consumer feedback and market survey data, we identified several operational issues faced by fresh-product e-commerce platforms.

The proliferation of these platforms has led to intensified competition within the industry. This study systematically analysed the current landscape of fresh-product e-commerce, aligning it with market trends and consumer needs to propose optimised business models. These findings hold both theoretical and practical significance, as they address key challenges in product quality, pricing, distribution, and promotional strategies.

In an environment where opportunities and challenges coexist, fresh-product e-commerce platforms must proactively adapt. By grounding their strategies in legal frameworks, accurately assessing market trends, and continually optimising their marketing strategies, these platforms can align with the rapidly changing market environment. This proactive approach will enable them to achieve sustainable growth and maintain a competitive edge in the dynamic e-commerce sector.

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