

From a Consumer Perspective: The Contribution of  
Fresh Food E-commerce to Shanghai's Prosperity  
– A Case Study of Dingdong Maicai and Hema  
Fresh

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## **Abstract**

This dissertation examines how two prominent fresh food e-commerce platforms, Dingdong Maicai and Hema Fresh (Hema Xiansheng), influence consumers' daily lives and contribute to urban prosperity from a multidimensional perspective. Using semi-structured interviews with Shanghai-based consumers, the study analyzes the platforms' impact on convenience, product diversity, and consumer engagement strategies, such as instant delivery and personalized promotions. The research also integrates IGP's LOOT framework (Life Outcomes, Life Opportunities, and Life Together) and the UN's Sustainable Development Goals (SDGs) to assess the platforms' broader contribution to urban well-being, encompassing economic, social, and environmental dimensions.

Findings reveal that both platforms enhance consumer convenience by offering efficient logistics and diverse products, including pre-prepared meals for time-constrained users and high-end, health-conscious options for affluent consumers. However, challenges such as delivery delays during peak hours persist. Beyond individual convenience, these platforms contribute to social prosperity by creating local employment opportunities, supporting small suppliers, and enhancing community cohesion through local partnerships. Environmentally, concerns around excessive packaging highlight areas for improvement in sustainability practices.

The study concludes that Dingdong Maicai and Hema Fresh not only improve consumer life quality but also promote urban prosperity by advancing economic growth, social inclusivity, and environmental sustainability. It provides insights into how these platforms can continue to support urban development and align with sustainable and responsible practices, ultimately benefiting both individuals and the broader community.

**Key words:** Prosperity, Fresh Food E-commerce, SDGs, IGP's LOOT framework

## 1.0 Introduction

Food supply is not only essential for individual survival and social stability but is also a key indicator of whether a city or society is prosperous. The availability of food and the efficiency of the food supply chain directly affect urban economic development, the quality of life for residents, and the long-term sustainability of society. Urban prosperity depends not only on economic growth but also on social well-being, quality of life, and environmental sustainability (Moore & Mintchev, 2021). Therefore, managing food supply is crucial for promoting urban prosperity, especially fresh food, which, due to its perishable nature, requires higher logistics and supply chain efficiency (Gustavsson et al., 2011).

The United Nations' Sustainable Development Goals (SDGs) provide a global framework for sustainable development, particularly SDG 2 (Zero Hunger) and SDG 12 (Responsible Consumption and Production), which emphasize that food supply and waste reduction are vital to global sustainability (United Nations, 2015). By optimizing supply chains, fresh food can not only meet the growing demand of urban populations but also reduce resource waste and carbon emissions, thereby improving both environmental and social well-being in cities.

In recent years, the rapid development of the digital economy has greatly improved the efficiency of food supply. As the largest e-commerce market in the world, China has seen a rapid rise in fresh food e-commerce, which has become an important way to enhance food supply efficiency and improve the quality of life for residents. According to iResearch (2021), the market size of fresh food e-commerce in China reached 311.85 billion yuan in 2021 and is expected to exceed 500 billion yuan by 2024. Hema Fresh and Dingdong Maicai, two representative platforms in China's fresh food e-commerce market, have improved supply chain efficiency and transparency through their respective models of store-warehouse integration and front-warehouse distribution (Deloitte, 2019). Figure 1 illustrates the supply chain of fresh food.

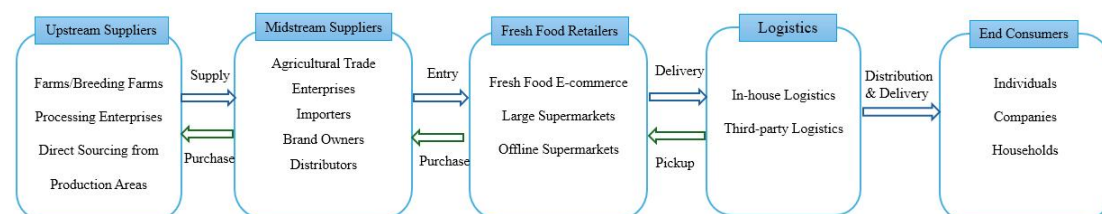


Figure 1: Fresh Food E-commerce Industry Chain

In this context, studying how fresh food e-commerce platforms optimize food supply chains to promote urban prosperity and whether these platforms contribute to various dimensions of social development, such as improving residents' quality of life and reducing food waste, has become an important topic that needs further exploration.

To explore the impact of fresh food e-commerce platforms on cities and consumers, this study proposes two key research questions:

1. How do fresh food e-commerce platforms affect consumers' daily lives?
2. From the consumers' perspective, how do fresh food e-commerce platforms promote urban prosperity?

To answer these questions, the authors selected Shanghai, the most representative city in China, as the focus of this study. Shanghai is China's economic and financial center, as well as one of its most international cities. According to the Shanghai Bureau of Statistics, the permanent population of Shanghai in 2023 was 27.8745 million, with a large consumer market and a strong demand for convenient and efficient food supply (Shanghai Bureau of Statistics, 2024). As China's logistics hub, Shanghai has a highly developed cold chain logistics and distribution network. It also has the largest number of key companies in the fresh food e-commerce industry chain across the country, providing support for the rapid circulation of fresh food. Shanghai's unique economic development model, dense urban population, and highly developed e-commerce ecosystem make it an ideal place to study the impact of fresh food e-commerce platforms on urban prosperity.

Hema Fresh and Dingdong Maicai, as key players in China's fresh food e-commerce industry, have adopted different business models. Hema Fresh, through its store-warehouse integration model, combines online and offline shopping experiences, offering services such as instant delivery and in-store pickup to meet the demand of Shanghai consumers for high-quality fresh food. Dingdong Maicai, on the other hand, focuses on the rapid delivery of fresh food through its front-warehouse model, standing out in the competitive market with quick response times and lower delivery costs.

	<b>Hema Fresh</b>	<b>Dingdong Maicai</b>
<b>Established Year</b>	2016	2017
<b>Scale</b>	Over 30 cities nationwide	Over 20 cities nationwide
<b>Business Model</b>	Integrated store and warehouse	Front warehouse model
<b>Headquarters</b>	Shanghai	Shanghai
<b>Revenue</b>	Over 40 billion RMB (2021)	Around 20 billion RMB (2021)

**Source:** iResearch, 2021

These two platforms are stable leaders in Shanghai's fresh food e-commerce market, consistently optimizing their supply chains to enhance efficiency and drive the city's sustainable development (Zhou & Wang, 2021). Therefore, studying their impact on urban prosperity can provide valuable insights for the application of fresh food e-commerce in other major cities.

This research aims to deeply analyze consumer behavior to reveal how fresh food e-commerce platforms have changed the lives of city residents. As the end users of these platforms, residents' feedback and behavior patterns provide a direct and real perspective to evaluate the social impact of the platforms. Based on existing literature, this study first conducts semi-structured interviews to investigate the impact of fresh food e-commerce on consumers' lives. Consumer feedback is then analyzed together with the platforms' business models and market strategies. The study focuses on how these platforms perform in improving shopping convenience, better time management, and increasing food variety. Finally, through the IGP's LOOT framework (Life Outcomes, Life Opportunities, Life Together) and the Sustainable Development Goals (SDGs), the research explores the impact of fresh food e-commerce platforms on urban prosperity. This research not only provides a systematic analysis of the contribution of fresh food e-commerce to urban prosperity for the academic community but also offers practical recommendations for policymakers and companies. It helps them use the potential of fresh food e-commerce platforms more effectively when planning future urban economic and social development (Kharas, 2018; Deloitte, 2019).



## **2.0 Literature review**

### **2.1 E-commerce in fresh food industry**

#### **2.1.1 The Concept of Fresh Food E-commerce**

As an important part of the digital economy, fresh food e-commerce shows how digital technology and the internet have completely changed the traditional ways of selling and distributing fresh food (Zhang & Hänninen, 2022). Before talking about fresh food e-commerce, it is important to understand what "fresh food" means. Shi et al. (2024) define fresh food as basic products that have not been heavily processed and only need to be kept fresh to be sold. These are essential goods people rely on in daily life. Chang et al. (2021) adds that fresh food in a narrow sense includes fresh fruits, vegetables, and meat, while in a broader sense, it also includes dried goods, grains, oils, frozen food, etc. Fresh food spoils easily and needs high preservation standards, which creates challenges for traditional retail and distribution (Liu et al., 2020).

The characteristics of fresh food have led to the growth of online sales models using e-commerce platforms. Geng et al. (2020) said that fresh food e-commerce is a new type of e-commerce where businesses only need to get the necessary licenses and certifications to sell fresh products online. In particular, consumers are able to quickly browse and shop for fresh produce through fresh produce e-commerce platforms and flexibly choose offline pick-up or online delivery services (Liu et al., 2020; Deloitte, 2020).

In this paper, fresh food e-commerce refers to platforms that mainly sell fresh products directly through online channels. Compared to traditional fresh food models, fresh food e-commerce shortens the supply chain by avoiding the usual steps of transportation and storage, which helps reduce food waste (Chen et al., 2022). Meanwhile, fresh food e-commerce, as the core of the industry chain, uses the Internet platform to make the information transfer and communication between supply and demand sides more fluent (Sun et al., 2023). Figure 2 illustrates different platforms of fresh food e-commerce.

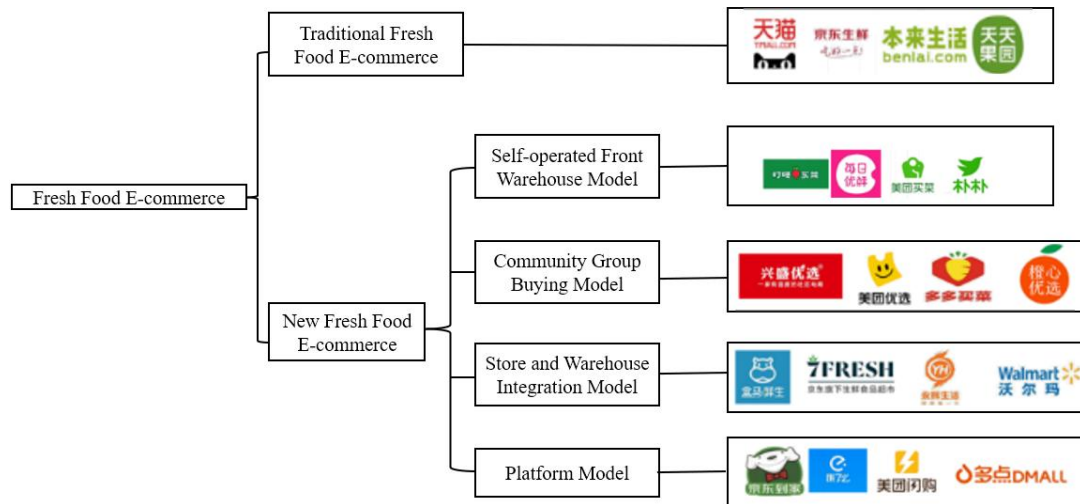


Figure 2: Fresh food e-commerce platforms

## 2.1.2 The Development and Current Status of Fresh Food E-commerce in China

### 2.1.2.1 Early Development (2005–2012)

Fresh food e-commerce in China has experienced remarkable staged development, driven by technological advances and the evolution of consumer demand. China's fresh food e-commerce can be traced back as far as 2005, when vertical fresh food e-commerce companies, represented by EGo Fresh, opened up online sales of fresh food products. At this time, the fresh food e-commerce model mainly focused on the sale of fruits. With the advantage of the e-commerce platform, companies were able to provide consumers with more diverse choices of goods (Wang et al., 2017). However, due to the limitations of logistics infrastructure and consumers' low acceptance of online shopping, the whole industry developed slowly. Liu (2024) pointed out that compared with e-commerce in other commodity categories, fresh products had lower market acceptance in the initial stage due to the strict requirements for freshness and cold chain transport, which were limited by the level of technology and logistics at that time.

### 2.1.2.2 Rapid Growth (2012–2014)

The rapid growth of the fresh food e-commerce industry began after 2012, driven by the popularity of mobile internet and the rise of e-commerce platforms. E-commerce giants such as Taobao and Jingdong quickly entered the fresh food sector with their large user bases and mature logistics networks, launching brands such as Tmall Supermarket and Jingdong Fresh. By integrating their supply chains, these platforms have expanded the categories of fresh produce from fruits to vegetables, meat, etc. (Cao & Li, 2015; Xu et al., 2020). Pan & Li (2023) notes that with the continuous upgrading of supply chain technologies such as cold chain logistics and smart

warehousing, fresh produce e-commerce has been able to achieve scale operations. However, the problem of concentration in the fresh food e-commerce industry gradually emerged during this period. The entry of e-commerce giants brought competitive pressure to small and medium-sized fresh food e-commerce companies (Zhang&Hänninen,2022; Xu& Ciccullo, 2023). Under the factors of capital, market and system, market resources are concentrated to a few large platforms, while small enterprises with relatively weak capital and technical strength face the risk of being marginalised or knocked out (Xu et al., 2020)

### **2.1.2.3 Innovation and Diversification (2014-Present)**

In 2014, with the rise of takeaway platforms, fresh food e-commerce welcomed a boom in innovative models, emerging as a variety of business models such as front warehouses, O2O online platforms and warehouse-store integration, gradually enriching the commodity category. As the first enterprise of the front warehouse mode, Daily Fresh makes changes in the chain, with more intensive warehousing and smaller coverage, to achieve rapid delivery in a short period of time and short distances. O2O mode is represented by the early Jingdong Home, the later Meituan and Eleme's takeaway platforms, which jointly cooperate with offline superstores, retail shops, and convenience stores, to achieve timely delivery of more commodities. Warehouse-store integration is mainly led by Ali's Hema Fresh Life and Jingdong 7FRESH, integrating offline experience + online consumption + instant delivery to improve consumer experience. It has also caused many large traditional superstores to open additional online sales channels to compete.

Although these innovative models have contributed to the rapid development of the fresh food e-commerce industry, this phase of prosperity is not without its challenges. In 2019, due to intensified market competition, the industry's financing environment has become tense, with some small and medium-sized fresh food e-commerce companies closing down or being merged and acquired as a result of financing breaks or long-term losses. However, with the outbreak of the 2020 epidemic, fresh food e-commerce once again has an opportunity to grow. The sharp rise in demand for home quarantine and contact-free shopping during the epidemic led to rapid growth in the transaction scale of fresh food e-commerce. In particular, platforms such as Dingdong Maicai and Hema Fresh became the first choice of consumers during the epidemic, with their efficient distribution networks and flexible supply chain management.

#### **2.1.2.4 Challenges and Future Prospects**

American scholars Ehmke and Campbell (2014) pointed out that fresh food e-commerce is time-sensitive and has high requirements for distribution, and that logistics factors are crucial in determining whether fresh food e-commerce can be successful. Similarly, Yi et al. (2021) analysed the current situation of foreign fresh food e-commerce through the SWOT model, pointing out that the quality of logistics services, the efficiency of the last-mile delivery and consumer satisfaction are the key factors for the success of fresh food e-commerce.

In addition to logistics, technology plays a supportive role in the development of fresh food e-commerce. For example, Hema Fresh and Dingdong Buying Food maintain their market leadership through continuous technological innovations, using the latest big data and artificial intelligence technologies, these platforms are able to predict market trends and optimise inventory management to meet consumer demand and improve efficiency. According to Guo et al. (2017), the application of big data and artificial intelligence not only optimises inventory management and reduces surplus and out-of-stock situations, but also enhances consumers' shopping experience through personalised recommendation systems. However, it also raises concerns about data privacy and security. Liu and Walsh (2019) emphasise that if the consumer data collected by a large number of fresh food e-commerce platforms is not managed properly, it may lead to serious privacy leakage issues.

In addition, fresh food e-commerce faces the challenge of information asymmetry. As consumers are unable to personally check the freshness or quality of the products, they need to rely on the information provided by the platform when placing orders. This information asymmetry can easily lead to consumers' doubts about product quality, which in turn affects their purchasing decisions (Yang & Zhang, 2015). Chen (2021) argues that fresh produce e-commerce breaks through the limitations of geographic location, allowing customers to satisfy their shopping needs from anywhere, which saves more time and effort. Yang and Zhang (2015) point out that although online platforms can reduce the problem of information asymmetry in traditional offline shopping, it is still difficult for the actual quality and freshness of fresh produce to be adequately conveyed to the consumer through online information. The information transparency of fresh produce also varies depending on the technological capabilities and supply chain management levels of different platforms. Although some platforms claim to have reduced information asymmetry through the online model, ambiguity about product traceability and questions about supply chain non-transparency still exist in practice (Liu et al., 2020).

It is worth noting that during the development of fresh food e-commerce, the categories operated by companies are also expanding. Yuan (2022) points out that in the actual operation of fresh food e-commerce, many platforms are not limited to

the sale of fresh products by definition, but have expanded their categories to cover non-fresh goods such as daily necessities, snacks, and so on. Lei (2022) explains from the perspective of market competition that fresh food e-commerce platforms are not confined to the core category of 'fresh food', but rather, they increase the overall attractiveness and order frequency of platforms through multi-category sales. This approach helps platforms to attract more different types of consumers and increase consumers' stay time and shopping frequency on the platform. Particularly in high-frequency use of instant delivery services, users may want to purchase multiple types of goods at once, so multi-category expansion actually meets consumer demand and improves the platform's market competitiveness (Porter, 1980).

However, despite the fact that multi-category expansion enhances the platform's market advantage, platforms still need to be cautious when expanding their range of goods. The core competitiveness of fresh food e-commerce lies in ensuring the freshness of fresh products and the efficiency of cold chain logistics, and if platforms neglect the management and logistical support of core fresh products while expanding their merchandise range, they may dilute the core value of their brand. Hoffman & Rush (2020) point out that the high cost of cold chain logistics makes the delivery of fresh products a heavy load on platforms, and therefore When undertaking category expansion, platforms must maintain a balance in the allocation of cold chain resources to avoid influencing the delivery quality of fresh products.

### **2.1.3 Business Models in Fresh Food E-commerce**

In the development of fresh food e-commerce, different platforms have adopted diversified operation modes, which can be broadly divided into traditional fresh food e-commerce and new fresh food e-commerce. Traditional fresh food e-commerce is more dependent on large-scale warehousing and warehousing systems, and the delivery time is usually 1 to 2 days (Li, 2023). Platforms represented by Tmall Fresh and Jingdong Fresh had widely used this model (Zhang et al., 2020). Although this model can make full use of the existing e-commerce logistics network, it shows obvious limitations in dealing with the timeliness and freshness of fresh products, especially in the fresh market where consumers have a high demand for frequent purchasing and fast delivery, and the longer delivery time may lead to a decline in product quality and affect the user experience (Li et al., 2024).

In contrast, new fresh food e-commerce companies have adopted a more flexible and diversified operational approach (Sun, 2021). Dingdong Maicai and Hema Fresh stand out as two representative platforms with their respective innovative business models. Next, this paper will focus on analysing these two platforms' front-loading warehouse model and store warehouse integration model, and discuss their operation mechanism, advantages and challenges.

### **2.1.3.1 Front Storage Mode - Dingdong Maicai**

Dingdong Maicai was founded in May 2017, originated from Dingdong Community App, and gradually developed into a fresh food e-commerce platform mainly focusing on "instant order, instant delivery" mode. Dingdong Maicai has set up warehouses near the neighbourhoods and delivers to the home in as fast as 29 minutes (Wang & Li, 2022), which ensures that users are provided with a high-quality, on-time and diverse fresh food shopping experience. With the mission of 'never selling substandard food to customers', it is committed to providing users with a high-quality, on-time and diverse fresh food shopping experience. Currently, Dingdong Maicai has set up warehouses based in Shanghai and provides fresh food delivery services in multiple cities (Zhang et al., 2023).

The front-loading warehouse model shortens the delivery distance by setting up multiple small warehouses within cities, enabling fast delivery within 30 minutes to 1 hour. Dingdong Maicai has expanded rapidly in first-tier cities and consumer-intensive areas through the intensive layout of front warehouses. Figure 3 shows the operational flow of Dingdong Maicai's front warehouses, a model designed to meet the demand of urban consumers for immediate delivery of fresh produce (Wang & Liu, 2021). Existing literature also points out that although the front-loading warehouse model has significant advantages in improving delivery efficiency, its high operating costs, especially the need for investment in cold chain logistics, pose a challenge to the platform's long-term profitability (Liu et al., 2022). This is evidenced by Dingdong Maicai's recent financial stress report (Dingdong, 2024). Mao (2022) argues that the initial idea of front-loading warehouses was to improve the consumer experience by setting up warehouses near the neighbourhoods where consumers live, bringing fast and convenient fresh food consumption services to consumers. Qu (2020) points out that the front warehouse model can bring customers closer, shorten the delivery time, precise delivery to improve consumer satisfaction, and achieve flexible operation, but there are certain problems in cost, layout, and promotion.

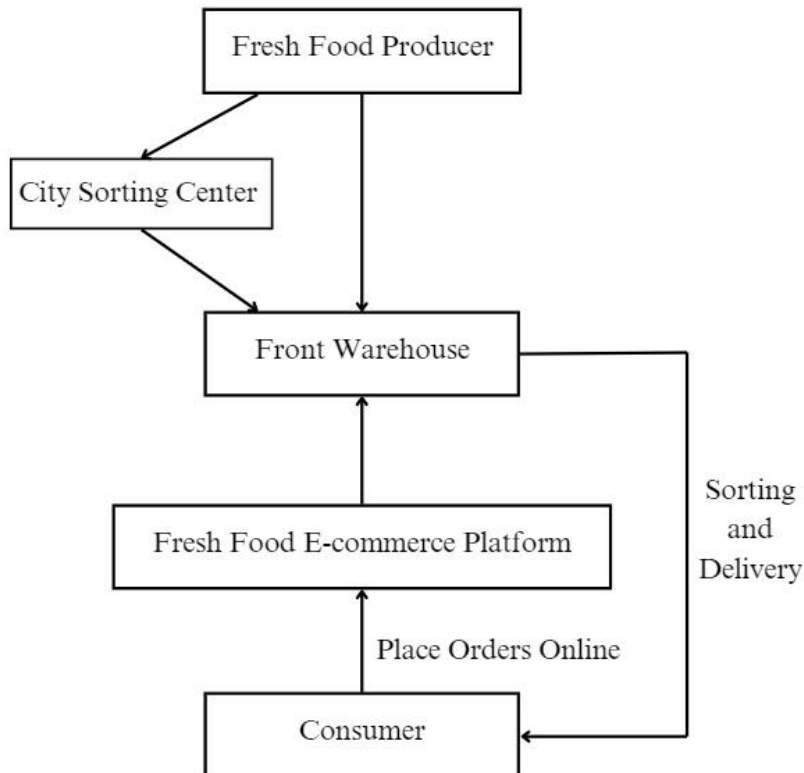


Figure 3 :the operational flow of Dingdong Maicai

### 2.1.3.2 Store & Warehouse Integration - Hema Fresh

Founded by Alibaba in 2015, Hema is the first new retail superstore in China, dedicated to a retail model that integrates online and offline. The offline shops offer fresh food and daily necessities, and incorporate food and beverage services such as processed seafood and tea bars. Consumers can also shop online via Hema's app and enjoy free delivery service within the shop area. So far, Hema has opened more than 240 shops in 21 cities (Zhou, 2024). In addition, Hema is strengthening its supply chain, developing its own brands and continuously exploring new retail models by piloting projects such as robot restaurants and the Hema Bazaar (Ji, 2023)

The store-warehouse integration model combines the functions of offline shops and warehouse distribution, which can provide consumers with an offline shopping experience as well as meet the demand for rapid online delivery (Zhu & Chen, 2020). Hema Fresh is a typical representative of this model, with its shops serving as both warehouses and distribution centres, enabling online orders to be processed and distributed quickly. This model not only optimises inventory management, but also enhances the consumer shopping experience. Figure 4 shows the operation mode of Hema Fresh. Compared with front warehouses, the integrated shop and warehouse model not only meets consumers' planned needs, but also their offline just-in-time needs. As it relies on offline shops to attract traffic, the shops are usually selected in

areas with high foot traffic and provide immediate delivery services to customers within 3km of the surrounding area. Stone (2022) notes that companies adopting this model may face high fixed costs and difficulty in scaling the market. A study by Avery Consulting (2020) shows that the cost of storage for store warehouse integration is high due to geographic location. Although Hema has realised the integration of online and offline traffic, its online business has limited coverage and lower distribution efficiency.

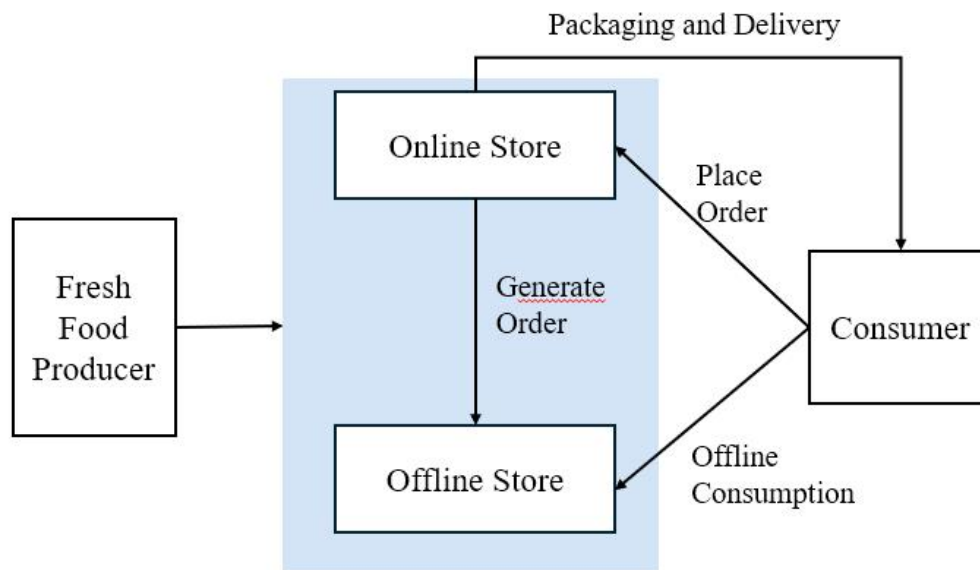


Figure 4 :operation mode of Hema Fresh

The development of China's fresh food e-commerce has experienced a journey from exploration to innovation, during which technological breakthroughs, diversification of business models and the push of epidemics have contributed to the industry's tremendous progress. However, as the fresh food e-commerce market matures, consumer behaviours and needs are also changing. In the next section, this paper explores the importance of consumer behaviour in fresh food e-commerce and analyses the changes in consumers' purchasing decisions and behaviours under different business models.

## 2.2 The Importance of Consumer Experience

In the operation of fresh food e-commerce platforms, consumer experience directly affects the success of the platform. As pointed out by Kotler et al. (2017), the fulfilment of consumer needs is the key to business growth, especially in an industry like fresh food e-commerce, where timeliness and quality are highly demanded, the consumer experience becomes even more important. Consumers are not only simple



buyers, but their shopping behaviour, feedback and evaluation provide a valuable basis for the platform's service improvement. By studying the consumer perspective, it can reveal whether platforms are meeting society's needs for food convenience, affordability and food safety, factors that are also important indicators of social prosperity (Liu & Walsh, 2019). However, the consumer experience does not stop at the beginning and end of a purchase, but continues throughout the entire consumption process. Every step of the process, from browsing for products, placing an order and paying for it to finally receiving it, affects their overall impression of the platform (Wei et al., 2020).

Yuan (2022) found that fresh food e-commerce companies are able to better satisfy consumers' shopping needs by providing a variety of product choices, personalised services and fast delivery. However, Bai (2021) pointed out that although the platform's service innovation can enhance user experience, how to maintain user stickiness and improve retention rate for a long time remains an important challenge for fresh food e-commerce companies in the fierce market competition. Research often overlooks the complex balance between consumer experience and platform profitability. While providing higher-quality services may enhance consumer satisfaction, excessive service costs can undermine platform profitability (Lin et al., 2021). The case of Daily Fresh illustrates this problem. Despite attracting a large number of users through subsidies, it failed to find a balance between user retention and cost reduction due to its long-term reliance on subsidies, which ultimately led to user loss.

### **2.2.1 Factors Influencing Consumer Purchasing Decisions**

In fresh food e-commerce, consumers' purchasing decisions are influenced by multiple factors, the most critical of which include product quality, freshness, corporate social responsibility, price, and delivery speed (Guo et al., 2017).

Product freshness is the core competitiveness of fresh food e-commerce. The perishable nature of fresh products determines that consumers attach great importance to product freshness. Zhang & Wei (2018) showed that Hema Fresh and Dingdong Maicai effectively improved product freshness and delivery efficiency by optimising cold chain logistics and supply chain management, thus increasing consumers' trust in the platform.

Price sensitivity is also a key factor influencing consumer's purchasing decisions. Liu et al (2023) points out that although consumers are willing to pay a premium for quality service and higher freshness, price is still an important consideration influencing consumer choices, especially in high-frequency purchases of fresh food. Therefore, platforms need to consider how to maintain price competitiveness while improving service.

Delivery speed is also one of the determining factors. Tirunillai's (2014) study found that timeliness of delivery directly affects consumer satisfaction by analysing user reviews. Dingdong Maicai achieves the fastest delivery to home within 29 minutes through its front warehouse model, which meets the demand of urban consumers for instant delivery (Liu et al., 2023). This efficient delivery system has become a competitive advantage for Dingdong Maicai and has greatly enhanced consumer loyalty.

Brand image and social responsibility also have an impact on consumer decision-making. According to Zhang Bei and Pan Sitao (2018), fresh food e-commerce companies can enhance consumer trust by strengthening brand building and fulfilling social responsibility. However, brand image is not enough to maintain long-term loyalty; consumer trust comes more from whether the platform can consistently provide high-quality products and services.

### **2.2.2 Changes in Consumer Behavior Post-COVID-19**

The pandemic changed consumers' shopping habits, especially accelerating the popularity of online shopping. Zhou et al. (2022) noted that during the pandemic, consumers' reliance on online platforms increased significantly, especially when purchasing fresh food, due to lockdown measures and social distance restrictions. However, Jones and Taylor (2022) also point out that despite the overall online shopping trend showing an upward trend, some consumers, especially in areas where logistics services are less available, still prefer traditional offline shopping methods. This suggests that platforms must pay special attention to the reliability of logistics services and information transparency in promoting online services to ensure consumers' trust in the platform.

In addition, changes in payment methods also reflect shifts in consumer behaviour. Gu et al. (2021) found that the convenience and security of mobile payments drove their widespread adoption during the pandemic, however, consumers' concerns about data privacy and security remain an issue that cannot be ignored. When promoting digital payments, platforms should focus on protecting consumers' personal information in addition to providing convenient services to eliminate their concerns.

### **2.2.3 The Role of Consumer Trust and Information Transparency**

Consumer trust in the platform is crucial in fresh produce e-commerce. Due to the perishable nature of fresh products, consumers are unable to personally check the quality of products before placing an order, so the product information and logistics

transparency provided by platforms becomes an important factor affecting consumer trust. Yang & Liu (2019) emphasise the need for platforms to reduce consumer uncertainty by providing detailed and accurate product descriptions, as well as logistical information, in order to increase their trust.

However, despite the fact that most platforms emphasise information transparency, consumers may still be sceptical about the information provided by the platforms. Zhang et al. (2022) state that consumers are still doubtful about the authenticity of the information provided by the platforms, which implies that platforms are not sufficient by providing detailed information only. Co-operation with third-party certification organisations or the introduction of government regulation could further enhance the credibility of platforms and remove consumers' doubts about product quality.

#### **2.2.4 Social and Psychological Factors Affecting Consumer Behavior**

In addition to price and product quality, social and psychological factors have an equally important impact on consumers' purchasing decisions. Han Zhao et al. (2022) pointed out that, with the increased concern for health and environmental issues, consumers are paying more and more attention to the healthiness and environmental friendliness of food when choosing fresh food. Especially the younger generation of consumers are more inclined to buy organic food and green products, which not only meet their health needs, but also fit their concern for environmental protection.

Meanwhile, social influence is also an important factor influencing consumers' purchasing behaviour. Somdech & Watcharin (2019) found that consumers are often influenced by reviews and recommendations from friends, family or social media during the purchasing decision process. Positive user feedback helps to increase consumer trust in the platform, while negative reviews can spread quickly and damage brand reputation. Therefore, platforms should not only respond positively to user feedback, but also strengthen social media interactions to ensure the positive spread of the brand image.

### **2.3 Prosperity in fresh food industry**

#### **2.3.1 What is prosperity?**

Henrietta L. Moore proposes a definition of prosperity that goes beyond traditional economic growth to re-examine what constitutes true 'prosperity' by incorporating individual happiness, social well-being and environmental sustainability. The traditional notion of prosperity, which centres on GDP growth, does not adequately

address the complex challenges of globalisation and modern society (Moore, 2021). Moore emphasises that economic growth alone not only fails to address social inequalities, but can also exacerbate problems such as environmental degradation and resource scarcity. This perspective challenges the longstanding narrow understanding of prosperity in economics, which argues that growth in wealth and income is insufficient to represent the overall well-being of individuals and societies (Moore, 2021)

Moore's theory of prosperity is based on three core dimensions: individual happiness, social well-being and environmental sustainability. Through working with communities and policy makers, she proposes a practical approach to achieving prosperity through systemic change and innovative policies. Her theory particularly emphasises the need to achieve social progress through collective collaboration and the goal of multidimensional prosperity in the context of global challenges such as climate change and resource crises (Moore, 2015). This view is agreed by many scholars, but there are some controversies and different paths of interpretation.

Amartya Sen's Capability Approach makes a similar point, arguing that prosperity should go beyond material and income considerations to focus on the capabilities and freedoms of individuals in society (Sen, 1999). Sen emphasises that economic growth by itself does not enhance the well-being of individuals, and that true prosperity should be based on the freedom of each individual to realise their life goals and aspirations. This view coincides with Moore's understanding of the dimensions of individual well-being, and both reject the use of GDP as the only measure of prosperity, arguing that the overall prosperity of a society can be achieved through the enhancement of individual capabilities and well-being (Moore, 2021). However, Sen's theory is operationalised with a greater focus on individual capabilities and freedoms, whereas Moore's focus on collective prosperity and community cohesion provide a complementary understanding of the multi-layered nature of prosperity.

Kate Raworth's Doughnut Economics provides a more systematic framework that combines social and environmental factors to assess economic development. Raworth proposes that the economy must operate between its social foundations and the planet's ecological limits, i.e., achieve a balance between social inclusiveness and ecological sustainability (Raworth, 2017). Her model is highly compatible with Moore's theory of prosperity in many ways, particularly in its emphasis on environmental sustainability and social equity. Both propose that economic growth should avoid destroying the planet's ecosystems and focus on the needs of society's most vulnerable groups. However, Raworth's theory has a more global perspective, emphasising how global economies can promote social progress while maintaining ecological balance, whereas Moore's focus is more on localised practices and community-led paths to prosperity.

Moore's theory of prosperity criticises existing models of economic growth, arguing that an over-reliance on GDP growth does not reflect the actual well-being of human societies. This view is supported by ecological economists such as Robert Costanza, who suggests that economic activity must take into account the value of natural capital and ecosystem services, rather than measuring prosperity solely through the economic gains generated by market transactions (Costanza et al., 2014). He agrees with Moore that current economic indicators are too narrow and ignore the long-term effects of environmental and social impacts. Costanza emphasises that prosperity should be measured through a holistic consideration of the economy, environment and society, which is fully in line with Moore's focus on environmental sustainability and social well-being. However, whereas Costanza focuses more on quantitative assessments of ecosystems and natural resources, Moore focuses more on cultural and social dynamics in human societies, which provides new perspectives on understanding the interactions between the environment and human behaviour.

More than just a theoretical framework, Moore's prosperity theory has strong potential for practical application, particularly in policymaking, corporate social responsibility, and community development. Her research in East London and Lebanon suggests that prosperity should not be achieved through top-down policies, but advanced through innovative pathways of community engagement and localisation. In the case of East London, Moore demonstrated that prosperity can be realised through public policy and collective action by improving housing and employment policies to drive community wellbeing (Moore, 2015). This case demonstrates the relevance of Moore's prosperity theory that prosperity should be inclusive, especially amongst socially disadvantaged groups. The Lebanese study further demonstrates the possibility of applying the prosperity theory in developing countries. Moore emphasises that social prosperity does not only depend on economic growth, but also needs to be achieved through cultural identity, community solidarity and resource sharing. This study demonstrates the global applicability of Moore's theory, showing that the concept of prosperity can be adapted and adjusted to different cultural and social contexts.

Although Moore's theory represents an important breakthrough in the definition of multidimensional prosperity, its operationalisation and practicability still face challenges. Some critics argue that Moore's theory lacks clear quantitative indicators for dealing with complex economic structures in the context of globalisation. In contrast, Raworth's doughnut model provides more specific policy guidelines and data indicators, while Moore's prosperity theory focuses more on community-level cooperation and localisation practices, which may be difficult to apply in global economic governance. In addition, while Moore's theory emphasises environmental sustainability, it fails to adequately address the challenge of how to address global issues through policy coordination in the international economic system.

### **2.3.2 The Global Framework of the SDGs**

The United Nations Sustainable Development Goals (SDGs) provide an holistic framework for social and economic progress on a global scale. The core of the SDGs lies in the promotion of prosperity, equality, and environmental sustainability of the global community through a series of specific goals to achieve integrated development on a global scale. In this context, as an emerging business model, how fresh food e-commerce can contribute to the realisation of the SDGs through innovative business and technological methods is a topic worthy of in-depth exploration.

SDGs is a global development initiative launched by the United Nations in 2015 to address global issues such as poverty, hunger, health, education, climate change, gender equality, clean water and renewable energy (UNDP, 2016). The SDGs include 17 specific goals that focus on economic growth as well as emphasise social equity and environmental protection. These goals form the critical development path for the global community until 2030.

The SDGs provide a framework for specific actions for global sustainable development through five core pillars - People, Prosperity, Planet, Peace and Partnership. The definition of prosperity in the SDGs is not limited to economic growth, but also includes multidimensional goals such as social inclusion, reduction of inequality, sustainable economic development, and environmental protection (UNDP, 2016). The multidimensional perspective of the SDGs is highly compatible with the LOOT framework proposed by Henrietta L. Moore, which emphasises that prosperity is not only at the economic level, but should also be reflected at the social and environmental levels.

### **2.3.3 Linkages between fresh food e-commerce and SDGs**

Fresh food e-commerce platforms (e.g. Dingdong Maicai and Hema Fresh) play a key role in contributing to the realisation of the SDGs goals, particularly in the areas of food safety, health and well-being, reducing inequality and sustainable economic growth. The following section explores in more detail how fresh food e-commerce can specifically support these SDGs goals.

#### **2.3.3.1 Food Safety and Health (SDG 2: Eliminate Hunger & SDG 3: Health and Wellbeing)**

Food safety is at the heart of SDG 2, which aims to ensure that everyone around the world has access to safe, nutritious and sustainable food. Fresh food e-commerce companies have greatly improved food freshness and distribution efficiency through

advanced cold chain logistics systems, reducing food loss and ensuring freshness and safety (Pulker et al., 2020). Platforms such as Hema Fresh and Dingdong Maicai, by combining cold-chain technology with prompt delivery, enable consumers to access high-quality fresh food quickly, especially in dense urban areas, and this efficiency significantly improves the ease of access to food and the health of urban residents.

In terms of health and well-being (SDG 3), fresh food e-commerce provides consumers with more diverse and healthy food choices, which plays an important role in enhancing dietary quality and improving public health. A study by Jones et al. (2019) shows that fresh food purchased by consumers through fresh food e-commerce tends to be fresher than that of traditional offline supermarkets, which not only contributes to the quality of their daily meals, but also reduces the nutritional loss of food caused by logistics delays. In addition, fresh food e-commerce can directly connect agricultural producers and urban consumers, enabling consumers to access more diverse and nutritious foods, which indirectly improves their overall health.

However, Smith & Mortimer (2021) points out that while fresh food e-commerce has improved the convenience and quality of food access, consumers' healthy eating habits may not improve with the development of the platform. Some fresh food e-commerce platforms make profits by marketing processed foods, which may have a negative impact on consumer health (Smith & Mortimer, 2021). Therefore, despite the positive contribution of fresh food e-commerce in terms of food safety and health, its impact on healthy habits needs to be further researched and monitored.

#### 2.3.3.2 Reducing inequality and social inclusion (SDG 8: Decent work and economic growth & SDG 10: Reducing inequality)

Fresh food e-commerce has not only changed the way consumers shopping through technological innovation, it has also played an important role in promoting social inclusion and reducing inequality (SDG 10). In particular, in terms of employment, fresh food e-commerce has provided a large number of jobs for low-income groups and less-skilled labourers. Hema Fresh and Dingdong Maicai have created hundreds of thousands of jobs through their extensive logistics and distribution networks, especially for low-skilled labourers, delivery staff and warehouse workers. These jobs are particularly important in dense urban areas, providing a stable source of income for low-income people and helping them integrate into the urban economy (Yu, 2020).

In terms of reducing inequality (SDG 10), fresh food e-commerce enables rural farmers to sell their produce directly to urban consumers through breaking down barriers between urban and rural markets. This not only increases the income of rural producers, but also reduces the exploitation of traditional supply chain

intermediaries and helps small-scale farmers to gain more economic returns. This “producer-to-consumer” model not only reduces agricultural losses, but also enhances the economic viability and sustainability of rural areas through supply chain transparency (Smith & Mortimer, 2021).

However, some studies have also shown that while fresh produce e-commerce promotes employment, the security of its labour conditions and career development opportunities still needs to be improved (Smith & Mortimer, 2021). For example, delivery staff often work in high-risk environments and lack adequate labour security. In addition, some employment positions have low incomes and lack career advancement opportunities, which leaves a room for improvement for fresh produce e-commerce's performance to promote social equity. Therefore, although fresh food e-commerce has achieved some success in reducing inequality, future development still needs to further improve the working environment of employees and raise the salaries of low-income workers.

#### 2.3.3.3 Sustainable Economic Growth and Innovation (SDG 9: Industrial Innovation and Infrastructure & SDG 12: Responsible Consumption and Production)

The Industrial Innovation and Infrastructure (SDG 9) objective emphasises that economic growth should be based on innovation-driven and infrastructure upgrading. Fresh food e-commerce platforms have not only optimised the food supply chain, but also improved the efficiency of food distribution through the large-scale introduction of technologies such as cold chain logistics, warehouse-store integration and instant delivery. These innovations have greatly enhanced the platform's operational capabilities and driven the digitalisation and intelligence of food distribution (Jones et al., 2019). For example, Hema Fresh has achieved efficient all-channel supply chain management by combining traditional retail and modern e-commerce through its integrated online and offline model.

In terms of responsible consumption and production (SDG 12), fresh food e-commerce reduces food waste through supply chain optimisation and promotes consumers' rational consumption. For example, Dingdong Maicai's front-loading warehouse model significantly reduces fresh food wastage through accurate inventory management and order fulfilment. This supply chain optimisation not only reduces the platform's operating costs, but also promotes environmental sustainability. However, the negative environmental impacts of the platform still need to be considered, such as the increase in packaging waste and carbon emissions during logistics (Jones et al., 2019). Future policies and platform operations need to further optimise supply chains to reduce environmental burdens and ensure sustainable economic growth.

#### 2.3.3.4 Environmental Sustainability Challenges of Fresh E-Commerce (SDG 13: Climate Action)



While fresh produce e-commerce has made significant progress in the food supply chain, its rapid expansion has created new environmental challenges. Packaging waste and logistics carbon emissions are particularly significant. As fresh e-commerce orders increase, platforms rely on large amounts of packaging materials to keep food fresh and safe, which has led to a huge packaging waste problem (Jones et al., 2019). In addition, fresh food e-commerce relies on high-frequency instant delivery services, which increases carbon emissions and energy consumption in the logistics process.

To address these challenges, platforms can take a variety of measures to promote climate action (SDG 13). For example, platforms can reduce their environmental footprint by introducing biodegradable packaging materials and improving the fuel efficiency of logistics vehicles. In addition, digital supply chain management and optimised route planning can further reduce carbon emissions during distribution. These innovations will not only help to contribute to the climate-related targets in the SDGs, but will also lay the foundation for the platform's long-term sustainability.

#### **2.3.4 The LOOT framework and the assessment of fresh food e-commerce on prosperity**

Although fresh food e-commerce as an emerging business model has demonstrated a positive role in advancing multiple objectives of the SDGs, such as food security, economic growth, and reducing inequality, its specific contribution to urban prosperity still requires further frameworks to be assessed. At this point, the LOOT framework (Life Outcomes, Life Opportunities, Life Together) proposed by the IGP team based on prosperity theory provides a powerful tool to assess the contribution of fresh food e-commerce to prosperity in a more detailed way from multiple dimensions.

The LOOT framework not only focuses on economic growth, but also provides a holistic perspective for assessing prosperity by considering quality of life, development opportunities, and social cohesion. This allows for a deeper exploration of how fresh food e-commerce can contribute to prosperity by improving consumer outcomes, providing more job opportunities, and enhancing community co-operation. Therefore, applying the LOOT framework to the combination of fresh food e-commerce and SDGs allows for a more systematic analysis of how these platforms contribute to the multidimensional prosperity of cities and communities.

The LOOT framework is a comprehensive tool for assessing prosperity, covering multiple economic, social and environmental dimensions. In the context of fresh food e-commerce, the LOOT framework can help us understand how platforms not only achieve economic growth through technological innovation and supply chain optimisation, but also contribute to broader urban prosperity through their impact on individual quality of life, social opportunities and community relations.

## **2.4 Research gap**

There are several notable research gaps in current studies on the impact of fresh produce e-commerce platforms on consumers' lives and urban prosperity. First, most of the existing research focuses on business operational efficiency, supply chain management, and technological innovation, and less on the role of fresh produce e-commerce platforms from a consumer perspective, especially in terms of how these platforms can change consumers' daily lives by enhancing convenience, providing diverse product choices, and improving customer service, which lacks systematic analyses. Second, while the contribution of fresh food e-commerce to urban economic prosperity (GDP) has been explored, there is little research on its impact on social and environmental prosperity. Fresh food e-commerce also has a profound impact on social inclusiveness and environmental protection in cities by fostering community collaboration, supporting local suppliers, and implementing sustainable practices, and these dimensions have not been adequately discussed in the literature.

In addition, the differences in business models of different fresh food e-commerce platforms and their impact on consumer experience have not been thoroughly researched. Dingdong Maicai uses a 'front warehouse' model, while Hema Fresh uses an "store and warehouse integration" model. There are significant differences between these two models in terms of logistics efficiency, product variety, and customer satisfaction, but there is a relative lack of comparative analyses of these two models in the academic community. However, there is a relative lack of comparative analyses in academia. In particular, how different models affect consumers' life experience and satisfaction has not been systematically explored, especially in terms of delivery delays during peak hours, product freshness, and personalised services on the platform. Therefore, this study fills the research gap in this area by analysing the contribution of fresh food e-commerce platforms to Shanghai's urban economic, social and environmental prosperity from a consumer perspective through semi-structured interviews, combined with the IGP's LOOT model and the United Nations Sustainable Development Goals (SDGs).

## **3. Research Methodology**

### **3.1 Research Method and Design**

This study adopts a qualitative research design to thoroughly investigate the impact of fresh food e-commerce platforms (Hema Fresh and Dingdong Maicai) on consumers' daily lives and their contribution to urban prosperity. The key objective of qualitative research is to understand participants' subjective experiences and perceptions, particularly when addressing complex social behaviors (Creswell, 2013). Compared to quantitative research, qualitative methods allow greater flexibility in

adapting to emerging themes during the research process, particularly when exploring consumer behaviors and experiences (Merriam, 2009).

To analyze the effects of fresh food e-commerce platforms on consumers' lives and urban prosperity, this study integrates the IGP's LOOT model and the Sustainable Development Goals (SDGs) as its theoretical foundation. The LOOT model (Life Outcomes, Life Opportunities, Life Together) provides a framework to assess the influence of these platforms on consumers' life outcomes, life opportunities, and collective life (Moore, 2015). At the same time, the United Nations' SDGs offer specific benchmarks for urban prosperity, particularly regarding economic growth, sustainable consumption, and social inclusion (United Nations, 2015). By combining the LOOT model with the SDGs, this study evaluates the impact of these platforms on consumer quality of life and urban development from both macro and micro perspectives.

Qualitative research was chosen due to the specific nature of the study's objectives (Patton, 2015). The impact of fresh food e-commerce platforms on consumers encompasses not only tangible changes such as shopping convenience and logistics services, but also deeper, subjective experiences related to lifestyle, time management, and community involvement. Quantitative data alone may not capture these complex emotional and behavioral dimensions, whereas qualitative methods provide the opportunity to delve deeply into these nuanced consumer experiences.

Consumers' shopping experiences involve more than functional needs; they also encompass emotional and social factors. While fresh food e-commerce platforms may offer convenience, consumers might face challenges such as decision fatigue or reduced social interactions. Through open-ended questions, qualitative research enables consumers to articulate their authentic experiences, providing insight into the underlying reasons for their behaviors and feelings.

Additionally, the flexibility of the semi-structured interviews allows the researcher to adjust questions based on participant responses, ensuring a dynamic and interactive data collection process. This adaptability facilitates the discovery of new insights during interviews, which may not be achievable through more rigid quantitative methods.

### **3.2 Data Collection**

Given the exploratory nature of this study, semi-structured interviews were employed as the primary data collection method. According to Kvale (1996), semi-structured interviews involve a structured set of questions while also allowing for flexibility to adjust based on the conversation flow. This approach provides researchers with the ability to engage deeply with participants, probing specific issues and encouraging the emergence of new topics or insights during the dialogue.

In this study, the interview questions primarily centered around participants' experiences using the platforms, the impact on their daily lives, and their perceptions of the platforms' contributions to urban prosperity. As the effects of these platforms vary depending on individual backgrounds and usage patterns, semi-structured interviews offered the flexibility needed for participants to express their views freely, while also allowing the researcher to follow up on specific responses for more detailed feedback (Brinkmann, 2013).

In contrast, focus groups, while useful for group discussions, may limit the expression of individual opinions due to group dynamics or dominant voices, which can influence others' responses. This is particularly relevant when discussing personal needs and experiences related to urban prosperity, which are highly subjective. Additionally, the complex interactions between individuals, the community, and the platforms are difficult to fully explore in the time-constrained environment of focus group discussions. Similarly, structured interviews restrict the opportunity for flexible questioning and fail to capture the diverse and complex feedback that individual consumers may provide about their experiences with fresh food e-commerce platforms. Therefore, semi-structured interviews provide a more personalized and in-depth exploration of the platforms' multifaceted impacts on consumers and their contributions to the economy and urban prosperity.

### **3.3 Participants and Sampling Method**

Participants for this study were selected through purposive sampling, based on the following criteria:

**Usage Experience:** Participants were required to have used either Hema Fresh or Dingdong Maicai at least once within the past six months. This criterion ensures that participants have sufficient experience with the platforms to provide relevant feedback and evaluations.

**Geographic Limitation:** All participants were residents of Shanghai. As there may be variations in fresh food e-commerce services between different cities in China, selecting participants from the same city helps ensure consistency and comparability in the research findings.

**Diversity in Demographics:** To gain a comprehensive understanding of different user experiences, participants were selected to reflect a diverse range of occupations, ages, and family structures. For instance, students may have different purchasing power and lifestyles compared to working professionals, while variations in family structure could influence the frequency and type of food deliveries needed.

Recruitment was conducted primarily through announcements on social media platforms (WeChat, Weibo, etc.), supplemented by interpersonal network

recommendations to invite eligible consumers. The researcher provided detailed explanations of the study's purpose, participant requirements, and interview format to ensure potential participants fully understood what was expected.

### **3.4 Interview**

The interviews were conducted online via ZOOM to accommodate participants' schedules, especially those who were working professionals. Interviews were primarily arranged in the evenings (19:00-23:00) on weekdays and over the weekends. To ensure a smooth process, each interview began with informal conversation to help participants relax, encouraging them to provide more genuine and detailed responses later in the session (Swider et al., 2016). After participants confirmed their willingness to participate, they were provided with detailed information about the study and asked to sign consent forms to ensure privacy and data security throughout the process. Once consent to record was obtained, the formal interview commenced, and the entire conversation was recorded and later transcribed.

Since all participants were native Chinese speakers, they were encouraged to respond in their native language (Mandarin), which helped them articulate their thoughts more clearly and provide richer, more detailed responses, minimizing misunderstandings that could arise from language barriers (Cortazzi et al., 2011).

Following the interviews, the researcher transcribed the recordings and reviewed the texts to ensure data accuracy. To further verify the quality of the data, external translation services (e.g., DeepL) were used where necessary (Kirk, 1986). All data were securely stored on a password-protected personal computer before being uploaded to UCL's OneDrive for long-term storage.

A total of 17 participants were interviewed, with the sample size determined based on the principle of data saturation (Morse, 1995). In qualitative research, saturation is reached when no new insights or information emerge from additional interviews. During this study, it became clear that the main themes and patterns were consistently identified, and no new information was emerging, confirming that the sample of 17 participants was sufficient for the study's objectives.

The interviews were conducted from July 10 to August 15, with an average interview duration of 45 to 90 minutes. During the data collection process, a few unexpected situations arose. Some participants, despite their willingness to participate, were unable to attend the interviews as planned due to busy work schedules. Others felt that their limited experience with the platforms did not qualify them to provide valuable insights. To ensure diversity in the data, additional interviews were conducted with both frequent and infrequent users of fresh food e-commerce

platforms to compensate for gaps in the sample perspectives. The details of the data collection process are as follows:

Participant ID	Gender	Age	Occupation	Living With
A1	Male	34	Engineer	Alone
A2	Male	29	Freelancer	Alone
A3	Female	28	Sales	Alone
A4	Female	34	Programmer	Alone
A5	Male	32	Government Employee	Alone
A6	Female	27	Teacher	Alone
B1	Male	24	Student	Parents
B2	Male	23	Student	Parents
B3	Male	20	Student	Parents
B4	Female	18	Student	Parents
B5	Female	23	Student	Roommates
B6	Female	23	Student	Roommates
B7	Female	34	Engineer	Spouse
C1	Female	35	Teacher	Spouse and Children
C2	Female	37	Banker	Spouse and Children
C3	Male	35	Business Owner	Spouse and Children
C4	Female	40	Teacher	Spouse and Children

### 3.5 Data Analysis

This study employs thematic analysis as the primary method to systematically organize and examine consumers' experiences with Hema Fresh and Dingdong Maicai. It also assesses how these platforms contribute to consumers' daily lives and urban prosperity. Thematic analysis is a flexible qualitative approach, useful for identifying key patterns and themes from large amounts of unstructured text data (Braun & Clarke, 2006). Through this approach, the study delves into participants' personal experiences, using IGP's LOOT model and the Sustainable Development Goals (SDGs) to analyze the platforms' impact on urban prosperity.

The specific steps are as follows:

1. Familiarizing with the data: After completing and transcribing the interviews, the researcher repeatedly read the transcripts to gain a thorough understanding of the overall structure and content. Through multiple readings, initial themes related to

the consumers' experiences and the platforms' contributions to urban prosperity were identified.

2. Generating initial codes: Key concepts and terms linked to the research questions were coded from the text. These codes covered aspects such as platform convenience, time management, food safety, community support, and contributions to employment. This step helped organize participants' specific perceptions and experiences into an initial coding framework.

3. Searching for themes: After generating the initial codes, the researcher grouped similar codes to form central themes related to the study. Particular attention was given to how Hema Fresh and Dingdong Maicai influenced different aspects of consumer life, such as convenience, shopping decisions, and economic burdens, along with their contributions to community development and urban economy.

4. Reviewing themes: Once the themes were identified, the researcher reviewed them to ensure that each theme accurately represented the participants' experiences. The goal of this step was to ensure consistency between themes and that they aligned with the theoretical framework—Moore's LOOT model, which includes the dimensions of Life Outcomes, Life Opportunities, and Life Together.

5. Defining and naming themes: After confirming the themes, the researcher defined and named each theme in detail, ensuring that they reflected the overall consumer experience with the platforms. The themes were then linked back to the framework of urban prosperity. For example, life opportunities could include the job opportunities and economic benefits provided by the platforms, while life together could cover the platforms' support for community interaction and local economic development.

6. Writing the report: Finally, the researcher compiled the results from the thematic analysis into a report. The report detailed the consumers' experiences with the fresh food e-commerce platforms and their contributions to urban prosperity. Participant quotes and data were used to illustrate how the platforms improved consumers' quality of life and supported economic and social growth in Shanghai.

### **3.6 Ethical Considerations**

As Saunders (2019) proposed in his guidance, research ethics constitute a set of standards that direct researchers in their conduct towards individuals who are the subjects of their work or are affected by it. This study has been granted ethical approval by the IGP LREC and the UCL Data Protection Office. It will be strictly conducted in accordance with the ethical guidelines set to ensure the full protection of participants' rights and privacy. The objective of the study will be conveyed to all participants, and the signed consent form will be obtained before the data collection of participants to ensure their participation is voluntary. In addition, participants would have the right to withdraw from the study at any time and refuse to answer any inappropriate questions they think.

Participants are free to make decisions based on their own experiences and feeling, without being compelled to provide "right" or "wrong" answers. Prior to conducting interviews, participants will be provided with a participant information sheet that outlines the research's purpose and their role in the study. All relevant data will be uploaded to UCL OneDrive for storage and will be deleted within six months

### **3.7 Limitation**

This study only involved 17 participants. While this number was enough to reach data saturation, the small sample size limits how broadly the findings can be applied. Although efforts were made to ensure diversity through purposeful sampling, the sample may not fully reflect the experiences of all fresh food e-commerce users. This means the findings might not apply as well to a larger population, especially to older individuals or those with more varied professional backgrounds (Creswell, 2013). Additionally, while qualitative research provides valuable insights, it cannot establish causal relationships. The study identified both positive and negative impacts of the platforms on consumers' lives, but further quantitative research is needed to confirm whether these effects are directly caused by the platforms (Hoover, 2021).



## 4.0 Result and Discussion

### 4.1 The Impact of Fresh Food E-commerce Platforms on Consumers' Lives

#### 4.1.1 Common Impacts of Dingdong Maicai and Hema Fresh on Consumers' Lives

##### 4.1.1.1 Changes in Consumer Behavior and Lifestyle

Both Dingdong Maicai and Hema Fresh have transformed consumer shopping behaviors, particularly in terms of saving time, enhancing convenience, and offering a wider range of product choices. As these platforms have gained popularity, significant changes have occurred in consumers' daily shopping habits. First, the advantage of instant delivery has greatly reduced the time and effort required for traditional offline shopping. Most respondents indicated that they are now accustomed to placing orders via mobile apps at any time, enjoying fast home delivery. This convenience, especially in fast-paced cities, has become a key attraction. For example, respondent B5 (female, 23, student) noted:

*"I usually order fresh food after work instead of going to the supermarket, which saves me more time to focus on studying and working."*

Research shows that consumers are increasingly relying on online shopping for time savings and convenience, especially in large cities where instant delivery has significantly improved customer satisfaction (Liu et al., 2020). This shift not only affects the frequency of purchases but also has a deep impact on consumer preferences. Dingdong Maicai, with its efficient front warehouse model, quickly responds to orders by storing products close to consumers, meeting the demand for instant delivery. On the other hand, while Hema Fresh focuses more on the high-end market, its store-warehouse integration model combines instant delivery with offline experiences, ensuring that consumers can quickly access high-quality products.

Additionally, this shift has led to increased consumer dependence on these platforms. Many respondents noted that they have become accustomed to purchasing fresh food through these services, a reliance that became especially evident during the pandemic. As respondent A1 (male, 34, engineer) remarked:

*"During the lockdown, I completely relied on Dingdong Maicai for deliveries, which allowed me to avoid the risks of shopping in person."*

The finding aligns with research by Zhu and Chen (2020), who observed that the sudden outbreak of the pandemic drove many consumers to shift to online shopping, making it a long-term habit.

#### **4.1.1.2 The Role of Instant Delivery**

Dingdong Maicai and Hema Fresh demonstrate significant advantages in instant delivery. Dingdong Maicai's front warehouse model ensures that consumers receive fresh products in a short time. The platform promises delivery in as little as 29 minutes, which has gained wide approval, especially among time-constrained working professionals. Respondent B1 (male, 24, student) explained:

*"The main reason I choose Dingdong Maicai is its fast delivery, especially when I urgently need something, which helps me manage my daily needs easily."*

This finding aligns with Geng et al. (2020), who noted that the instant delivery model in fresh food e-commerce not only enhances the shopping experience but also significantly increases user retention.

In comparison, although Hema Fresh's delivery times are slightly longer, its store-warehouse integration model allows consumers to buy online and either pick up in-store or enjoy in-store processing services. This model focuses more on providing a comprehensive shopping experience rather than just delivery speed. As a result, Hema Fresh users value the in-store experience, with instant delivery serving as a complementary service.

As respondent B5 noted: *"I trust Hema's quality more because they have experience stores."* This observation is consistent with Wang and Liu (2021), who argue that while instant delivery meets fast-paced demands, in-store experiences remain a key factor in maintaining brand loyalty and strengthening emotional connections with consumers.

However, reliance on instant delivery has also raised some challenges. Several respondents mentioned that although Dingdong Maicai is known for its fast delivery, occasional delays or incorrect orders occur, particularly during peak hours. As A6 (female, 27, teacher) pointed out:

*"Sometimes Dingdong Maicai's delivery isn't punctual, especially during evening rush hours when delays are common."*

This suggests that while instant delivery is one of the platform's core advantages, there is room for improvement in the consistency of delivery services. Liu et al. (2020) similarly emphasized that delivery timeliness and accuracy are crucial factors influencing consumer loyalty.

#### **4.1.1.3 The Impact of Product Diversity**

In addition to instant delivery, product diversity is another key factor influencing consumer shopping behaviors on both platforms. Dingdong Maicai primarily focuses on essential daily products, such as vegetables, fruits, and meats, with relatively affordable prices. These offerings attract a large base of middle- and low-income consumers. As respondent C1 (female, 35, teacher) noted:

*"I buy basic vegetables and fruits from Dingdong Maicai every day because the prices are reasonable, and the variety is good."*

Such an approach meets the needs of its target customer base, especially those who frequently make smaller purchases.

In contrast, Hema Fresh emphasizes a broader selection of high-end and imported products. Respondent C3 (male, 35, business owner) explained:

*"I usually use Hema Fresh to buy imported foods or higher-end ingredients. While they are more expensive, the quality is assured."*

Zhu and Chen (2020) similarly found that Hema Fresh attracts middle- to high-income consumers, offering premium products and a superior shopping environment. The different focus of each platform encourages consumers to choose based on their specific needs, further promoting market segmentation.

Despite their differing focuses, some consumers pointed out that Dingdong Maicai's product quality sometimes falls short compared to Hema Fresh. As A5 (male, 32, government employee) commented:

*"I occasionally find that the vegetables from Dingdong Maicai are not as fresh, especially when there are many orders during peak hours, and the quality drops."*

While Dingdong Maicai offers competitive prices, there is room for improvement in product quality and packaging. Liu et al. (2020) highlighted the importance of quality control in the supply chain, particularly as delivery speed increases.

#### **4.1.1.4 Personalized Recommendations and Promotional Strategies in Consumer Decision-Making**

Both platforms leverage big data and AI technology to provide personalized advertisements and member promotions, which have a noticeable effect on consumer purchasing decisions. Many respondents indicated that the promotions and personalized recommendations led them to shop more frequently. As A1 (male, 34, engineer) noted:

*"Every time I open Dingdong Maicai, I see recommended discount products. Sometimes I don't really need to buy anything, but because of the promotions, I end up getting some discounted fruits or snacks."*

Promotional strategies, such as discounts, cash-back offers, and member-exclusive products, effectively encourage more frequent purchases. These activities are especially appealing to younger consumers. B2 (male, 23, student) mentioned:

*"Dingdong Maicai's daily discounts and cash-back offers make me order almost every day, even though I don't always need that much food."*

Cao et al. (2015) found that personalized promotions significantly increase consumer engagement and conversion rates.

However, while promotions stimulate consumption, they also raise privacy concerns. Some respondents (such as A5, male, 32, government employee) expressed worries about the collection of personal data for recommendation purposes, fearing potential privacy breaches.

A5 remarked:

*"While these recommendations are convenient, I'm not sure how they gather my shopping data. Sometimes I worry that this data could be misused."*

Zhang et al. (2022) similarly noted that consumers are becoming more aware of the potential risks related to data collection on fresh food e-commerce platforms, even as they continue to enjoy the convenience of personalized recommendations.

#### **4.1.2 Comparative Analysis of Dingdong Maicai and Hema Fresh**

##### **4.1.2.1 Market Positioning and Target Consumers**

Dingdong Maicai is primarily positioned to meet consumers' daily basic needs, especially those with limited budgets and fast-paced lifestyles. Its advantages in instant delivery and pricing make it a top choice for young professionals and students. Research supports this, noting that Dingdong Maicai's front warehouse model effectively addresses consumer demand for fast delivery and low costs (Zhang et al., 2020).

In contrast, Hema Fresh targets a higher-end market, appealing to middle- and high-income consumers who prioritize quality and shopping experience. Its integrated store-warehouse model offers a diverse shopping experience and a unique offline component, excelling particularly in imported goods and premium

food products. Zhu and Chen (2020) point out that Hema Fresh creates a shopping environment tailored to high-end consumers by combining offline experience stores with online platforms.

#### 4.1.2.3 Differences in Products and Services

Dingdong Maicai's product range focuses on basic fresh food categories, offering affordable prices and fast delivery, making it suitable for frequent small purchases. However, in terms of product quality and packaging, consumers generally feel there is room for improvement.

As respondent A2 (male, 29, freelancer) noted:

*"The packaging of Dingdong Maicai products is sometimes not great, and there can be damage during delivery."*

Such feedback aligns with market research indicating that while Dingdong Maicai maintains competitive pricing, issues with packaging and quality during peak times are a concern for some users (Zhou et al., 2021). Improving supply chain management and packaging quality would help address these concerns while continuing to offer price advantages.

Hema Fresh, on the other hand, emphasizes providing high-quality products, with a competitive edge in premium and imported goods.

As B3 (male, 20, student) remarked:

*"Although Hema Fresh is a bit more expensive, its product quality is significantly better, especially for imported snacks and organic vegetables."*

This observation aligns with studies showing that Hema Fresh's combination of high-end products and superior customer experience attracts consumers who are willing to pay a premium for quality (Li et al., 2021). By combining offline experiences with online ordering, Hema Fresh offers more diverse options for consumers, which creates a unique competitive advantage in the high-end market.

Both platforms have changed how consumers shop, particularly by saving time and enhancing convenience. While Dingdong Maicai attracts budget-conscious consumers with its fast delivery and affordable essentials, Hema Fresh appeals to higher-end markets, offering premium products and in-store experiences.

However, both platforms face challenges. Dingdong Maicai has room for improvement in product quality and packaging, while Hema Fresh's slower delivery

is balanced by its superior product offerings. Personalized recommendations and promotional strategies drive frequent purchases on both platforms, although privacy concerns have been raised regarding data collection. Overall, both platforms have effectively catered to different market segments, shaping consumer behavior

## **4.2 Evaluating the impact of fresh food e-commerce on Shanghai's prosperity based on IGP's LOOT and SDGs**

### **4.2.1 Life Outcomes**

The Life Outcomes dimension within the LOOT framework focuses on the direct improvements in individuals' lives, including aspects such as health, well-being, and quality of life. The emergence of fresh food e-commerce has significantly transformed consumers' daily lives, particularly in terms of food access, time management, and healthy choices.

Both Dingdong Maicai and Hema Fresh have greatly enhanced urban residents' convenience through instant delivery and diverse product offerings. Respondent A2 (male, 29, freelancer) noted:

*"Due to my irregular work schedule, I use Dingdong Maicai almost every day. Its fast delivery means I don't need to plan my shopping in advance."*

This feedback highlights how Dingdong Maicai's instant delivery model is especially well-suited for busy urban residents, helping them streamline daily shopping and reduce the time and effort spent on in-store purchases. This observation aligns with Pulker et al. (2020), who found that instant delivery improves daily convenience.

Additionally, Hema Fresh has become an important tool for enhancing consumers' quality of life through its high-quality products and diverse options. As respondent C3 (male, 35, business owner) mentioned:

*"Sometimes I buy premium ingredients from Hema, such as imported fruits or beef, which I can't find at regular supermarkets."*

This illustrates how Hema Fresh elevates household dietary quality, particularly for middle- and high-income families. The platform not only meets everyday needs but also provides high-quality options for special occasions.

The improvement of health and dietary habits is another crucial aspect of fresh food e-commerce's impact on life outcomes. Respondent A4 (female, 34, programmer) remarked:

*"I feel more comfortable buying organic vegetables from Dingdong Maicai than from the supermarket."*

Thanks to cold chain logistics, these platforms offer fresher, safer food, enabling consumers to improve their diets and overall health (Jones et al., 2019). This aligns closely with the LOOT framework's core concept of improving life quality through enhanced daily living.

However, some limitations to these life outcomes emerged in the interviews. While the platforms have made food access more convenient, not all consumers have chosen healthier options as a result. For example, respondent B6 (male, 23, student) commented:

*"I often buy frozen food from Dingdong Maicai because it's cheap and convenient, though it's probably not that healthy."*

This feedback reflects a broader issue: although fresh food e-commerce provides a convenient shopping experience, some users continue to opt for highly processed foods rather than fresh ingredients. As a result, the potential for promoting healthy diets is not fully realized (Smith & Mortimer, 2021). Thus, for these platforms to better enhance life outcomes, there is a need to focus more on promoting healthy food choices and consumer education to fully leverage their potential for improving health.

#### **4.2.2 Life Opportunities**

The Life Opportunities dimension in the LOOT framework focuses on the economic and social opportunities available to individuals. In the context of fresh food e-commerce, this dimension is particularly evident in the job creation driven by these platforms. By optimizing logistics and supply chain management, fresh food e-commerce has provided stable employment opportunities for a large number of low-income workers, especially in urban warehousing and delivery sectors.

SDG 8 emphasizes the goal to "promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all." Dingdong Maicai, with its extensive warehousing and delivery network, has created thousands of jobs, particularly for low-skilled workers and delivery personnel. This not only enhances the city's economic vitality but also helps integrate more workers into the urban economic system. As respondent A3 mentioned:

*"My family found a delivery job through Dingdong Maicai, which was crucial during the pandemic."*

Similarly, respondent C3 (35, business owner) noted:

*"Hema Fresh stores are not just places for shopping but also sources of employment in the community, especially for young people and those without higher education."*

This shows how Hema Fresh's online-offline integration model not only enhances the customer experience but also generates significant local employment.

Dingdong Maicai's instant delivery model relies heavily on delivery personnel and warehouse managers. These roles provide valuable income sources for low-skilled workers, creating opportunities for individuals who may lack career advancement paths. Respondent A1 (34, engineer) observed:

*"I see Dingdong Maicai delivery workers in my neighborhood every day. They are always busy, and I think this platform provides opportunities for many unemployed people."*

Such job creation efforts are closely aligned with the LOOT framework's focus on "Life Opportunities," as they help low-income urban residents achieve economic independence.

In terms of social inclusion and SDG 10's goal to "reduce inequality," both Dingdong Maicai and Hema Fresh have further connected rural and urban markets, allowing rural producers to directly access urban consumers. As respondent C4 (40, teacher) commented:

*"Some of the agricultural products I buy from Hema come from small rural producers who supply directly. This not only helps the farmers but also provides us with fresher products."*

The "farm-to-table" model increases rural producers' income and reduces middlemen in the supply chain, helping to bridge the economic gap between urban and rural areas.

However, despite awareness of the platforms' economic contributions, consumers often lack clarity on how exactly these platforms support rural farmers. The perception gap becomes more pronounced depending on consumers' age or occupation. For example, older consumers (35 years and above, such as Group C respondents) tend to focus more on convenience and price, paying less attention to the supply chain's complexity. They often state they "never really considered where the food comes from, just that the platform has everything and delivers quickly." These consumers are typically family-centered, with their main motivation for shopping being to meet household needs.

In contrast, younger consumers (aged 20-30, especially students and young professionals in Group B) show greater interest in the platforms' social responsibility.



Although they value the convenience, some expressed uncertainty about how these platforms benefit the rural economy. As one respondent noted:

*"I really like Dingdong Maicai's fast delivery, but I'm not sure if these products help the rural economy."*

This suggests that younger consumers are more aware of the platforms' potential social impact, but they often lack sufficient information about how fresh food e-commerce supports rural farmers through supply chain improvements. Differences in occupation also influence this awareness. Government employees (such as A5) and teachers (such as C1 and A6) may have a deeper understanding of social responsibility due to the nature of their work, but even they are unsure of how these platforms specifically affect rural economies.

This contrast in awareness highlights the need for Hema Fresh and Dingdong Maicai to better communicate their social impact, particularly how they contribute to sustainable rural economic development and reduce the urban-rural divide.

Despite the platforms' positive contributions, interviews also revealed limitations in the opportunities they provide. Although many jobs have been created, some respondents mentioned the poor working conditions and low pay for workers. As respondent B5 (23, student) shared:

*"I know some friends working as delivery drivers for Dingdong Maicai, and their working conditions aren't great, and the pay isn't high either."*

These remarks suggest that while fresh food e-commerce provides employment for low-income workers, career development and income growth remain limited (Smith & Mortimer, 2021). Moving forward, platforms should focus not only on job creation but also on improving working conditions and providing better career advancement opportunities to further promote social inclusion and reduce inequality.

#### **4.2.3 Life Together**

The "Life Together" dimension of the LOOT framework emphasizes community relationships, social interactions, and collective cooperation. In the context of fresh food e-commerce, Dingdong Maicai and Hema Fresh are not just platforms providing goods and services. They also play a role in enhancing community interaction and social cohesion, contributing to overall community well-being.

Hema Fresh's offline experience stores offer more than just a shopping venue—they serve as social spaces. Customers can purchase fresh food, participate in live cooking demonstrations, and even enjoy dining services. This model provides convenient shopping while fostering interaction within the community. Interview data shows that respondent C1 (35, teacher) mentioned:

*"Whenever I go to Hema, it's not just for shopping. I also get to chat with my neighbors, and sometimes I participate in small events at the store."*

Such offline shopping and social experiences strengthen the bonds among community members. Smith and Mortimer (2021) also point out that community-based business models like Hema Fresh offer a practical setting for promoting social interaction and a sense of belonging.

At the same time, Dingdong Maicai's instant delivery model played a crucial role during the pandemic. When cities went into lockdown, fresh food e-commerce platforms ensured the supply of daily necessities through efficient delivery services. Several respondents mentioned that Dingdong Maicai's delivery workers were not only essential for supplying goods but also served as a vital link between residents and the outside world during a difficult period. Respondent B7 (34, engineer) said:

*"During the pandemic, Dingdong's delivery workers were our only connection to the outside world. They helped us get basic supplies, and the entire community was extremely grateful."*

This swift response capability not only kept community life running smoothly but also strengthened support and cooperation among neighbors during difficult times. Pulker et al. (2020) noted that the responsiveness of fresh food e-commerce during emergencies is key to maintaining social stability.

However, Dingdong Maicai's reliance on online channels has impacted traditional community stores. Some respondents feel that small local supermarkets have suffered as a result. This challenge raises the question of how platforms can balance online and offline economies while still enhancing community interaction (Pulker et al., 2020). To meet the sustainability goals of SDG 11, platforms must find ways to support local businesses and avoid undermining traditional retail ecosystems.

The "Life Together" dimension also reveals some potential issues. While instant delivery increases convenience, the shift toward digitalized, fragmented consumption might weaken traditional face-to-face interactions in communities. Respondent A3 (28, sales representative) noted:

*"While Dingdong Maicai is very convenient, I find myself going to the nearby market less often, and I don't get the chance to chat with my neighbors anymore."*

This highlights a potential downside. The convenience of fresh food e-commerce may unintentionally reduce face-to-face interactions, weakening social bonds within communities. Ehmke and Campbell (2014) suggest that fresh food e-commerce could contribute to digital isolation, especially among the elderly and less tech-savvy individuals.

Additionally, relying on digital platforms for daily shopping can make it harder for some older or vulnerable individuals to adapt. This may further increase social isolation. Respondent C4 (40, teacher) mentioned:

*"My parents aren't very good with these e-commerce platforms—they still prefer to shop at the market. But in winter, when it's too cold for them to go out, it causes a lot of inconvenience."*

To truly foster "life together," platforms should focus on providing better technical support and community services. Helping those unfamiliar with digital platforms adapt to new consumption models would contribute to the overall prosperity of the entire community.

In conclusion, Fresh food e-commerce platforms, like Dingdong Maicai and Hema Fresh, have contributed to the prosperity of Shanghai in several ways. Through instant delivery and a wide variety of products, they have enhanced convenience and improved consumers' quality of life. These platforms have also created numerous job opportunities, especially for low-skilled workers, and connected rural producers with urban consumers, thus reducing inequality. However, challenges remain in terms of environmental sustainability, working conditions for delivery personnel, and potential social isolation due to digitalization. To maximize their positive impact, these platforms need to improve their environmental practices, support local businesses, and enhance community interactions.

## **5. Conclusion**

Based on qualitative interviews with consumers, this study uses a coding framework to analyze the impact of fresh food e-commerce platforms Dingdong Maicai and Hema Fresh on the daily lives of consumers in Shanghai. It also explores, from the consumer's perspective, whether these platforms contribute to urban prosperity. Through coding analysis of respondent feedback, we identified key themes such as convenience, product diversity, promotions, and the platforms' socio-economic contributions.

First, instant delivery and convenience are the most direct impacts on consumers' daily lives. The study shows that these platforms meet the fast-paced demands of Shanghai residents, especially during workdays and special occasions. The reliance on instant delivery increased significantly during the pandemic. Respondents mentioned that Dingdong Maicai's front warehouse model allows quick delivery of ingredients, greatly improving shopping efficiency. However, some consumers reported delays during peak times or bad weather, indicating room for improvement in logistics management.

Second, product diversity plays a crucial role in improving consumers' quality of life. Both platforms provide a wide range of healthy foods, organic products, and premium imports. Hema Fresh is especially popular for its high-end food selection. Meanwhile, Dingdong Maicai's ready-to-eat meals attract younger consumers with busy work schedules, offering a fast and healthy meal solution. This diversity not only meets different consumer needs but also promotes healthier diets.

Promotions and membership systems also encourage consumer behavior and increase loyalty. Dingdong Maicai's daily sign-in discounts and Hema Fresh's black card membership system are well-received. These promotions encourage bulk purchases and repeat shopping. However, some respondents noted that frequent promotions could lead to irrational spending, raising concerns about the balance between enjoying discounts and making rational choices.

Using the IGP LOOT model and the SDGs as a framework, the study shows that these platforms contribute to Shanghai's prosperity by creating jobs, supporting local suppliers, and boosting regional economic growth. Dingdong Maicai, through its local partnerships, has supported small businesses and local farmers. Hema Fresh's store-warehouse integration has driven the integration of logistics and retail, creating jobs. However, both platforms fall short in environmental sustainability. Respondents frequently mentioned concerns over excessive plastic packaging and carbon emissions from logistics. This suggests that, while pursuing economic growth, the platforms need to focus more on environmental sustainability.

The study's limitations lie in its focus on consumer perspectives, which may not capture the views of other stakeholders like employees, delivery workers, and supply chain partners. This narrow focus may result in an incomplete understanding of the platforms' broader impacts. Future research should incorporate more diverse perspectives to explore the full impact on the social system. Additionally, the qualitative approach and limited sample size may not fully represent the views of all consumers.

Future research should expand to include other stakeholders, especially platform employees, delivery workers, and small suppliers. These groups play important roles in the e-commerce ecosystem, and the challenges they face deserve more attention. Research should also delve deeper into the platforms' environmental responsibilities. By including broader perspectives, future studies can provide a more comprehensive assessment of the impact of fresh food e-commerce on urban prosperity. Prosperity is a multidimensional concept, and consumer perspectives alone are not enough. Future research must explore a balance between social, economic, and environmental development.

In conclusion, Dingdong Maicai and Hema Fresh have greatly improved consumer convenience and quality of life through efficient delivery, diverse product choices, and promotions. They have also contributed to Shanghai's prosperity by driving

economic growth and creating jobs. However, issues related to environmental sustainability and the experiences of other stakeholders require further attention. As technology advances and markets expand, fresh food e-commerce platforms will continue to play a vital role in urban life, warranting further academic and practical exploration.

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## 7. Appendix

### Appendix I : Participant Detail Information

Participant ID	Gender	Age	Occupation	Living With
A1	Male	34	Engineer	Alone
A2	Male	29	Freelancer	Alone
A3	Female	28	Sales	Alone
A4	Female	34	Programmer	Alone
A5	Male	32	Government Employee	Alone
A6	Female	27	Teacher	Alone
B1	Male	24	Student	Parents
B2	Male	23	Student	Parents
B3	Male	20	Student	Parents
B4	Female	18	Student	Parents
B5	Female	23	Student	Roommates
B6	Female	23	Student	Roommates
B7	Female	34	Engineer	Spouse
C1	Female	35	Teacher	Spouse and Children
C2	Female	37	Banker	Spouse and Children
C3	Male	35	Business Owner	Spouse and Children
C4	Female	40	Teacher	Spouse and Children

## Appendix II : Participant Information Sheet

### **Participant Information Sheet For [Adult]**

UCL IGP Research Ethics Committee Approval ID Number: \_\_\_\_\_

#### **YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET**

**Title of Study: The Impact of the Digital Economy on Food Supply from a Consumer Perspective - A Case Study of Shanghai**

**Department: Institute of Global Prosperity**

**Name and Contact Details of the Researcher(s): Junpeng Chen [ucbvjc8@ucl.ac.uk](mailto:ucbvjc8@ucl.ac.uk)**

**Name and Contact Details of Supervisor: Maurizio Marinelli [ucfnmma@ucl.ac.uk](mailto:ucfnmma@ucl.ac.uk)**

#### **1. Invitation Paragraph**

You are being invited to take part in a research project. Before you decided it is important for you to understand why the research is being done and what participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

#### **2. What is the project's purpose?**

With the rapid development and popularisation of digital technology, e-commerce platforms, especially fresh food e-commerce, are playing an increasingly important role in our daily lives. Focusing on the Shanghai region, this study examines how fresh food e-commerce platforms such as Boxmart Fresh and Dingtong Buying Groceries are changing consumers' food purchasing behaviour. With the impact of the COVID-19 outbreak, more consumers are turning to online purchasing of fresh goods, which is having a significant impact on the food supply chain and retail market.

This study aims to:

1. analyse the changes in consumers' purchasing behaviour for fresh food in the digital economy.
2. assess consumer satisfaction with the use of fresh food e-commerce platforms and the service quality of these platforms.
3. compare the business strategies of Boxmart Fresh and Dingtong Grocery Buying and explore their effectiveness in enhancing consumer experience and efficiency.

#### **Project Duration**

The research project is expected to last for three months, starting in May 2024 and ending in August 2024. The actual duration of participants' engagement will vary depending on the specific activity (e.g. interview or questionnaire), but will not exceed a few hours overall. All participation activities will be organised as flexibly as possible to respect participants' time and other commitments.



**3. Why have I been chosen?**

You have been chosen to participate in this study because you are part of the consumer group in Shanghai that utilizes fresh food e-commerce platforms such as Hema Fresh and Dingdong Maicai. This research aims to understand the impacts of digital economy trends on food purchasing behaviors, and your experiences and insights are valuable for gaining a comprehensive view of how these platforms influence consumer choices and satisfaction within this specific market context. Your participation will help provide essential data that reflects the real-world usage and effectiveness of these services.

**4. Do I have to take part?**

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep (and be asked to sign a consent form – if applicable). You can withdraw at any time without giving a reason and without it affecting any benefits that you are entitled to. If you decide to withdraw you will be asked what you wish to happen to the data you have provided up to that point.

**5. What will happen to me if I take part?**

If you decide to participate in this study, you will be asked to complete a questionnaire and possibly participate in a brief interview. The questionnaire will take about 15-20 minutes to fill out and will cover topics related to your shopping habits, preferences, and satisfaction with food e-commerce platforms. The interview, if you choose to participate, will last approximately 30 minutes and will be conducted at a time that is convenient for you. All information you provide will be kept confidential and used only for research purposes. Your participation is entirely voluntary, and you can withdraw at any time without any consequences.

**6. Will I be recorded and how will the recorded media be used?**

The audio and/or video recordings of your activities made during this research will be used only for analysis and for illustration in conference presentations and lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

**7. What are the possible disadvantages and risks of taking part?**

Any reasonable foreseeable discomforts, disadvantages and risks need to be stated. Researchers should make known to the participants any predictable detriment arising from the proposed research process. Any unexpected discomforts, disadvantages and risks to participants, which arises during the research, should be brought immediately to their attention.

**8. What are the possible benefits of taking part?**

By participating in this study, you contribute to a deeper understanding of how digital platforms are transforming food purchasing behaviors. This research could influence improvements in service and operational strategies of e-commerce platforms, potentially enhancing consumer satisfaction and experience. Although there may be no direct benefit to you, your contribution will be crucial in shaping better policies and practices that could positively impact many consumers in the future.

**9. What if something goes wrong?**

If you experience any discomfort or distress during your participation, please inform the research team immediately. Your well-being is our priority, and necessary steps will be taken to address your concerns. If you have any complaints about how the research is conducted, without any risk to your rights, you can contact the supervising body listed in the information sheet. They will investigate the matter thoroughly and take appropriate actions. The contact detail of the project leader is shown as follow:

Supervisor: Dr. Maurizio Marinelli Contact detail: [ucfnmma@ucl.ac.uk](mailto:ucfnmma@ucl.ac.uk)

**10. Will my taking part in this project be kept confidential?**

Yes, your participation in this study will be kept confidential. All information collected from you will be stored securely and only accessible to the research team. Identifiable information such as names or contact details will be removed or anonymized in any reports or publications resulting from this research. Your privacy and the confidentiality of your data are of utmost importance to us.

**11. Limits to confidentiality**

While we strive to maintain the highest level of confidentiality, there are certain limits. If during the research, information is revealed that indicates immediate harm to yourself or others, the researchers are obliged to report this to appropriate authorities. Additionally, legal requirements, such as court orders, may necessitate the disclosure of information. Participants will be informed of any such disclosures as soon as possible.

**12. What will happen to the results of the research project?**

The results of this research will be compiled and analyzed to contribute to the academic understanding of consumer behavior in the digital economy, particularly in the context of food e-commerce. The findings may be published in academic journals, presented at conferences, or used in university lectures. Summaries of the research findings will also be made available to all participants who express an interest in the results. Importantly, all reports and publications will be anonymized to ensure that no personal data is disclosed.

**15. Contact for further information**

Researcher name: Junpeng Chen

Contact detail:

[Ucbvjc8@ucl.ac.uk](mailto:Ucbvjc8@ucl.ac.uk) (E-mail)

+44 07444698116(phone)

**Thank you for reading this information sheet and for considering to take part in this research study.**

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## Appendix III :Consent Form

### CONSENT FORM FOR ADULT IN RESEARCH STUDIES

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Title of Study: The Impact of the Digital Economy on Food Supply from a Consumer Perspective - A Case Study of Shanghai

Department: Institute of Global Prosperity

Name and Contact Details of the Researcher(s): Junpeng Chen [ucbvjc8@ucl.ac.uk](mailto:ucbvjc8@ucl.ac.uk)

Name and Contact Details of Supervisor: Maurizio Marinelli [ucfnmma@ucl.ac.uk](mailto:ucfnmma@ucl.ac.uk)

This study has been approved by the UCL IGP Research Ethics Committee: Project ID number:

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

I confirm that I understand that by ticking/initialling each box below I am consenting to this element of the study. I understand that it will be assumed that unticked/initialled boxes means that I DO NOT consent to that part of the study. I understand that by not giving consent for any one element that I may be deemed ineligible for the study.

		Tick Box
1.	<p>*I confirm that I have read and understood the Information Sheet for the above study. I have had an opportunity to consider the information and what will be expected of me. I have also had the opportunity to ask questions which have been answered to my satisfaction</p> <p><i>[and would like to take part in (please tick one or more of the following)</i></p> <p>- <i>an individual interview</i></p>	
2.	<p>*I understand that I will be able to withdraw my data up to <i>[insert date if stated on the Information Sheet]</i> OR <i>[insert text clearly defining time limit e.g. 4 weeks after interview]</i></p>	
3.	<p>*I consent to participate in the study. I understand that my personal information (<i>provide information on what personal information specifically will be collected</i>) will be used for the purposes explained to me. I understand that according to data protection legislation, 'public task' will be the lawful basis for processing.</p>	
4.	<p><b>Use of the information for this project only</b></p> <p>*I understand that all personal information will remain confidential and that all efforts will be made to ensure I cannot be identified (<i>unless you state otherwise, because of the research design or except as required by law</i>). -</p> <p>I understand that my data gathered in this study will be stored anonymously and securely. It will not be possible to identify me in any publications.</p> <p>OR</p> <p>Anonymity is optional for this research. Please select from the following 3 options:</p> <p>(a) I agree for my real name and role/affiliation to be used in connection with any words I have said or information I have passed on.</p> <p>(b) I request that my comments are presented anonymously but give permission to connect my role/affiliation with my comments (but not the title of my position).</p> <p>(c) I request that my comments are presented anonymously with no mention of my role/affiliation.</p>	

5.	*I understand that my information may be subject to review by responsible individuals from the University (to include sponsors and funders) for monitoring and audit purposes.	
6.	*I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason, I understand that if I decide to withdraw, any personal data I have provided up to that point will be deleted unless I agree otherwise.	
7.	I understand the potential risks of participating and the support that will be available to me should I become distressed during the course of the research.	
8.	I understand the direct/indirect benefits of participating.	
9.	I understand that the data will not be made available to any commercial organisations but is solely the responsibility of the researcher(s) undertaking this study.	
10.	I understand that I will not benefit financially from this study or from any possible outcome it may result in in the future.	
11.	I understand that I will be compensated for the portion of time spent in the study (if applicable) or fully compensated if I choose to withdraw.	
12.	I agree that my [anonymised] [pseudonymised] research data may be used by others for future research. [No one will be able to identify you when this data is shared.]	
13.	I understand that the information I have submitted will be published as a report and I wish to receive a copy of it. Yes/No	
14.	I consent to my interview being audio/video recorded and understand that the recordings will be: EITHER - destroyed within 1 year or destroyed immediately following transcription. OR - Stored anonymously, using password-protected software and will be used for training, quality control, audit and specific research purposes.  To note: If you do not want your participation recorded you can still take part in the study.	
15.	I hereby confirm that I understand the inclusion criteria as detailed in the Information Sheet and explained to me by the researcher.	
16.	I hereby confirm that:  (a) I understand the exclusion criteria as detailed in the Information Sheet and explained to me by the researcher; and  (b) I do not fall under the exclusion criteria.	
17.	I am aware of who I should contact if I wish to lodge a complaint.	
18.	I voluntarily agree to take part in this study.	
19.	Use of information for this project and beyond  I would be happy for the data I provide to be archived at UCL Drive.  I understand that other authenticated researchers will have access to my [anonymised] [pseudonymised] data.	

**If you would like your contact details to be retained so that you can be contacted in the future by UCL researchers who would like to invite you to participate in follow up studies to this project, or in future studies of a similar nature, please tick the appropriate box below.**

<input type="checkbox"/>	Yes, I would be happy to be contacted in this way	
<input type="checkbox"/>	No, I would not like to be contacted	

Name of participant \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Researcher \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

## Appendix IV : Interview Question Guides

1. What is your age?
2. What is your gender? What is your occupation?
3. When you use Dingdong Maicai, do you live alone or with family? How many people live with you, and what is their relationship to you?
4. Why do you use both Hema Fresh and Dingdong Maicai? In what situations do you typically use these services?
5. How many times per month do you purchase food from Hema Fresh and Dingdong Maicai?
6. Who are you primarily buying food for when using Hema Fresh and Dingdong Maicai?
7. How would you rate the product quality and freshness of Hema Fresh and Dingdong Maicai? Could you give some specific examples?
8. In terms of product variety and availability, how do Hema Fresh and Dingdong Maicai compare? Which platform better meets your needs and why?
9. Have you ever experienced delivery issues with Hema Fresh or Dingdong Maicai? Please describe the situation and how it was handled.
10. What type of member promotions from Hema Fresh and Dingdong Maicai do you find most appealing, and why?
11. Do you find the pricing and product sourcing information provided by Hema Fresh and Dingdong Maicai transparent? Does this transparency affect your trust in these platforms?
12. How has using Hema Fresh and Dingdong Maicai affected your quality of life, especially in terms of health and convenience?
13. How likely are you to use Hema Fresh and Dingdong Maicai for shopping in the next three months?
14. What improvements could Hema Fresh and Dingdong Maicai make that would increase your usage frequency?
15. On a scale of 1 to 10, how likely are you to recommend Hema Fresh and Dingdong Maicai to others? What aspects would you highlight in your recommendation?
16. Do you think Hema Fresh and Dingdong Maicai support local farmers? Could you provide examples?
17. Do you think Hema Fresh and Dingdong Maicai contribute to the local economy? Could you provide examples?
18. How do Hema Fresh and Dingdong Maicai's commitments to sustainability influence your decision to use their services?
19. How well do you think Hema Fresh and Dingdong Maicai address food accessibility issues in your neighborhood?



## Appendix V : Interview Transcript (Example)

(Full interview question please see OneDrive Research Data)

1. How old are you?

34 years old.

2. What is your gender? What is your occupation?

Male, a community civil servant.

3. Do you use Dingdong Maicai while living alone or with family? How many people live in your current residence, and what is your relationship with them?

I currently live alone, staying in an apartment near my workplace. On weekends, I go to my parents' house, but during the weekdays, I mostly live by myself. That's why I need grocery shopping to be quick and convenient since I cook for myself. When I use Dingdong Maicai, it's usually just for me, not like when I'm with family and need to buy larger quantities.

4. In what scenarios do you typically use Hema Fresh and Dingdong Maicai?

I use these apps mostly when I'm really busy at work and don't have time to go out to buy groceries. Especially when I finish work late and don't want to squeeze through crowded places, ordering groceries online becomes my go-to option. I don't use Hema Fresh much, mainly when I want to buy fresh seafood. Dingdong Maicai, on the other hand, is more suitable for daily necessities like vegetables and meat—it's just a click away and very convenient.

5. How often do you buy food from Hema Fresh and Dingdong Maicai per month?

On average, I use Dingdong Maicai five or six times a month, almost every week. Hema Fresh, being more expensive, is something I use only once or twice a month. Sometimes, I also shop at offline supermarkets to supplement things, but the frequency of using Dingdong Maicai is much higher, mainly due to its fast delivery, which fits my daily needs.

6. Who do you primarily buy food for on Hema Fresh and Dingdong Maicai?

At the moment, I mainly buy food for myself. Even though I'm busy with work, I still prefer cooking simple meals at home, so I buy daily essentials like vegetables and meat on Dingdong Maicai. Occasionally, when I visit my parents, I'll order fruits for them using Dingdong Maicai. As for Hema Fresh, I usually use it to treat myself to something special, like imported goods.

7. How would you rate the product quality and freshness of Hema Fresh and Dingdong Maicai? Can you give specific examples?

The product quality on Hema Fresh is generally very good, especially seafood and imported items, which feel fresher than typical supermarket options. For example, I recently bought salmon from Hema Fresh, and it was incredibly fresh. Dingdong Maicai's vegetables and meat, while not as premium as Hema, are also fresh, particularly the vegetables that are delivered the same day.

8. In terms of product variety and availability, how do Hema Fresh and Dingdong Maicai compare? Which platform better meets your needs and why?

Dingdong Maicai offers a wide variety of products suitable for daily use, especially essentials

like vegetables, fruits, and meat. Hema Fresh, on the other hand, focuses more on high-end and imported products, with a richer selection of seafood. For my daily needs, Dingdong Maicai is more suitable because I'm busy with work and just need to buy fresh ingredients quickly, while Hema Fresh is more for special occasions or when I want to treat myself.

9. Have you ever encountered any delivery issues with Hema Fresh or Dingdong Maicai? Please describe the situation and how it was handled.

Once, I ordered some vegetables on Dingdong Maicai, and the delivery was delayed by almost an hour due to bad weather. The customer service responded promptly, and the delivery person explained the situation. Although I wasn't completely satisfied, I understood the circumstances. Hema Fresh's delivery experience has been better, probably because they have fewer orders, so they are always punctual.

10. Which types of membership promotions from Hema Fresh and Dingdong Maicai are most appealing to you and why?

I find Dingdong Maicai's new user discounts and points redemption promotions the most appealing. Especially for first-time users, the discounts are generous, which is great for someone like me who regularly buys groceries. Hema Fresh's membership benefits tend to be geared more towards high-end consumption, like special discounts on imported products.

11. Do you think Hema Fresh and Dingdong Maicai provide transparent pricing and product sourcing information? Does this transparency affect your trust in these platforms?

Both platforms are relatively transparent in terms of pricing and product sourcing. Hema Fresh especially labels the origin of many imported products, which makes me feel more confident. Dingdong Maicai's sourcing information is relatively simpler, but the basic farm and origin information is still clearly marked. Increased transparency naturally makes me more willing to trust these platforms.

12. How have Hema Fresh and Dingdong Maicai impacted your quality of life, particularly in terms of health and convenience?

Dingdong Maicai has significantly improved my daily quality of life, particularly in terms of convenience. It saves a lot of time since I can just tap on my phone and receive fresh ingredients after work, without needing to stand in line at the supermarket. Hema Fresh, on the other hand, enhances my health and lifestyle occasionally, allowing me to enjoy higher quality, imported foods and fresh seafood.

13. How likely are you to use Hema Fresh and Dingdong Maicai over the next three months?

I'm very likely to continue using Dingdong Maicai since it's become my primary source for groceries. Hema Fresh, on the other hand, will likely be used less frequently due to its relatively higher prices.

14. What improvements could Hema Fresh and Dingdong Maicai make that would most likely increase your usage frequency?

For me, Dingdong Maicai could improve delivery times, particularly during bad weather or

peak hours, to ensure more timely deliveries. If Hema Fresh offered more affordable products, I'd be more inclined to use it more often, as it currently caters mostly to higher-end consumers.

15. How likely are you to recommend Hema Fresh and Dingdong Maicai to others, on a scale of 1 to 10? What would you highlight in your recommendation?

I would give Dingdong Maicai an 8 and Hema Fresh a 6. Dingdong Maicai's convenience and freshness are its key strengths, making it very friendly for busy professionals like me. Hema Fresh, while offering high-quality products, is more expensive and not necessarily suitable for everyone. I would recommend Dingdong Maicai for its cost-effectiveness and convenience, while Hema Fresh is better suited for those seeking a high-end lifestyle.

16. Do you think Hema Fresh and Dingdong Maicai support local farmers? Can you give examples?

Dingdong Maicai seems to do a decent job of supporting local agriculture. I've noticed that many of their products are sourced directly from local farms, like seasonal vegetables. Hema Fresh, on the other hand, focuses more on global sourcing. While they do have some local products, the emphasis is more on imported, premium items, so the support for local farmers seems relatively limited.

17. Do you think Hema Fresh and Dingdong Maicai contribute to the local economy? Can you give examples?

I think Dingdong Maicai contributes more noticeably by partnering with local farms and suppliers, helping to stimulate local agriculture. Hema Fresh, on the other hand, relies more on large-scale logistics and a global supply chain, so its direct impact on the local economy seems smaller.

18. How does Hema Fresh and Dingdong Maicai's commitment to sustainability affect your decision to use their services?

Sustainability is something I consider, especially in terms of food safety and environmental impact. Dingdong Maicai offers some products labeled as "green" or "organically grown," which makes me more inclined to choose them.

19. How do Hema Fresh and Dingdong Maicai address the issue of food choices in your community?

I think Dingdong Maicai does a great job in terms of food choices—it offers a wide variety of products, and delivery is fast, covering almost all my daily needs. Hema Fresh has more diverse options, particularly for imported and high-end foods, but because of the higher prices, I don't choose it often, so its impact on my daily life is limited.



## Appendix VI: Coding Process

Theme	Sub-theme	Code	Data Fragment Content	Remarks
Life Outcomes	Health and Quality of Life	Fresh Ingredients	"The strawberries from Dingdong Maicai were incredibly fresh, felt very healthy to eat." "The salmon from Hema was fresh and nutritious." "The quality of ingredients bought on the platforms was good, which improved my life quality."	Freshness enhances a sense of health, users focus more on health.
		Food Safety and Health	"Products on Dingdong Maicai are labeled organic, feels healthier." "Hema's imported products are guaranteed to be of good quality, feels safe to eat." "Dingdong offers a lot of green food options, which I tend to choose."	Food safety and nutritional value are key user concerns.
	Changes in Eating Habits	Healthy Diet Choices	"Since using Dingdong, I buy more organic vegetables." "Hema's high-quality ingredients have made us pay more attention to healthy eating." "Buying from the platform more frequently, so we cook more often at home."	The platform's rich options are changing users' eating habits.
	Convenience Improves Life Quality	Time-saving and Convenient	"With Dingdong Maicai, you can buy food anytime, saving a lot of time." "Hema's delivery service is fast, saving me the trouble of going to the supermarket." "No need to go to the supermarket, delivery is very convenient."	Time and energy savings are key factors in improving life quality.
Life Opportunities	Increase in Consumption Opportunities	Opportunities for High-end Food Purchases	"I bought some high-end imported fruits through Hema, which is usually hard to get." "Hema's seafood options are more varied, more choices." "During holidays, Hema is perfect for special meals."	The platform expands the availability of high-end food, meeting different needs.
		More Diverse Food Choices	"Dingdong offers a wide variety of vegetables for daily cooking." "Hema offers a wide range of products, especially imported" "You can find ingredients on the platform that are hard to find in local markets."	Dingdong focuses on daily needs, while Hema provides more high-end options.
	Promotions and Discounts	Discount Promotions	"Dingdong's discounts make shopping much more affordable." "Hema's member day discounts are great, especially for imported goods." "Whenever there's a promotion, I tend to buy more household items."	Consumers are sensitive to promotions, which increase their purchasing desire.
	Technology and Online Shopping Experience	Points and Membership Rewards	"I exchanged Hema member points for many useful household items." "Dingdong's membership perks include points exchange, which is very cost-effective." "The point system is attractive, especially the exclusive member benefits."	The points system increases customer loyalty and shopping frequency.
		Convenient Mobile Shopping	"The app interface is simple and convenient, perfect for young people." "Dingdong's interface is user-friendly, can place orders anytime, anywhere." "Shopping experience is great, and you can easily purchase what you need."	The convenience of mobile devices makes users more inclined to use online platforms.
Life Together	Community Support and Economic Contribution	Support for Local Agricultural Products	"Many vegetables on Dingdong are from local farms, with clear origin labels." "Hema also offers some local specialty agricultural products." "Seeing vegetables directly supplied from local farmers on the platform makes me feel good about supporting the local economy."	Platforms support local farmers through agricultural product sales, helping the local economy.
		Economic Contribution and Job Creation	"Dingdong has helped local farmers and created delivery jobs." "Hema has opened many stores, providing jobs for locals." "The platform has created many jobs, especially for delivery drivers."	Platforms play a key role in promoting local employment and economic vitality.
	Environmental and Sustainability Awareness	Environmental Awareness	"Dingdong has started using eco-friendly bags, feels better for the environment." "Hema doesn't use much eco-friendly packaging, needs improvement." "The platform's commitment to sustainability makes me more willing to support them."	Sustainable actions (like eco-friendly packaging) influence user decisions.
	Social Responsibility	Platform's Commitment to Social Responsibility	"Seeing the platform support green products makes me more willing to use it." "Dingdong's focus on environmental and social responsibility makes me feel like I'm contributing to society when I shop."	Platforms' social responsibility enhances user loyalty.
	Impact on Food Options in Community	Improved Food Availability	"Dingdong makes it easy to buy all the food I need daily." "Hema offers many high-end food options that are hard to find locally."	Platforms enrich users' food options in their community, especially in high-end food.

## Appendix VII : UCL Risk Assessment Form

UCL DEPARTMENT OF GEOGRAPHY  
Dissertation Risk Assessment



### DISSERTATION RISK ASSESSMENT

Project title:	The Impact of the Digital Economy on Food Supply from a Consumer Perspective - A Case Study of Shanghai
Location(s):	The United Kingdom
Project Supervisor:	Dr.Maurizio Marinelli
Brief description of the work:	The research project focuses on exploring the impact of the digital economy on food supply from a consumer perspective, specifically within the context of Shanghai, utilizing case studies of two prominent e-commerce platforms, Hema Fresh and Dingdong Maicai. This study aims to understand how these platforms influence consumer buying behaviors, satisfaction levels, and overall interaction with the digital marketplace for fresh food products. The project will employ a qualitative method approach, adopting qualitative interviews with consumers to gather in-depth insights and surveys to broad data on consumer preferences and behaviors. The findings are intended to inform better business practices for e-commerce platforms and provide insights for policymakers on regulating and supporting the digital economy in the food sector.

### Declaration

**We the undersigned have assessed the activity and the associated risks and declare that the risks will be controlled by the methods listed. Those participating in the work have read the assessment. The work will be reassessed whenever there is significant change and at least annually.**

Name (Block Capitals)

Signed: **JUNPENG CHEN**

(In cases where this form is submitted and held electronically the form will considered to be signed by the individual whose name appears above)

Supervisor: Dr. Konrad Jan Miciukiewicz,

Researcher(s): Junpeng Chen

Date: 24/04/2024

Review date for risk assessment:

### Purpose

The purpose of this document is to identify the risks which relate to the planned fieldwork, and to describe the control procedures which will be adopted.

The risk assessment document identifies a set of hazards which may be relevant to the project. For each hazard category the risk is identified and appropriate control measure(s) described.

Department of Geography University College London Pearson Building Gower Street London WC1E 6BT  
Tel: +44 (0)20 7679 5500 Fax: +44 (0)20 7679 0565  
[www.geog.ucl.ac.uk](http://www.geog.ucl.ac.uk)

<b>Environment</b>		<i>Hazards involved with environment must be considered</i>	
Hazard (s)	Risk(s)	Control Measure(s)	
Refuse generation	Pollute the environment	Properly sort and clean up the garbage generated during work, and discard it in the correct trash can	

<b>Manual Handling</b>		<i>Do manual handling activities take place? (Tick relevant box)</i>		<i>Move to next hazard -</i>	
		<b>NO</b>	<input type="checkbox"/>		
		<b>YES</b>	<input type="checkbox"/>		
Hazard(s)	Risk(s)	Control Measure(s)			

<b>Chemical/Biological</b>		<i>Are chemical or biological hazards involved? (Tick relevant box)</i>		<i>Move to next hazard -</i>	
		<b>NO</b>	<input type="checkbox"/>		
		<b>YES</b>	<input type="checkbox"/>		
Hazard(s)	Risk(s)	Control Measure(s)			

<b>Working on or near water</b>		<i>Does the work involve being near or on water? (Tick relevant box)</i>		<i>Move to next hazard -</i>	
		<b>NO</b>	<input type="checkbox"/>		
		<b>YES</b>	<input type="checkbox"/>		
Hazard(s)	Risk(s)	Control Measure(s)			

<b>Lone, isolated or out of hours working</b>		<i>Is lone working involved? (Tick relevant box)</i>		<i>Move to next hazard -</i>	
		<b>NO</b>	<input type="checkbox"/>		
		<b>YES</b>	<input type="checkbox"/>		
Hazard(s)	Risk(s)	Control Measure(s)			

<b>Ill Health</b>		<i>The possibility of ill health must be considered</i>			
Hazard(s)	Risk(s)	Control Measure(s)			
Physical Fatigue	Fieldwork or long periods of data collection can lead to physical exhaustion, especially if the research involves traveling or carrying heavy equipment.	Ensure reasonable scheduling with adequate rest periods. Where possible, use equipment that is lightweight and portable to minimize physical burden.			

<b>Equipment</b>		<i>Will equipment be used? (Tick relevant box)</i>		<i>Move to next hazard -</i>	
		<b>NO</b>	<input type="checkbox"/>		
		<b>YES</b>	<input checked="" type="checkbox"/>		
Hazard(s)	Risk(s)	Control Measure(s)			
General workplace equipment	Data loss: Important data may be lost due to equipment failure or incorrect operation during data collection Equipment damage: Equipment may be damaged during use due to drops, water damage or other external factors.	Use of protective measures: Equip all equipment with appropriate protective sleeves or cases, especially when data collection is carried out in the field, to increase the physical protection of the equipment.  Database saved to UCL OneDrive each time the job is completed			



<b>Dealing with the Public</b>	<i>Will you be dealing with the public? (Tick relevant box)</i>	<b>NO</b>	<i>Move to next hazard -</i>
		<b>YES</b>	
<b>Hazard(s)</b>	<b>Risk(s)</b>	<b>Control Measure(s)</b>	

<b>Attitudes towards Protected Characteristics (LGBTQ/Gender/Age)</b>	<i>Are these hazards relevant? (Tick relevant box)</i>	<b>NO</b>	
		<b>YES</b>	
<b>Hazard(s)</b>	<b>Risk(s)</b>	<b>Control Measure(s)</b>	

<b>Environmental Hazards</b>	<i>Have you considered your impact on the environment? (Tick relevant box)</i>	<b>NO</b>	
		<b>YES</b>	
<b>Hazard(s)</b>	<b>Risk(s)</b>	<b>Control Measure(s)</b>	

<b>Other Hazards</b>	<i>Have you identified any other hazards? (Tick relevant box)</i>	<b>NO</b>	
		<b>YES</b>	
<b>Hazard(s)</b>	<b>Risk(s)</b>	<b>Control Measure(s)</b>	

**Extra sources of information**

- Departmental safety and risk web sites (<http://www.geog.ucl.ac.uk/>)
- Local experts, e.g. police, recent visitors, other UCL departments
- Meteorological Office, national meteorological services, tide tables, port authorities
- Foreign and Commonwealth Office
- UCL Safety Services – RiskNet
- UCL Occupational Health Service
- Local organisations, e.g. mountaineering clubs
- Community representatives

I have read, understood and agree to abide by the risk assessments and the safe working guidance provided for the project detailed overleaf.

Print Name	Signature	Date
Junpeng Chen	Junpeng Chen	17/04/2024

## Appendix VIII : IGP Low Risk Research Ethics Form

### IGP Ethics Form for Low-Risk Research

Application form for low-risk ethics review by Institute for Global Prosperity Ethics Committee.

MSc students should complete this form only after discussing their proposed project with their supervisor (who will be contacted after submission to sign off the application before review).

The low-risk checklist (section 2) will help determine if this is the right process for your project. You will then need to work through the following sections to apply for ethics approval. Applications do not have to be completed in one session as progress will be saved up to the last 'next' button (→) clicked, as long as you continue to use the same browser on the same computer or device; however, it is recommended that any lengthy responses are backed up separately as a precaution. Incomplete applications will be deleted after two months of inactivity. You can find a Word version of this form on Moodle.

Contents:

1. Low-risk checklist
2. Personal details
3. Research description
4. Location
5. Participants
  - o Sample
  - o Recruitment
  - o Consent
6. Pre-collected data
7. Ethical Issues
8. Data Storage and Security
9. Signature(s) and Submission
10. Supervisor's Signature

\*If you have any questions about this form or application process, please contact Dr Mara Torres Pinedo (m.torrespinedo@ucl.ac.uk) or Dr Yuan He (yuan.he@ucl.ac.uk).

#### Low-Risk Checklist

**This 12-point checklist will help you confirm whether your research is low-risk and whether this is the right form/process for it.**

Selecting 'yes' to any question indicates that your project should instead go through the central UCL REC high-risk process. If hesitant on the answers, students should consult with their supervisor(s).

For more information on UCL REC, please go to: <https://www.ucl.ac.uk/research-ethics/ethical-approval/applying-ucl-rec>

##### Q1. 1. Vulnerability

**Will the project set out to recruit (or carry a heightened possibility of accidentally recruiting) participants whose situation might render them particularly vulnerable?**

*Vulnerability relates to a diminished capacity to give informed consent, or to safeguard one's own interests, due to a range of impediments or circumstances; examples include learning disabilities, mental health problems, or current personal circumstances (e.g. asylum seekers, prisoners, etc).*

- No

##### Q2. 2. Deception

**Will the research involve covert methods or deception?**

*I.e. research carried out without the knowledge or active consent of the participants, or by misleading participants about the purpose of the research.*

- No

**Q3. 3. Identification via observational methods**

Will the researcher be observing individuals and recording them in a manner that could make them identifiable without their active consent? In person or online.

*E.g. recording posts word-for-word from social media without the consent of the contributors; in this case the contributors could potentially be identified if the quoted text is searched for online (not applicable to public posts by organisations or public figures e.g. politicians).*

- No

**Q4. 4. Incentives**

Will participants be offered any undue incentives that could be considered coercive?

- No

**Q5. 5. Power relationships**

*E.g. participants will include the researcher's friends, family, fellow students or colleagues, will the project collect personal data that they would not have otherwise shared?*

- No

**Q6. 6. Security-sensitive research**

Will the project involve security-sensitive research?

*E.g. commissioned by the military or under a security programme.*

- No

**Q7. 7. Risk of disclosures**

Will the research carry a heightened risk of disclosures by participants which may require the researcher to break confidentiality?

*E.g. abuse or involvement in illegal activities/misconduct.*

- No

**Q8. 8. Data requiring particular consideration**

Will the research collect or use data linked to individuals that is genetic, biometric or medical in nature?

- No

**Q9. 9. Topics requiring particular consideration**

Will the research involve any of the topics listed by the UCL REC as requiring particular consideration?

- Accessing materials normally prohibited by UCL Computing Regulations (see policy here);
- Terrorism/violent actions (when involving contact with terrorists/extremists, communities where they are thought to be based, or targeted communities; or accessing materials created by terrorist groups including social media);
- Pornography or material that could be considered pornographic (when accessing materials, or involving contact with those that produce them);
- Violence/abuse/exploitation (when involving participants' personal experiences);
- Criminality (when involving direct contact with those knowingly engaged at the time in criminal activities);
- Subjects of particular cultural/political sensitivity in a given social context, such that the research would expose a specific group of participants to a risk of harm

- No

**Q10. 10. Risks to participants**

Will the research present a risk of harm to participants or other people, beyond that encountered in their normal lives?

*Harm might be physical, emotional (e.g. distress), psychological (e.g. stress/anxiety), reputational, legal, or financial.*

- No



Q11.

**11. Intrusive medical interventions**

Will participants be subject to any intrusive (or potentially intrusive) medical interventions?

*E.g. biopsies, administration of drugs, blood samples, medical devices, vigorous physical exercise expected to cause stress, etc.*

- No

Q12. 12. Risks to researchers

Will the research pose any significant risk to the researcher(s)?

*E.g. increased risk of physical threat, psychological trauma, being in a compromising situation, investigation by police/security services, or travel to locations where the FCO has advised against all or all but essential travel (<https://www.gov.uk/foreign-travel-advice>).*

- No

Selecting 'yes' to any question indicates that your project should instead go through the central UCL REC high-risk process.

If hesitant on the answers, students should consult with their supervisor(s). For more information on UCL REC, please go to: <https://www.ucl.ac.uk/research-ethics/ethical-approval/applying-ucl-rec>

## Personal Details

Q21. Name

Junpeng

Q22. Surname

Chen

Q23. UCL Email Address

ucbvjc8@ucl.ac.uk

Q24. Degree

- MSc Global Prosperity

Q25. Supervisor

Maurizio Marinelli

Q26. Supervisor UCL Email Address

m.marinelli@ucl.ac.uk

Q27. Does this project involve Co-Investigators/Partners/Collaborators who will work on the project?

*This includes those with access to the data, such as transcribers or partners from organisations (e.g., community research initiatives or any other co-designed research projects).*

- No

Q30. Is this project funded?

- No

## Research Description

Q32. Project Title

The Impact of the Digital Economy on Food Supply from a Consumer Perspective - A Case Study of Shanghai

**Q34. Project Description****Describe your research project, outlining your main aims (300 words max).**

Our research project focuses on understanding the transformative impact of the digital economy on food supply, specifically through the lens of consumer behavior in Shanghai. The study zeroes in on how major e-commerce platforms, Hema Fresh and Dingdong Maicai, are reshaping the ways consumers purchase fresh groceries. The overarching goal is to delineate the broader implications of these changes on traditional food supply chains and consumer market dynamics.

Aim 1: To analyse consumers' usage behaviours and changes in preference for fresh food e-commerce platforms

Aim 2: To evaluate the effectiveness of the customer retention strategies of Hema Fresh and Dingdong Maicai

Aim 3: To explore the interaction patterns between consumers and fresh food e-commerce platforms and their influence on purchasing decisions.

**Q35. Project Start Date (mm/dd/yyyy)**

**This must be a future date i.e. the planned start of data collection. Please allow at least 20 working days for the application date.**

05/25/2024

**Q36. Project End Date (mm/dd/yyyy)**

**This must be a future date i.e. the date when you plan to submit your dissertation.**

08/25/2024

**Q54. Research type (select all that apply)**

- Primary data collection involving human participants
- Secondary data analysis (including datasets in public domain and archive research)
- Pre-collected data from human participants

**Q53. Project Methods (select all that apply)**

- Interviews
- Survey Questionnaires
- Other

**Q55. Provide – in lay person's language - an overview of the project methodology.**

**\*This should include a justification of the chose method(s), how data collection will occur and what participants will be ask to do (350 words max).**

In this project, I'm exploring how digital economies impact food supply in Shanghai, focusing specifically on consumer interactions with leading fresh food e-commerce platforms like Hema Fresh and Dingdong Maicai. To capture a comprehensive picture, I'm employing a mixed-methods approach, which combines online surveys and discussion groups. This approach is beneficial because while surveys will provide a broad overview of consumer behaviors and attitudes, capturing trends through numerical data, the discussion groups will delve deeper, offering insights into the motivations and feelings behind these behaviors. For data collection, I'll distribute online surveys to Shanghai consumers who use these platforms. These surveys will ask about their shopping frequency, satisfaction, and brand loyalty, aiming to quantify general consumer trends. Additionally, I'll conduct discussion groups where participants can openly discuss their experiences. These sessions are designed to be interactive and insightful, allowing participants express what they appreciate about these services and what could be improved. Participants in the survey will spend about 15 minutes answering questions online, while those in the discussion groups will engage in a more detailed conversation lasting 1-2 hours.

**Q56. Please upload any data collection instruments you plan to use (e.g. list of questions for interviews, survey questionnaire, focus group agenda).**

**\*Please upload as one file e.g. combined PDF. Files cannot be removed once uploaded but can be replaced.**  
N/A

## Research Location

**Q39. Where will data collection take place?**

- UK

**Q41. Are any additional permissions required to conduct research in this location?**

**E.g. permit or visa, local ethical approval, non-disclosure agreements, access to schools/premises.**

- No



**Q43. File upload for any relevant documents relating to permissions.**

Permissions can be pending at the time of application, but final approval may depend on the committee receiving them.

\*Please upload as one file e.g. combined PDF. Files cannot be removed once uploaded but can be replaced.

[\[Click here\]](#)

**Q44. If you are travelling overseas in person are there any concerns based on governmental travel advice ([www.fco.gov.uk](http://www.fco.gov.uk)) for the region of travel?**

- No

**Q45. Will the research involve primary data collection recruiting, interviewing, or observing human participants?**

- Yes

## Research Participants

**Q46. Describe the participants/population with whom you will be working**

Our research project will focus on consumers in Shanghai who use digital platforms for purchasing fresh food, specifically targeting users of Hema Fresh and Dingdong Maicai.

**Q47. Explain your sample type and provide a short justification**

The sample will consist of a mixed demographic that includes a variety of ages, genders, and socio-economic statuses to ensure diverse perspectives on digital food shopping are captured. The reason for selecting a mixed demographic is to understand how different segments of the population are adopting and being impacted by digital fresh food shopping platforms differently. This approach helps in gathering comprehensive data that reflects the varied consumer base of these platforms.

**Q50. Sample Size/Expected number of participants**

We aim to gather quantitative data from approximately 300 participants through surveys. Additionally, around 30 participants will be selected for in-depth qualitative interviews to provide more detailed insights into their experiences and perceptions. The sample size is designed to achieve a balance between wide-ranging quantitative data and in-depth qualitative feedback, ensuring robust statistical analysis while allowing for detailed narratives to emerge.

**Q52. Age of participants (select all that apply)**

- Adults (18 years and over)

**Q51. Explain how you will identify and recruit participants**

**\*This should include reference to how you will identify and approach participants. For example, will participants self-identify themselves by responding to an advert for the study or will you approach them directly (such as in person or via email)?**

Participants will be recruited through online advertisements placed on social media platforms and online forums frequented by Shanghai residents. We will also collaborate with Hema Fresh and Dingdong Maicai to reach out directly to their customer base via email newsletters, offering incentives such as discount coupons to encourage participation. These methods ensure access to a target audience that is already engaged with digital grocery shopping.

**Q60. To what degree will participants be anonymised?**

- Fully (individuals cannot be directly or indirectly identified, including by the researcher)

**Q61. Explain your reasons for anonymisation type and how you intend to anonymise, if applicable)**

To protect participant privacy and maintain confidentiality, all personal identifiers will be removed or altered during the data collection phase. Each participant will be assigned a unique code that will be used on survey forms and during data analysis. This anonymisation process is crucial for ethical compliance and helps in encouraging candid responses from participants, as it assures them that their information will be handled with discretion and their identities will not be disclosed in any resultant publications or presentations.

**Q62. How you will obtain consent from participants?**

- Written consent with Participant information sheets and consent forms

**Q63. Consent Documents personalised to your project (e.g participant information sheets and consent form).**  
**\*Upload as a single PDF document. Files cannot be removed once uploaded but can be replaced.**

[\[Click here\]](#)

## Pre-collected data

**Q67. Does your study involve the use of existing data collected from human participants?**

- No

## Ethical Issues

Reflect on potential risks and benefits of your proposed research, and how you will mitigate any risks.

Remember that all research involves some degree of risk; this section should reflect how you identify ethical risks that might be raised in the course of the project and how you plan to mitigate them.

**Q85. Describe the potential benefits to knowledge and/or society of your proposed research**

This research project on the impact of the digital economy on food supply, particularly focusing on consumer behavior in Shanghai via platforms like Hema Fresh and Dingdong Maicai, stands to offer significant benefits both to academic knowledge and society. Academically, it will deepen our understanding of digital market dynamics by providing concrete data on how technological innovations influence consumer decisions and reshape market structures. This enhances existing knowledge across the fields of digital economics, consumer behavior, and supply chain management, contributing to interdisciplinary academic discussions. Societally, the findings can empower consumers by informing them about the advantages and drawbacks of online grocery shopping, thus enabling more informed decision-making. Additionally, the insights gained can aid policymakers in crafting regulations that encourage healthy competition and protect consumer interests, while also fostering sustainable business practices in a rapidly evolving digital marketplace. Businesses can use the research to refine their service offerings, thus improving customer satisfaction and spurring innovation. The study also has the potential to underscore the role of digital platforms in promoting sustainability in the food supply chain, offering strategies for resource efficiency and waste reduction. Overall, this research will provide stakeholders with valuable insights that can spur economic growth, support the development of small and medium enterprises, and lead to broader socio-economic benefits.

**Q86. Potential benefits to participants taking part in your research**

Participants in this research can benefit by gaining a deeper understanding of the digital marketplaces they engage with, such as Hema Fresh and Dingdong Maicai. This knowledge may empower them to make better-informed decisions about their food purchasing habits. Additionally, by contributing to the research, participants can influence the development of more consumer-friendly services and policies, which could lead to improved shopping experiences and customer service in the future.

**Q87. Describe potential risks to participants and how these risks will be managed**

**\*E.g. Physical (including COVID-19), emotional or psychological harm, or unintended identification and resulting impact in their community (reputation, employability, abuse, etc.)**

Emotional or Psychological Harm: Discussing experiences with digital platforms might evoke stress or discomfort, especially if past experiences were negative. Management: Participants will be informed that they can skip any questions they do not wish to answer, and they can withdraw from the study at any time without consequence. Support resources will be provided for those who feel affected

**Q88. Potential risks to you or your research team and how these risks will be mitigated.**

**\*E.g. physical threat, travel-related risks, lone-working, meeting participants in public or not public spaces, emotional/psychological trauma or harassment, etc.**

Fieldwork or long periods of data collection can lead to physical exhaustion, especially if the research involves traveling or carrying heavy equipment. Ensure reasonable scheduling with adequate rest periods. Where possible, use equipment that is lightweight and portable to minimize physical burden.

## Data Storage and Security

Before filling in the following section, please take the following self-paced training: **UCL Data Protection for Undergraduate & Masters Level Students** (<https://www.ucl.ac.uk/data-protection/ucl-data-protection-undergraduate-masters-level-students>). It should take you between 25-40 minutes to complete and you will receive a certificate of completion.



**Q83. Do you confirm you have undertaken UCL Data Protection for Undergraduate & Masters Level Students?**

- Yes

**Q87. Upload your certificate of completion**

[\[Click here\]](#)

**Q90. Will the research involve the collection and use of personal data?**

*According to the Information Commissioner's Office, personal data is information that relates to an identified or identifiable living individual.*

*What identifies an individual could be as simple as a name or a number or could include other identifiers such as an IP address or a cookie identifier, or other factors.*

*If it is possible to identify an individual directly from the information you are processing, then that information may be personal data.*

*If you cannot directly identify an individual from that information, then you need to consider whether the individual is still identifiable. You should take into account the information you are processing together with all the means reasonably likely to be used by either you or any other person to identify that individual.*

*Even if an individual is identified or identifiable, directly or indirectly, from the data you are processing, it is not personal data unless it 'relates to' the individual.*

*If you need more information, please visit: <https://ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/personal-information-what-is-it/what-is-personal-information-a-guide/>*

- No

**Q84. Please confirm you have completed the IGP Risk Assessment Form**

- Yes

**Q85. Upload your Risk Assessment Form as a PDF file.**

[\[Click here\]](#)

## Application Submission

When you are ready to submit your application, sign and submit. You will have an option to download a PDF of your completed form.

Your submission will trigger two emails: a notification to your supervisor to review and sign the form and an email to you with a link to your completed application. If your supervisor is happy with the form, it will add the signature. If your supervisor thinks you need to do further changes it will notify you and you will be able to access the form on the same link you received by email when you submitted the form.

Once your supervisor signs the form, you will receive a second email with this confirmation. Please agree with your supervisor the time it will take them to review and sign the form, if you haven't received the confirmation email after this time, please follow up with your supervisor.

Formal review by the IGP Ethics Committee starts after the supervisor submission. The application will be first reviewed for completeness (all sections completed and all documents attached). Complete applications will be sent to the IGP Ethics Committee for review and you will get a response within 20 working days (applications won't be processed during UCL closure periods). **You should not commence any data collection until ethics approval has been confirmed.**

If you have any questions please contact Dr Mara Torres Pinedo ([m.torrespinedo@ucl.ac.uk](mailto:m.torrespinedo@ucl.ac.uk)) or Dr Yuan He ([yuan.he@ucl.ac.uk](mailto:yuan.he@ucl.ac.uk))

**Q87. I confirm that the information in this form is accurate to the best of my knowledge**

[\[Click here\]](#)

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## Embedded Data:

N/A