The geography of food e-commerce in Paris and the Paris region

Master 2 research thesis by Joséphine Mariquivoi, July 2022, under the supervision of Karine Bennafla (Lyon III University) and Heleen Buldeo Rai (Logistics City Chair)

Purpose of the study and research design

Business-to-consumer or "B2C" food e-commerce is growing rapidly post COVID-19 era, marked by diversification of forms, services and offerings. This fast growth requires redefining the frameworks of urban and geographic studies that focus on urban logistics. This master thesis studies the organization of logistics strategies of food e-commerce actors and the logistics spaces of their organization, based on case studies of three distinct models: '**quick commerce'**, '**short food supply chains '** , and **meal boxes**. Food e-commerce distribution locations are little studied despite numerous works that study the evolution of workers, buildings and supply chain flows.

This thesis has several ambitions. To know the functioning and the organization of goods flows in urban spaces. To understand the new flows of food in urban spaces. To analyze the efficiency of these new forms of logistics in the light of the negative externalities generated.

Our data collection is made up of a multiple approach based on documentary research, semi-structured interviews with the food e-commerce industry, cartographic data work and observations. The documentary research was carried out in two stages: one exploratory and multi-support, and the other targeted from a French professional journal on retail, *LSA*, over the period April 2021-April 2022. The cartographic work was carried out based on an already existing method (Heitz et al., 2017): use of the French establishment database, observations of facilities in the field and/or on Google StreetView.

Problems and hypotheses

As food e-commerce models multiply in the post-pandemic era, **how are their logistics transforming retail spaces and the circulation of goods in the city?** A first hypothesis concerns food e-commerce, which modifies the relationship between commercial spaces and logistics spaces. A second hypothesis concerns food e-commerce, which creates new forms of goods flows in the city.

Mains results

The study of logistics and distribution chains, focusing on their logistic spaces in the three case studies led to the following results:

• **The emergence of new and very different players** who may be the result of (1) the international deployment of structures with company takeovers by a foreign player in France, thanks to a very large venture capital and an experience of almost ten years in the case of US based *Gopuff.* They can also be the result of (2) local entrepreneurial initiatives promoting the optimization of product logistics in 'food-to-table' services by a basic player, such as, at the small scale of Paris and Picardy, for *Kelbongoo*. (3) the expansion in France of a German company preparing food products according to recipes delivered to the home on a weekly basis with Hellofresh.

• **The myriad of food e-commerce players can be distinguished** by their degree of (1) urban location and (2) type of food product (see Figure 1). These two criteria relate to both the stock of goods and the degree of transformation of the goods, ie. their added value. Four distinct economic models are retained: ‘quick commerce’, platforms, omnichannel players in the retail sector and marketplaces and pure players. Platforms connect a food sales service to a delivery service while quick commerce integrates both, these companies have their own storage and delivery service.

• **The creation of a new network of logistics spaces** dedicated to storage beyond the existing offer. ‘Quick commerce’ creates its own network of small premises dedicated to storage and pick-up in dense urban areas within the city and elsewhere.

• **The emergence of a new hybridization of spaces** (with logistics and commercial functions) that reactivates old processes, such as the return of warehousing in cities. The ‘food-to-table’ market studied relies on spaces with low commercial functions and high logistics functions (order preparation, storage and point of pick-up). These developments are part of the omni-competence of retail spaces and the diversification of their functions.

• **New connections between territories are introduced by the flows of these models.** Through these two models, the functions of logistics spaces become intermittent to accommodate the flow of goods with a reinforced function for fast, precise and technical intra-logistics operations.

• **Food commodity flows move faster than in traditional supply chains** between production area and consumption area thanks to online sales and logistics (see Figure 2).

• The actors studied may have multiple distribution channels that are more or less flexible, or they may have only one, which tends to be home delivery (‘quick commerce’ or some cooking baskets). The consumer becomes the last logistics step, a key factor to guarantee the satisfaction of the service.

Business models : Quickcommerce Platform Omnicanal Marketplace and e-commerce

View on Parisian area food e-commerce players							
	No location	**Suburban warehouses**	**Urban warehouses**	**Innercity location : dark stores, micro facility center**	**Picking at partner store**	**Drives**	**Stores**
Recurring groceries	Kelbongoo	Greenweez Carrefour Monoprix Alibaba Amazon	La belle vie Mon marché.fr Amazon Fresh			Carrefour	Carrefour Monoprix Franprix
Emergency groceries	To good to go Phénix Everli	Potagercity.	Potagercity. Kelbongoo	Gorillas Gopuff Getir Rappi Fridge no More (Ru) Dingdong Maicai (Ch)	Potagercity Horsnormes Togoodtogo Phénix Rechtstreex (NL)	Kelbongoo	Kelbongoo
Recipe boxes		Hellofresh Quitoque Foodette Les Commis					
Prepared meals	Deliveroo Ubereats Stuart			Frichti Rappi			

Figure 1: Typology of food e-commerce players in Paris and the parisian region

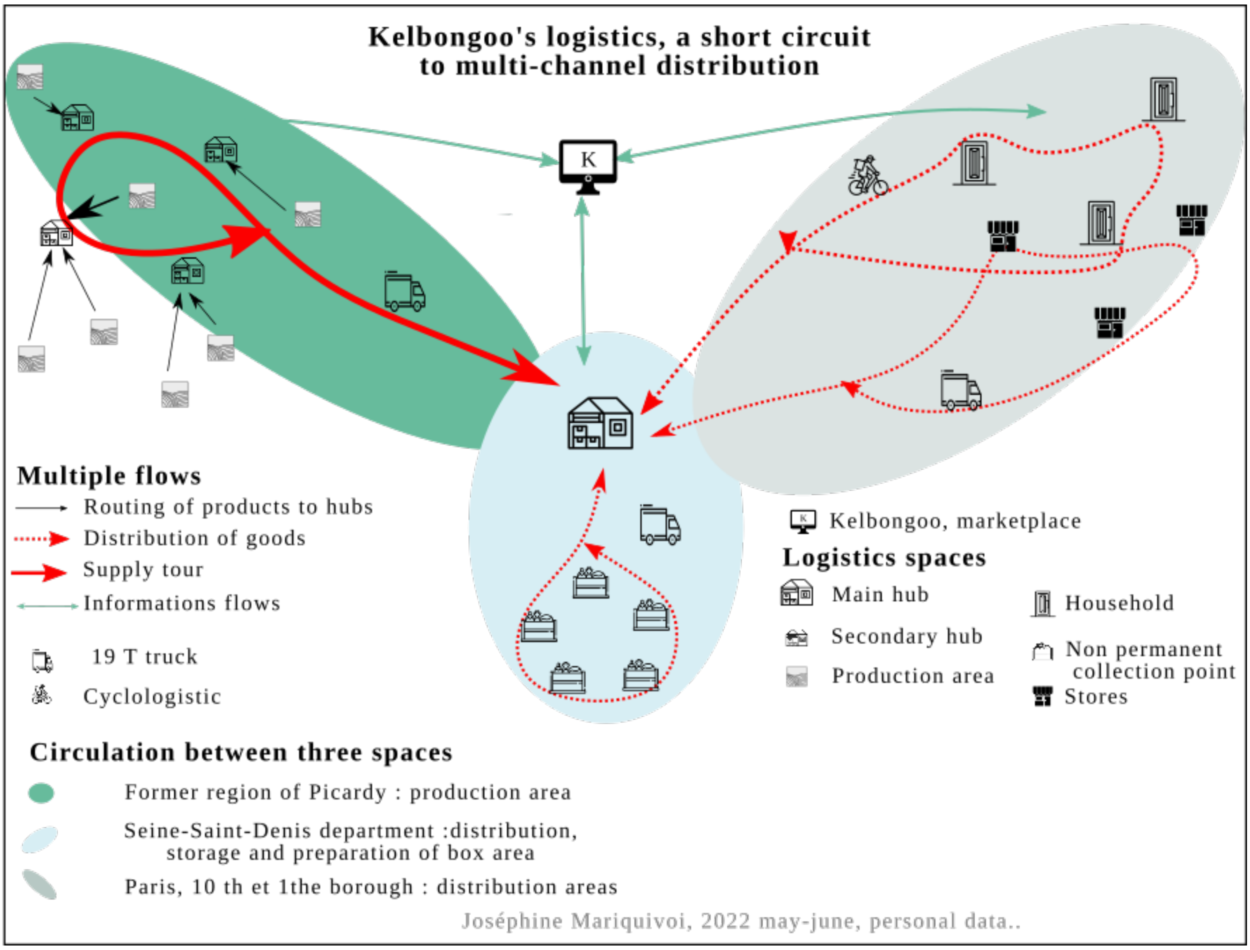

Figure 2: Logistics model of kelbongoo, a marketplace with short chains food products