

Omnichannel commerce

Logistics operations in urban shopping centers

Master 2 research thesis by Paul Marcher, September 2021, under the supervision of Heleen Buldeo Rai and Matthieu Schorung (Logistics City Chair)

Subject of study

This dissertation focuses on the logistics issue facing urban shopping centers. Traditionally, the shopping mall model is the following: the customer goes to the mall, makes his purchases and then goes home with his products. Today, new consumer habits are appearing among customers, particularly with the development of e-commerce, forcing shopping center chains to adapt. Omnichannel commerce, which consists of using different sales channels simultaneously, has appeared in shopping centers in recent years. Retailers are increasingly offering solutions such as ship-from-store, where products are delivered directly from the point of sale, or click-and-collect, where a product is ordered online and collected in-store. However, the real estate infrastructures of shopping malls, designed for the mass supply of stores, are not adapted to distribution. The supply itself can sometimes be poorly designed and pose logistical problems, even for the traditional business model. This thesis has two objectives: firstly, to establish a diagnosis of the problems of urban shopping centers with regard to the layout of stores, logistics zones and omnichannel commerce practices; secondly, to make proposals for a better organization of shopping centers, so that they can respond to the new habits of consumers while being more optimized from a logistical standpoint.

Research questions

In this dissertation, we examined the levers that could be put in place to achieve a logistics organization that is more adapted to omnichannel commerce, but also more respectful of the environment and more efficient for urban shopping centers.

Methodology

A qualitative approach was used in the form of semi-structured interviews, as well as on-site observations in several shopping centers. We also created a questionnaire composed of qualitative and quantitative questions intended for the shopkeepers of the two shopping centers that constituted our fieldwork. We interviewed about 60 retailers. A data analysis was then carried out.

Results

The result of our diagnosis is that there **are important differences in the logistical functioning of the urban shopping center and the peri-urban shopping center**. The urban center studied, Paris Beaugrenelle (15th arrondissement), encounters numerous supply difficulties, due to the density of the urban context in which it is located, but also to several constraints such as the obligation for delivery drivers to make deliveries between 6am and 10am (in practice, the majority of deliveries take place at the same time, between 8am and 10am, which creates congestion in the delivery street) or the small size of the supply area. As a result, delivery trucks are regularly forced to wait for the supply area to become available so that they can enter and deliver to the center in turn. Several alternative delivery practices are thus emerging, with some delivery drivers preferring to unload their trucks on the street in order to deliver to the center. These practices are represented in the diagrams below. In the suburban center studied, Val

d'Europe (Seine et Marne), supply is much better managed. The location of the center and the space it has available provide an easier context for the delivery drivers.

The second part of our diagnosis concerned the use of omnichannel commerce practices in the centers studied. In these two centers, these new practices are being implemented. Click-and-collect, ship-from-store and even other practices such as the personal shopper have been introduced in the centers studied. However, many stores still do not use these practices, while others are struggling to convince their customers of their advantages. The health crisis and its successive confinements have encouraged the development and use of these commercial experiments. However, in the context of a more traditional commercial recovery, **consumers of certain brands seem to be turning away from some of these practices and returning to more traditional purchasing methods.**

Following the diagnosis, we were interested in solutions that could be applied in shopping centers in order to optimize logistics (especially in urban contexts), and to take into account the new consumption habits of customers by offering new services. Two main organizational concepts have been studied: common logistics, which consists of having a logistics team present in the center to unload trucks and make final deliveries to stores; and the Shopping Fulfillment Center, which consists of allocating most of the center's surface area to storage spaces in order to offer the widest possible range of products to customers. Shopping will then be done in small boutiques located at the front of the center, notably through innovative shopping experiences.



Alternative supply practices for the Paris Beaugrenelle shopping center.

These diagrams represent the alternative practices that delivery drivers use when the supply area is already occupied by trucks. Some vehicles wait for the area to become free, while others unload on the sidewalk and deliver to the center using pallet jacks or by hand.

Author : Paul Marcher