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The impact of e-commerce on final deliveries: alternative parcel delivery services in France and Germany

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Abstract

In Europe, shopping habits have changed fast during the last decade and a high percentage of consumers now shop online. E-commerce for physical goods generates a significant demand for dedicated delivery services, and results in increasingly difficult last mile logistics. In particular home delivery services, which are usually the preferred option by the online consumers, contribute to the atomization of parcel flows thus causing particular problems within the urban areas. However, alternative delivery solutions are growing fast, especially in metropolitan areas The purpose of this article is to compare the alternatives to home delivery that have been developed by French and German parcel delivery operators which developed pick-up points in stores and automated lockers networks. The paper includes an analysis of the key drivers of the development of the two emblematic delivery services (pick-up points and lockers), with reference to the strategies of service providers and e-commerce firms as well as consumer preferences.

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Keywords: E-commerce; final deliveries; parcels deliveries; France; Germany.

1. Introduction

In many European countries, shopping habits are changing fast. In the last decade, the use of e-commerce has become very common following the spread of IT systems such as laptops, tablets and smartphones. Today, about 45%

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of all European consumers shop online. More precisely, 60% of German consumers and 44% of French consumers purchased physical and virtual goods online at least once in 2013 as described by European Commission (2013).

Apart from the United Kingdom, France and Germany are the largest European distance selling market, respectively €37.7 billion and €35 billion, as shown in Table 1. During the last five years, e-commerce has accounted for a steeply rising share of total turnover in both countries, for example in 2010-2011 e-commerce increased by 17% in Germany and 22% in France, cf. FEVAD (2012). In 2013, e-commerce in France accounted for 7% of the retail market, which is close to the German figure of 6.4% (BHV, 2014).

Table 1. The position of e-commerce in different European countries. Source: data for online turnover: ECommerce Europe (2013); data for GDP per capita: Eurostat (2013).

Member State	Turnover of online and mail-order shopping in 2011 (million €)	Per capita online turnover	Per capita GPD (€)	Online spending per capita - share of per capita GDP
EU27	234,000 (EU28)	496	25,600	1.7%
United Kingdom	84,107	1,248	27,900	4.5%
France	37,700	577	30,600	1.9%
Germany	42,100	433	31,700	1.4%

In the case of physical goods, the spread of online shopping has generated significant demand for dedicated delivery services to the end consumer. This has resulted in the increasing fragmentation of shipments in the "last mile", as described in reports on postal services in different countries (ARCEP, 2012; ATKearney, 2012).

However, data on the volume and frequency of e-shopping for physical goods is currently scarce or, in some cases, non-existent. This affects investigation in the field of city logistics for e-commerce and limits researchers' understanding of potential developments concerning the delivery process both nationally and internationally. Indeed discrepancies with regard to categories of delivery services (what is defined as a standard shipment, express delivery, pickup point delivery, etc.) impede straight comparisons and mean that prudence is required when analysing national figures.

The data that relate to parcel flows at national level clearly represent an obstacle when comparing the impact of e-commerce on final deliveries in France and Germany. In both countries e-commerce accounts for about 7% of the retail market and generates most of the distance selling shipments (FEVAD, 2013). However, according to the available figures for 2011, the flow of standard shipments in Germany is three times greater than in France. About 900 million parcels were recorded for B2C in Germany, of which 95% were standard shipments (Granzow, 2013; ATKearney, 2012). In France, 300 million parcels were delivered to end consumers as standard shipments (ARCEP, 2012). A number of factors help to explain this discrepancy, here we shall focus on two: (i) differences in the classification of standard shipments versus express or non-standard deliveries (based on weight, volume, deadline, etc.); and (ii) national shopping preferences, in particular the German habit of ordering fashion items in different sizes and colours, buying the preferred one and then returning the others (BHV, 2013).

Basis of the available data, this study aims to assess the impact of e-commerce on the urban freight system and final delivery operations. The paper focuses on the deployment of alternative options to home delivery. In particular, we propose a comparison between Germany and France, which, with the United Kingdom, have Europe's leading e-commerce industries. In Sections 2 and 3 we shall examine the main features of the e-commerce market: consumer habits and the strategies of online selling firms. Then in Section 4 we shall present the impact of e-commerce on parcel delivery services in the selected countries. The final delivery systems in Germany and France are detailed respectively in Section 5. Finally, in the conclusion, we generalize our findings to the wider context of city logistics studies.