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Parcel deliveries and urban logistics: Changes and challenges in the courier express and parcel sector in Europe — The French case

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ABSTRACT

The European Courier, Express and Parcel sector, a strategic and dynamic sector involved in globalization, has undergone significant changes during the past fifteen years. CEP players are "co-evolving" (evolving together), the sector is consolidating itself, strategy and logistics organizations are converging and a new segment dedicated to urban parcel deliveries has emerged. Thanks to a literature review, interviews of the players of the French CEP sector and urban parcel delivery sector, as well as comparisons with other European countries, this article analyzes the sector's changes, its drivers, and provides an accurate picture, based on examples and figures, of an under-studied sector. The article also highlights some future prospects for the new segment such as the segment's consolidation and the rise of cross-border e-commerce.

1. Introduction

The European Courier, Express and Parcel sector (CEP) is a very strategic and dynamic sector involved in globalization. Primarily, the CEP sector is a separate activity from the postal service. This sector has arisen over the past 20 years from the traditional transport of less than a truckload of general cargo. It groups together firms, capable of delivering small, light parcels (31.5 kg at the most), quickly and accurately, all over the world, relying on sophisticated networks (hub and spoke networks combined with depot networks for the most part) and the reliable tracking and tracing of the shipments. To put it simply, couriers provide a point-to-point same-day delivery; express providers supply fast delivery at fixed time windows the next day or the second day relying on their powerful networks; and parcel providers are characterized by the consolidation of standardized light-weight parcels delivered the next or second day. But nowadays frontiers between the three services are blurred, and a CEP player provides each of the services (DHL, 2008). In Europe, DHL, TNT and UPS share the market along with some national outsiders of various sizes. According to the International Post Corporation, in 2008, the UE CEP market turnover was 37.4 billion Euros (business to business (B2B) and business to consumer (B2C) parcels), and adding consumer to consumer (C2C), the CEP market turnover could reach 42.2 billion Euros (ITA Consulting & WIK Consult, 2009).

During the past fifteen years the CEP sector in Europe, in particular the final stage of the supply chain in cities, has undergone significant and rapid changes (Menge & Hebes, 2011; Patier-Marque, 2002; Savy & Burnham, 2013). With the spread of new technologies and the advent of economic and social changes, new shopping and logistics patterns have emerged, leading to a growth in deliveries in particular (Esser & Kurte, 2005; Hesse, 2002; OCDE, 2003; Weltevreden & Rotem-Mindali, 2009). Firms and stores have also modified their supply chains in cities. Moreover, public authorities in European cities, increasingly aware of the essential role of urban goods distribution, have implemented measures and projects to deal with externalities and enhance the efficiency of urban freight; measures that have sometimes made urban deliveries more difficult (Dablanc, 2011; Lindholm, 2012; Russo & Comi, 2010). Confronted with the growing complexity of the 'last-mile' issue and faced with a competitive environment, the traditional actors of the CEP sector in Europe are evolving together ("co-evolving"), and their players, strategies, tools, and organizations are becoming similar (converging) (Taylor & Hallsworth, 2000). Thus part of the CEP sector is restructuring itself to tackle the specificities and constraints of urban distribution in a rapidly changing context, creating what we could call an urban parcel delivery segment (although not autonomous), with specific organizations, tools and strategies.

This article aims at providing an up-to-date overview of the parcel sector in Europe, and at understanding the changes in the urban parcel delivery sector over the last ten years. It will also highlight future prospects for the sector. Undoubtedly, understanding the interests and concerns of one of the most important stakeholders of the urban freight system is essential for the urban logistics dialogue and for political players to propose efficient regulations and policies.

The research questions are: what are the common factors that affect the various European parcel delivery sectors and what are the common drivers of the creation of new parcel sectors in particular? How can we describe the reshuffling of European CEP sectors in their organizations,

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strategies, as well as the players' game? Specific analysis will deal with the most important challenges the new sector will have to face in the future, in particular the consequences of the growing involvement of political authorities on a European scale as well as the rise of cross-border e-commerce.

The article is built on an analysis based on three studies conducted between 2012 and 2013: (1) A literature review of the urban parcel sector in a European context, (2) a study of the French CEP sector via 48 interviews of French and European parcel distribution service providers, retailers and experts in transport, retail or ICT; and (3) a review of urban freight transport policy in French cities via 64 interviews with local authority representatives, transport operators and operational staff of parcel providers in 19 French cities. Even if the in-depth French case is the guiding principle of this article, we will also provide European comparisons.

The article will be structured as follows: it will first describe the data collection effort (1). Then it will give an outline of the new segment of the traditional European CEP sector, the urban parcel distribution sector, namely the convergent structures, strategies and organization, drawing an updated and complete picture of its players (2). In order to understand how and why the urban parcel delivery segment has been shaped, we provide an analysis of some of the driving forces. Our analysis will, in particular, explore the renewed relationships between stakeholders and local authorities in cities, and the role of the economic and retail context on parcel delivery supply and demand (3). Finally, in the conclusion we will briefly discuss the research implications and prospects of the evolution of the players of the parcel delivery sector, in the particular context of the rise of cross-border e-commerce.

2. Method, objectives and data collection of the study

2.1. Method and objectives

The article is based on an analysis of three studies conducted between 2012 and 2013. We first conducted a literature review of the urban parcel sector in a European context. We conducted a review of the existing literature on the CEP sector through academic papers, European reports, firms' reports and books since 2000. Even if urban logistics and related e-commerce studies have increased in the last ten years (Dablanc, 2011; Lindholm, 2013b), surprisingly, few detailed and recent works on this sector exist in academic literature, with a few recent exceptions in German research (Menge & Hebes, 2011; Gruber, Kihm, & Lenz, 2013). Even if urban logistics studies often mention the CEP sector or underline parcels as a key element in urban freight, in-depth presentations of the industry are scarce (Maes & Vanelslander, 2012; Miyatake & Nemoto, 2013). It appears to be a presupposition. Simultaneously we conducted a review of the professional press over the last six years referring to four French supply chain and urban logistics magazines, and of an international CEP newsletter called Post and Parcel. The professional press provided richer material on the CEP industry than the academic literature. We also conducted a study of the French CEP sector in 2012 thanks to 48 direct interviews with French and European parcel distribution service providers, e-retailers and experts in transport, retail or ICT. This survey was completed a year later by a review of urban freight transport policy in French cities via 64 interviews with local authority representatives, urban planning departments, transport operators and operational staff of parcel providers in 19 French cities. Those surveys lasted no more than three months each, given the constraints of the PhD, but they are very dense and rich.

Three aspects have been considered within these semi-structured interviews: the urban delivery sector within a changing environment (players, strategies and organizations); the nature of the urban freight transport policy context regarding parcel delivery (dialogue between stakeholders, awareness and knowledge of urban goods distribution, problem-solving approaches and measures, experiments, incentives and reactions of the freight providers); and finally future prospects and challenges regarding parcel delivery.

The first survey was concerned with the structures of the CEP industry, while the second tried to understand the CEP sector within its environment, the city, in order to confront theory and practice.

Even if the in-depth French case is the guiding principle of this survey, we have conducted several European comparisons.

2.2. Players interviewed and representativeness of the surveys

Figs. 1 and 2 describe the panel of players interviewed in the two surveys. CEP players are the largest proportion of interviewees. The proportion of the different categories of players interviewed within the CEP sector is relatively balanced. The panel gives a precise image of the current CEP sector. Emergent issues have been tackled thanks to a great number of meetings with start-ups and new players in the CEP industry. In all categories we have succeeded in reaching the most important players. For instance, three out of the five most important express providers were interviewed and three pickup points out of the four which exist in France accepted our invitation.

Experts in transport, retail and ICT, e-retailers and local authorities are another important part of the surveys. They represent elements of the ecosystem that make the CEP industry evolve, since they influence it. They have given their vision of the changes in the CEP sector, and above all, they have focused on future prospects and challenges regarding the parcel delivery segment.

In order to strengthen our results, the main conclusions of the surveys have been synthesized in short reports and given to the players interviewed. Moreover, in-depth analyses were conducted with the French Post operator based on its own figures, to test the validity of the market shares provided in this article. Both audits were positive.

3. The renewed urban parcel delivery sector in Europe: new players, services and strategies

As proposed by Taylor and Hallsworth in a study about the courier service industry (Taylor & Hallsworth, 2000), we consider that the CEP sector is characterized by the “co-evolution” and “convergence” of its players who are in competition in the market, and thus face the same issues and adopt similar strategies to handle them. In fact, since the beginning of the century, the traditional CEP sector in Europe has undergone significant changes, especially regarding parcel delivery in an urban context, and a new segment has progressively emerged, the urban parcel delivery sector, dedicated to urban deliveries of small and light parcels. At the same time delivery services, organizations and strategies have become similar. Here we shall make an overview of the new segment based on an in-depth study of the French CEP sector.

3.1. Categories of players of the urban parcel distribution sector: between heirs and new players

The urban parcel delivery sector descended from the traditional CEP sector with both traditional and new players. Families of players can be distinguished in terms of the player's origin in the parcel market, core business and strategies, and their position regarding urban parcel deliveries. The sector is divided into two main families, heirs and new players. It is also divided into eleven sub-families: post office, integrators, logistics providers of the mail-order sales sector, other logistics providers, other postal providers, subcontractors, pickup point networks, neutral and specialized parcel delivery service providers, players from e-retail and couriers (Fig. 3).

In fact, if we consider the French case, over a few years, as the urban distribution service segment has emerged, families of players have appeared as well. The so-called heirs refer to the traditional players in the CEP sector who are now forced to adapt to, and diversify their