10 years Back and Forth: running an urban consolidation center

Binnenstadservice: Lessons learned from starting a UCC to running a network of UCSCs

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1. Introduction

Before the Brundtland-commission (1987) many urban consolidation initiatives started and disappeared often quickly after their startups (for example Cadotte & Robicheaux, 1979; TRID,1971; McDermott, 1975). One could say that the goalsetting was mainly on consolidation as a way to create economies of scale in transport for the operating transport company, rather than sharing a common minds-setting was among different type of stakeholders to gain more sustainability in our cities. After Brundtland, in 2000, the setup of the Best Urban Freight Solutions (BESTUFS) European network organisation gave a strong impulse to bundle the knowledge and experiences between academics, practitioners and managers of different European cities on urban freight transport (Browne et al.2005). Dedicated topics were addressed in workshops in which also the experiences with urban consolidation centres were widely shared. Ever since many definitions of UCCs have been provided but very often they are vague or ambiguous. BESTUFS 1 reported (Allen et al., 2007, pp. 61) that a UCC could be best described as: '*A logistics facility situated in relatively close proximity to the geographic area that it serves (be that a city center, an entire town or a specific site such as a shopping center), to which many logistics companies deliver goods destined for the area, from which consolidated deliveries are carried out within that area, in which a range of other value added logistics and retail services can be provided*.' Thanks to the BESTUFS's recommendations the role of UCCs had emerged to a certain extent, with a series of clearly established guidelines (Huschebeck & Allen, 2005; Stantchev & Whiteing, 2006):

- More publicly organised;
- Awareness;
- More integral governmental support.

In spite of the increase in both knowledge -in the form of guidelines, workshops, reports and papers- as well as the (political and societal) interests, the amount of successful UCCs in the long-run were, and are, very scarce (see Browne et al. 2005; Quak, 2008; Bjorklund et al. 2017).

Therefore, this contribution discusses the Dutch UCC called Binnenstadservice (BSS). Over a decade ago, in 2008, BSS started their own UCC in Nijmegen and BSS is still operating that UCC, and a network of suchlike centers in the Netherlands. This contribution discusses the experiences, lessons and barriers from running an UCC (network) in practice for such a long period. We provide an overview of the business model evolution, and discuss future directions. This contribution also contains numerical case studies of logistics service providers that show what the benefits of a network of UCCs can be for different LSPs.

2. Developments in the UCC business model

BSS's first consolidation center in the Dutch city of Nijmegen was located about 1.5 kilometers away from the city center. In the early days BSS had its focus on receivers rather than on carriers. The small and independent retailers pay a standard fee for BSS' basic service, i.e. receiving goods and

delivering these goods to the store at the time the store-owner likes. BSS deliberately focuses on small and independent retailers, since their deliveries are usually not optimized, in contrast to those of retail chains (see Van Rooijen and Quak, 2009 for local impacts). Nowadays the strategy is changing also towards larger retailers and logistics service providers who operate in other Dutch cities due to the fact that BBS also operates more at a national scale (Goederenhubs). These logistics service providers and large retailers are the main beneficiaries from a national operated network of UCCs, as was calculated by Quak and De Ree (2009). It is beneficial to have joint partnerships in many towns and can be a guarantee for enough transport volumes. Today the UCC serves only receivers as customer segment to which they offer the following extra services: home-deliveries (for large goods), delayed cross dock, stock holding facilities, value-added logistics including retour logistics (of for example clean waste).

Contrary to the early day BSS has outsourced their distribution activities to a carrier who delivers the goods in the city centre. To reduce the emissions this company uses an electronic bicycle and a natural gas truck. In the start-up phase (2008) 20% of the small shopkeepers signed their interest and became customer of BSS, since then the business model changed and new hubs only have local customers in case these local customers are delivered by the hub because of a national customer

3. Experiences: successes and failures (what do you learn by actually running BSS for 10 years)

In the change of the business model of BSS over the years one can observe the 'hard' factors to survive. Next to that, this part of the research will focus on the 'soft'- (process) factors based on a thorough interviews with the founders of Binnenstadservice. Especially these soft factors are very often not well recognized in the reports and evaluations of UCC-initiatives.

4. Synthesis

This part of our research will synthesise on the 'hard' and 'soft' factors leading to a set of '*do's*' & '*don'ts*' when setting up, running and expanding a UCC (network). The synthesis continues on sections 2 (the business model) and 3 (experiences) in the light of a specific case (retailer that also carries out its own transport) that has been a customer for more than 8 years now, and organizes (since last June) the whole of their distribution (also the long haul) using the 'ideal' inco terms and IT platform that Binnenstadservice developed over the last decade.

5. Future directions & services

Several future developments might positively influence the rise of UCCs in the coming years; we discuss the following in relation to the earlier found hard and soft factors:

- Following the latest trends in Physical Internet the role of UCC might change in the long run to keep up existence (Montreuil et al., 2010). Flexibility, responsiveness, standardisation are critical factors to orchestrate/operate in networks of UCCs and other logistics service providers. Sharing principles in terms of electric transport capacity, but also in terms of working space will play an important role to become a last mile key player for many supply chains. At the same time the UCC of the future should also explore more out of the box services and shaping developments on public procurement and city-regional issues.
- An increase in small and fast deliveries to homes (e-commerce volumes increase and the delivery times between ordering and delivery at homes is reduced; in the Netherlands first trials with

same day deliveries in cities - for some products - are undertaken by large e-tailers). As a result, these products should be in stock close to the receivers (in the cities). Here UCCs could be vital.

- Increasing pressure for reducing not only local pollution, but also GHG emissions is likely to result in the further uptake of (battery) electric freight vehicles in cities (see for example Quak et al. 2018). UCCs could offer a solution for LSPs or other carriers to unload (crossdock) their conventional diesel trucks and use clean battery electric vehicles for the last mile deliveries from the UCC. This could be both operated by the UCC, or a UCC could offer charging facilities for electric trucks that combine last mile deliveries with kilometres from the LSP's depot.

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