

Crowdsourcing delivery: New interconnected business models to reinvent delivery

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Executive Summary

Crowdsourced delivery is an answer to the growing expectations of customers for faster, more personalized and cost efficient delivery service. It exploits technological potential (geolocalization, mobile apps) and the social trend of sharing and collaboration (Rifkin, 2014). The process is as follows: one customer describes a delivery to be made ; a task is created on the platform of the crowdsourced delivery company ; sender and courier are matched ; a price is fixed ; task is managed by the courier ; recipient and sender rate the courier. For two years, crowdsourced delivery has been bursting. Several start-ups have been launched and some have attracted millions in investment.

Methodology

- A total of 26 businesses were identified on the online press. Eight (8) were eliminated: 7 were no longer operating and one business serviced only Russian speaking clients.
- Final sample of 18 businesses: Barnacle, Bistip, Deliv, Easybring, Friendshippr, Instacart, Kanga, mmMule, Muber, Parcelgogo, PiggyBee, Postmates, Rideship, Shutl, Stuff2Send, TaskRabbit, WunWun, Zipments.
- Data collection: Extensive public document review.

Discussion

The crowdsourced delivery business model, as it is now, has two main limitations:

- (1) It only supports point-to-point deliveries.
 - This creates a less flexible delivery network, in particular for inter-urban delivery. Indeed, crowdsourced delivery is only possible if a courier passes by the starting point and the address of destination.
- (2) Processing the parcels individually limits the overall positive impact.

Typology of business models in the crowdsourced delivery industry

Name	Clients	Offer	Character	Couriers	Revenue model
Courier	B2C	Deliver an order from a shop, a restaurant, a pharmacy, etc. Intra-urban	Business Efficiency Control	Professional or non-professional dedicated couriers	Fixed prices
Intendant	B2C	An order is placed on the cie's website. It is the courier who purchases the article from a shop and delivers the article to the customer Intra-urban	Business Efficiency Control	Professional or non-professional dedicated couriers	Fixed prices Resale margins Financial fees
Intra-urban	P2P or B2B	Deliver a parcel Intra-urban	Business Efficiency Control	Professional or non-professional dedicated couriers Commuters	Fixed prices
National	P2P or B2B	Deliver a parcel Inter-urban / National	Business Human Trust	Travelers	Negotiated prices Financial fees
Social delivery	P2P or B2B network	An order is placed on the business website. The courier proceeds to purchase, then to delivery. National / International	Community Human Trust	Travelers	Reward Barter Financial fees

We propose a paradigm change toward interconnected crowdsourced delivery. Based on the Physical Internet concept, (1) we suggest to stop considering each crowdsourced route to be dedicated to a single parcel from its source to its destination, but rather an openly consolidated segment for sets of parcels heading to the same next hub in their relayed way to their final destination; and (2) we also suggest to stop considering the crowdsourced delivery as an isolated industry that answer to specific needs, but rather as one alternative solution to build the Mobility Web.

We propose four avenues for future research. First, further qualitative and quantitative studies are required to better understand the industry. Second, simulation experimentation is needed to better assess the potential of interconnected crowdsourced delivery and to find ways to optimize the whole ecosystem. Third, instrumental research is needed to create a new generation of algorithms, protocols, vehicles, containers and platforms enabling interconnected crowdsourced delivery. Fourth, there should be field based pilot studies validating the feasibility, efficiency and sustainability of the proposed interconnected crowdsourced delivery innovations.