## Accepted Manuscript

Transport reduction by crowdsourced deliveries - a library case in Finland

Harri Paloheimo, Michael Lettenmeier, Heikki Waris

PII: S0959-6526(15)00478-3

DOI: 10.1016/j.jclepro.2015.04.103

Reference: JCLP 5472

To appear in: Journal of Cleaner Production

Received Date: 14 June 2014

Revised Date: 13 April 2015

Accepted Date: 22 April 2015

Please cite this article as: Paloheimo H, Lettenmeier M, Waris H, Transport reduction by crowdsourced deliveries – a library case in Finland, *Journal of Cleaner Production* (2015), doi: 10.1016/ j.jclepro.2015.04.103.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



## Transport reduction by crowdsourced deliveries - a library case in Finland

Authors: Harri Paloheimo<sup>1</sup>

<sup>1</sup>Aalto University, Department of Computer Science and Engineering, Konemiehentie 2, 02150 Espoo, Finland, Tel. +358-50-4836388

Michael Lettenmeier<sup>2, 3, 4</sup>

<sup>2</sup> Wuppertal Institute for Climate, Environment and Energy, Döppersberg 19, 42103 Wuppertal, Germany

<sup>3</sup> Aalto University, Department of Design, Hämeentie 135 C, 00760 Helsinki, Finland

<sup>4</sup> ITMO University, Institute of Refrigeration and Biotechnology Lomonosov ulitsa, 9, St. Petersburg, 191002, Russia

Heikki Waris<sup>5</sup>

<sup>5</sup> Coreorient Ltd., Heinjoenpolku 3 A 7, 02140 Espoo, Finland

Abstract:

The paper presents a case study of applying crowdsourcing to library deliveries. The trial was conducted in the city of Jyväskylä in Finland as part of the Resource Wise Communities program funded by The Finnish Innovation Fund Sitra. The city has a population of 120 000 inhabitants and is facing the shut-down of half of the public libraries in order to adapt its economy to lowered revenues and compulsory cost savings. The assumption was that the level of service for customers not able to settle for e-books would be lowered and/or customers would have to travel longer distances. However, a research pilot was carried out where –instead of lowering the level of service in the area– books and other library media were delivered to customers' homes by utilizing a novel crowdsourced delivery service called PiggyBaggy.

Crowdsourced delivery means that citizens deliver goods to each other along their way. Ideally, the deliveries would be made with minimal detour, along the way, thus maximizing the reduction in natural resource use and related environmental impacts from the transport. However, the transport fuel forms only one part of the overall footprint and in practice rebound effects such as drivers travelling longer distances motivated by monetary compensation, can reduce the targeted environmental improvement.

The objective of our study was to investigate whether an existing consumer service, in this case the library public service, can adopt crowdsourced deliveries quickly from scratch, and to whether consumers participate in the deliveries in a way that has real sustainability benefits.

Download English Version:

## https://daneshyari.com/en/article/8101508

Download Persian Version:

https://daneshyari.com/article/8101508

Daneshyari.com