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SUSTAINABLE LABOR CONDITIONS IN THE GIG-ECONOMY – CASE STUDY: SUSTAINABLE CROWDLOGISTICS (NACL)

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ABSTRACT

With notion to radical changes in today's labor markets and especially for lower income jobs with a less required proficiency; this paper has faced a to gig economy labor challenge to propose a solution which achieves to multi goals obsessively eyed on the future society which needs cleaner cities, crowd working synergy based on sharing economy trends and fairer incomes and motivations following sustainability goals. The proposed last mile delivery solution called "NaCL" will be implemented in the city of Bremerhaven as a sustainable crowd sourced last mile logistics solution to be evaluated as sustainable business model in the field.

KEYWORDS

Crowd Logistics; Sustainability CRM; Green Logistics; Crowd Working; Sustainable Business Model.

1 INTRODUCTION

Labor Markets all over the world are facing dramatic changes. Especially in so-called industrial countries, people in low-level jobs fight with low incomes, bad working conditions, and limited job guarantees. (Abel et al., 2018)

The so-called gig economy proclaims flexible and fair working conditions. (Graham et al., 2017.) Gig Economy employment models are established for different markets like for the creative industry with Fiverr¹ but also especially in the mobility and logistics domain. Platforms like Uber² or deliveroo³ are providing new labor markets for the mentioned low-level jobs. But these fully flexible employment relations are connected to several problems, both for em-

ployee and employer. On the one hand, the described problems of low-level jobs are increasing. Responsibilities and risks in different dimensions are transferred to the employees. Health insurance and social security are usually not financed to name some of the problems. (Desmond and Gershenson, 2016) On the other hand, workers are probably low motivated, and service quality is decreasing. (s) Traditional companies in the market like taxicab companies or logistics providers are struggling for survival because of superior (international) competitors. General problems in the logistics market can be identified in the social dimension because of precarious employment and the environmental dimension – 23% of worldwide Carbon emissions are produced by transport. (IPCC, 2014) This problem is mainly addressed in this paper.

¹ <https://www.fiverr.com/>

² www.uber.com

³ <https://deliveroo.co.uk/>

2 CROWD LOGISTICS

Currently, the platform provider Uber entered the logistics market⁴. Uber Freight can also be considered as a Crowd logistics approach in order of the following definition by Mehmman et al.:

"Crowd Logistics designates the outsourcing of logistics services to a mass of actors, whereby the coordination is supported by a technical infrastructure. Crowd Logistics aims to achieve economic benefits for all stake- and shareholders." (Mehmann et al., 2011)

The original intention of crowd logistics was to transport goods by private individuals in a prosumer approach. E.g., the platform myrobin⁵ calls its service a "lift for things". People who are on travel anyway can transport goods for other people in a prosumer approach. Such a service can be considered sustainable in the ecological dimension (no/few additional emissions) as well as in the social dimension (no precarious employment). Still, it is doubtful that such a service can master significant transport needs of our economy. Furthermore, jobs in the logistics market are erased.

3 CASE STUDY

Core subject of the research project "NaCl – Sustainable Crowd logistics" is the employment model development and piloted application of an innovative and sustainable logistics system based on a crowd logistics approach. Significant features of the logistics system are the very positive effects on the ecological dimension and the regional transport system since it is based on electrically driven cargo.

Besides, it holds interesting economic potentials for the logistics service provider, as it is more elastic compared to conventional systems based on vans, especially in the personnel area due to the lack of driving license requirement. This elasticity is assumed to be significantly in-

creased by the crowd approach, thus strengthening the competitiveness of this ecologically sensible logistics system. (Carbone et al., 2017)

The most important aim of the project is to develop an employment model that is competitive and fair at the same time. So the flexibility of the crowd logistics model is applied only to cut load peaks. This should allow increasing the number of permanent employees. Permanent employees get regular fares, health, and social insurance etc. while the load peaks situation is not permanent at all! The crowd workers are recruited mostly in alternative milieus and should be motivated by intrinsic and extrinsic reasons belonging to participation in a sustainable last mile logistic service. For this existing incentive schemes of the Sustainability Customer Relationship Management (SusCRM) approach (Wagner vom Berg et al., 2013; Wagner vom Berg, 2015) will be adapted. This leads the employment model to a balanced position of offering fair and competitive labor costs in temporary conditions with sustainability motivations.

4 CONCLUSION AND OUTLOOK

The field of logistics requires agile solutions in the ecological and social dimension of sustainability to meet the needs of future societies. The NaCl project started in June 2018 and is scheduled for two years. The goal of the project is the development of a prototypical information system meeting the proclaimed needs and the piloted application a test field in the city of Bremerhaven. Crowd workers will be recruited among the students of the University of Bremerhaven. The approach gives at least the chance to establish more permanent employment because of a better and more flexible planning base. Still, it is up to the company to use these advantages for improving labor conditions and not abuse the crowd approach only for cost reduction. Developing labor ethics and showing the advantages of satisfied employees is also part of the project.

⁴ <https://www.uberfreight.com/>

⁵ <https://www.myrobin.com/>

5 ACKNOWLEDGMENTS

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⁶ www.rytle.com

⁷ <http://weser-eilboten.de/>