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Of “white crows” and “cash savers:” A qualitative study of travel behavior and perceptions of ridesharing in Denmark



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ABSTRACT

Based on original research collected through semi-structured research interviews and five focus groups throughout Denmark, this study explores Danish perceptions about ad hoc, acquaintance-based, and organization-based ridesharing (“carpooling”). Using a grounded, qualitative factor analysis approach, it investigates the elements that influence the adoption (and non-adoption) of ridesharing and identifies market segments and business models that may enable planners to overcome existing barriers. The article finds that Danish drivers and commuters appear to be split on the topic. Negative perceptions reported by respondents include lack of availability and difficulty finding rides, viewing ridesharing as unsafe or insecure, and expectations of social awkwardness, among others. Positive perceptions reported include cost savings compared to public and private transport, greater flexibility of travel times, and the ability to socialize with vehicle occupants. These contrasting views lead us to conclude that existing theories and models of ridesharing behavior may need to be fundamentally rethought, both in Denmark and possibly elsewhere. Our results also suggest that ridesharing efforts framed around climate change or environmental sustainability will *not* likely be successful in Denmark.

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1. Introduction

Denmark is renowned the world over for being a “green” country (Jamison and Baark, 1999), famous for its emphasis on healthy, active, non-motorized transport (Pucher and Buehler, 2007). The country exhibits “ample bike parking, full integration with public transport, comprehensive traffic education and training of both cyclists and motorists, and a wide range of promotional events intended to generate enthusiasm and wide public support for cycling” (Pucher and Buehler, 2008). Indeed, Copenhagen was awarded the European Green Capital Award for 2014 for planning to have 50% of commuters cycling to their offices in 2015 and to become carbon neutral in 2025 (Business Insights, 2014).

Even in societies such as Denmark committed towards lowering their greenhouse gas emissions and ridding themselves from fossil fuels, however, decarbonizing the transportation sector is a hard nut to crack. One recent International Energy Agency (2013) assessment of the Nordic region, inclusive of Denmark, found that carbon targets can be met only if Nordic countries implemented, in tandem, a series of changes including optimization of transport infrastructure, efficiency improvements to vehicles, and “modal switches” such as convincing people to abandon private cars for mass transit or ridesharing. On-going research suggests a number of other social and economic barriers remain prevalent (Gate21, 2014).

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Yet in general convincing people to shift transportation modes is difficult to achieve. As one study concluded, “it is not expected that the public transport system would be able to provide a level of service with sufficient appeal to attract large numbers of car users to switch to public transport” (Beirão and Sarsfield Cabral, 2007). Instead, researchers suggest that ridesharing is an optimal middle ground (Morency, 2007), enabling cities to reduce congestion, emissions and fossil fuel dependency, but also enabling people to maintain a degree of luxury and convenience by relying on cars instead of trains and buses (Chan and Shaheen, 2012). Despite its many benefits, like sharing the cost of transportation, faster traveling time, and less CO₂ emissions, behavioral factors still impede the efficacy of ridesharing (Shaheen and Lipman, 2007; Correia and Viegas, 2010). Such qualitative, psychological factors also remain under-examined in the energy and transport studies literature (Sovacool, 2014a,b).

And so this study asks: what do Danish drivers and commuters think about ridesharing? What factors influence its adoption or non-adoption? When Danes rideshare, is concern for the environment or climate change a significant consideration? And what market segments or business models might exist to overcome these barriers?

In addressing these questions, our primary sources of data for the study are a series of research interviews and focus groups conducted throughout Denmark in late 2013 and early 2014, supplemented with a brief review of the academic literature. The article explains these methods before summarizing a selection of literature on ridesharing and travel behavior. It then presents the results of the study, organized around negative and positive perceptions about ridesharing. It ends with a series of policy recommendations and conclusions for energy analysts, transport planners, and policymakers.

2. Research methods and concepts

The basic idea of ridesharing refers to when two or more trips are carried out simultaneously using a single vehicle shared by different people (Morency, 2007). Ridesharing is different from for-profit taxis because when a rideshare driver has collected his or her money it only covers a part of the drivers cost, and it is therefore not intended to enable drivers to capture profits. The conceptualization of ridesharing offered by Chan and Shaheen (2012) and introduced in Fig. 1 describes at least three classes of subgroups. It suggests that ridesharing can be “acquaintance-based”, which is when carpools are formed by families, friends and also co-workers. It can be “organization-based” where the pools are arranged around an organization which could be carpooling services like the Danish gomore.dk¹ or it could be a group of people sharing a car (vanpools). It could lastly be an “ad hoc” based pool, which generally involves users who do not know each other. Though we show how in Denmark these typologies do not map perfectly onto commuter and driver perceptions about ridesharing, they are useful at indicating how ridesharing involves different segments that may require more targeted marketing approaches, business models, information campaigns, and so on.

To gain insight into perceptions towards ridesharing in Denmark, we relied on two primary tools: semi-structured research interviews and focus groups. We conducted close to fifty semi-structured interviews with Danish residents (some of whom owned vehicles and some who did not) in October and November 2013. Though the demographics of these respondents were mixed, they are not representative of all Danish drivers or commuters. Notably, our own sample of respondents was biased in terms of having greater participation from men (67%), the young (those between the ages of 18 and 34 accounted for 71% of our respondents), and the highly educated (more than 90% of our respondents had at least a bachelor level degree from a university). Critically, only 18.2% of respondents had any direct experience with ridesharing. These, and other features of our sample of respondents, are presented in Fig. 2. That said, we do believe our participants offer useful, contextual insight into potential trends among a purposive convenience sample of Danish citizens.

Following the methodologies suggested by Creswell (2008), we asked these participants general questions regarding their age, where they lived, how many times they had used ridesharing services and which other kinds of transportation they were using. We also asked them about their perceptions towards different modes of transport including private cars, public buses, and public trains as well as alternative fuel sources such as ethanol, biodiesel, and electricity. After each interview was completed, notes were quickly coded and transcribed, though due to Institutional Review Board guidelines at the authors’ institution, we present the results of the interviews anonymously.

To triangulate our interview data, we managed five separate focus groups hosted at strategic locations throughout the country. We conducted these over the course of February to June 2014 and selected Copenhagen (the capital and largest city), Aarhus (home to the second largest city and home to the largest university), Aalborg (the third largest city), Herning (in the industrial heartland of Jutland), and Skjern (a small rural community). The idea was to get as representative a sample of cities and perspectives as possible. Roughly 50 people attended these focus groups, though because some left before the discussion ended, we were not able to generate a complete list of quantitative data about the composition of the sample. That said, during each we asked the following questions:

1. Do you really need a car to be happy in Denmark?
2. What is your impression of ridesharing, and what might a successful business model look like?
3. One aspect of ridesharing is also that you don’t know the person you are about to drive with. Does this matter?
4. Is mass transit in Denmark affordable and/or enjoyable?
5. What would it take to change your driving/transport behavior?

¹ www.gomore.dk. There are a number of other organisations in Denmark that offer carpooling services.

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