
Determinants of bicycle-commuting behavior diffusion model - Gdansk case study

Grazyna Chaberek-Karwacka*¹ and Karel Dolinski

¹Institute of Geography University of Gdansk (UG) – ul. Jana Bazynskiego 4 80-309 Gdansk, Poland

Abstract

In the context of sustain development policy in the European cities, there are more and more focus on alternative ways of everyday commuting. Most attention is devoted to cycling, which specifically answers to mobility needs within European cities nowadays. Although, in an increasing number of cities the cycling in daily commuting is growing, the increase in interest in this form of mobility does not grow evenly. Paradoxically, inhabitants of rich, developed countries are most comfortable with cycling. The primate in this field is leading by Dutch, Danes and Swedes. In Poland, cycle journeys are still a small percentage in everyday commuting. In the city of Gdansk, in 2016, bicycles were serving 5.9% of all everyday transport operations. This result is still not satisfactory, given that Gdansk has been supporting this kind of daily mobility for many years, expanding the infrastructure and organizing various kinds of promotion actions.

The law of innovation diffusion says that it's impossible to gain the mass acceptance of any idea until don't achieve the tipping point between 15% and 18% of users. After achievement of this point the system tips and the idea spreads quickly gaining mass supporters, over 50% of users.

Choosing a bicycle in daily communication seems obvious in such cities as Amsterdam or Copenhagen. In Copenhagen inhabitants choose the bicycle in daily commuting because of their own will, without any special restriction and regulation and the level of daily commuting by bicycle reaches 56%. The question is, why there is still low percentage of bicycles daily commuting in Gdansk, despite at least comparable weather conditions to Holland or Denmark. What kind of factors decide that citizens don't choose bicycles in daily travels, and what to do to convince 15%-18% users to cycling.

The aim of the paper was to analyze factors that could lead to a significant increase in the idea of commuting to work in Gdansk, according to the assumptions of the diffusion model of innovation.

For this purpose, a survey was conducted to identify demotivating factors for cycling and the factors driving inhabitants cycling.

Keywords: Sustain commuting, bicycles, citizens' attitudes, innovation diffusion law, Gdansk

*Speaker