Assessing the potential of e-grocery deliveries in rural areas

E-grocery deliveries have become increasingly accessible in Germany, with numerous market entrants in recent years providing same or next-day delivery of a comprehensive range of products available in supermarkets and drugstores. Despite the increasing demand, e-grocers face challenges in achieving profitability. Consequently, their current strategic focus is directed towards serving urban areas, where higher customer density facilitates an increased number of deliveries per hour due to a shorter transportation distance between the warehouse and customers and between individual customers. Conversely, the delivery of groceries in rural areas represents an untapped market with the potential to generate additional revenue. The Wingcopter projects stands out as one of the initial endeavors to address the grocery delivery needs of the rural population in the Odenwald region (Wingcopter, 2023). Nevertheless, significant concerns persist among market participants regarding the profitability of extending grocery delivery services to rural locations, for example due to the results of the Wingcopter project.

This thesis should aim to evaluation the feasibility of offering profitable e-grocery deliveries in rural areas. To achieve this goal, the student is tasked with identifying the primary revenue and cost drivers of e-grocery operations. Subsequently, the student should make appropriate assumptions for setting up an analytical model to analyze the economic performance of e-grocery deliveries in rural areas. A numerical analysis in a chosen area should be carried out with appropriate parameter values for comparing different e-grocery fulfillment models. Additional, conducting sensitivity analyses on specific model parameters would contribute to assessing the significance of these variables in influencing the profitability of e-grocery operations in rural areas.

Wingcopter. (2023). *Groceries from the air: Wingcopter drones deliver everyday goods for the first time in Germany*. Wingcopter. https://wingcopter.com/odenwald_liefermichel

- Diffenrt fulfillment models
- Numerical model/analysis