2018 - 2023

CERIS : Civil Engineering Reser and Innovation for Sustainability

## Devising an urban analytical toolset in the face of technological development

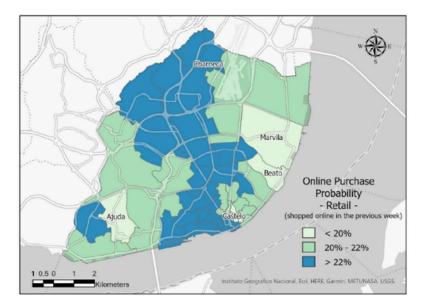
## Summary

Being a private sector activity, retail is eventually given less attention than other fields in urban planning. However, street commerce provides a wealth of valuable services to the population, whether as a provider of essential goods, a promoter of local employment, or a supporter of social interaction. And while street commerce has been menaced since the 1960s (shopping malls and other business models appearing increasingly faster), it has eventually resisted because of these characteristics. Its most recent threat has looked as its biggest: e-shopping has been said to have the potential to replace retail altogether. Nevertheless, street commerce has continued to resist, if only as a showroom and sensory experience in some cases. Hence, this thesis aimed to find an answer to the following research questions: What are the persistent patterns of retail location in Lisbon?; and What is the expected impact of online shopping on physical shopping?.

The research presented here concluded that urban configuration and accessibility measures significantly predict commercial activity through time. Agglomeration effects also matter, as does the presence of transit. Model results also support that being the first store to locate in a new area is costly. These insights can be used in policymaking to encourage the location of street commerce. For example, policies related to urban design and the planning of transportation infrastructures can be explicitly designed to support the location of street commerce. As to online shoppers, they are younger, more well educated and affluent. Online shopping is, therefore, less frequent outside the city's more central area. Because most stores locate over there, some citizens have significantly fewer opportunities to shop than others. Since the share of the older population is significant, and digital illiteracy can be a problem among the poorer, less well-educated citizens, this may lead to food deserts or, more generally, to inequality enhanced by technological change. COVID-19 might have changed these pre-established online-in-store shopping relationships, and further research will investigate those potential changes and the more widespread adoption of e-shopping. These issues will have to be addressed by urban planners and in policymaking.

## Keywords

Retail location, online shopping, urban planning.



Online Purchase Probability – Retail – Lisbon (2020).



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