



54ème colloque
ASRDLF

5-7 juillet 2017, Athènes, Grèce



15th conference
ERSA-GR



Les défis de développement pour les villes et les régions dans une Europe en mutation

Firm location choice determinants of the new and the relocated establishments. Does accessibility still matter?

Mr Ioannis BARAKLIANOS

LAET-ENTPE PhD Student

3 rue Maurice Audin 69518 Vaulx-en-Velin cedex France

ioannis.baraklianos@entpe.fr

Mr Louafi BOUZOUINA

LAET ENTPE Chercheur

ENTPE, 3 rue Maurice Audin 69120 Vaulx-en-Velin France

Louafi.Bouzouina@entpe.fr

Mr Ouassim MANOUT

LAET-ENTPE Doctorant en économie des transports

ENTPE, 3 rue Maurice Audin 69210 Vaulx-en-Velin 69120 France

ouassim.manout@entpe.fr

Mr Patrick BONNEL

LAET-ENTPE Chercheur HDR LAET et chef département Transport E

ENTPE, 3 rue Maurice Audin 69120 Vaulx-en-Velin France

patrick.bonnel@entpe.fr

Référence à la session / reference to the session

A1, F2

Résumé / Summary

1. Context

Accessibility plays a crucial role in a location choice of an economic establishment. Along with agglomeration effects (Jacobs, 1969; Marshall, 1890), it has been highlighted by the neoclassical theory (Arauzo-Carod et al., 2010). Highly accessible areas can minimise the transportation costs for distribution, suppliers, labour and clients (Maroto and Zofío, 2016). In that way, accessibility can create cost efficiencies and be considered as a positive attribute from spatial externalities (de Bok and Oort, 2011).

Nevertheless, the role of transportation, it has decreased during the recent years because of the development of the information technologies and the advances of the transportation sector it-self. The latter have become more productive, leading to more flexibility to the location choices, while creating polarisations

at a microlevel (concentration around transportation hubs and motorway junctions) (Mérenne-Schoumaker, 2011). However evidence shows that accessibility stays important, especially for some economic sectors (de Bok and Oort, 2011). But sometimes is not easy to quantify this preference for accessibility or proximity because of the trade-offs between accessibility and land value.

At the same time, there are firms which choose to change location and select a location in a less accessible areas, less urbanised, the so called exurbanisation (Mérenne-Schoumaker, 2011). This behaviour can be interpreted as that accessibility is not important. However, Rosenthal and Strange (2004) highlight that a recently relocated firm can benefit of the advantages of the previous location.

2. Objectives and case study

In this papers we are searching to quantify the effect of the accessibility (transport infrastructure and regional accessibilities) and the difference of the impact of these factors between the newly located establishments and the relocated ones. The division between location of new establishments and relocation of existing ones is not thoroughly examined. Some studies in the framework of discrete choices which have accounted for this division are the works of de Bok and Oort (2011) in their application on the Netherlands and Elgar et al. (2009) in the location choice modelling of office firms in Toronto. Especially for the relocated establishments, we are searching to quantify the effect of the path dependency of the accessibility of the previous location. To respond to these questions, we have developed a location choice model for the urban area of Lyon, where we are analysing the location choice determinants, using discrete choice models and accessibility indicators as the major explanatory variables.

3. Data and method

The location choice model for the economic establishments is a multinomial logit with random sample of alternatives developed for the urban area of Lyon. The alternative choice is in the scale of the neighbourhood. The explanatory variables, except of the accessibility indicators, are measures of location externalities (agglomeration and economic diversity), and specific characteristics of the firms (Arauzo-Carod et al., 2010). For the calculation of the regional accessibility indicators, we have used the generalised peak travel times by car, estimated by SIMBAD, a LUTI model developed in the "Transport Urban Planning Economics Laboratory" for the urban area of Lyon (Nicolas, 2010).

Our analysis is focused on the enterprises which have only one establishment. To identify the establishments which have be created or relocated, we have used the official disaggregated database of the economic establishments of France (SIRENE database) for 2 time periods, the analysis year of 2011 and the comparison year to 2006. Comparing these 2 databases we can identify the newly created establishments and the relocated ones during the period 2006-2011.

Our analysis is focused on the following economic sectors: manufacturing, construction, wholesale, retail, transportation and warehousing, accommodation and restoration, finance and insurance, real estate, front office services, back office services, health.

4. Contributions and preliminary findings

This papers aims to provide some interesting insights to the relative literature. First, it integrates path dependency variables to quantify their effects, which based on the theory can have a significant impact. Second, it applies different models for the newly created and recently relocated establishments which is not a usual method, except of some works (de Bok and Oort, 2011; Elgar et al., 2009). Third, is uses accessibility as a major explanatory variable and integration of the transport dimension in some indicators and quantifies their effect.

The results are showing that in fact previous location has an important role for the relocated firms. Generally, the establishments are relocated to less expensive areas with lower accessibility, to quantify the advantages of the previous location to a lower cost. However, these areas are not located very far from the previous location, possible in order not to decrease the impact of these advantages. This can explain also why the newly created establishments seem to be more sensible to accessibility and proximity to transportation infrastructures, which are obliged to select high accessible areas, which in general are more expensive.

Bibliographie / Bibliography

- Arauzo-Carod, J.M., Liviano-Solis, D., Manjon-Antolin, M., 2010. Empirical Studies in Industrial Location: an Assessment of Their Methods and Results*. *J. Reg. Sci.* 50, 685–711. doi:10.1111/j.1467-9787.2009.00625.x
- Basile, R., Castellani, D., Zanfei, A., 2009. National boundaries and the location of multinational firms in Europe. *Pap. Reg. Sci.* 88, 733–748. doi:10.1111/j.1435-5957.2009.00238.x
- de Bok, M., Oort, F. Van, 2011. Agglomeration economies, accessibility and the spatial choice behavior of relocating firms. *J. Transp. Land Use* 4, 5–24. doi:10.5198/jtlu.v4i1.144
- Buczowska, S., de Lapparent, M., 2014. Location choices of newly created establishments: Spatial patterns at the aggregate level. *Reg. Sci. Urban Econ.* 48, 68–81. doi:10.1016/j.regsciurbeco.2014.05.001
- Duranton, G., Puga, D., 2004. Micro-Foundations of Urban Agglomeration Economies. *Handb. Reg. Urban Econ.* 4, 2063–2117. doi:10.1016/S0169-7218(04)07048-0
- Elgar, I., Farooq, B., Miller, E.J., 2009. Modeling Location Decisions of Office Firms. *Transp. Res. Rec. J. Transp. Res. Board* 2133, 56–63. doi:10.3141/2133-06
- Jacobs, J., 1969. *The economy of the cities*, Vintage. ed. New York.
- Elgar, I., Farooq, B., Miller, E.J., 2015. Simulations of firm location decisions: Replicating office location choices in the Greater Toronto Area. *J. Choice Model.* 17, 39–51. doi:10.1016/j.jocm.2015.12.003
- Maroto, A., Zofío, J.L., 2016. Accessibility gains and road transport infrastructure in Spain: A productivity approach based on the Malmquist index. *J. Transp. Geogr.* 52, 143–152. doi:10.1016/j.jtrangeo.2016.03.008
- Marshall, A., 1890. *Principles of Economics*. Online Libr. Lib. 1–627. doi:10.1057/9781137375261
- Mérenne-Schoumaker, B., 2011. *La localisation des industries. Enjeux et dynamiques*, Presses Un. ed. Rennes.
- Nicolas, J.-P., 2010. SIMBAD: un outil pour intégrer le développement durable dans les politiques publiques, in: Jean-Pierre, A. (Ed.), *Modéliser La Ville: Formes Urbaines et Politiques de Transport*. Economica, Paris, pp. 120–164.
- Rosenthal, S.S., Strange, W.C., 2004. Evidence on the nature and sources of agglomeration economies, in: *Handbook of Regional and Urban Economics*. pp. 2119–2171. doi:10.1016/S1574-0080(04)80006-3