

# THE ECONOMICS OF AIRBNB

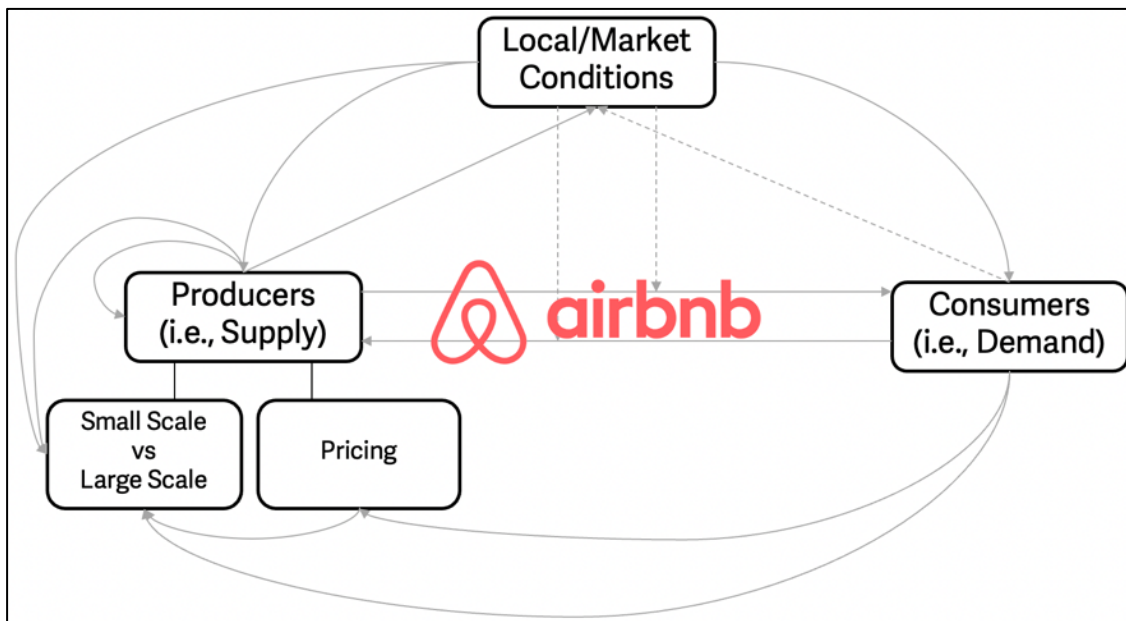
## PhD Dissertation Summary – Francesco Luigi Milone

This dissertation deals with the phenomenon of Airbnb, which, over the last years, has disrupted the hospitality industry and consequently putted itself at the forefront of the sharing economy or, broadly, of the remarkable diffusion of digital multi-sided platforms. Nowadays the importance reached by platforms is clear, being either at the core of the most valuable companies in the world (e.g., Apple, Amazon, Google, Microsoft) or in the middle of relevant policy-discussions in line with the important welfare implications that they embody. To this end, over the last years, the literature on digital platforms has rapidly grown, providing multiple contributions, aimed at clarifying both theoretical and empirical aspects of platforms in order to draw important contributions for managers and policy practitioners.

In line with this rising literature, claiming for novel contributions to better understand the reach of platforms' diffusion, this dissertation enters the current academic debate proposing a novel framework upon which looking at multi-sided platforms. Indeed, compared to the extant literature which has often studied large, global, multi-sided markets (e.g., Ebay, Amazon), treating them as a unique "fictitious" market connecting supply and demand, this thesis argues that specific kind of platforms (e.g., Airbnb, Uber), offering localized services (in the sense that, despite supply and demand are matched in a *digital* marketplace, the service offers and clearly linked to a physical, geographically segmented, market), show peculiar traits. To the extent of showing specific characteristics of this kind of platforms, this dissertation, as previously introduced, studies one of the most relevant examples of localized platforms, Airbnb, which in few years of operations only has been able to achieve a global reach, overcoming the quantities offered by traditional incumbents (i.e., hotels) and re-designing the market structure of the hospitality industry. Despite multiple aspects are treated, the common thread of the analysis, characterizing each of the proposed studies, is the idea of *spatially localized* platforms. In a nutshell, the contributions provided by this doctoral dissertation described four interrelated topics, well summarized by Figure 1.

First, starting from the multi-sided market structure of the platform, the thesis empirically estimates cross-side externalities, entering the empirical literature on externalities and digital technology adoption, which has recently grown given the important managerial implications potentially deriving. Indeed, according to its multi-sided structure, the decision of an Airbnb user to participate to the platform market jointly depend on the decisions of other users (this economic phenomenon is called *network externality*). To this end, an empirical study is conducted, taking advantage of a micro-economic approach relying on a utility-based model, where the utility of Airbnb suppliers (i.e., hosts) and demand (i.e., visitors) to join the platform is modeled. Among the various contributions, the thesis shows while the growth of the Airbnb platform is primarily supply driven (finding confirmation in the strategies adopted by Airbnb itself when facing the Covid-19), the intensity of network externalities is different, varying across spatially segmented markets characterized by different levels of local competition and demand appealing.

Figure 1. Research Framework of the doctoral dissertation.



Second, this thesis enters into the detail of Airbnb supply side, analyzing the entry determinants of different kind of entrepreneurs (small-scale and large-scale ones) in response to local market conditions, especially questioning whether the platform can act as external enabler of entrepreneurial processes, creating novel entrepreneurial opportunities. On the basis of this considerations, the dissertation shows that the entry processes of the different entrepreneurs follow different logics, still being significantly shaped by the local market conditions where the services are offered (particularly for those Airbnb hosts adopting a more professional approach to the platform). Furthermore, in line with the hybrid entrepreneurship literature, this thesis shows that platforms enable entrepreneurs to gradually approach the market, providing an effective learning sandbox for prospective professional entrepreneurs, entering with small commitment.

Third, proceeding with the differences between Airbnb suppliers with professional and less professional attitude (i.e., hosts offering multiple listings as opposed to those offering a single listing), this dissertation solves one of the most investigated questions in the short-term rentals' literature, investigating how prices respond to demand variations. In order to do so, this thesis provides an extremely novel methodological contributions, first exogenously estimating demand according to local governmental responses to Covid-19, and consequently estimating, the per night price posted by the different types of hosts. The results show that if on the one side, professional hosts significantly raise prices when facing rising demand, small-scale entrepreneurs price variation is mainly accounted by hedonic factors (such as structural characteristics of the listing) or seasonal ones, confirming the relevant asymmetries that can be found within the Airbnb supply side.

Finally, by inverting the point of view, this dissertation assesses to what extent the local diffusion of the platform can fulfill local economic conditions and local entrepreneurial activity in marginal areas (i.e., areas experiencing declining economic conditions, as opposed to cities). In doing this this thesis closes a notable research gap in response to the large body of

literature who have highlighted the negative externalities generated by platforms in urban contexts (e.g., Airbnb diffusions and rising long-term rentals or residential displacement processes). The respective research questions are answered studying the case of the Italian Borghi, which mainly fits the scope of the research, as well as allowing an experimental approach leading to causal estimates. Among the others, this thesis contributes with a novel finding, showing that the entry of the platform in an average marginal area creates novel entrepreneurial opportunities, significantly increasing the entrepreneurial activity through all the value chain (from downward to upward sectors) and the value captured by the local economy.

In general, this dissertation contributes to the extant literature mainly providing one theoretical contribution as well as specific practical implications following each of the studies. In particular, if on the theoretical point of view, this thesis envisages a novel framework upon which looking at platform, thus suggesting an often-forgotten spatial relevance of the phenomenon, under the practical point of view this thesis provides to practitioners and policy makers the instruments to better understand the growth and the diffusion of platforms, as well as the corresponding effects on local economy.