KIBS as Fosters for Innovativeness in Manufacturing Industries: The Case of Latin-America

From the seminal research from Miles et al. (1995), literature has analysed a new pattern of innovation fostered by “knowledge-intensive business services” (KIBS). Following with the analysis of the relationship between KIBS and innovation outcomes, some authors have shown how KIBS contribute to economic development in industrialized countries, where the competitiveness of manufacturing industries depends more and more on the specific knowledge provided by highly specialized suppliers (Corrocher & Cusmano, 2014). In this way, KIBS has been gradually perceived as a strategic sector (Hsieh et al., 2015) in the context of the knowledge-based economy (Muller, & Zenker, 2001; Miles, 2005; Koch & Stahlecker, 2006).

However, considering that selective agglomeration is important for the success and competitiveness of KIBS (Scott, 1998), literature has provided empirical evidence showing that KIBS tend to be grouped in large metropolitan areas. These metropolitan areas are characterized by high density of innovative industries (Porter, 1990; Camacho & Rodríguez, 2005; Gallego & Maroto, 2010) that promote information exchange among suppliers and the appearance of knowledge spillovers (Krugman, 1991), having access to transport and communications infrastructures (Marshall & Wood, 1995), high-quality labor markets (Illeris, 1996; Coffey & Shearmur, 2002) and greater opportunities for face-to-face interaction with clients (Keeble & Nachum, 2002; Shearmur & Avergne, 2002; Shearmur & Doloreux, 2008; Muller & Doloreux, 2009). Therefore, the importance of location is a critical variable for understanding KIBS effective service provision (Wood et al., 1993; Simmie & Strambach, 2006).

Furthermore, there are differences in the location of KIBS even when located in large metropolitan areas. For example, in Canada, the technological KIBS are located in more central and large cities, and they collaborate with all kinds of external actors. On the contrary, professional KIBS are more dependent on local markets (Pinto et al, 2013). In the same vain, technological services tend to be located in those European regions with better innovation systems with higher inputs, knowledge production and R&D investments. On the contrary, market and financial services are located in those regions with higher levels of economic potential and higher population density (Gallego & Maroto, 2010).

Even when innovation literature recognized that KIBS intensity strongly influences innovation outcomes (Hsieh et al., 2015), KIBS intensity is not the only pattern behind
this process. Where business R&D intensity is high—as in the case of those European regions of manufactures with medium and high technology—the expansion of KIBS has been slower, although significant. This suggests that the evolution patterns for KIBS are affected significantly by the characteristics of the local manufacturing industry (Corrocher & Cusmano, 2014; De Propris & Storai, 2019; Gomes et al., 2019; Horváth & Rabetino, 2018; Wyrwich, 2018). Thus, not all KIBS are clearly oriented towards innovation, and even within the innovative KIBS firms, innovation is carried out in several ways due to different competitive strategies, which produces different impacts on the business ecosystem (Freel, 2006; Corrocher et al., 2009 & 2012). Therefore, not all KIBS require the same level of geographical proximity and more research is needed to better understand how territorial location is affecting territorial growth (Lafuente et al, 2018). In line with this argument, empirical evidence on the spatial organization for KIBS is very limited, being a lack of research on the spatial patterns for analysing successful KIBS location and performance (Antonietti & Cainelli, 2016).

In any case, most of the empirical research on KIBS is based on studies and comparisons between global cities belonging to developed countries that show how location factor is key, while variations between metropolitan areas particularly in developing countries remain largely unstudied (Hsieh et al., 2015). In fact, most of the KIBS literature published in the Web of Science, Scopus and SCIELO comes mainly from authors from North America and Europe, being research analysing KIBS in Latin America still scarce (Figueiredo et al., 2017), presenting just 3.3% of the world publication on innovation issues in general (Tello-Gamarra, et al., 2018).

KIBS presence can be especially important in the peripheral regions, as they can help SMEs firms in solving complex problems, as well as connect them to a huge amount of expertized knowledge (Pinto et al., 2013). However, the peripheral areas are affected by a relative lack of support infrastructure, social capital, access to markets and skilled human resources (Tödtling & Tripl, 2005; Shearmur & Doloreux, 2009) and tend to present a lower concentration of KIBS. Therefore, SMEs in these areas may encounter problems of accessing to the provision of specialized knowledge (Pinto et al, 2013). From the arguments provided above, we propose that:

H1: Innovativeness for manufacturing firms is enhanced by selecting closeness to KIBS location.
With a population of over five hundred million inhabitants, a growing middle class, and a GDP of approximately US$4 trillion, Latin America is becoming one of the world’s most important economic regions (Vendrell-Herrero et al., 2017). Authors draw on the World Bank Enterprise Survey (WBES) 2017 to shed light to the research question proposed. Cross-sectional surveys conducted in five Central American and four South-American countries contain 3,029 firms operating in various manufacturing industries. In this respect it provides a good set of countries in which to analyse the patterns of innovativeness and KIBS co-location in emerging economies.

Our dependent variable, KIBS co-location, is measured at city level, using the method first described in Vendrell-Herrero, Darko and Ghauri (2019). Innovativeness is measured through a dummy variable. Preliminary results indicate that manufacturing firms’ location decision based on KIBS proximity is a critical determinant of innovativeness. This relationship is considerably stronger in Central American countries, where according to our data there is KIBS scarcity. Whilst this result requires further discussion, we postulate that the decision of KIBS co-location become more important when the technological and service knowledge is scarcer and hence valuable.

References


