

Accessibility, utility and learning effects in university-business collaboration for innovation

ERC Research Paper 57

February 2017

In recent years university-business collaboration for innovation has attracted significant attention from both researchers and policy makers. In this paper we investigate whether the location of firms' university partners actually matters. We find some differences between firms of different sizes. On average, collaboration with 'national' rather than more local universities has the most significant innovation benefits.

Key findings

Our analysis is based on the UK Innovation Surveys (UKIS) covering the period 2004 to 2012. Our results re-affirm the evidence from other studies of the value of university collaboration for new-to-the-market innovation, particularly to smaller companies. Specifically:

- We find evidence of an inverted-U shape relationship between the distance between collaborators and the innovation benefits. Collaboration with a national university increases the probability of new-to-the-market innovation by 8.4 per cent on average, while collaboration with local and international universities have smaller effects.
- We find evidence that local university collaboration benefits only small and medium firms, increasing the probability of new-to-the-market innovation by 6.8-7.1 per cent.

We find consistent evidence that learning effects from previous collaborations with customers, suppliers etc. increase the probability of collaborative activity.

Explaining the geography of university-business collaboration

Firms' choice of a university partner for innovation involves a trade-off between accessibility and the value (utility) of the knowledge which a university can provide. Local universities are easy to access but their knowledge base may not ideally match the needs of local firms. The larger group of national and international universities may possess more relevant knowledge but at a greater access costs. This suggests an inverted-U shape trade-off between the proximity of partners and the likely innovation benefits of collaboration (Figure 1).

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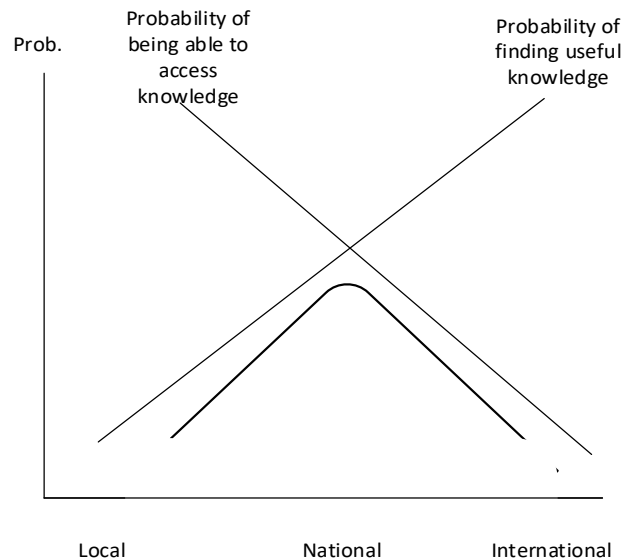


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Figure 1: The knowledge utility-accessibility trade-off in collaboration for innovation



Firms of different sizes may have different utility/accessibility trade-offs which lead to different choices in the geography of their university collaborators. Small firms facing resource constraints may find it difficult to access distant knowledge but, at the same time, may derive greater benefit due to their weaker internal knowledge resources. Larger firms with stronger internal resources may be able to access more distant knowledge but benefit less from that knowledge.

Policy implications

University collaboration matters for innovation, and access to UK universities outside their region helps small firms to maximise their innovation outputs. An obvious policy implication is to improve small firms' accessibility to the national university network.

An example of this type of initiative is Interface in Scotland which provides a single point of entry to Scotland's university network for small firms across a range of sectors. In 2015/16, Interface brokered links between 387 small firms and Scottish universities resulting in 172 collaborative projects (<http://www.interface-online.org.uk/>). This type of initiative addresses two market failures which occur in the formulation of innovation collaborations: firms' lack of awareness of the potential benefits from university collaboration and their lack of knowledge of potential university partners.

Full paper link:

<http://www.enterpriseresearch.ac.uk/our-work/publications/?type=whitepaper-research>