

Is there a 'home advantage' effect in the patenting activity of multinational companies? A comparison of USPTO and EPO patents.

Paola CRISCUOLO

Contact : p.criscuolo@sussex.ac.uk

The advantages and disadvantages of using patent data to compare innovative performance of countries and companies are well known, but relevant for this paper is the fact that firms have different propensities to patent in each national market, according to the expected market share for their innovation. Most obviously, firms tend to protect their inventions in their domestic market. As a result national patent offices receive a large number of domestic patent applications (i.e. patent applications of residents in their own country), which can bias inference towards domestic inventive activities. This problem, known as the 'home advantage effect', implies that in making international comparisons of innovative activities – be it at the level of the country or of the firm - one cannot rely on any particular patent office's data.

A common method which has been used to correct for these problems is to base international comparisons on the patenting activity in a third country. Most studies at the country level and also at the firm level have used patents registered with the USPTO. However the USPTO may not capture the innovative activity of non-US firms taking place outside the US.

This paper attempts to assess the extent of the home advantage effect and thus the validity of using USPTO and EPO data to analyse the internationalization of R&D activities, examining the patenting strategy of 131 high-tech European, US, and Japanese MNEs (multinational enterprises) in both patent offices. In particular it analyses their patent families and their propensity to protect their inventions in both patent offices.