The Nature of Collaborative Innovative Activities

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Innovative activity often involves the formation of partnerships that span across a wide range of organizations (Chesborough, 2002), mainly embracing firms but also Universities and Public Research Organisations (Poyago-Theotoky et al., 2002). This is both a consequence of the fact that complex R&D activities in multi product firms demand the integration of different bodies of knowledge (Granstrand et al., 1997) and the recognition by organizations that the relevant knowledge should be found outside their own boundaries. During the last decade, collaborative innovative activity, especially those involving University-Industry collaborations, have become crucial within the wider context of research collaborations and the subject of extensive academic debate.

There is a very large theoretical and empirical literature examining research joint ventures (RJVs). This literature can be organized around three main approaches. First, there are the game-theoretical models developed following the seminal work of d'Aspremont and Jacquemin (1988). Second, there is the transaction const framework that emphasises the mix characteristics of RJVs (Williamson, 1996). Third, there are the strategic management approaches (or resource based theories of the firms) that study the reasons for the rapid development of this new from of company interaction (RJVs started to be formed after the mid 1970s) (Hagedoorn, 1993; Mowery, Oxley & Silverman, 1996). Parallel to the theoretical analysis, the field has also seen the development of a large number of empirical studies based on large databases of RJVs (see Caloghirou et al., 2003 for a review of this body of literature) and, most recently, econometric studies based on innovation surveys (see Cassiman and Veugelers, 2002 among others). Finally, specific attention has been given to the study of universityindustry relationships. Empirical studies that have contributed to the debate have mainly looked at innovative research collaborations from the viewpoint of firms involved in the collaboration (Cohen et al., 2002; Fontana et al., 2006). Fewer have looked at the determinants of collaborations from the viewpoint of the individual inventor actually involved in the collaborative project (Audretsch and Stephan, 1996; D'Este and Patel, 2005). Collaborative innovative activity, as measured by patents, takes different forms such as co-invention or co-assignment, these alternative forms have become increasingly relevant (Hicks and Narin, 2001; Hagedorn et al., 2003). However, little is known about the characteristics of the various form of collaborative invention and even less is known about the reasons why certain inventors engage in certain types of collaborations and not in others. This paper aims at providing a first exploratory analysis of collaborative innovative activities taking the inventor as the subject of investigation; we study the determinants of collaborative innovative activities by distinguishing between coinvention, co-assignment and collaborations. In particular, the following issues are addressed.