ABSTRACT

Science-society interactions in the social sciences and humanities: empirical studies of the Spanish Council for Scientific Research

Interactions among agents in the innovation system are critical for the promotion of knowledge exchange, learning processes and the innovation process. The analysis of interactions between universities or public research organisations (science) and social agents (society) has received great attention in the scientific community because, among other reasons, the results of these interactions can have implications for the design of science and innovation policies and organisation management.

This thesis analyses the interactions between researchers in the social sciences and humanities (SSH) and social agents. The SSH community is a collective that has been little studied from this perspective and presents particular characteristics as compared to other scientific fields. The three studies included in the thesis address different aspects of the topic and are based on empirical data obtained through surveys and interviews conducted in the Spanish Council for Scientific Research (CSIC).

The first study explores whether the knowledge produced by the SSH is less useful than that produced in STEM fields (Science, Technology, Engineering and Mathematics), as science policy seems to presume when establishing measures based on indicators (patent licenses, R&D contracts with companies, creating spin off) that are difficult to apply to the SSH community. The empirical analysis shows that SSH research outputs are no less useful than those from STEM because, in both cases, there are social agents interested in them. However, the preferred type of collaborative mechanism varies across fields, as does the type of agent with whom researchers interact. Firms are the prevailing type of agent collaborating with STEM researchers whilst SSH researchers collaborate with a varied group of social agents (i.e. government, NGOs, etc.).

The second study explores the extent to which SSH research groups engage with a variety of social agents through non-formalized collaborations. To do this, two complementary analyses (quantitative and qualitative) are conducted. Results show that most of the collaborations are not institutionally formalized, which means that the

research organisation does not identify, record or value them. However, engagement in these informal collaborations, that do not necessarily have an economic counterpart, are attractive due to the relatively low cost (in time and economic terms) of many such activities, the absence of restrictive conditions (e.g. IPR, confidentiality) and other intangible benefits accruing to the researcher.

The third study examines the extent to which SSH research groups interact with social agents through different knowledge transfer (KT) activities –consultancy, contract research, joint research, training and personnel mobility– and identifies the determinants of each. Results show that the most frequent KT activities are consultancy and contract research, while personnel exchange is a marginal activity among those analysed. The study of the factors determining the engagement in these activities shows that consideration of the social uses of the research outputs from the beginning enhances research groups' engagement in all the knowledge transfer activities analysed.

Overall, the three studies support the conclusion that SSH research produces knowledge and outputs that are of interest to society. However, differences from other scientific fields are found in terms of the prevalent type of interaction mechanisms used and the variety of social agents with whom interactions are established. These findings may have practical utility for the design of policies aimed at encouraging and enhancing the range of interactions, for improving managerial practices and for the assessment of these interactions through indicators able to capture the type of interactions identified in this thesis.