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International Conference on Regional Science

Tackling with societal, technological and climate challenges
in peripheral territories

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Extended abtract

EXTENDED ABSTRACT

**Authors and e-mail of all: F. Xavier Molina-Morales (molina@emp.uji.es), Luis
Martínez-Cháfer (chafer@emp.uji.es)**

Department: Administración de Empresas y Marketing

University: Universitat Jaume I

Subject area: *(please, indicate the subject area which corresponds to the paper)*

S05 – Glocal clusters: critical aspects and new trajectories

Abstract: *(minimum1500 words)*

One recurrent concern for the business studies is the need to accurately define the field
setting of the research. Researchers need to isolate an *entity* from which to make a
significant study. This isolation means that the relationships in the internal entity will be
treated in more detail and with a greater and deeper vision than those used to examine
the relationships between internal and external entities (Becattini, 1979).

The concern arises, fundamentally, because of the limitations of the conventional ways
used to classify individual businesses to build empirical settings. For instance, the
official statistics frequently use classifications based on technology or product
similarities in the industry or sector. This is the case of the popular Standard Industry
Classification (SIC) or the Statistical Classification of Economic Activities in the
European Community, commonly referred to as NACE. These classifications often
condensate very distant and diverse environments into a reduced number of categories.
Despite of their frequent use in research and the acknowledged constraints, there is still
little or no methodological discussion about them (Peneder, 2003).

In our opinion, these classifications, and other similar ones, are far from capturing the
real actors for a comprehensive understanding of the business environment, and
consequently difficult to make an accurately economic and entrepreneurial analysis

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(Jacobs and O'Neill, 2003). Some critics focused on the difficulties to the codification of certain activities such as some new or cross sectors activities (Bean, 2016). For instance, this is particularly problematic for studies concerning to comparative analysis between individual company performance in the same classification code (Bhojraj, et al, 2003) or also to determine an area for economic and industrial policy (Santisteban, 2006).

In describing the aforementioned drawbacks of conventional classifications, we aim to propose an alternative method to define the empirical setting. This debate triggers further research which we address by going back to the seminal definition of unit of analysis by Becattini (1979). Instead of product or technology classifications this author suggested the use of sociological definitions. Specifically, the family of sociological definitions where the element that characterized them consisted on the *conscience* of the subjects belonging to a particular industry. The sense of belonging is a difficult-to-measure data, but for that reason it is not less real and probably everyone will agree on the fact that when it exists, it becomes a first-order social force (Becattini, 1979).

In the context of our research we understand that the *sense of belonging* is represented by accounting for the real interactions between actors in the business information and technological knowledge. That is, we consider that an actor belongs to an industry when is actively involved in the networks of knowledge exchanges. Moreover, we distinguish two different types of knowledge exchanges, in relation with the technological and business knowledge networks.

In our research, we applied the ideas exposed above on the industrial clusters as a form of industrial organization that is able to impact on the competitiveness, innovation and employment growth of firms, regions and countries (Porter 1990, 1998). In clusters internal relations in knowledge exchanges has been widely reported (Maskell and Malmberg 1999; Cooke 2002; Sammarra and Biggiero 2008). In addition, geographic clusters are frequently represented by a network model to analyze involved actors and the interactions among them (Branston et al. 2005; Boschma and Ter Wal 2007; Mario Davide and Sacchetti 2008).

In order to address the research gap, this paper uses *Social Network Analysis* (SNA) to define all companies and organizations belonging the industrial cluster. In consequence,

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firms and organizations that sustain ties in both technological and business knowledge exchange networks can be considered as relevant actors of the cluster and consequently the empirical setting for the potential analysis. Doing that, we attempt not only to define the boundaries of the cluster but also to weight the importance of individual or groups of actors.

We expect to contribute to the methodological debate about the definition of the empirical setting in the business literatures. In addition, we also contribute to the specific literature about clusters providing a methodological approach to know real actors involved in it but also their relative relevance. This potential contribution goes further to the metrological sphere providing, among others, a more realistic ambit of application of economic and industrial policies

This paper has been structured as follows: first, we develop the theoretical framework and research questions, we describe the empirical setting and then results and conclusions.

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