Chapter 36
The Keystone Sector Analysis

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ABSTRACT

This chapter is written to describe a different vision on how to make use of a simple network diagnosis instrument in order to identify and describe the network structure of a set of diversified institutions located and acting in a regional environment. The use of this analytical framework enables policy makers to intervene in a variety of manners. After a detailed literature review of different discipline approaches, we describe different models for network formation and present the keystone sector analysis as a parsimonious centrality measure existing before more recent and complex frameworks used in reduction crime policies with the same definition (e.g. inter-optimal centrality). Considering the embeddedness in social network environments where different institutions – private, public, third sector – make decisions and influence future decisions, the keystone sector analysis is also helpful to uncover some methodological weaknesses in socioeconomic development and provide new opportunities for policy purposes.

INTRODUCTION

The seminal motivation for this chapter relies upon our theoretical and practical involvement in the debate about possible explanations for regional development lags. The existent economic literature over the year 2000 is either focused on firms, productivity and employment or on the relevance of social interactions, networking and technological/knowledge spillovers. The broader literature review is mostly focused on some of the most applicable and prominent papers from macro and regional economics. Temple (1999) suggested the need to examine other aspects beyond those adopted in mainstream macroeconomic growth and development models. In comparative studies, a number of authors referred the need for deepening macro and micro considerations, acknowledging scale and spatial effects; some others pointed out significant qualitative issues and social habitat diversities that boost regional actor dynamics.

(Cappellin, 1992; Florida, 1995; Cheshire and Gordon, 1998; Camagni, 1999; Funck, 2000; Johansson, 2000; Malecki, 2000 and Stough, 2001).

Working in real socioeconomic development projects in my country (the kind of urban renewal projects, regional tourism strategies or local sport policies) also taught me that the number of individuals that really influences important political decisions is quite small. In fact, people are tied by one or more specific types of relationships either direct or interdependent. The more relationships an individual has within (and out) of his community, the more likely he will collect knowledge, influence and power. Part of this constitutes the personal and pragmatic motivation to study and use social network analysis in order to map the relevant ties between the people (nodes) we were dealing with.

Another piece of the motivational problem could be settled as follows:

Consider two regions located in different countries but sharing similar economic structures in terms of their industry composition, population size, resource endowments, relative location to major metropolitan regions and so forth, and where one of them is growing more rapidly than the other. The standard toolbox of regional science techniques has been unable to identify the cause of these growth differences. Applications of sophisticated econometric techniques informed by concerns with spatial correlation reveal that there may be a missing variable problem. The standard economic approach has been to explore either re-specification of the modelling system acknowledging for spatial effects or searching for additional exogenous economic variables. Although some other authors refer to social capital, cultural business environment, history and other difficult quantifiable measures, our hypothesis is that there may be another alternative explanation lying in community internal factors associated with its' social structure and with the special influence of some ignored issues such as the central or key role played by some actors, their information and

influence flows and/or the relational densities or location of special agents within the network community.

Last but not least, there is a political relevance for this topic of study once it can contribute to improve the efficiency of the public funds/ investments allocations in order to better off the general socioeconomic level and quality of life of the regional inhabitants. In the earliest 21st century, most of the EU funds were invested for regional purposes in industrial high-tech support; usually, these industries are clustered in the mid-sized developed towns, which allocated some of the residual structural budget to sustainability of the rural landscapes and to accomplish tourism goals. However, there is a lack of knowledge about the way innovative actors developed their interactions with other entrepreneurs (either collaborators or competitors). In conclusion, going deeper in the understanding of the social structure of the decisional architecture of a town/region assumes paramount importance to improve overall political efficiency and eventually make the right selection about who is worthy to be funded/supported.

In this chapter, we support the notion that social network analysis is an interesting and complementary method to highlight the evidence that intangible factors partially explain why some regions/organizations thrive and others do not; moreover, through specific centrality measures used in keystone sector analysis we can extract some internal community factors as possible complementary explanations for different growing/development processes, barely referenced in most of the literature. We do easily demonstrate that policies can be improved by accurate social network diagnosis/evaluation processes; therefore networks used to improve businesses, organizations and innovations.

Who are the key players in the game of development? How does brokering processes should develop in a regional/organizational network? How can we save resources when we want to develop local policies? Why consider everyone

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