

Session: G19. Location of Economic Activity

Regional Hubs in the Global South:

A network analysis of location patterns of upstream oil & gas companies

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Introduction

Numerous studies from the fields of business studies and economic geography have revealed a parallel occurring trend of globalization and regionalization (Pla-Barber and Camps, 2012; Yeung et al., 2001; Poon, 2000). Transnational companies (TNCs) organize their operations at a regional rather than a global level (Rugman and Verbeke, 2007). This regional strategic framework finds its spatial manifestation largely in few selected locations, such as Singapore or Hong Kong (Thompson 2000, Poon 2000), from where the functional integration of geographically dispersed activities into the global economy takes place.

The concentration of these essential economic functions in major cities assigns them a central role in the global economy. These places are described as world cities or global cities – places from where the management and command of the global economy takes place (Sassen 1991; Friedmann 1986). Taylor (2004) argues that these major business centers are interlinked in a single urban network drawing their functional centrality from their connections with other important cities. Consequently, in the last decade, world cities have been explored as nodes in global networks (e.g. Alderson and Beckfield, 2004; Taylor et al., 2010; Wall and van der Knaap, 2011). Besides being a central node in global networks these cities are not isolated from their regional context but rather play a highly influential role. Already in his early contributions Friedman (1986; 1995) emphasized the function of world cities for integrating their national and regional economies into the global economy. However, to date empirical research has primarily focused on inter-city relations among world cities. Their role has been largely occluded when it comes to put these cities in the context of their region.

What is more, studies on world cities draw their insights from a focus on advanced producer services (accountancy, advertising, banking/finance and law). This only reflects one particular perspective on the role of cities in the global economy. An increasing number of scholars criticizes this narrow analytical focus (e.g. Robinson 2002, Coe et al. 2010, Krätke 2014). The focus gives only attention to a small amount of cities, mainly in Occidental Europe and North America. The role of cities in South America, Sub-Saharan Africa and Southeast Asia have been overseen by these studies (Surborg 2011), although “many relevant nodes or chain links of global value chains are located in the ‘globalizing’ cities of the global South” (Krätke 2014b: 125). In the last years an increasing number of publications has contributed to broaden the analytical lens and shine a light on the role of cities in multiple globalization processes beyond the significance of the global service industry. Their results reveal varying spatial network configurations with new cities appearing on the map and classical world cities being absent pointing to differing sectoral profiles of cities (e.g. biotech industry (Krätke, 2014a), automotive and technology hardware & equipment industry (Krätke, 2014b), energy industry (Martinus and Tonts, 2015)).

Taking these two shortcomings as a point of departure, the present paper attempts to explore the regional role of world cities. Moreover the study contributes to the burgeoning literature on cities in 'multiple globalization' by mapping crucial cities in the upstream-segment of the oil and gas industry in different regions.

Objectives

The objective of this article is to map and in a second step compare the role of different world cities in the global South, as regional hubs in different world regions. For this purpose, the strategies of TNCs of the oil and gas chain are studied, in three different macro-regional contexts. The analysis allows to assess the relevance of regional hubs to the functioning of the particular value chain in South America, Southeast Asia and Sub-Saharan Africa.

Methodology

So far world city network-research has aimed to map flows between various world cities. The empirical exploration of linkages between world cities and the locations they manage, i.e. sites of production, has not received a lot of attention yet (Surborg 2012; Parnreiter 2014). Following the suggestion to apply a bottom-up approach to world city research (Surborg 2012, p. 93) we begin our analysis at the starting point of the production process in a specific global value chain. Thereby the analysis does not reveal ties among important cities but considers segments that spread across the region at remote locations. We trace the connections from the production sites to the places of service and control.

In this context, the option for the oil and gas sector is justified by the fact that it is possible to define the beginning of the whole chain. Considering that the oil and gas wells are geographically fixed, it is possible to distinguish an area where the activities of the production chain are beginning, and connect these areas to the cities, where management and service functions are concentrated. Thus, from the wells, it is possible to identify where part of the chain is located, which are the key locations for the operation of the chain and how TNCs operates, in a spatial level.

The data about the oil and gas fields, their location and the agents involved in the exploration process was collected from a database called "A barrel full". This database shows data related to oil and gas fields in the whole world, grouped by geographical regions, with information related to what is the operator and the contractors involved in the wells exploration. Sequentially, information about the offices' locations of the different firms acting as operators and contractors were collected in their respective websites.

With this information, some connections among the oil and gas fields and the city where the firms' offices are located were established. This information make it possible to connect the places where the oil and gas exploration takes place, i.e., the beginning of the oil chain, to certain cities, from where management and service provision comes, forming networks that allowed a better analysis of the results.

These connections were designed following a methodological criterion already applied by Hennemann and Derudder (2014), in which the most likely connection between two nodes within a network is identified, according to the geographical location and the hierarchical position of the corporate offices of companies operating in the oil and gas fields.

This approach will be applied to different world regions, in order to analyze and identify structures of management and TNCs activities in the global south, in three different regional contexts. Thus, the

cases of Southeast Asia, Sub-Saharan Africa and South America will be discussed and compared. A comparative approach enables us to examine the mechanisms and to identify some patterns that are present in the oil and gas sector, even in such different contexts.

The results will shade some light on the spatial organization strategies of oil and gas TNCs and on the regional role of some world cities in the global South. It is expected that the results show several cities across the global South which are crucial for the integration of upstream activities in the oil and gas industry. Nonetheless, some cities concentrate most of the management capacities, and, consequently play a more important role. However, given the importance of state enterprises and the institutional frameworks in the particular industry, it is expected that the structures identified evidence a national, rather than a regional scope.

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