

## GLOBALIZING PRODUCTION NETWORKS

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**Abstract:** The emergence of globalization processes and transnational market integration has become a more and more challenging issue for scientific research in many fields, also and in particular within management science. Against this background the paper presents conceptualizations of globalizing networks based on theories and approaches such Global Commodity Chains, Global Value Chains and Global Production Networks. In particular, the paper aims to conceptualize and discuss globalizing networks with a specific focus on foreign direct investments (FDI) and special economic zones (SEZs). The article is based on heuristic approach and in-depth literature study. The text has been prepared based on heuristic approach and literature studies and it can make a small contribution to the conceptualization within in management science theory.

**Key words:** global commodity chains, global value chains, global production networks FDI, transdisciplinarity

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### Introduction

The research on globalization requires constant research in order to understand new economic configurations. This is all the more the case since European post-socialist economies as well as large global economic spaces (e.g. BRIC countries) have created a 'new' playing field for multinational companies and international business relations. Particularly in the European context, research on globalization and transnational networks corresponds to the framework assumptions of the EU economic policy focusing on a balanced strategy for growth, competitiveness and labor market (European Commission 2013). In this paper, we adopt a globalizing network perspective including concepts like global commodity chains (GCC), global value chains (GVC) and global production networks (GPN). From this starting point, we analyse the role of foreign direct investments (FDI) and special economic zones (SEZ) relating to the internationalization of enterprises and the configuration of globalizing networks.

### Evolution of Globalizing Production Networks

The scientific study of production processes from a spatial and organizational perspective has implicated tough debates within the field of geography leading to several approaches of different complexity. In this regard, two well-known approaches are the Filière (e.g. Hugon, 1988; Malsot, 1980) and the Value Chain,

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with the latter most prominently used by Michael Porter (1985). These approaches undoubtedly have particular strengths by emphasizing the sequential and interconnected structures of economic activities.

Against this background, further-reaching concepts try to focus more tightly on the 'network idea' and the institutional context. Thus, within the framework of Global Commodity Chains (GCC), Gereffi and Korzeniewicz (1990, 1994) combine spatial aspects of local concentration of industries with globally observed networks of production and distribution. The authors develop therein a dual typology of producer-driven and buyer-driven commodity chains with the former being more typical for technology-intensive industries (e.g. automobiles, semiconductors) and the latter being more related to mass commodity markets (e.g. agrifood).

Given that dramatic changes are shaping the era of globalization, economic operations can no longer be taken in isolation, but in consideration of social and political interrelations. Hence, the emerging of various networks including both economic and non-economic actors becomes increasingly evident. Such networks are extremely complex structures with intricate links forming multidimensional and multilayered webs of economic activity (Dicken, 2011). Taking into account these striking changes, two approaches have been developed to explore the relationships between stakeholders in economic networks: the approaches of Global Value Chains (GVC) and Global Production Networks (GPN). Both frameworks are "centrally concerned with the globally coordinated inter-organizational relationships that underpin the production of goods and services, and the power and value dynamics therein" (Coe, 2012). Despite these common features there are also some differences, mainly with the GPN concept being deliberately broader in remit. The quintessence of the GVC approach, however, consists of its sophisticated typology of five basic governance types: markets, modular, relational, captive, and hierarchy (Gereffi et al., 2005), (see Figure 1.).

These types are measured and determined by three variables: the complexity of information and knowledge transfer, the extent to which this knowledge can be codified, and the capabilities of actual and potential suppliers. Governance, therefore, represents a crucial tool of analysis with relevant studies usually carried out from a top-down perspective (Gereffi and Fernandez-Stark, 2011). In general, the GVC framework deals with the nature of interfirm linkages and the power that regulates value chain coordination, spanning not only transnational borders, but particularly extending to a global reach.

On the other hand, the GPN approach emphasizes the complex intra-, inter- and extra-firm networks that constitute all production systems, and explores how these are structured both organizationally and geographically (Coe and Hess, 2011; Pachura, 2016).

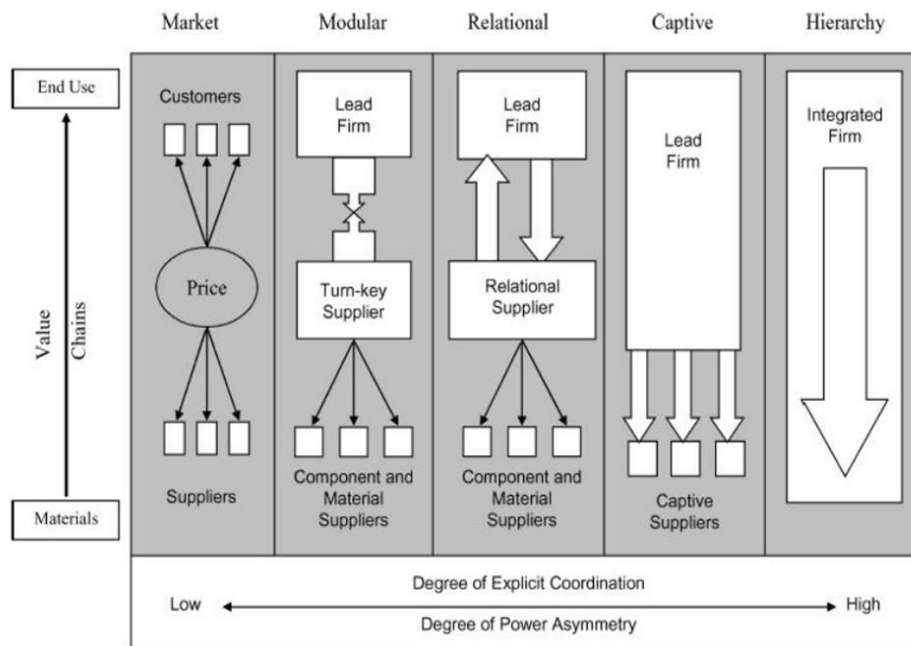


Figure 1. Typology of governance in GVC (Gereffi et al., 2005)

This perception takes into account the relevance of supranational organizations, government agencies, trade unions, employer associations, NGOs, and consumer groups. Furthermore, GPN analysis is closely linked to a multiscale perspective considering the mutual relations and interactions within the scope of all spatial scales, from the local to the global.

In order to analyze the multiscale organization of these network relations, an early version of the concept – termed as ‘GPN 1.0’ (Yeung and Coe, 2014) – offers three analytical dimensions (Henderson et al., 2002): value (creation, enhancement and capture), power (corporate, institutional and collective), and embeddedness (societal, network and territorial). These categories are not only arranged in the dynamic proceedings of firms and institutions, but also in specific economic structures (e.g. branches, networks). As already indicated in the GVC literature, the GPN approach tends to scrutinize the relations and governance structures within and between production networks analytically. However, the main focus shifts with a stronger link to extra-firm interactions in order to highlight the relational and multidimensional character of global production networks. Despite its influential role as a heuristic framework in economic geography and management, ‘GPN 1.0’ in many ways remains an inadequately developed approach. Several critics argue that it lacks an explicitly specification of the causal mechanisms linking the three analytical categories to the dynamic configurations of GPNs.

### **Globalizing Network Configurations Based on Foreign Direct Investments (FDI)**

Recent developments have undoubtedly shown that foreign direct investments (FDI) are one of the most important driving forces of globalization processes. Referring to this, a new terrain of intensified competition between territories for the attraction and retention of FDI and the mobile investment of transnational corporations (TNCs) becomes apparent. Central to these competitive dynamics are new forms of time-based competition, intensified processes of intra-corporate competition and increased merger and acquisition activity – all of which are impacting upon host regions in selective and geographically uneven ways (Dawley, 2011). It is assumed that positive regional and local (Nowak and Ulfik, 2014) impacts (e.g. economic growth, business attracting, employment creation) can only occur if region-specific assets fit the strategic needs of TNCs. This ‘fitting’ process requires the presence of appropriate institutional structures that simultaneously promote regional advantages and enhance the region’s articulation into global production networks (Coe et al., 2004). The functioning of FDI has been a key focus of several studies in economic geography. In many regards, East Asia serves as core area of relevant investigations particularly dealing with investment strategies of TNCs as well as with attempts of state-level institutions to stimulate FDI and to orchestrate their successes and failures. Most notably, the rise of China to a ‘global economic power’ has attracted considerable interest of economic geographers which aim to analyze the specific motives, strategies or impacts of FDI in relation to perspectives of globalizing production networks (e.g. Bathelt and Li, 2014; Kim, 2011; Yang and Liao, 2010; Yeung et al., 2006). The same is true for Central-East Europe, where the fall of the Iron Curtain and the political and economic integration of Europe have set the stage for an increasingly free movement of persons, goods, services, and capital. This transformative environment has formed the ‘breeding ground’ for research concerning FDI activities in several CCE countries, specifically in Poland (Fuchs and Winter, 2008; Pavlinek and Zizalova, 2014; Smith et al., 2014). Closely related to the research on FDI is the investigation of the ‘strategic coupling’ between globalizing production networks and regional assets in the form of specific kinds of knowledge, skills and expertise (MacKinnon, 2012). In this regard, regional institutions play an important role, for example, by implementing training and education programs, start-up promotions or venture capital provision (Coe et al., 2004).

### **Special Economic Zones (SEZs) as Driving Force for Globalizing Production Networks**

A widespread instrument for attracting FDI is the concept of special economic zones (SEZs) which operates as a kind of ‘globalized microcosm’. Ge (1999) regards such a zone “as a geographic area within the territory of a country where economic activities of certain kinds are promoted by a set of policy instruments

that are not generally applicable to the rest of the country”. SEZs are typically established with the main goal of attracting FDI and supporting a wider economic reform strategy. Starting in East Asia and Latin America during the 1970s, SEZs have become a cornerstone of trade and investment policies in different countries. The SEZ model usually contains various incentive packages: e.g. duty-free privileges, concessionary tax rates and exemptions, and preferential fees for land or facility use (Ge, 1999). Several studies have explored the phenomenon of SEZs, especially within the field of economics (e.g. Carter and Harding, 2010; Farole 2011; Singh and Gupta, 2012). Otherwise (and surprisingly), economic geographers have not yet really recognized the importance of SEZs as a driving force for the evolution and configuration of globalizing production networks. Certain geographical analyses are engaged in this issue by concentrating mostly on the implementation and functioning of such zones in East Asia respective China (e.g. Chen and De’Medici, 2010; Ebenstein, 2012; Wang, 2013; Yeung et al., 2009). The empirical findings are quite ambivalent and reveal positive effects of FDI attraction leading, for example, to agglomeration economies as well as negative lessons through exclusion of local firms or poorer labour conditions. More recently, some authors go beyond this scenery by exploring the impact of Chinese economic involvement abroad. Thus, Dannenberg et al. (2013) indicate Chinese approaches to establish SEZs in Africa as a market-seeking strategy and a ‘new species of globalization’, while Brautigam and Tang (2014), in a similar context, evaluate the potential of these Chinese zones for fostering structural transformation ‘on the ground’. With respect to the Polish economy, the importance of FDI has also been investigated from different perspectives. A significant contribution is attributable to Domański (1999, 2003, and 2005) whose studies deal with diverse characteristics of economic restructuring in the specific Polish transitional context from a relational, path-dependent perspective. Thus, the degree of local and regional embeddedness of foreign investors becomes a crucial factor for Polish regions to succeed. In contrast, the studies of Kitowski (2006, 2009) are primarily focused on the problems of SEZs due to the economic crisis 2007-2008 and other adverse developments. He comes to the paradoxical conclusion that it is not SEZs which attract FDI, but vice versa: it is FDI which determine the area of economic zones in Poland (Kitowski, 2006). Likewise, Gwosdz et al. (2008) are critical about the ambivalence between the basic idea of SEZs (i.e. opening just a handful of zones located in single-function industrial regions) and the opposing situation in practice whereby the SEZs have lost their nature of regional policy tools, almost becoming standard forms of public aid for companies. Nonetheless, SEZ’s play the important role in internationalization of Polish companies and on location of enterprises in global economies.

### **Theoretical Conclusions**

The description of the theoretical background has shown the dynamic, complex and multidimensional environment in which globalizing production networks evolve.

Although a lot of epistemological and empirical research on different approaches of production chains and networks has been conducted especially by economic geographers and management scientists, there is a need for more in-depth empirical studies on the complex of globalizing production networks. Finally, literature review indicates the need for greater efforts of researchers towards the conceptualization and development of globalizing production networks approaches. This might be the more important as such approaches currently representing a dynamically evolving research direction in social sciences. Figure 2 presents comparison between Global Commodity Chains, Global Value Chains and Global Production Networks in selected categories as disciplinary background, object of inquiry, orienting concepts and intellectual influences. This comparison may lead the GCC, GVC and GPN approaches to conceptualization in research in the context of social and economic science as well as management science.

	Global Commodity Chains (GCCs)	Global Value Chains (GVCs)	Global Production Networks (GPNs)
Disciplinary background	Economic Sociology	Development Studies Economics	Relational Economic Geography
Object of enquiry	Inter-firm networks in global industries	Sectoral logics of global industries	Global network configurations and regional development
Orienting concepts	Industry structure Governance Organisational learning Industrial upgrading	Value-added chains Governance models Transaction costs Industrial upgrading and rents	Value creation, enhancement and capture Corporate, collective and institutional power Societal, network and territorial embeddedness
Intellectual influences	MNC literature Comparative development	International business Trade economics	GCC/GVC analyses Actor-network theory Varieties of capitalism

**Figure 2. GCC, GVC and GPN conceptual dimensions (Bair, 2005)**

Future research also in the framework of management science may be focused on globalizing production network can be focus on seek to contribute toward the development of a more dynamic approach, referred to as ‘GPN 2.0’ (Yeung and Coe, 2014). This advanced conceptualization aims to analyze why and how three competitive dynamics – optimizing cost-capability ratios, sustaining market development, and working with financial discipline – interact with firms and non-firm actors under uncertain market conditions to generate four different actor-specific strategies for organizing GPNs: intrafirm coordination, interfirm control, interfirm partnership, and extrafirm bargaining. According to these conceptual

thoughts, new concepts strive to face the variability of interests and strategies in the different functional segments of enterprises associated with the same or different global industries. The phenomena occurring with development and evolution of inter-organizational elements may afford to include the issues of Global Commodity Chains, Global Value Chains and Global Production Networks as significant categories in contemporary theories of management, while faced with the challenges connected with balancing between the locality, globality and networking of enterprises.

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### GLOBALIZUJĄCE SIECI PRODUKCJI

**Streszczenie:** Postępująca globalizacja w połączeniu z wzrastającymi zjawiskami sieciowania stają się coraz większym wyzwaniem dla badań naukowych w wielu dziedzinach. W niniejszym artykule przedstawiono konceptualizację globalizujących się sieci opartą na teorii, Global Commodity Chains, Global Value Chains and Global Production Networks. Celem artykułu jest przyczynek do konceptualizacji tych zjawisk i kontynuacja dyskusji naukowej na temat roli globalizacji sieci w globalnym środowisku gospodarczym. Ponadto artykuł odwołuje się do znaczenia FDI oraz specjalnych stref ekonomicznych w procesie globalizacji sieci produkcyjnych. Tekst został opracowany na podstawie podejść heurystycznych oraz studiów literaturowych.

**Słowa kluczowe:** global commodity chains, global value chains, global production networks, FDI, interdyscyplinarność

### 全球化生產網絡

**摘要：**全球化進程和跨國市場整合的出現已成為許多領域，也科學研究，特別是管理科學中的一個越來越具有挑戰性的問題。在此背景下提出全球化基礎上的理論網絡的概念化和方法等全球商品鏈，全球價值鏈和全球生產網絡。特別是，本文的目的是概念化和具體重點放在外國直接投資（FDI）和特別經濟區（特區）討論了全球化網絡。這篇文章是基於啟發式方法和深入的文獻研究。基於啟發式方法和文學研究已經準備好的文本，它可以在管理科學理論中作出的概念化一個小的貢獻。

**關鍵詞：**全球商品鏈，全球價值鏈，全球生產網絡的外國直接投資，跨學科