

Challenges of industrial policy to enhance competitiveness

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Abstract. This study explores how the traditional approaches of perceiving competitiveness and industrial policy could be enriched through a synthetic and evolutionary perspective. Competitiveness, in particular, tends to be studied in the literature in a relatively fragmented way, focusing either on the level of individual nations, or on the sectors of economic activity, or on the firm level. As a result, the evolutionary structures that define competitiveness in a unified socioeconomic way are usually bypassed. In this context, the traditional approach to industrial policy-making, which has as sole objective the strengthening of specific sectors, is inadequate to enhance the multilevel socioeconomic competitiveness in our days. Therefore, we suggest a comprehensive re-positioning of the concept of "organic competitiveness" in overall and synthetic socioeconomic terms (firms-sectors-socioeconomic systems) as useful for a redirected modern industrial policy.

Keywords. Competitiveness, Industrial policy, Evolutionary link between competitiveness and industrial policy, Globalization.

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1. Introduction

In our view, only a comprehensive study of competitiveness, at the same time at the macro, meso and micro level (Dopfer, Foster, & Potts, 2004; Mann, 2011; Peneder, 2017; Vlados & Katimertzopoulos, 2018), is capable of highlighting all the aspects needed to establish a new, integrated industrial policy. To this end, in this article we study the historical integration of competitiveness and industrial policy, in the effort to highlight their relatively inadequate interconnection.

To achieve this aim, this study unfolds in the following two steps: (a) after first defining the conventional perception and trends of competitiveness and industrial policy, we are trying, at a second level (b), to propose a way of re-establishing them in a dialectic and multilevel perspective.

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2. The conventional and dividing perspectives of competitiveness

In our time, the definition of competitiveness is constantly renegotiated, both in terms of theoretical analysis and practical application. It is a concept that remains conceptually involved in a multitude of relative ambiguities and shadows. And the fact that a large number of scholars are trying, for at least the last thirty years, to give a stable meaning to competitiveness as complete as possible is indicative (Altomonte & Békés, 2016; Best, 1990; Bussiere, Gaulier, & Jean, 2014; Chiappini, 2011; Garelli, 2006; Gilli, Mazzanti, & Niccoli, 2013; Krugman, 1994, 1996; Porter, 1998; Porter & Linde, 1995; Scott & Lodge, 1985; Spulber, 2007; Vlados, Deniozos, Chatzinikolaou, & Demertzis, 2018a).

The concept of competitiveness is, however, most commonly approached in a relatively fragmented and segregating way: either at national level, or at sector level or at firm level (Balkyte & Tvaronavičiene, 2010; Bhawsar & Chattopadhyay, 2015). Even the thorough approach of Porter's diamond (Porter, 1990) and the subsequent debate, depicting the competitive success of an industry within a nation in structural factors—four internal and two external—manages to link only individual sectors to national competitiveness; therefore, the dynamics of globalization is, to a large extent, analyzed only marginally (Cho & Moon, 2000; Dunning, 1993; Rugman, 1992) (see Figure 1).

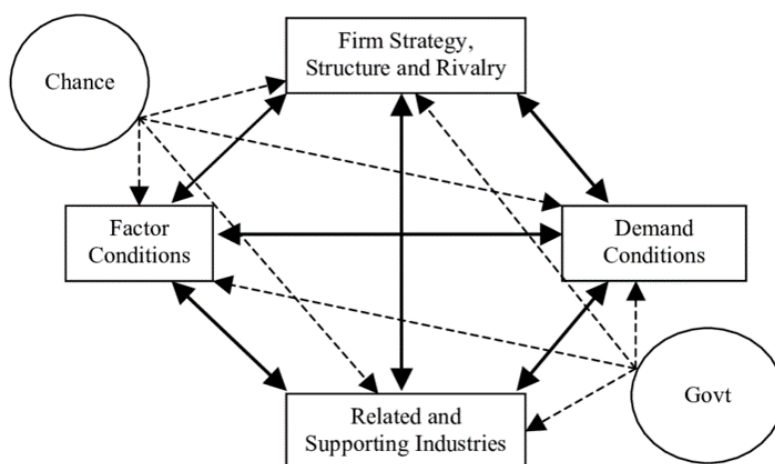


Figure 1. Porter's diamond model (Porter, 1990).

More generally, the prevailing approach to competitiveness tends to be limited to the factors that make the nation more effective in economic terms and increase the productivity of its actors (Auzina-Emsina, 2014; Bartelsman, Haltiwanger, & Scarpetta, 2013; Gu & Yan, 2017; Ito & Shimizu, 2015), in what is described as international competitiveness (Olczyk, 2016; Źmuda, 2017). Even the industrial competitiveness measurements (Chaudhuri & Ray, 1997; Fetscherin, Alon, Johnson, & Pillania, 2012; Momaya, 1998), which study the world trade shares of a

particular industry and the relative competitive advantages, seem to lack a more comprehensive view.

Therefore, this direction of studying competitiveness at industry and local level (in what is called the meso level), in its “classic” version, contributes only to the traditional practice of industrial policy: it selects, proposes and strengthens some sectors of economic activity that are considered as strategic for future national economic development. Also, within these industries, firms that are traditionally called “national champions” and which enjoy strong state protection and support are emerging (European Commission & Directorate-General for Enterprise and Industry, 2011; Maincent & Navarro, 2006; OECD, 2009). Typically, they are firms that are assessed by the national authorities to have a comparative advantage in the international market, therefore a critical mass of government orders is granted to them along with various state subsidies.

However, many analysts now call for a more “unifying” approach to the problem of enhancing competitiveness, by deepening the study in terms of firm (micro-level) competitiveness. In particular, firm competitiveness (Gavetti, Greve, Levinthal, & Ocasio, 2012; Loasby, 2015; Scherer, Palazzo, & Matten, 2014; Storchevoi, 2015; Teece, 2016, 2017) is explored as the ability of the firm to perform better than its competitors, by utilizing its competitive advantage and its available innovative potential. In this respect, the spatial level of micro-competitiveness varies and can be approached at national, regional, international and global level.

3. Traditional approach to industrial policy and trends

In this context, the conventional articulation of industrial policy to enhance competitiveness appears to be relatively limited in scope. Specifically, in a historical context, industrial policy has been merely a means of targeting specific industries and national champions (Falck, Gollier, & Woessmann, 2011). At this point, in order to have a comparative picture of the industrial policy-making phenomenon over time, the study of Naudé (2010), which separates the dominant concepts of industrial policy into three successive phases of development, is particularly useful:

- The first phase, between 1945 and 1970, is distinguished from the expansion of industrialization in the developed world, where the markets fail to lead, without interference, to this industrialization, while industrial policy is deemed necessary to protect infant national industries (Grabas & Nutzenadel, 2014; Hirschman, 1972; Myrdal, 1972; Prebisch, 1959; Rosenstein-Rodan, 1943).

- During the second phase, between 1970 and 2000, the articulation of the former industrial policy appears to be repositioned, because the necessary measures now for industrialization are the liberalization of trade through exports, the privatizations and the attraction of foreign direct investment. In this context, government intervention should be minimal, ensuring only macroeconomic stability (Baldwin, 1969; Krueger, 1974, 1990; Pack, 1993, 2000).

C. Vlado, & D. Chatzinikolaou, 6(2), 2019, p.83-96.

- In the third phase, from 2000 to present, industrial policy perceives the ubiquitous market failures in the search to acquire a clear strategic content (Chang, 2002; Lall, 2004; Pitelis, 2014).

In conclusion, the search for a policy that can efficiently enhance all levels of competitiveness, of all the individual socioeconomic systems, tends to emerge now as a new perspective of industrial policy (Aiginger, 2007, 2015; Bailey, Cowling, & Tomlinson, 2015; Chang, 2011; Cimoli, Dosi, & Stiglitz, 2009; Farla, 2015; Labory & Bianchi, 2014; Lauridsen, 2018; Lin Yifu, 2013; Mazzucato *et al.*, 2015; Negoita, 2014; Nolan, 2014; O'Sullivan, Andreoni, López-Gómez, & Gregory, 2013; Pianta, 2014; Rodrik, 2009).

We think, however, that this tendency to seek a new industrial policy can be enriched by a more general context of perceiving the dynamics of competitiveness, in a structural and evolutionary perspective (Hodgson & Lamberg, 2018; Robert, Yoguel, & Lerena, 2017; Valentinov, 2015; Winter, 2017).

4. Towards an evolutionary approach to industrial policy and competitiveness

On this analytical basis, we can redefine the need for an effective economic policy in terms of competitiveness. More generally, economic policy of competitiveness is always a necessary regulatory force that can lead a socioeconomic system either towards prosperity or towards underdevelopment (Baslé, 2008; Ferracci & Wasmer, 2011; Kundera, 2015; Langot & Petit, 2015).

And, more specifically, the methodological link between competitiveness and industrial policy has been approached in a variety of ways. Industrial policy and competitiveness, in their analytical and practical composition, can be, at the same time:

- A bottom-up strategy (Gassmann, 1994), with a focus on entrepreneurial systems (Rosales, 1994), which are the hub of competitiveness and innovation, causing constant structural changes (Ramos, 1997; Tiemstra, 1994).

- A function of the new economy of services (Hafeez Siddiqui & Mujtaba Nawaz Saleem, 2010), as the frontiers between manufacturing and services are becoming more and more complex, fluid and unclear (Fernández & Pablo-Martí, 2016).

Industrial policy, in particular, has to “clear the field” of competitiveness (Haar, 2014), providing space rather than subsidies to the new industrial winners (Froy, 2013). In this direction, the micro-environment becomes progressively the most critical factor in industrial policy articulation to enhance competitiveness (Farole, 2011).

And with regard to the overall level of competitiveness of a socioeconomic organization, in any historical context of action, this is determined by its dynamic competitive comparison with other relevant actors: to the extent that a socioeconomic organization is able to produce

and utilize its strategic, technological and managerial advantages, in Stra.Tech.Man (synthesis of strategy, technology and management) terms (Vlados, Katimertzopoulos, & Blatsos, 2019; Vlados, 2004, 2005).

More profoundly, we can conceive that competitiveness is always a dialectic synthesis (Langley & Sloan, 2011; Morabito, Sack, & Bhate, 2018; Norrie, 2009) between the firm, the socioeconomic area of action and the specific industrial-sectorial dynamic. Industrial-sectorial dynamics, in particular, is structured in our times at a global and cross-spatial level and thus integrate competitiveness in a dynamic way. These three dynamic dimensions (firm, sector and socioeconomic space), always together, give birth to competitiveness. All three of these evolutionary spheres in their dialectic synthesis generate and reproduce competitiveness organically: In our view, the socioeconomic space, the firms and the sector of economic activity, as a dynamic set, form the basis for any credible study of competitiveness and, by extension, of development in globalization (see Figure 2).

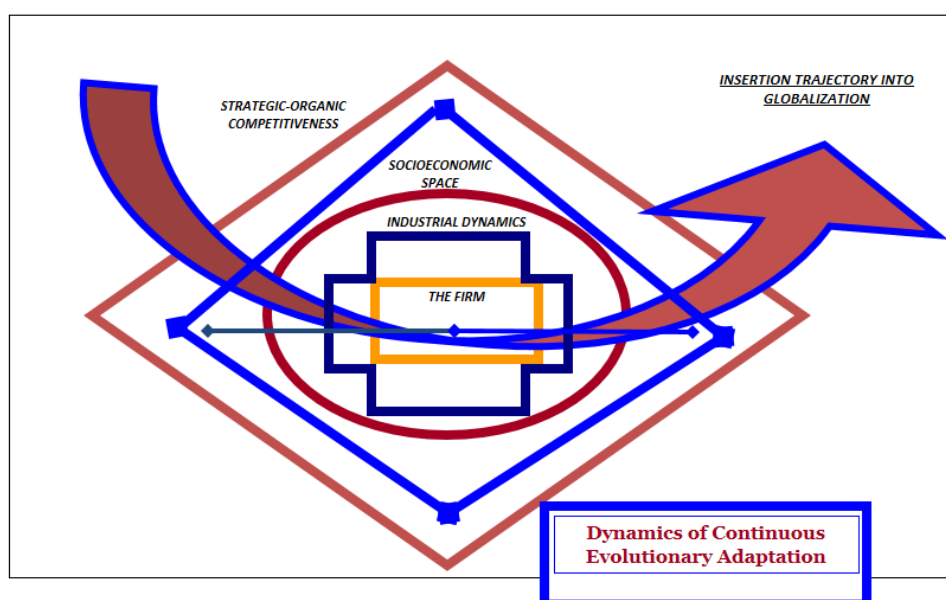


Figure 2. Reproduction of competitiveness in globalization

Therefore, the process of development is first of all an inter-firm issue: the competitiveness of each firm is the dialectic collection of different competitiveness potential from the pairs of spaces and industries-sectors involved. It is at the same time a cross-spatial issue: the competitiveness of a socioeconomic space is the dialectic collection of different competitiveness potential from socioeconomic spaces in which the firm operates. Finally, it is also a cross-industrial issue: the competitiveness of an entire industry is the dialectic collection of generated competitiveness potential in terms of specific pairs of firms and socioeconomic spaces (see Figure 3).

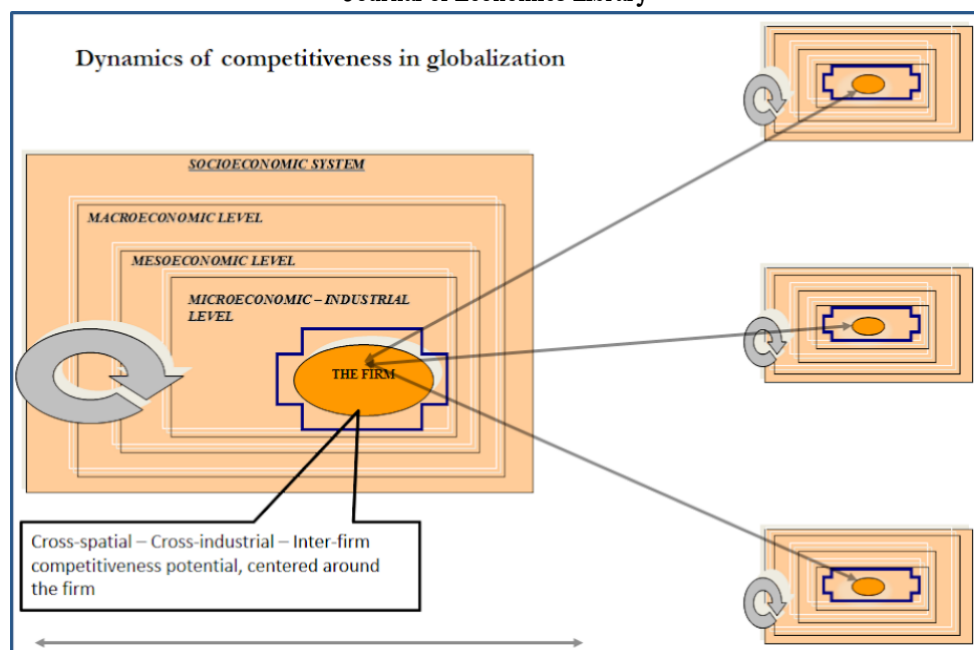


Figure 3. Dynamics of competitiveness in globalization

It is therefore understood that an industrial policy to enhance competitiveness must necessarily be defined in a multilevel framework. As a result, the overall competitiveness of a socioeconomic system can only be achieved through an increasingly unifying industrial policy.

In recent years, this evolutionary link between competitiveness and industrial policy has been attempted by an increasing number of scholars and policy makers (Cirillo, Guarascio, & Pianta, 2014; Committee of the Regions, 2011). However, where often some of the relevant approaches seem to fail, is in their tendency to focus only on a single level of industrial policy articulation for competitiveness. For example, it is usual to analyze industrial policy as strategic concern solely for the macro-environment (Bošković & Stojković, 2014; Galbraith, 2000; Hatta, 2017; Kostadinović, Kostić, & Ilić, 2015).

Based on these theoretical developments, we think that it would be useful to try to perceive competitiveness as evolutionary-dialectic synthesis, so that the industrial policy of enhancing competitiveness results from a multilevel, evolutionary and dialectic synthesis (Dopfer, 2006, 2011). In particular, this systemic concept of competitiveness (Esser, Hillebrand, Messner, & Meyer-Stamer, 1996), can be perceived and constructed by a parallel systemic concept of industrial policy (Meyer-Stamer, 1998), in such a way as to enable the socioeconomic systems, as integrated sets, to evolve (Peneder, 2017).

Overall, the way of articulation of industrial policy and competitiveness is crucial to the survival and development of any "living" socioeconomic organization (Aoki, Gustafsson, & Williamson, 1990; Geus, 2002; Gowdy, 1997; Iansiti & Levien, 2004a, 2004b; Meyer & Davis, 2003; Moore, 1993; Penrose, 1952; Witt, 2006; Wolfe, 2011; Wolfe, 2012; Zeleny, 1980). While past industrial policy has focused predominantly on individual industries-

C. Vladoš, & D. Chatzinikolaou, 6(2), 2019, p.83-96.

sectors, today it seems that it must respond to all the socioeconomic system's dimensions: based on the overall constraints and prospects of competitive survival of the individual systemic levels (see Figure 4).

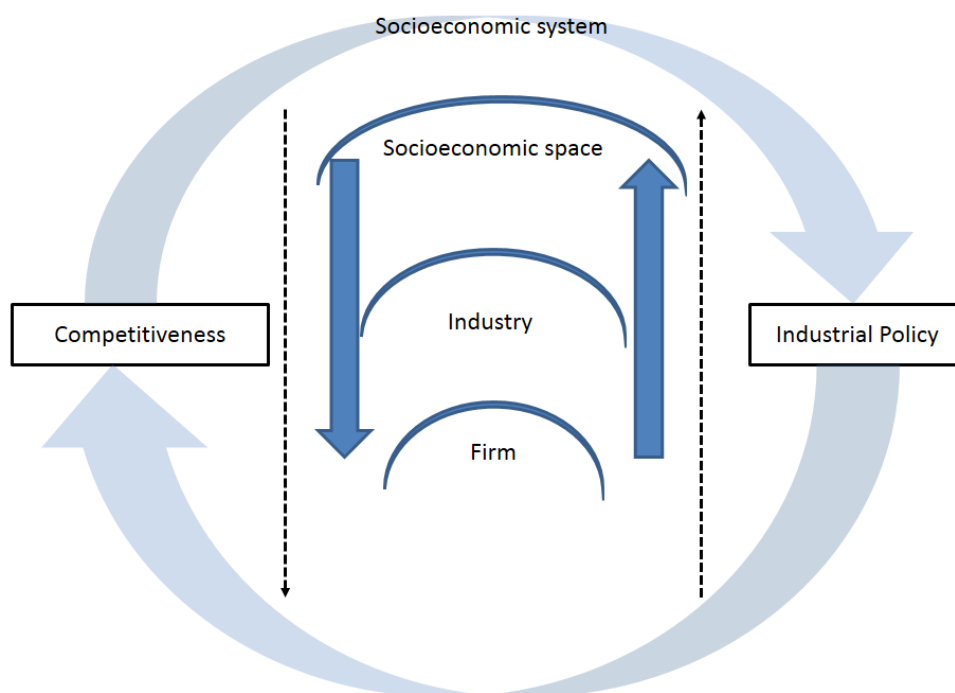


Figure 4. *The evolutionary link between competitiveness and industrial policy in a socioeconomic system*

In this direction, we think that policy makers must progressively address the link between industrial policy and competitiveness in a way that is uncompromisingly unifying, dialectic and strategic. And, first of all, the strategic strengthening of competitiveness of a socioeconomic system should start with the strengthening of the firm (micro-level). In this perspective, we conclude that the dialectic synthesis of industrial policy and competitiveness can now be a critical hub of intervention and change in the evolutionary trajectory of all socioeconomic systems.

5. Conclusions and implications

In terms of conclusion, from this study emerges the following question: Could industrial policy become an “all-embracing policy” in the future?

In the fourth industrial revolution in which our world has entered (Colombo, Karnouskos, Kaynak, Shi, & Yin, 2017; Davis, 2016; Köhler, 2012; Schwab, 2016; World Economic Forum, 2016), where industrial production necessarily involves more and more intangible and cognitive dimensions, the content of industrial policy is necessarily very different from the past. The same condition applies, ultimately, to the competitive ability of all socioeconomic organizations (of any kind, size, and purpose) in the ongoing restructuring of globalization (Siddiqui, 2017; Vlado, Denizos, Chatzinikolaou, & Demertzis, 2018b; Yazdani & Mamoon, 2018).

C. Vlado, & D. Chatzinikolaou, 6(2), 2019, p.83-96.

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The evolutionary structure of industrial policy and its growing connection with a new unifying conception of competitiveness seems more and more central for socioeconomic development in the current era of globalization's restructuring. In this direction, a systemic industrial policy must always recognize the competitive constraints of the individual socioeconomic organizations and at the same time the specific historicity of sectors and socioeconomics spaces hosting the competitive activity. In fact, the new industrial policy could evolve into a "hyper-policy", only to the extent that it can perceive and strengthen all the strategic subjects, at all levels of actions, in the new era of globalization.

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