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Business strategy and upgrading in global value chains: a multiple case study in Information Technology firms of Brazilian origin

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Abstract

The issue of upgrading in global value chains has been treated in the literature, but there are still gaps to be filled in. One issue that still needs further investigation is the relation of business strategy and evolution of firms in global value chains, known as upgrading in the literature. In this paper, we have the objective of examining the occurrence and quality of upgrading in internationalized Information Technology firms of Brazilian origin. We employed the multiple case study method researching eight IT firms to study the issue. Different from what is expected, facts presented in the paper imply that although global value chains and upgrading are confirmed as useful concepts, not all the findings the literature presents converge with what this research brings. As for example, results do not converge with what was found in the literature for clothing. In other results, we confirmed what is in the literature, most notably, having the evolution in the chain blocked by clients and also competitive marginalization. Similar to any research, this one has limitations, which we list at the end of the manuscript.

Keywords: Competitive strategies of local emerging market firms; Economic sociology; Qualitative comparison; Global value chains; Event study; South America

Introduction

Globalization processes, particularly from the 1980s decade onwards, intensified flows of people, capital, goods and information. In this new configuration, learning and the ability to innovate became key to competitiveness and growth of countries and firms (Pietrobelli & Rabellotti, 2011). To face the issues presented by this new world, the phenomenon of integrating countries and regions through international chains of production and trade was observed. The phenomenon has been recognized by the name of global value chains (Rugman & Verbeke, 2004).

The global value chain is understood as a set of inter-organizational networks, around a commodity or product, connecting families, firms and countries in the global economy (Gereffi & Korzeniewicz, 1994). Firms that connect to GVCs aim beyond profits: they search for competences, to develop more complex tasks with more added value. In the GVC literature, this event is known as upgrading (Gereffi, 1999) and has been used to characterize the trajectory of going up in the value chain (Ponte & Ewert, 2009).

Upgrading can be understood as an action of performing high added value activities, as a result of using more sophisticated technologies, knowledge or competencies. Upgrading means the increase of benefits and or profits that come from participating in global value chains (Gereffi, 2013; Gereffi & Korzeniewicz, 1994). Upgrading is a strategic move to firms and can be of various forms.

Humphrey and Schmitz (2002) identified four types of upgrading that firms or groups of firms can achieve in GVCs. However, upgrading of firms connected to GVCs is neither easy nor does it happen naturally. In this regard, Ponte and Ewert (2009) note that product and process upgradings have coexisted with downgrading, higher risks and limited returns on capital, particularly in the more traditional export markets. Humphrey

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and Schmitz (2002) had already raised this issue when observing that upgrading has not been happening too often in developing country firms inserted in GVCs. In this context, upgrading is often constrained to low value added activities, mostly related to manufacturing (Navas-Alemán, 2011).

We focus the present paper on this discussion. First, it is recognized that upgrading does not occur automatically to developing country firms. Second, we link the event of upgrading to business strategy sophistication. Thus, the occurrence and quality of upgrading depend, among other things, on organizational choices, related to business strategy.

In the GVC literature, upgrading is treated in a functional way, without a link to business strategy and profits. In this paper, we aimed to address partially this perceived gap in the literature.

On the face of these arguments, the objective of the present paper is to analyze the occurrence and quality of upgrading in Brazilian origin Information Technology (IT) firms. We also intended to establish a connection between upgrading and business strategy.

The research used the multi-case study method. The eight studied firms were all in the IT industry and of Brazilian origin. Once observed upgrading, we investigated its quality using the typology proposed by Humphrey and Schmitz (2002).

It is expected that the result of the present paper can add to the knowledge of the field in terms of clarifying how upgrading occurs in high technology industries. Also, studying service firms is not common in global value chains. Finally, there is the empirical side of the research, throwing light on developing country firms upgrading. The perceived gap in the GVC literature we addressed, at least partially, is the link between GVC and business strategy.

Literature review

Upgrading in global value chains

In the last two decades, global value chains were recognized as an important phenomenon in terms of international trade (Backer & Miroudot, 2013; Baldwin, 2012; Cattaneo, Gereffi, Miroudot, & Taglioni, 2013). However, participating in global trade and markets require firms to learn continuously and, thus, perform new activities in the chains (Kadarusman & Nadvi, 2013; Kaplinsky & Morris, 2003). This move is known in the literature as upgrading.

Generically, upgrading is the event of firms moving up in the chain to perform more profitable activities. Usually it refers to less developed country firms, reacting to competition challenges (Gereffi, 2011; Gibbon & Ponte, 2005; Giuliani, Pietrobelli, & Rabellotti, 2005; Ponte & Ewert, 2009). Moving up in the value chain is desirable because it allows firms to appropriate a larger portion of the value added in the chains, maximizing the benefits (Cattaneo et al., 2013).

Gereffi (1999) introduced the concept of upgrading in the sense of organizational learning, to improve the position of firms and nations in international trade networks. Therefore, it is a dynamic move in the chain, characterized by the firm or country to occupy a more profitable and/or more sophisticated position, either in technology or more intensive in capital or competences (Barrientos, Gereffi, & Rossi, 2011; Cattaneo et al., 2013).

Complementarily, Gibbon and Ponte (2005) propose the term marginalization to refer to the opposite of upgrading. Marginalization occurs when a firm or a country is constrained to less profitable activities or market segments with low entry barriers. An extreme case of marginalization would be exclusion, a term used to designate the lack of capacity to enter GVCs, as well as being sacked from them.

What explains the choice of going to one route or another, upgrading or marginalization, is the ability to innovate and continuously develop new products and processes. Upgrading encompasses innovation and may be understood as the innovation to generate higher value added improving processes, products, functions in the chain and inter-sectorial migration (Pietrobelli & Rabellotti, 2004, 2011). Due to its characteristics, upgrading recognizes relative merits and the existence of rent.

According to Ponte and Ewert (2009), the mostly used upgrading classification in the literature is the one developed by Humphrey and Schmitz (2002). In this classification, upgrading is used to refer to four distinct changes that can be implemented by firms or groups of firms:

I. Process upgrading: transforming inputs into products more efficiently through reorganizing production or using superior technology.
II. Product upgrading: more sophisticated products, which can be defined by obtaining higher prices in the market.
III. Functional upgrading: performing new functions in the chain, as, for example, design or marketing.
IV. Inter-industry upgrading: firms can use the competency learned in a new industry.

While the first form means performing the activities more efficiently, the other three may lead to a repositioning of firms in global markets, because they start selling different products to a new profile of buyers.

Opportunities and challenges to upgrade in global value chains

Value chains focused on different market segments bring distinct opportunities (Gereffi & Lee, 2012; Giuliani et al., 2005; Navas-Alemán, 2011). Ponte and Ewert (2009) observe that process and product upgradings, as well as some functional moves, have coexisted with marginalization, higher risks and limited returns, most notably in traditional export markets.

Others, as Humphrey and Schmitz (2002), Humphrey (2003), Giuliani et al. (2005) and Ponte and Ewert (2009), alert to this issue when upgrading has not occurred to developing country firms in GVCs very often. In this regard, upgrading is very commonly constrained to low value added activities, mostly in production. Strategic activities, as innovation, are still concentrated in developed countries, usually headquarters (Humphrey & Schmitz, 2002; Navas-Alemán, 2011; Schmitz, 1999).