UPGRADING UNDER THE STRATEGY OF THE CHAIN'S LEADER: FINDINGS FROM THE DIGITAL GAMES INDUSTRY IN BRAZIL

INTRODUCTION

This paper addresses the impacts of the strategy of the leader on suppliers' upgrading in Global Value Chains (GVCs), what is particularly relevant for emerging country firms aiming at internationalization processes. The literature has already dealt with the issue of how GVCs' governance patterns affects upgrading but little has been said about how the leader's strategy influences that process. Focusing on inter-firm transactions, the literature on chain governance does not cope for suggested influences of the strategy of the leader over the upgrading of its suppliers. By verifying effects of the internationalization of the suppliers, it is possible to check previous literature indicating benefits from entering sophisticated markets. The research problem is: "Does leader's strategy affect suppliers' upgrading in a Global Value Chain?"

The theoretical background comes the literature on International Business and Operations Strategy. The Digital Games Industry was chosen for its truly global profile, for being one of the major entertainment industries and for its opportunities for emerging countries. While Brazilian firms still lack connections to the GVCs, the developed markets lie on the technological frontier. This study focused particularly companies operating in Mobile and Serious Games GVCs. While both chains are considered modular, the former operate under a strategic focus on time and flexibility, whereas the later have a strategic focus on costs. The following propositions are of interest:

P1. A company reaches better upgrading when operating in GVCs oriented towards competitive priorities related to responsiveness (i.e. time and flexibility), rather than efficiency (i.e. costs).

P2. A company operating simultaneously in GVCs oriented towards efficiency (i.e. costs) and responsiveness (i.e. time and flexibility) will reach better upgrading than firms operating only in GVCs oriented towards efficiency (i.e. costs).

P3. Regardless the GVC, internationalized companies will have better upgrading prospects than non-internationalized ones.

METHOD

Secondary data for this research came from the I Census of the Brazilian Digital Games Industry, a comprehensive survey conducted by the Center for Technology Policy and Management of the University of São Paulo (NPGT-USP), on behalf of the Brazilian Development Bank (BNDES). The questionnaire was available online in the early 2014 and the resulting database comprises responses of 133 developers. Focusing on firms in Mobile and Serious Games GVCs reduced this sample to 126 developers: 72 only in the Mobile GVCs, 13 only in the Serious Games GVC and 41 in both the GVCs.

Nonparametric tests were conducted for their appropriateness with small samples with no exact known distribution and when dealing with ranks, scores or classificatory data (SIEGE, 1957). By using Minitab 17.1.0, Kruskal-Wallis Test supported checking P1 and P2, while Mann-Whitney Test allowed discussing P3.

RESULTS

The Kruskal-Wallis Test could suggest the confirmation of P1 and P2. The medians for product and process upgrading from companies in Mobile GVCs were superior to those for firms in Serious Games GVCs, as predicted (P1). In the same vein, Multichain operations were superior to Serious Games GVCs with respect to both product and process upgrading (P2). Notwithstanding, only the differences for product upgrading were marginally significant (p: 0.073), while those for process upgrading were not statistically significant (p: 0.271).

The medians resulting from the Mann-Whitney Test could partially validate P3, once they indicate better process upgrading in the internationalized companies. Despite that, the results obtained with this test were not statistically significant for product upgrading (p: 0.8356), neither for process upgrading (p: 0.6213).

CONCLUSION

This paper points to a broader research agenda on upgrading in Global Value Chains and the Digital Games Industry represents an interesting environment to extend this theory. More than how to participate in the GVCs, the central question has been how to make the most of it.

The absence of statistically significant differences for process upgrading can result from the characteristics of the domestic mobile segment. Its low maturity and the competition with international developers could make local companies focus on the products per se, before devoting resources to other modes of upgrading. The same argument calls for careful evaluations of contradictions among the literature and the verified limitations on the benefits of multichain operations.

Companies with international activity presented better process upgrading than those firms without it, similarly to previous literature. The absence of statistically significant differences makes opportune further investigations on topics such as spillover determinants and factors related to the development of competences in foreign subsidiaries.

Research limitations include the premises on the strategic orientation of the firms, the restrictions on the available data, the impossibility of conducting longitudinal analysis and the brief lifetime of the digital games industry in Brazil. Future research might include in-deep investigation of representative cases, overcoming the listed limitations and possibly expanding into other industries.