

Organizational change in open innovation (OI)

Introduction

Beginning with the pioneering work by Burns and Stalker (1961) up to the almost classic work by Teece *et al.* (1997), researchers have tried to understand the logic of forms developed by different organizations in order to re-combine their resources in the face of innovation. They asked what happens when a company adopts a strategy of OI which allows it to go beyond its internal organizational capacities? (Carroll and Helfert, 2015; Chesbrough, 2003). What happens when this new combination of internal and external resources, expected to modify or enhance innovative projects, requires changes in managing and organizing?

What organizational changes occur in innovative companies of different productive and service sectors, when they open up to innovation by cooperating with other companies or external professionals? This is a central issue – the central topic of the present special issue. What changes should take place in the different hierarchical mechanisms or the coordination of the organization when an OI strategy emerges? In what way are cooperation and different organizational changes managed in different productive sectors and with the diverse forms of innovation?

Another phenomenon in which the company's organization and OI manifest their elective affinities is the outsourcing of the R&D activities. Several companies outsource their R&D by means of spin-offs or other forms of cooperation. Based on the theory of transaction costs (Williamson, 1985, 2002), this outsourcing can be explained by difficulties in overall management of specific project work. High level of specificity linked to OI work makes it difficult to measure and control. The researchers who came up with the agency theory (Jensen and Meckling, 1992) claim that knowledge distributed in the organization among different agents reaches its highest levels of specificity and consequently hinders its measurement by managers who supervise jobs linked to innovation. Due to the reasons mentioned above, both theories explain the outsourcing of several innovation activities and the subsequent cooperation, but they fall short of explaining these organizational changes which are triggered by OI.

Finally, most researchers agree that specific cultural climates created by small- or medium-sized enterprises (SME) encourage the processes of internal cooperation and innovation, which encounter greater obstacles in larger and more bureaucratic companies. Smaller organizational nestles and hubs may give rise to unknown forms of OI and cooperation between small innovative companies and large corporations, and may pioneer required adjustments of an organizational nature. One of these adjustments (Williamson, 1985) is the creation of intermediate forms of governance between the innovator company and the company which is the customer of the innovation safeguarding the stability and continuity of the relation.

This Special Issue has been open to research projects which explore the relation between OI strategies and organizational changes required for the successful implementation of such strategy. We have had the fortune to receive a considerable number of high-quality submissions. After several rounds of selection and revision, we have finally selected the five manuscripts presented below.

Contributions

The contributions to this Special Issue are notable and relevant. They review and consolidate previous knowledge and, at the same time, open new streams of research that



will hopefully provide fertile grounds for future advancement in knowledge. The selected research works include bibliometric analysis on different aspects of OI, together with three more specific analyses of particular topics.

As a first instance, Ben Arfi, Enström, Sahut and Hikkerova focus on the significance of knowledge sharing platforms (KSPs) for OI success. In particular, they analyze how changes in these KSPs impact on organizational change and, through it, enhance OI processes. They focus their analysis on a case study of a company within the dairy industry. The findings show that, due to the sharing of external research and development skills, the creation of the KSP has been an incentive for significant changes and customer targeting. It has also promoted the firm's internal absorptive capacity, minimizing complexity, uncertainty and risks, and reaching performance results.

Iglesias-Sánchez, Jambrino-Maldonado and de las Heras-Pedrosa analyze some strategic perspectives on OI in different production sectors. In particular, they study the influence that strategic and management orientations have on the innovation performance of firms. To do so, they focus on two traditional sectors (tourism and agri-food industry). Their results suggest that OI management practices are positively related to innovation performance and that this relationship holds similarly for both sectors. One of their main conclusions is that OI poses a significant challenge for firms, since they have to assimilate the necessary organizational change involved in its successful implementation.

Odrizola-Fernández, Berbegal-Mirabent and Merigó-Lindahl carry out a bibliometric analysis of OI in SMEs. Their contribution analyses a total of 112 journal articles in this field. In their review, they identify four main topics on which research on OI in SMEs has mainly focused: the impact of OI on firm performance and organizations' structure; OI as a mechanism to hasten new product development; the analysis of the inbound/outbound dimensions of OI; and the legal issues related to intellectual property right management when OI is implemented.

Along the first of those topics, Exposito, Fernández-Serrano and Liñán analyze the role of OI cooperation strategies in explaining innovation performance of SMEs in the case of Spain. In this manuscript, these authors analyze the impacts of two different types of innovation cooperation (with market and with institutional agents) on four types of innovation outcomes: product, process, organizational and marketing. R&D cooperation with market agents exhibits the highest relationship to innovation. On the other hand, the impact of institutional cooperation is comparatively lower. Additionally, the study is novel in that it also studies how firm age moderates these relationships.

Finally, Fernandes, Ferreira and Peris-Ortiz carry out a review of the literature to identify past contributions and suggest future trends. Differently from the contribution by Odrizola-Fernandez and colleagues, this bibliometric review article focuses on OI in general, and not specifically on SMEs. In this respect, it is not surprising that the number of articles analyzed here is nine to ten times higher than is the case for the previous one. Their findings suggest that OI research can be grouped into several theoretical perspectives across six areas: the concept of OI; OI and networks; OI and knowledge; OI and innovation spillovers; OI management; and OI and technology.

Conclusion

The authors and research works featured in this Special Issue, together with several additional submissions, prove that the relationships between OI and organizational change is a research topic presently attracting substantial interest in the academic community. The contributions presented in the Special Issue provide interesting research questions, theory

development, findings and conclusions. Overall, their contributions open a considerable number of potential avenues for further research. We hope readers will also see this potential and continue to advance knowledge along these lines.

Guest editorial

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Further reading

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