

## Title: Is Intellectual capital a driver of Open Eco-Innovation?

### Abstract

The Sustainable Development Goals (SDG's) emphasizes the need of reducing the environmental impact of economic activity. This article aims to identify whether and to which extent intellectual capital enhances eco-innovation. The open innovation and intellectual capital approaches are the main foundation to support a redesign of an integrative conceptual model (Sveiby, 2000; Chesbrough, 2020). The sample of the study includes 2710 Spanish companies from the Technological Innovation Panel (PITEC) in 2015. The methodology follows two steps. First, we build the composite indicators for measuring the constructs building intellectual capital, namely human, structural and relational capital (Barrena-Martinez et al. 2020) departing from a factor analysis. Second, we estimate ordered logit models to examine the effect of intellectual capital on the pursue of green innovation. Our results show that companies with greater intellectual capital are more prone to introduce innovations oriented towards reducing its impact on environment, although in the case of relational capital this relationship is curvilinear.

### References

Barrena-Martínez, J., Cricelli, L., Ferrándiz, E., Greco, M., & Grimaldi, M. (2020). Joint forces: Towards an integration of intellectual capital theory and the open innovation paradigm. *Journal of Business Research*, 112, 261-270.

Chesbrough, H. (2020). To recover faster from Covid-19, open up: Managerial implications from an open innovation perspective. *Industrial Marketing Management*, 88, 410-413.

Mendi, P., Moner-Colonques, R., & Sempere-Monerris, J. J. (2020). Cooperation for innovation and technology licensing: Empirical evidence from Spain. *Technological Forecasting and Social Change*, 154, 119976.

Sveiby, K. E. (2000). *Measuring intangibles and intellectual capital* (pp. 337-354). Cambridge, Massachusetts: The MIT Press.

\*Jesus Barrena Martinez, Business Management Department, University of Cadiz

[jesus.barrena@uca.es](mailto:jesus.barrena@uca.es)

\*\* Esther Ferrandiz, Department of Economics, University of Cadiz

[esther.ferrandiz@uca.es](mailto:esther.ferrandiz@uca.es)