

COLLEGE OF EUROPE
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**Impact of Eco-innovation on firms'
competitiveness**
**An Empirical study based on Mannheim
Innovation Panel**

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Abstract

Environmental issues have become of prime importance nowadays so that they are a recurrent subject at the table of the world's most powerful committees. Hence, the relationship between environmental regulation, eco-innovation and firms' competitiveness has always been equivocal. The concerned groups of interest all claim to have the right argument without a clear analytical proof. The present thesis will shed some light on one of the most controversial hypothesis in the last couple of decades: the Porter Hypothesis. In fact, Harvard Business School Professor Michael E. Porter wrote a one page article in the beginning of 1990s claiming, against the current trend in that time, that environmental regulation will actually trigger eco-innovation (weak Porter hypothesis) which will in turn increase the competitiveness of businesses (strong Porter hypothesis). Needless to say this argument has been immediately captured by politician and environmentalists to support stringent environmental regulation. At the same time several counter-articles were published to refute the Porter Hypothesis claiming metaphorically that there is no 10 dollars bill on the ground because if it was there it would have been already picked up, referring to the idea that businesses would not miss an opportunity to improve their competitiveness on the basis of profit maximising paradigm. The current thesis will limit itself to the empirical test of the strong Porter Hypothesis explaining the relationship between eco-innovation and firms' competitiveness using Mannheim Innovation Panel (MIP) part of the European Community Innovation Survey. The Ordered Probit Model will test six different hypotheses to compare between eco-innovative and non-innovative firms concerning the impact of each of access to green market, environmentally friendly products differentiation, eco-innovation technological rent, materials and energy efficiency, cost of capital and labour productivity variables on the return on sales as an index of competitiveness. The thesis is structured as follow: After the introduction, section 2 will briefly define eco-innovation and its drivers and expose more extensively a literature review on the Porter hypothesis, section 3 will setup the theoretical foundations for each of the six hypotheses, while section 4 and 5 will describe and test the empirical model respectively. The empirical results confirmed only partly the strong Porter hypothesis with an overall positive effect of environmental innovation on return on sales whereas from the six different sub-hypotheses only four were verified leading to a rejection of the remaining ones, namely the green products differentiation and patent stock.