

The Role of International and Domestic R&D Outsourcing for Firm Innovation

IRIMA Workshop on the
Internationalisation of Corporate
R&D and Innovation

Summary

- A thorough analysis of the impact of R&D outsourcing on innovation
- Data from Spain over the period 2004-2010
- Three measures of innovation:
 - Process Innovation
 - Product Innovation
 - Sales from new products

Summary

- Distinguish between:
 - National and international R&D outsourcing
 - Exporters and non-exporters
- Various econometric specifications

Main Results

- R&D outsourcing significantly enhances innovation
- National outsourcing more relevant than international outsourcing
- No systematic pattern of difference between exporters and non exporters

Comments

- Outsourcing as a dummy
- Using values/shares may help test different hypotheses
- Reporting marginal effects
- Sales of new products:
 - Definition of new products? Over which period?
 - Why not include zeros (tobit)
 - What is the impact of outsourcing on sales in euros?

Comments

- Independent variables:
 - *Innovation was not needed*: why an obstacle?
 - Variable not always significant and positive in the case of sales
 - R&D intensity
 - Not significant for process innovation and sales

Comments

- Industries intensive in R&D outsourcing:
 - Aircraft and R&D services may represent special cases.
 - Are results robust to the exclusion of these industries
 - Useful to have distribution by industry
 - Does national outsourcing include outsourcing to an affiliated R&D centre? Could this variable be capturing the effect of having an R&D centre?

Comments

- Methodology:
 - Instrument correlated with unobserved fixed effects
 - A system estimation (FIML) of R&D outsourcing and innovation
 - Matching:
 - More details about the methodology
 - Definition of the treatment
 - DID
 - Multi-treatment in tables 4 and 5