2022-Dec-15 - Record of Discussion

1. Welcome and Introductions (Co-Chairs)

Co-chairs Will Gibbons (TBS) and Emmanuel Mongin (ISED) welcomed all participants to the second meeting of the Strategic Research Network (SRN).

Alessandro Alasia (StatCan) provided an update on his team's work, including the BIGS micro database, launching in January 2023.

2. Crowding-in or crowding-out? (Claudia De Fuentes, PhD)

Claudia De Fuentes and her team presented their research *Crowding-in or Crowding-out? Analysis of innovation government support for firms located in Canada,* covering three central questions:

1. Do public subsidies stimulate additional private investment in innovation for firms in Canada?
2. What are the impacts of financial resources and competencies on the distribution of innovation subsidies?
3. What are the effects of government support instruments at different specific outputs – innovation intensity, employment, highly qualified employees (HQE), sales, revenue?

Claudia's team discussed the goal of the project, which is to analyze the impact of government support on innovation, by looking at input and output additionality. Input additionality refers to activities at the firm level, including R&D and training employees, while output additionality refers to the creation of innovation and knowledge, and firm performance.

The team discussed the results of their study, obtained using quasi-experimental methods of DID and PSM.

3. Net Present Value Project (Simon Dessureault and Xavier Bouchard-Vachon)

Simon Dessureault and Xavier Bouchard-Vachon (StatCan) provided the objectives of their project, which were:
1. To conduct a statistical analysis of the business archetypes developed by EY Consulting (formerly named Ernst & Young).
2. To develop a method to estimate the net present value (NPV) of the funding cost to the government and financial value to program users.

To answer the research questions, the team used BIGS, GIFI and LFE data. Simon discussed the various methodologies used in the study, including Principal Component Analysis (PCA), that resulted in a p-value of <0.05 and an extremely low KMO.

This research also used Propensity Score Matching, resulting in 50% of businesses being matched. The Wilcoxon rank sum and signed rank tests were employed pre and post matching. Simon and team concluded that the feasibility study provides initial insight into cost and benefits evaluation of BIGS program streams using PSM with administrative data.

4. Discussion Period (Will Gibbons)

Will Gibbons moderated the discussion following the presentations.

Participants engaged on the following topics:

- Questions about methodology used in the SMU study, specifically the two-way fixed effects model and propensity score matching;
- Complementarities and additionalities regarding IRAP in the SMU study.;
- The possibility of broadening the definition of innovation in the SMU study, specifically with ACOA BDP and;
- Investment variables in the SMU study.

5. Closing Remarks (Co-Chairs)

Will Gibbons thanked the presenters and participants and reiterated the importance of collaboration and identifying connections.

Emmanuel Mongin indicated that meeting materials will be shared and mentioned that he would begin contacting members to develop and update the research plan.