

Entrepreneurship policy evaluation and the role of randomised control trials

25 October 2023

Webinar organised by the OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE), the Global Entrepreneurship Network (GEN) and the Innovation Growth Lab (IGL)

What's the issue?

Is entrepreneurship policy having its intended effects? Do the benefits of specific programmes justify their costs? Could these benefits be achieved more cost effectively through alternative approaches? Evaluation provides the key to answering these questions, by determining the relevance, efficiency and effectiveness of a policy or programme in relation to its objectives. However, reliable impact evaluation is rare in the field of entrepreneurship policy. This is due in part to a lack of widespread knowledge among policy makers about how reliable impact evaluation should be undertaken.

The OECD's recently published [Framework for the Evaluation of SME and Entrepreneurship Policies 2023](#) seeks to make two main contributions to improving the policy evidence base. First, it sets out how to achieve reliable impact evaluation in SME and entrepreneurship policy, including offering a six-step scale to judge the reliability of an evaluation or evaluation method. Second, it provides a summary of what is known about policy impacts from international meta-evaluations and a selection of reliable individual evaluations in the field, spanning a wide range of policy areas and OECD countries.

Randomised controlled trials (RCTs) sit at the top of the OECD's six-step scale as the most reliable method for impact evaluation, along with quasi experimental methods allowing for selection bias. In the context of entrepreneurship policy, RCTs refer to experiments in which entrepreneurs are randomly assigned to different forms of treatment. This can often involve assigning one set of entrepreneurs to a treatment group – which receives the programme support – and others to a control group, which does not receive support. However, in practice many policy experiments will instead make comparisons between different forms of support. By taking account of selection bias at source (through the random allocation to treatment or control groups), RCTs are widely deemed the Gold Standard for ensuring that any observed improvements in the performance of firms or individuals within a programme are legitimately attributed to the programme alone.

However, until very recent years RCTs have been uncommon in entrepreneurship policy and policy makers and evaluators have questions about them. There are various issues, including whether it can be ethical to deny one group support for the purpose of evaluation and whether it is complicated to design such approaches. This event examines practices in this area and their lessons.

Setting the scene: an introduction to RCTs

The [Innovation Growth Lab](#) (IGL) works with policy partners to address challenges in the areas of science, innovation, entrepreneurship, and business policies through the application of policy experimentation. The opening session was delivered by **James Phipps, Deputy Director for the Innovation Growth Lab, Nesta**, who presented on the activities of the IGL and introduced the concepts of policy experimentation and RCTs.

Policy makers face challenges without one clear solution. There are in fact a range of potential solutions to any given policy challenge, and it is unlikely that the first chosen approach is optimal. RCTs (and other robust evaluation methodologies) can be used to resolve this uncertainty through testing and learning. Mr. Phipps described the problem of certain types of firms self-selecting into programmes, which can result in inaccurate inferences if unaccounted for. RCTs address this self-selection issue by randomly allocating

programme support. This randomisation enables a comparison of the post-intervention results against a counterfactual in which no or an alternative support was provided. Three different forms of RCT were introduced:

- Optimisation experiments involving small tweaks to the implementation of a programme.
- Evaluation experiments, which examine the impacts of a new programme or changes to an existing one.
- Mechanism experiments, which explore the underlying motivations or behaviours that drive outcomes.

Examples of optimisation experiments on the effects of promotional messaging on the take-up of an SME innovation programme and the attendance of managers in business networks in China were presented, followed by an overview of the IGL's policy experimentation work with SME programmes, including the UK's Business Basics programme.

Mr. Phipps concluded by identifying the key benefits of policy experimentation, namely the identification of novel solutions to policy challenges, the de-risking of new programmes, the continuous improvement of ongoing programmes, the provision of more concrete evidence to justify public support for policy interventions, as well as cost savings through starting small. The requirements for public entities to become experimental were also described, which are having a "What if?" mindset, a culture that is organisationally flexible and open to failure, and internal capabilities to implement experiments.

Practical insights from an RCT in the UK

Professor Elena Novelli, Professor of Strategy at Bayes Business School delivered a presentation on the practical insights from an RCT conducted at the Bayes Business School in the UK. The motivation of the study was to explore whether helping SMEs to adopt a scientific approach to decision making can help them to perform better. This decision-making approach consists of i). establishing a theory, ii). developing a hypothesis, iii). gathering evidence to test the hypothesis through rigorous tests with robust samples, and iv). assessing the evidence collected and comparing it to the theory. This approach was contrasted to a non-scientific decision-making approach, not based on theory development and the articulation of clear predictions.

With the support of funding from the UK government's Business Basics Fund, Bayes Business School designed and implemented an RCT to test whether teaching businesses to adopt a scientific approach can improve their performance. Professor Novelli described the three steps to conducting the RCT:

1. Recruiting the 261 participants and conducting baseline interviews.
2. Randomly assigning the participants to the treatment (133 participants) and control (128 participants) groups. Both groups were trained on evidence gathering techniques and developing strategic frameworks and templates. The difference between the treatment and control groups is that the former were encouraged to apply the new frameworks to develop the theory behind their business proposition and explicitly translate this into hypothesis testing and to use the evidence gathering techniques to test those hypotheses and assess them.
3. 10-month monitoring and data collection to gather information on businesses' performance and choices.

The RCT found that teaching firms to apply a scientific approach only has a very positive impact in terms of short-term revenue on firms with high degree of business development. Meanwhile, the treatment had a negative impact in terms of short-term revenue on firms with a low degree of business development. The reason for these contrasting results is that firms with a high degree of business development are exposed

to the treatment when their strategy is already quite defined. The treatment of encouraging them to adopt a scientific approach to decision-making causes them to question and fine tune more peripheral aspects of their strategy. On the other hand, the treatment causes firms with a low degree of business development to question their basic choices and return to the drawing board, which translates into a delay in the generation of revenue in the short-term in the perspective of improving the value proposition for the longer term. The key conclusion of the study is therefore that firms with different degrees of business development benefit differently from the adoption of a scientific approach, implying that different firms need different types of support. The research programme is currently being expanded to 12 countries to test the robustness of the findings across different institutional settings.

Professor Novelli ended by sharing the lessons learned from conducting the RCT, emphasising the importance of maintaining high research standards to ensure the reliability of the results. She also described the need to consider how to deliver value to participating businesses in both the treatment and control groups. Bayes Business School was able to achieve these criteria through its strong research base and understanding of the business context through its links with firms.

Panel discussion moderated by Matt Smith, GEN

Nir Ben-Aharon, Head of Policy and Research Department, Small and Medium Business Agency, Ministry of Economy and Industry of Israel described how, while most programmes adopt evaluation research to examine costs versus benefits, there has so far been an absence of RCT research in the SME and entrepreneurship policy field in Israel. This is the result of two groups of problems:

1. Ethical problems, which are particularly relevant for projects that provide financial support to SMEs. For example, small grants are available to SMEs through Israel's Business Development Centres, which also provide subsidised consultancy and training courses. The grant funding is competitively allocated based on the government's ranking of proposals received from SMEs. In this context, randomising the allocation of funding can be perceived as unfair, as it means excluding some projects that may have been assessed by the government as stronger than other projects that did receive support. There are a separate set of ethical problems associated with conducting RCTs for training programmes. Since these programmes provide knowledge and information to SMEs, conducting an RCT could be interpreted as blocking information for certain businesses.
2. Practical problems arising from the difficulty obtaining information from the control group that do not receive assistance. This is an issue when the information on the firm's performance has to be obtained through a survey of participants and non-participants rather than from other data sets. A lower share of firms in control groups complete the surveys, resulting in lack of information on the performance of the controls.

Despite these issues, the Small and Medium Business Agency has a strong interest in exploring RCTs for future large scale programmes with an emphasis on ensuring some access to support for the control group and alternative sources of data on non-participant performance.

Ana Goicoechea, Senior Economist at the World Bank Group provided an overview of her work on RCT impact evaluations through the World Bank's Competitiveness Policy Evaluation Lab, which targets business support services programmes. The three areas of work seek to understand:

1. How to target programmes and support firms once they are selected.

2. How to make regulations more efficient for business.
3. How to connect businesses to the market.

Ms. Goicoechea described how RCTs have helped to refine the World Bank's programme portfolio. For example, early RCTs found that training programmes based on a traditional curriculum had limited impact. This induced a move to different types of training, for example personal initiative training, which were found to be more effective. RCT research also found that more intensive, "hand-holding" support was more effective in raising business productivity, although this form of support is difficult to scale up due to resource constraints. This led to experimentation on group consultation, which was found to be as promising as individual consulting but with only a small fraction of the costs.

Ms. Goicoechea emphasised that RCTs are not necessarily appropriate in all settings. It is necessary first to establish a well-defined research or policy question and then identify the best methodology for tackling it. As an example, RCTs are not appropriate for identifying whether one-stop shops for business registration and supports are effective, since support cannot be allocated between treatment and control groups. Instead, however, RCTs can answer the question of how one-stop shops can be made more effective for businesses. Indeed, a finding from an RCT is that registration support needs to be bundled with assistance in other areas such as tax and financing areas. RCTs are also not appropriate for "macro" policies which affect all businesses, where other econometric analysis is more suited.

The two main challenges associated with conducting RCTs identified by Ms. Goicoechea were timing and scalability. The former stems from the tendency for projects and project managers to change every three years while RCTs must go on for 4-5 years in order to determine full impacts. The latter challenge stems from the fact that some programmes for which RCTs are conducted cannot feasibly be applied more widely. A solution to the timing challenge is to break down the theory of change to focus on more intermediate outcomes, for example by looking at whether businesses are changing the way they are currently operating. A solution to the scalability challenge is to focus on conducting RCTs for scalable programmes.

Albert Bravo-Biosca, Director for the Innovation Growth Lab, Nesta described how RCTs are not always easy but are nonetheless valuable with a significant global public good element. He re-iterated the point that RCTs are appropriate in some contexts and inappropriate in others, depending on the question to which an answer is being sought. RCTs are very appropriate for evaluating targeted programmes but less so when looking at framework conditions that apply to all firms. With that being said, RCT-based optimisation experiments can be used to inform the implementation of framework policies. Reference was made to an RCT in South Africa, which found that teaching entrepreneurs that employment laws are less complex than previously thought helped to create jobs.

Mr. Bravo-Biosca addressed the ethical constraints associated with conducting RCTs for targeted programmes. When selecting who to fund, there is often a "grey zone" of applicants that fall in-between the most exceptional performers that should certainly be supported and the group of firms that should certainly not be supported. Randomising support for firms in the grey zone while providing support to all firms above the grey-zone threshold can be a less controversial and more fair approach that still facilitates RCTs.

A principal challenge that was identified in conducting RCTs is obtaining buy-in from organisations to embed RCTs. Mr. Bravo-Biosca also referred to the challenge associated with the time taken to conduct RCTs, and the consequent importance of building in early or intermediate indicators into the research study. With regards to costs, the most expensive element of RCTs is generally data collection, although this is not unique to RCTs and is the case with most forms of quantitative analysis. Ms. Goicoechea built on these remarks, describing how the use of administrative data can drastically lower the costs of RCTs

compared to a situation where, for example, face to face surveys are needed to collect data on the individual businesses.

Panellists exchanged on approaches to conducting experiments with low numbers of businesses in the treatment or control groups. Mr. Bravo-Biosca explained that more intensive support programmes are often necessary to identify significant effects with small samples. Ms. Goicoechea complemented on this point, referring to the importance of receiving high quality and high frequency data where sample sizes are small.

Concluding remarks

In his closing remarks, **Dr. Jonathan Potter, Head of the Entrepreneurship Policy and Analysis Unit, Centre for Entrepreneurship, SMEs, Regions and Cities, OECD** reiterated that the OECD is committed to supporting governments to increase evaluation activity in SME and entrepreneurship policy through its 2023 Evaluation Framework and its tailored support for building monitoring and evaluation frameworks for individual governments. He pointed to a growing number of RCTs in the SME and entrepreneurship field, including some featured in the Evaluation Framework. This demonstrates their feasibility in the field.

Dr. Potter concluded that i). RCT evaluations work best for targeted programmes rather than broad or macro programmes, ii). they are useful for learning about specific designs of policy (e.g. for which types of firms does a policy work), iii). ethical concerns can be addressed by giving different types of support to different firms or using different delivery approaches, rather than comparing complete policy-on and policy-off situations, iv). data is an issue, but is needed for evaluation in any case and can increasingly be sourced from official tax and social security data bases, and v). RCTs can be technical but governments can collaborate with researchers to undertake them.

Read More

Further information on the themes discussed at the webinar:

- [Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes 2023](#)
- [Back to Basics: What Works in Promoting Productivity?](#)
- [IGL's database of randomised controlled trials in the field of innovation, entrepreneurship and growth](#)
- [A guide to RCTs in innovation, entrepreneurship and growth](#)
- [Evidence Bites – Entrepreneurship education, training and consultancy](#)

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