

Using RCTs as a research method for SME policy research: The UK experience

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Randomised controlled trials or RCTs have a number of theoretical advantages over more standard econometric evaluation approaches, particularly the avoidance of selection bias. Over the period since 2010 five publicly funded RCT projects and a range of communication trials have been undertaken in the UK designed to test aspects of small business and innovation policy. We briefly describe the trials and identify the operational and tactical issues which arose. Experience from medical trials also suggests the value of replication and synthesis, epitomised in the Cochrane Reviews.

Key findings

The UK experience suggests that randomised control trials do represent a feasible research approach for industrial policy instruments, particularly for support measures which are novel, uniform in terms of the treatment provided, and which are targeted at a relatively large group of firms. With care, internal validity can be maintained in individual experiments, and replication can help to overcome contextual challenges to external validity.

Appropriately interpreting the evidence provided by RCTs (and other small scale policy trials) remains important. Policy experiments test the effectiveness of a specific treatment on a particular group of firms and are inevitably context specific. The generalisability of evidence from individual policy experiments needs to be carefully considered.

Exploration, exploitation and innovation

The notion of a randomised control trial is relatively straightforward. Firms apply for a support scheme and then are randomly allocated to a control group (who do not receive the support) and a treatment group (who do receive support). Any difference in subsequent performance between the treatment and control groups is then attributed to the support measure or treatment. An alternative model – used in the Growth Voucher RCT – is to compare the effectiveness of alternative treatments. The transparency of RCTs is attractive and may be more convincing to policy-makers than the results of complex econometric evaluations.

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In practice RCTs are challenging and resource intensive to implement with care needed to maintain both internal and external validity. For example, in industrial policy experiments, randomisation, for example, cannot be double blind as in medical trials and, in some cases, may be subject to small sample biases. The face-to-face nature of many types of business support activity may also result in the heterogeneity of the treatment where business advisors vary in quality or motivation. Contamination may also be evident where firms allocated to a control group seek to substitute other support for the focal treatment, or where the treatment itself acts as a signal of firm quality. These issues pose significant challenges for experimental design, challenges reinforced by uncertainty over impact periods and the potential for attrition in follow-up surveys.

Challenges also remain in terms of external validity, i.e. the extent to which the results of any experiment can be generalised to the broader population of SMEs or non-applicants. Here, issues have much in common with other types of policy trial such as small pilot studies. Some specific issues arise only in RCTs, however, where - as in the case of Growth Vouchers - firms are either encouraged or discouraged from applying to the scheme due to the lottery element. Neither the inducement or deterrent effect of randomisation seems likely in healthcare trials, providing another illustration of the more complex nature of industrial policy experiments.

Policy and practice implications

Public spending on business support is substantial – one estimate suggests around €9.8bn pa in the UK alone. Ineffective policy is costly, suggesting the value of policy experimentation before implementation. RCTs will be appropriate in some contexts. However, individual experiments should form part of an experimentation strategy based on a small number of repeated experiments where each experiment is just large enough to maintain internal validity. Repetition – as in the Cochrane Reviews – provides confirmatory evidence and may help, in particular, to avoid false positives or negatives. Ideally, repeated experiments would also be undertaken in contexts which vary significantly, enhancing the generalisability of any consistent policy effects. High quality support for the design of RCTs is available from the Innovation Growth Lab (www.innovationgrowthlab.org).

Full paper link:

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