

Nobel-worthy Randomista: Understanding Development and Poverty Alleviation



DevEcon II
Group Assignment

Group 2
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Introduction

- *Understanding Development and Poverty Alleviation*
- Transformation of the field during the last 20 years & previous experimental approaches
- Use of randomized controlled trials (RCTs) as the main empirical method
- Generally about poverty and the possible means to fight it in developing countries
- Empirical Evidence from the Laureates' researchers

The Rise of Randomista

- RCTs have long roots (dating back to early 18th century)
 - The method has only recently gained popularity in the field of DevEcon
- Duflo: “*The argument within the economics profession [over the value of RCTs] had two main consequences, both good.*”
 - 1) raising conversation
 - 2) and forcing to answer the challenges of the method



... And there is a good reason for the popularity of the RCT

- Estimating causal relationships in social sciences is a hard task
- Conquering selection problem: what would have happened to the treated in the absence of treatment?
- Average treatment effect on the treated:

$$\begin{aligned} E[Y_i|D_i = 1] - E[Y_i|D_i = 0] &= E[Y_{i1}|D_i = 1] - E[Y_{i0}|D_i = 0] \\ &= E[Y_{i1}|D_i = 1] - E[Y_{0i}|D_i = 1] \\ &= E[Y_{1i} - Y_{0i}|D_i = 1] \end{aligned}$$

- Two main ways to implement the RCT:
 - Lab experiment
 - Field experiment (most of DevEcon work)

Alleviating Global Poverty: Experimental Approaches

- 1) Kremer's field experiments in Kenya, which disentangled various components in the educational production function
- 2) Banerjee and Duflo's intellectual case for a microeconomic approach to understand various aspects of the broader (macroeconomic) development problem
- 3) Laureates' design of new experimental-research methods to address the key challenge of external validity

RCT in Development Research

- RCTs have transformed development research by providing a more reliable way to evaluate the impact of policies and programs.
- The Abdul Latif Jameel Poverty Action Lab at MIT (J-PAL) was founded to promote research built on randomized controlled trials.
- J-PAL has played a crucial role in advancing the use of RCTs in development research and has trained a new generation of researchers who specialize in this method.
- As a result of this work, there has been wider acceptance of results from randomized controlled trials in the economic-policy community.

Empirical Evidence on Fighting Poverty in Developing Countries

Emphasize on human capital as a tool to increase growth in LIC

- Focus on education and health

Education: Solely providing more resources have only a limited impact on schooling

- Exception: Remedial education programs

Incentives to teachers: Need to address high absence rates

- RCT to decrease absence rates: Treatment group teachers received an additional bonus per day if they showed up
 - Absence rates dropped by half compared to control group
- Temporary vs. permanent contract: The effect on the effort and level of teaching

Empirical Evidence continues

Health: Effects directly and indirectly to human capital

- Often underestimated in LIC as the externalities are excluded from total effects
- RCT: Deworming schools in certain radius, externalities for control group as well

Behavioral Biases: Incomplete information, present-bias

Gender and Politics: Identity of politician on decision-making

- RCTs implemented by reserving chairs for women

Credit: Microcredit system provides credit to companies and households that are unable to access traditional credit due to constraints

External Validity and Influence on Policy Making

How well causal inferences from local trials can be generalized?

- Overcoming external validity issues: two-stage randomization
- Other concerns: randomization and piloting bias

The role of policymakers: how the findings are incorporated to real-world?

- Failure to adopt policies despite robust evidence
 - Due to constraints such as policy preferences and information problems

The effect of empirical evidence on policymakers' decision making

- E.g., decreased user fees in health products

Conclusions

- RCTs have gained popularity in the Development Economic literature although being a recognized method for over two centuries
- The modern approach to development economics has transformed the field over the past 20 years.
- Three key contributions by the Laureates stand out in the transformation of development research.
- J-PAL, the global research center founded by Banerjee and Duflo at MIT, promotes randomized controlled trials and their acceptance in economic policy.
- The importance of investments in human capital to alleviating poverty
- External validity concerns as well as the preferences of policy makers limit the implementation of findings from RCTs