



Development
Progress

Project Note

02

Using case studies to untangle complexity and learn from progress

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Key messages

- Several recent public policy research projects, including ODI's *Development Progress*, have used case study-based approaches and research designs to understand causes of progress in development. Case studies can elucidate historical processes and important decisions, providing analysis and guidance about how problems and constraints at the core of disappointing development outcomes were resolved.
- While case studies can provide a clearer understanding of the main causal factors, decisions, and events that contribute to an outcome, case study analysis has its limitations and potential biases, and should be interpreted in a way that complements other forms of analysis.
- Past case study research under *Development Progress* has demonstrated the importance of having a clear and transparent, yet pragmatic, process for case selection, developing a detailed research plan and overarching research questions, and of being cautious with causal claims and instead focusing on describing the sequence of decisions and events and their plausible contribution to an outcome.

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Development Progress is an ODI project that aims to measure, understand and communicate where and how progress has been made in development.

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The past two decades have seen unprecedented progress in standards of living across much of the developing world (ODI, 2010; Kenny, 2011). Understanding how and why progress has occurred and barriers have been overcome is a complex process that always involves some uncertainty. Experience shows that case studies can be effective tools to help us better understand the decisions, processes and mechanisms behind progress and unpack nebulous variables such as ‘political will’.

As part of its flagship research project *Development Progress*, funded by the Bill and Melinda Gates Foundation, ODI researchers have gained experience in using case study methods in recent years. A first phase of the project produced 24 country case studies reviewing improvements in sector-specific development outcomes. A second phase will produce 28 case studies of national progress linked to multiple dimensions of wellbeing.

This Project Note examines what case studies can and cannot tell us about why improvements in well-being happen.¹ It lays out methodological considerations for the use of case studies, including how they have been used by other development policy research projects, and how this has informed case study research in *Development Progress*.

Why use case studies?

There are several analytical approaches besides case studies that can improve understanding of how and why change has happened. Amongst others, these include multivariate regression analysis and systematic reviews at the macro- and meso-level, and randomised control trials

at a more micro-level. Table 1 discusses their advantages and drawbacks.

Case studies are a particularly strong choice when a holistic, in-depth investigation is needed (Feagin et al., 1991). They provide a clearer understanding of the sequence of events and the motivations of key actors, helping us untangle cause and effect. By allowing for a better understanding of the causal mechanisms and political economy behind complicated processes, such as sector reforms, case studies can elucidate abstract concepts like ‘leadership’. They can also allow causal inference and theory development, providing guidance on how obstacles and constraints can be overcome in other contexts.²

Limitations of case study analysis

The use of case studies, however, has limitations (Gerring, 2007). They can focus too much on individual processes and decisions, neglecting the development and testing of broad, structural explanations. The lack of representativeness of the selected country can create inherent methodological problems, and it can be difficult to assess the relative importance of different variables in an outcome. Further, while providing us with a detailed understanding of the past, case studies can be prone to ‘overemphasis[ing] historically contingent sequences of events at the expense of structural explanations’ (Scharpf, 1997, p.28).

This gets to the heart of what case studies, with their focus on narrative explanations based on predominantly qualitative methods, can in fact do. By favouring complexity over parsimony, they allow a more detailed

Table 1: Examples of analytical approaches to investigate what ‘works’

Methodology	Unit of analysis	Method of analysis	Strength	Weakness
Case study analysis	Comparable countries/ regions/ cities and (sub-) sectors	Qualitative (interviews, participant observation, literature review), micro- and macro-level data analysis.	<ul style="list-style-type: none"> Provides strong context-dependent understanding of why outcomes occurred. Elucidates historical processes and key decision points. Useful for development of grounded theories. 	<ul style="list-style-type: none"> Risks of confirmation bias in case selection. Difficult to draw conclusions beyond case(s). Lack of explicit counterfactuals.
Multi-variate regression analysis	Large sample of countries or regions/ states within a country	Statistical analysis.	<ul style="list-style-type: none"> Clear outcome indicating strength of causal relationship across many cases in sample. Allows examination of role of multiple potential causal variables while controlling for independent variables. 	<ul style="list-style-type: none"> Limited understanding of causal mechanisms that enable outcome for individual cases. Requires use of proxies for variables that may be difficult to quantify (e.g. ministry capacity).
Randomised control trials (and other quasi-experimental methods)	Intervention at local/ project level.	Impact evaluation with control group.	<ul style="list-style-type: none"> Can provide a clear counterfactual to assess the relevance and impact of an intervention/policy. Can minimise researcher biases. 	<ul style="list-style-type: none"> May neglect the importance of context. Generally only feasible at micro-level. Difficult and costly to carry out.
Systematic reviews (See Hagen-Zanker et al., 2011)	Depends on question, but can range from individual intervention to national level.	Meta-analysis of studies carried out using different methodologies.	<ul style="list-style-type: none"> Reduce research bias by prioritising empirical evidence over pre-conceived knowledge. Transparent, can be replicated. 	<ul style="list-style-type: none"> Costly and time-consuming. Hard to compare different types of qualitative and quantitative work.

understanding of how unpredictable problems involving numerous actors and potentially conflicting goals have been addressed. They highlight where potential explanatory factors are present or absent, and allow researchers to see those that are necessary and sufficient conditions for a particular outcome (Jones, 2011).

Case study research design

While analysis of a single case can be used to investigate how variables lead to certain outcomes, case studies are often conducted through sets of cases that have one common outcome or similarities among explanatory variables. Analysis can be strengthened when the outcomes and variables that influence those outcomes can be compared across units (cross-case analysis) or across time within one unit (within-case analysis).³

There are different methods to select cases, depending on the research question and the variable(s) of interest (George and Bennett, 2005). For example, a researcher may want to select typical cases that exemplify the general understanding of a phenomenon and that are, therefore, representative. Extreme cases, in turn, exemplify unusual values relative to a normal distribution (e.g. countries that have made most or least progress on outcome). Influential cases are useful to falsify an existing assumption, while diverse cases aim to capture the full range of variation in the variables of interest.

There are a number of ways to approach case study research. All should aim to include a systematic approach in which a problem or question is defined and the data collection and analysis process is carried out in a manner that has clear links to this definition. Case study research can include key informant interviews, focus groups, a review of primary and secondary data, participant observation and/or action research. It also benefits from triangulating qualitative findings with quantitative analysis.

Process-tracing, an approach of historical analysis to reconstruct the chain of events that led to an outcome, can be useful for case studies. Described as a mixture of 'detective work and historical analysis' (George and Bennett, 2005), it tends to amalgamate these different methods to trace a coherent, sequential narrative outcome. It can be particularly effective in assessing causality, as it improves the ability to check for the spuriousness of inferences in the absence of counterfactuals (Bennett, 2008).

Examples of case-based research on development policy

Case studies have been central to numerous studies on what drives successful development outcomes. An effective use of cross-case comparisons can be seen in *Tracking Development*, a project carried out by the University of Leiden, that used the pair-wise comparison of the

development trajectories of four countries each in sub-Saharan Africa and South-East Asia with comparable post-independence starting points to explain their divergent development outcomes over the past 50 years (van Donge et al., 2012).

Case studies selected for the *Africa Power and Politics* Programme used both cross-case and within-case comparisons to understand institutional differences linked to important differences in development outcomes (Booth, 2008). The institutional drivers of successful and less successful institutional outcomes were analysed through in-depth ethnographic research.

The Millions Fed (Spielman and Pandya-Lorch, 2009) and *Millions Saved* (Levine, 2004) case study volumes identify pathways to proven successes in agriculture and public health, documenting how they were achieved, and providing some generalised observations about why interventions were effective. The World Bank's *Yes Africa Can* study (World Bank, 2011) consists of 26 country and regional case studies that shed light on Africa's development successes, cutting across themes, programmes and sectors.

Finally, the *Innovations for Successful Societies* programme at Princeton University has published over 80 case studies selected to showcase (generally successful) public administration reforms, particularly in fragile states. Scholars focus on the role of individual reformers and the steps they have taken to improve service delivery or turn around dysfunctional institutions.

Case study research in Development Progress

The 24 case studies of the first phase of *Development Progress* created a rich library of country experiences that illustrate the often surprising similarities in the factors that have enabled progress. A synthesis report, using cross-case analysis, was also produced outlining the role of leadership, institutions, policies and foreign actors in development outcomes (ODI, 2011).⁴

The lessons learned from case study work on *Development Progress* have included the importance of:

- developing a clear and transparent protocol for case selection tempered by more pragmatic considerations (such as the availability of data or of research contacts in-country)
- developing a detailed research plan and overarching research questions for each case study (or set of case studies), with a clear division of tasks within the research team, to narrow the scope of the research and ensure that limited time is used effectively
- keeping the lack of commonality between cases open as a realistic possibility when comparing, and not forcing

generalisations where none exist

- being modest with casual claims and instead focusing on describing the sequence of decisions and events and their plausible contribution to an outcome
- publishing case studies in different formats (from longer research reports to shorter, more accessible policy briefs) to reach different types of audiences.

Country case study research remains central to the second phase of *Development Progress*. An additional 28 case studies will build on past work and take a particular, measurable improvement in well-being as a starting point. Each case study will reconstruct the processes, dynamics, and chains of events that are likely to have enabled progress. Case studies will have a more explicit focus on better understanding the role of different sources and financing mechanisms in achieving outcomes. *Development Progress* case studies will be synthesised in a series of reports that analyse the diverse findings and lessons to help inform broader topical policy debates.

Conclusion

Case studies are an effective way to investigate complex issues in the social sciences. They can elucidate historical processes and important decisions, providing analysis and guidance about how problems at the core of disappointing development outcomes were resolved. As such, they are a useful means to illustrate and better understand the frequently multi-causal, non-sequential nature of political, economic, and social processes of change.

However, expectations on the use of any case study as a source of inference beyond the case study itself varies, depending on the methodological approaches, the time and resources invested, and the subject matter under research. Using case study analysis alongside complementary approaches and research designs will make it easier to infer the causal factors that determine why something has ‘worked.’

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Endnotes

1. The term ‘case study’ is, as Seawright and Gerring (2008, p.296) point out, ‘ambiguous’ and refers to ‘a heterogeneous set of research designs.’ This note follows their definition of an ‘intensive ... analysis of a single or a small number of units, where the researcher’s goal is to understand a larger class of similar units.’
2. Beyond the policy and research community, there also appears to be public demand for such explanatory analysis – recent research by the Institute for Public Policy Research (IPPR) and ODI found ‘considerable appetite for ... for more complex stories of how change and progress happens’ (Glennie et al., 2012, p.2).
3. There are several approaches to comparative case study design and the choice depends on the type of research questions being asked. The most common are the Method of Difference and Method of Similarity, both made prominent by John Stuart Mill.
4. Some of these case studies have been drawn on in efforts to develop theoretical frameworks on how common constraints in service delivery can effectively be addressed (see McLoughlin and Batley, 2012).