

Seminar

New directions in case study methodology

Thursday November 1, 2007
Erasmus University Rotterdam
Woudestein Campus (exact venue to be confirmed)
2pm – 5pm

The Erasmus Research Institute of Management (ERIM) and the Department of Management of Technology and Innovation of RSM Erasmus University invite you to participate in a seminar on “New directions in case study methodology”.

Recently case study methodology has seen rapid developments, particularly in political science. Moreover, case studies are increasingly applied, particularly in the management and business area. Researchers from RSM Erasmus University have systematized these developments, and formulated them into a comprehensive framework, presented in a book by Jan Dul and Tony Hak, [*Case Study Methodology in Business Research*](#) (Butterworth-Heinemann, 2008). Some core ideas in these new developments in case study methodology are:

- Case study research is an appropriate and sometimes preferable research strategy for theory testing.
- Many propositions can be tested in single cases. Generalizability of the outcomes of such tests is achieved by conducting replication studies.
- An important category of theories that can be tested in single cases consists of necessary condition propositions.
- “For any research area one can find important necessary condition hypotheses”. (Goertz’s First Law, formulated in the book *Necessary Conditions: Theory, methodology, and applications* (Rowman & Littlefield, 2003), edited by Gary Goertz and Harvey Starr.)

These ideas will be presented in this seminar by Tony Hak and Jan Dul, and will be critically discussed by two leading case study researchers in political science and in management and business science: Gary Goertz (Professor of Political Science, University of Arizona, USA) and Chris Voss (Professor of Operations and Technology, London Business School, UK). The presentations will be followed by a discussion with the audience. The seminar will be opened by Ale Smidts (Professor of Marketing Management, RSM Erasmus University, and Director of ERIM), and chaired by Steef van de Velde (Professor of Operations Management and Technology). Discussions can be continued informally during a reception.

Program

- 1.30-2.00 Registration
- 2.00-2.15 Opening by Prof. Ale Smidts,
Academic Director of Erasmus Research Institute of Management
- 2.15-3.00 A new framework for case study methodology. Dr. Tony Hak and Prof. Jan Dul, RSM Erasmus University
- 3.00-3.15 Break
- 3.15-3.45 Case study methodology for testing necessary condition propositions. Prof. Gary Goertz, University of Arizona, USA
- 3.45-4.15 Reflections on the theory-testing case study in business research. Prof. Chris Voss, London Business School, UK
- 4.15- 5.00 General discussion
- 5.00- 7.00 Reception offered by the Department of Management of Technology and Innovation, RSM Erasmus University

Speaker biographies

Gary Goertz

Gary Goertz is professor of Political Science at the University of Arizona. He is the author or editor of eight books and over 40 articles and chapters on topics of international institutions, methodology, and conflict studies. The topic of necessary conditions, their theory and methodology have also been a research agenda item for a number of years. He is co-editor of the anthology "Necessary Conditions: Theory, Methodology, and Applications" (2003) and "Explaining War and Peace: Case Studies and Necessary Condition Counterfactuals," (2007). He is editor of a special issue of Political Analysis entitled "Causal Complexity and Qualitative Methods" (2006). His most recent methodological work deals with the construction of concepts "Social Science Concepts: A User's Guide" (2006 Princeton University Press) and "Politics, Gender, and Concepts: Theory and Methodology" (2008 Cambridge University Press). ([personal page Gary Goertz](#))

Chris Voss

Chris Voss obtained a BSc in Engineering from Imperial College London and an MSc (Econ) and PhD from London Business School. He is professor of Operations and Technology Management at London Business School. He has wide ranging research interest in operations management, policy and practice in both service and manufacturing. He has a long standing interest in research approaches and has published *Case Research in Operations Management*, has written on the different research approaches of the USA, UK and Scandinavia, and has studied the relationship between journal rankings and research regimes in operations management ([personal page Chris Voss](#))

Jan Dul

Jan Dul obtained an MSc degree in Mechanical Engineering from Twente University of Technology, The Netherlands, and a PhD degree in Biomedical Engineering from Vanderbilt University, USA. He is professor of Technology and Human Factors at RSM Erasmus University. He teaches research methodology for Bachelor and Master students. His research interests include human centred design of products and processes, in particular human factors in operations systems, and employee creativity for innovation, as well as case study methodology. ([personal page Jan Dul](#))

Tony Hak

Tony Hak received an MSc degree in Medical Sociology from Erasmus University Medical Centre, Rotterdam, The Netherlands, and a PhD degree in Social Sciences from the University of Amsterdam, The Netherlands. He is associate professor of Research Methodology at RSM Erasmus University. His research interests include the response process in business surveys, questionnaire pre-testing, and qualitative methods. ([personal page Tony Hak](#))

Registration and materials

This seminar is primarily aimed at researchers and PhD students in (Dutch) research schools in management and business science, organisation science, political science, public administration, and other social sciences, who are interested in case study research methodology. Participation is limited to 50 participants (first come, first serve). The registration fee is 25 €, which includes all materials including a copy of the book *Case study methodology in business research* by Jan Dul and Tony Hak.

If you want to attend the seminar, please send an email message to Carmen Meesters (cmeesters@rsm.nl) with your name, affiliation, and a very short description of your research area and your interest in case study research. You will receive an acknowledgement of registration, further information about the venue (at the Woudestein campus of Erasmus University Rotterdam) and payment instructions. At the seminar itself you will receive the free copy of the book. Your registration is final upon receipt of the registration fee. No refund can be given if you cancel your registration or do not attend.

We look forward to welcoming you in Rotterdam.

Background information for seminar

New directions in Case study methodology

Definition of a case study

In the seminar the following definition of a case study is proposed:

A case study is a study in which (a) one case (single case study) or a small number of cases (comparative case study) in their real life context are selected and (b) scores obtained from these cases are analysed in a qualitative manner.

The difference between the **experiment** and the case study is that the experiment *manipulates* instances, whereas the case study does not. An experiment is a study in which one or more variable characteristics of an object of study are manipulated in one or multiple (“experimental”) instances of an object of study and in which scores obtained in the experimental instance or instances are analysed.

The **survey** also studies instances in their real life context. A survey is a study in which (a) a single population in the real life context is selected and (b) scores obtained from this population are analysed in a quantitative (statistical) manner. The survey and the case study are different in two aspects, (a) the number of instances from which data are collected for the analysis and, consequently, (b) the method of data analysis. The case study draws conclusions on the basis of a “qualitative” analysis (“visual inspection”) of scores from one single instance (single case study) or from a small number of instances (comparative case study), whereas the survey draws conclusions on the basis of a quantitative (statistical) analysis of data from a population with a large number of instances.

The proposed definition of the case study does **not** include statements on **data collection or measurement techniques**. In this view research strategies do not differ, in principle, in terms of methods of measurement. For all three research strategies discussed here, the data analysed can be quantitative or qualitative! Measurement methods that are usually associated with case studies, such as the “qualitative” interview and using “multiple sources of evidence”, could also be used in the other research strategies. Similarly, measurement methods that are usually associated with other research strategies, such as standardised questionnaires in surveys and quantitative measurements in experiments, could also be used in case studies. Principles of measurement and the quality criteria that apply to it, such as reliability and validity, apply to any measurement in any research strategy. Although in a case study quantitative data can be used to generate the scores to be analysed, the interpretation of scores of the (small number of) cases in order to generate the outcome of the study is done qualitatively (by visual inspection) and not statistically. In sum, the case study is a **research strategy** defined by the number of instances (N=1 or N=small) that is studied as well as the “qualitative” or non-statistical method of analysis of all kinds of (quantitative and qualitative) data.

Theses about case study methodology

In the seminar the following statements about case study methodology will be highlighted:

The case study is an appropriate research strategy for theory-testing.

Researchers must make a choice between the survey and the case study as the main strategy in their research, if an experiment is not feasible. The case study is the preferred research strategy for testing deterministic propositions case by case, and the survey is the preferred research strategy for testing probabilistic propositions in a population. This implies that the choice for either the case study or the survey as the research strategy in a theory-testing study must depend on the type of proposition (see the table below), and not on, for example, the method of measurement (intensive or extensive; “qualitative” or “quantitative”), a researcher’s preferences or habits, or what is fashionable in a discipline or field.

Proposition	Experiment	Case study	Survey
Sufficient condition (“if there is A, then there will be B”)	Preferred	Second-best (single case study)	Third-best
Necessary condition (“B exists only if A is present”)	Preferred	Second-best (single case study)	Third-best
Deterministic relation (“if A is higher, then B is higher”)	Preferred	Second-best (longitudinal single case study or comparative case study)	Third-best
Probabilistic relation (“if A is higher, then it is likely that B is higher”)	Preferred	Third-best (comparative case study)	Second-best

The preferred research strategy for theory testing (experiment, case study, survey) depends on the type of proposition that is tested. Source: Dul and Hak (2008) Case study methodology in business research. Oxford, Butterworth-Heinemann.

The main reason for confusion regarding the role of case study research in theory-testing research is that, most often, propositions are not precisely specified.

For any research area one can find important necessary condition propositions.

This thesis, originally formulated by Gary Goertz for research areas in political science, applies to research areas in business research as well. Necessary condition statements are particularly relevant for managerial problems that are formulated as “critical success factors”, i.e. conditions that should be in place to make success possible at all.

Replication is needed in all theory-testing research, not only in case studies.

The relevance of emphasizing this fundamental principle of theory development is that a common criticism of case study research concerns the alleged “lack of generalizability” of the results of a case study. However, every test result needs replication: a one-shot survey of a population, a one-shot experiment, and a one-shot case study.

There is more need for theory-testing research than for theory-building research.

It is relatively easy to build relevant propositions but much more difficult to find out whether they are supported and, if so, for which domain. It certainly takes much more effort and time to test propositions (particularly because theory development requires many replications) than to build them. This is a general statement about theory development, and as such is not related to the case study only. However, it is important to make this point because case study research is often promoted as particularly suited for generating new propositions in “exploratory” studies. Contrary to such promotion, designing and conducting a case study with a theory-building (“exploratory”) aim is often not useful because (a) it is usually more important for the development of a theory that already formulated propositions are tested (and that such tests are replicated) and (b) there are usually much more effective and efficient ways of building propositions (e.g. a thorough literature search or asking practitioners about their “theories in use”).