# **The Research Design in Organization Studies: Problems and Prospects**

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## **2.2. Quantitative Results**

Although the studies cover a broad set of topics and research interests, to a great extent they also follow some major paths of conceptual orientation. Six basic research fields were identified. They covered about 3/4 of the studies under review:

- relationship between individual and organization (16%)

- analysis of structural dimensions of organizations (32%)

- analysis of processes (organizational change) (7%) - organization and its environment(s) (14%)

- interorganizational analysis (27%)

- special studies to test "new" methods in organization research (4%).

This list also indicates that organization theory is not always predominant in the studies: 77 studies referred to classical organization theory, 106 to concepts of planning, 71 used action-theory, and 25 referred to management theory; no study explicitly referred to human relations or system theory; 57 made no theoretical reference at all.

How are research strategies designed in these stud-is? The first table gives an overview of the basic research types chosen for the empirical studies. It indicates that case studies are predominant, whereas experiments are rare. Most of the studies are cross-sectional; there are very few longitudinal studies. (This might indicate a problem; at least in conjunction with case studies a longitudinal study is needed to establish explanations.) If one looks at the distribution of the basic type of research design in the context of specific research questions and problems, there is no systematic link between topics and design, but some evident probabilities (i.e., dominant forms): the analyses of structure dimensions of organizations are most often done in surveys (47.8%); research in the relationship between organization and environment is most often a case comparison (50%); the relationship of organization and personnel is done most often in the form of case studies (50.9%), whereas interorganizational analyses most often uses surveys (42.3%).

The second table describes the recognition which is given to sampling procedures. It has to be mentioned that only 44% of the studies indicate from which data base they select their cases; twice as many at least describe their sample. Rather few studies comment on specific aspects of sampling. If the problems of multi-level data aggregates and the notion of generalization are recognized, these results are quite "alarming."

The third table shows the distribution of methods of data collection (and its combinations). Interviews (57.1%), questionnaires (51.8%) and analyses of documents (32.7%) are the most typical methods used in organization research, but this spectrum is much broader. It is important to note also that a rather large part of the studies uses multiple method designstabk, which demand a more elaborate concept of method application and (combined) data analysis. While the description of the methods used is a necessary and therefore widespread practice in the presentation of the study, only one third of the studies also include comments on the quality of the research instruments (validity or reliability). As can be expected, these aspects of the research design were more often mentioned in multi-method studies than in single method studies. Are there interdependencies between different research questions and the argumentation about tools for data col-lection to be seen in the review data? The answer is "in general no," i.e., there is only little variation. The only group of studies which give more reflection and proof to specific issues are those which describe the development of methods and methodology as their primary aim of the whole study.

Таблица [[1]](#footnote-1)

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|  | **Abs.** | **%** |
| **Personal Interviews** | **173** | **57.1** |
| **Written Individual Questionnaires** | **157** | **51.8** |
| **Written Group Questionnaires** | **15** | **5.0** |
| **Participant Observation** | **51** | **16.8** |
| **Nonparticipant Observation** | **21** | **6.9** |
| **Content Analysis** | **21** | **6.9** |
| **Document Analysis** | **99** | **32.7** |
| **Group Discussions** | **13** | **4.3** |
| **Expert Interviews** | **27** | **8.9** |
| **Narrative Interviews** | **5** | **1.7** |
| **Other** | **35** | **11.6** |

Table 4 describes the use of statistical techniques for data analysis. Again we find a broad spectrum of statistical tools; only one third of the studies is restricted to one type of statistical procedure; all other studies use two or more different ways of data analysis. The proportion of multivariate statistics is rather high, but often not based on the necessary data types/quality.

If one looks for the conditions under which a more differentiated and complex strategy of data analysis is applied, this is correlated with a more elaborated re-search design: explicitly described hypothesis, the description of the data base, the detailed comment on sampling as well as on quality control during data collection. This observation can be interpreted as "sup-port" of our view about the research design: the re-flection about research steps seldom refers to only one element. Either most of the design components are commented on, or there are broad omissions on this issue. The other set of information collected about the 303 empirical studies was of a more evaluative nature. It was attempted to determine whether specific demands for a research design, as described above, had been fulfilled or at least taken into consideration within the organization study. Some more general indicators show the following:

- only 50.2% of the studies comprise a complete set of design descriptions and argumentation (or a specific reference to its description and foundation elsewhere);

- 33.2% are using multi method approaches-which we thought of as a "good quality" criteria;

- 30.1% developed comparatively "creative" forms of method application; this rather "subjective" judgment refers to a situation in which new elements were introduced to adopt the design to research questions and/or research setting;

- 26.2% are judged (subjectively) as convincing examples of method application in organization studies;

- 19.2% are applying intensive quality controls within data collection and statistical analysis.

The results of the review are even less positive, if one looks more closely at the relationships between different components of the research design.

- The relationship between a research topic or problem and the overall design (i.e., methods of investigation) is discussed only in 21% of the studies;

- the relationship between hypothesis and their operational form is commented on in 17% of the studies;

- the consequences of the methods of data collection for the statistical analysis are mentioned in 26% of the studies;

- the relationship between the quality of the data and the possible ways of deciding about hypothesis and theory-building is mentioned in 21% of the studies.

These results show that there are many missing links in the conceptualization and establishment between different components of the research design, but as long as a specific strategy is not "trivial self-evident" a description and a justification are necessary. Often enough, the design applied by the researchers had to be extracted and described (for the first time explicitly) during our reviewing process. Thus, for us many stud-is lack convincing arguments for the acceptance of their results and for any further steps (knowledge-cumulation; theory-building, etc.).

Almost all (of these published) studies come up with ''some results," but only a small proportion of them will help to advance organization theory and research methodology. If they describe the "realized project" as "ex post design," they don't even offer insights into the practical problems of doing organizational research (see, for the importance of such "insights," Hammond 1964). Nevertheless, in the sense of "constructive criticism" a summary of the research design (at least as "ex post reconstruction") has been formulated for 74 studies during our project. These studies have been used as "positive examples" for (at least) selected issues (problems and solutions) of the design of the research process. To give a few examples, those studies will be listed, which were used as relatively positive examples for the five research fields specified: individual organization: Zundorf and Grunt 1980, organization structures: Blau and Schoenherr 1971, organization processes: Lena 1975, organization and environment: Bick/Miiller 1978, interorganizational relations: Finley 1970.

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Рисунок 1

## 2.3. Overall Trends in Designing the Empirical Work in Organizational Studies

Additionally, the studies under review have been com-pared according to general features, which might show some trends in the development of research designs. It must be emphasized, though, that these comparisons were not an explicit aim of the project, but rather a side-product.

(a) The first type of differentiation was made with regard to the origin of the studies. Due to language problems, only studies in German (30%) and English (60% from the US, 10% from the UK) were included. A comparison between studies published in English and those published in German show only few significant differences. In German studies problems of practical implementation of research procedures are discussed more often (and include problems of field access); more often, also, the follow-up of method application (in multi method designs) is discussed; more case studies, group discussions and expert interviews are applied.

On the other hand, the studies from the US (UK) more often described the research design explicitly; they applied more often the survey and secondary analysis as well as multivariate statistical analyses. Rather equally distributed is the whole set of deficiencies described above. Altogether, the differences do not indicate a specific reaction of the researchers to different political, economic, educational and organizational cultures in the respective countries. The general impression is one of limited variation within an inter-nationally organized scientific community; whereas German studies slightly more often prefer qualitative methodologies, studies from the US (UK) more often favor quantitative methodologies. However limited, these differences could be used as a starting point for exchange and learning processes.

As studies from other European countries were not included, inferences about variations within Europe cannot be made. Existing reviews (like Lammers/ Hickson 1979) do not use comparable indicators; they focus on organization concepts.

(b) A second important point for differentiation of the studies is the time of publication. The studies under review have been published between the '50s and the '80s. By using a 10-year period, the following trends can be described:

- the discussion of the data base,

- the discussion of alternative methods of data col-lection,

- and the discussion of the data quality to be obtained by the applied method.

These trends have increased over time. Also, the number of multi method studies is increasing. This indicates that the elaboration of the research design has improved during the last 30 years. This does not apply for the techniques of data collection: With the exception of document analysis (its application increased), the proportions of the different methods have been rather stable over time. As a rather new trend the reflections on future organization research and on practical implementation of the research results (as part of the study reports) were observed.

(c) A third way of differentiating the studies was to look at the concept of organization that was used. As a specific focus of our review, 87 studies were identified which referred to organizations as complex social aggregates. It is by no means self-evident that such a notion is introduced into the theoretical perspective or the research design. A derived expectation referring to the overall type of the study, was disappointing: case studies, case comparisons, and so on, were not un-equally distributed among the 87 studies (applying complex organizational models) and the rest. Similarly, the methods of data collection are nearly equally distributed (only the document analysis is more often applied in the studies with a complex organizational model).

The main difference, however, has been found in a much more critical elaboration of the chosen research design: this refers to all aspects (like sampling, indicator quality, data quality, statistical analysis, etc.). This result leads to the conclusion that the conceptualization of organizations-if they are recognized explicitly in the research process-is an important differentiating criterion for the detailed description and critical methodological consideration of the research design. Other possible reference points for the design decisions (especially methodological position, research questions, theory, etc.) show only little and/or erratic links. The expectation that "everything can be combined with any other thing" might remain, but this orientation is not well founded. The results of the review of 303 studies show that only 19.9% of the studies were able to refer to their theoretical starting point by confirming the theory or by developing (chang-ing) the theoretical propositions or hypotheses. All others somehow "get lost" because of inadequately designed research concepts and/or because of the pitfalls in the "jungle" of practical fieldwork. Often this "problematic" fieldwork makes little use of the general knowledge which researchers have about their research site: organizations! In other words, the re-searchers often did not apply their knowledge about organizations when designing research strategies in organizations.

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1. [↑](#footnote-ref-1)