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Agricultural Economics and Qualitative Research: Incompatible Paradigms?

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Abstract: The disciplinary paradigm of agricultural economics emphasizes rational behavior in a world constrained by scarce resources. The research practice focuses on the quantitative modeling of optimization behavior. These models, though, only offer limited support to practitioners in solving real-world problems. Qualitative research approaches contribute to this task, particularly with research in developing countries. Participatory action research was introduced in the seventies; case studies have been employed more often and have been discussed more intensively. But different qualitative approaches are hardly known in agricultural economics. However, exemplary theses, published in the series "Research Reports on Economics in Horticulture," show the successful use of qualitative research methods in German agricultural research.

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1. Disciplinary Paradigm and Research Reality

Agricultural economics defines itself as a member of economics and management sciences which are themselves members of the social sciences. As an applied science it aims at solving practical problems or at least advise and support decision makers and actors in the real world in solving those problems. [1]

BRANDES et al. (1997, pp.13ff.) emphasize the paradigm of methodological individualism as a common basis for economists of different fields. Deduced from this philosophical orientation is the image of homo oeconomicus, a rational maximizer of the utility of decisions, whose in principle unbounded needs are restricted by the universal scarcity of resources and through laws and regulations. As a consequence, humans possess a variety of ways to take action among which they may choose according to their goals and objectives. Based on these fundamental assumptions and a few further specifications, economists explain and predict at least the tendency of reactions to change by sufficiently numerous groups of "economic subjects." This is not only claimed for financial transactions, but for nearly every human decision. [2]

Disciplinary requirements result in quantitative modeling as the main focus of scientific publications. DEBERTIN and PAGOULATOS (1992) show an increase of publications using quantitative methods in the "American Journal of Agricultural

Economics" from under 5% in 1950 to more than 92% in 1990. The remaining category of "non-quantitative methods" assembles theoretical and conceptual contributions, and so-called verbal analyses which seldom comprise qualitative research. [3]

The disciplinary ideal is of limited help when researchers need to handle complex issues and research questions. In addition to problems caused by the diversity and restricted predictability of the eventualities of human action (SIMON 1992) familiar to other social scientists, the variety of biological systems and the non-standardizability of living products amount to an extensive context dependability. Therefore general propositions are feasible only at a very high level of abstraction, but at that level deriving practicable recommendations for action is barely feasible. [4]

The main reasons stated to explain the fact that quantitative models are of minor relevance for advising and supporting practitioners, are that the necessary data are not available in sufficient amount and the models do not reflect reality with adequate complexity. Conceptual difficulties are not acknowledged, instead scholars appeal to the limited-resources argument—here for research—an axiomatic topos of economics in general. In other words, problems are either caused by the actors involved, who do not make available enough data with satisfactory precision, by the structure of reality, which does not conform to the necessary rationality principle and shows interfering interdependencies, or by the decision makers in practice and policy, who refuse to put into effect the recommendations of scientists. The models and the herein crystallized theories do not cause any problems. [5]

2. Qualitative Research in Agricultural Economics in the United States and Canada

In comparison to rural sociology or communication and extension, the use of qualitative research strategies is less developed in agricultural economics. Ethnography and case studies are accepted research approaches in rural sociology. There, and the same applies to communication and extension, methods of qualitative research, such as open-ended interview or participant observation, are part of the standard repertoire. [6]

With regard to qualitative research, research in developing countries forms the exception in agricultural economics. In addition to case studies, participatory action research shows an independent tradition in this field, although introduced by non-economists. A synopsis of participatory action research in agriculture is conveyed by WHYTE (1991). CASLEY and KUMAR (1988) compile methods of data gathering, analysis, and presentation for monitoring and evaluation of development projects in a publication of the World Bank, where among others the qualitative interview, the group interview and participant observation are elaborated. The authors evaluate these qualitative methods as underutilized sources of information with great potential. [7]

In the United States and in Canada discussion about qualitative research strategies for agricultural economics has already begun. Several factors might have contributed to this. The exchange with disciplinary neighbors is more intensive than for example in Germany. One of the reasons is the higher rate of interchange of students between the different departments. Furthermore, agribusiness, that is, management of enterprises in the private sector, including supplying and processing industries, plays a more significant role in education and research at the university level. As a consequence the necessity to answer the questions of practitioners is greater, accompanied by higher interest in current events and research in action contexts and for action support in real time. In such a research context, quantitative models lose a lot of their attraction; meanwhile approaches such as case study research increase in employment. While case studies as a teaching device spread from the Harvard Business School into agricultural economics decades ago (for Germany see STUHLER & ARTHUR 1975), their discussion as a research approach has started just recently in agribusiness journals (e.g., WESTGREN & ZERING 1998; STERNS et al. 1998). Different qualitative research strategies are applied only occasionally. [8]

3. State of the Art of Qualitative Research in Agricultural Economics in Germany

To discover explicitly qualitative research projects in German journals of agricultural economics might be a difficult venture. This does not mean that there are no qualitative approaches. Instances of such research projects could be labeled exploratory. In most cases, a discussion of research strategies and methods would be omitted. Justification for omitting the methodology would be based on lacking knowledge in the concerned area and the scarce resources for research (e.g., BITSCH & KLINGELHÖFER 1993; BEHNER & BITSCH 1995). [9]

Basic concepts and research strategies of qualitative approaches are for the most part unfamiliar. Mentioning grounded theory, ethnomethodology, naturalistic research and similar approaches calls for resistance or at least receives no understanding. Specific methods and techniques, like triangulation, which is discussed critically by researchers of different disciplines, and respectively understood as an expression of a (post) positivist research paradigm, that is shared just by a minority, are unknown. [10]

In this situation communication about qualitative research is difficult and discussion on methods is banished to the margins of the disciplinary discourse. Chances for publication of qualitative research results, which disclose their approach as such, are minimal, because a barrier of ignorance surrounds qualitative concepts. In German agricultural economics, erosion of the barrier is limited to a few spots where leverage for an attempt to breakthrough could be sought: here and there a thesis, from time to time a publication (e.g., BOKELMANN 1999). [11]

Within the community of agricultural economists, horticultural economists occupy a special position (BITSCH 1999). Horticulture is essentially a field of natural

sciences, including basic subjects such as plant genetics or physiology and more applied, production-oriented subjects such as vegetable production or floriculture. In this choir, for horticultural economists commitment to interdisciplinary research is compulsory as issues and questions of the real world can only be solved through co-operation of different subject areas. Openness to diverse research approaches is as wide as the variety of research questions. There is freedom for creative problem solving. On the other hand, full integration into the parent discipline of agricultural economics was neither striven for nor achieved. For these reasons there is scope for qualitative research strategies and methods. The following examples of some Ph.D. theses published in the series "Research Reports on Economics in Horticulture" (in German) shall verify these statements. [12]

In 1973 HINKEN (1974) carried out open, unstructured interviews with 28 horticultural entrepreneurs which were analyzed by categorizing content analysis. This investigation—appreciated beyond the borders of agricultural economics—focused mainly on recording the goals of entrepreneurs. An essential result was that the theoretically assumed goal of profit maximization is very rare in practice. Goal aspirations are more vague than concrete. The profit goal is secondary to several private and other goals, and instead of maximization or minimization simple goal achievement is aspired. [13]

This line of investigation was continued by BERNDT (1984), who analyzed the process of long-term planning in horticultural enterprises based on questionnaires, open-ended, guided interviews, and participant observation. One of the results was that goal aspirations become more concrete and more differentiated during the planning process, but also undergo changes. Reasons for success and quality differentials in horticultural production were investigated through monitoring the production process by BOKELMANN (1987) and UETRECHT (1998). Both used participant observation, interviews, and supplementary analysis of biological, technical, and economic data. [14]

In addition to the qualitative research methods enumerated with the above projects, the investigations of MÖLLER (1982), LENTZ (1993) and SCHWENZOW (1998) employed elements of action research. LENTZ and SCHWENZOW introduced computer-assisted planning tools in horticultural enterprises. They accompanied and analyzed the whole process and influencing factors, respectively the preferability of external consulting for management tasks. MÖLLER employed focus groups not only as a research tool for the investigation of conflicts in marketing systems but for the implementation of planned change and conflict management (see CARLSSON et al. 1979). [15]

These approaches give an idea of the rich contributions qualitative research can bring to agricultural economics. Exchange of experiences, problems and successes with other social scientists is extremely important in the situation depicted. Communication and co-operation can help to improve the balance of qualitative and quantitative research strategies; joint projects may aid in overcoming deficits. Owing to its mediator position between natural sciences and

social sciences agricultural economics can contribute new and useful perspectives to the field of qualitative inquiry. [16]

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