Participatory Action Research and its Relevance to Inter-organizational Learning

Christopher Brown[1], Middlesex University, London
Ross Brennan, Middlesex University, London
Philip Frame, Middlesex University, London

Abstract

The paper reviews participatory action research methodology, its relevance and validity for use in studying inter-organizational learning and its relationship to innovation within companies. The industrial context used to illustrate the theme is a medium-sized manufacturing company (for which one of the co-authors works) seeking to cope with marketplace dynamics.

Introduction

The objective of this paper is to explore the use of participatory action research (PAR) in an industry-based setting, and in particular its appropriateness for exploring the link between inter-organizational learning and innovation. The authors will describe general action research methodology and in particular three broad themes of action research i.e. action-based research, action science and participatory action research. This will be followed by a detailed look at PAR from the perspective of validity, appropriateness, rigor and finally reflexivity. Finally, an evaluation of the rigor, relevance and appropriateness of PAR regarding its suitability to the research problem on inter-organizational learning and its link to innovation within small/medium sized enterprises (SME's). The conclusion to the paper will propose that participatory action research is particularly suited to studying the complex links between inter-organizational learning and innovation.

Context

The research problem is based on a common problem facing most technological based companies and that is how to sustain technological and process innovation, to maintain sustainable competitive advantage and market leadership? The research subject is a medium-sized manufacturing company, which for its entire company life (over fifty years) has relied on differentiating itself from its competitors, by originating innovative market-leading customer solutions. The company has followed a broad strategy of addressing niche markets, with market-leading technology/service solutions. Over the last 5 ~ 7 years, the technology and process based innovations have dried up, and market leadership in all its primary product markets have been eroded.

Based on literature searches and exploratory studies at the company, the authors have constructed a conceptual framework (See Figure 1.), which highlights the emergent relationships between networking, innovation and market orientation. Inter-

[1] Christopher J Brown, Business School, Middlesex University, The Burroughs, Hendon, NW4 4BT, United Kingdom. Telephone +44 1252 376666, Fax +44 01252 547384, email Strangely_brown@csi.com.

organizational learning in the business sector is driven by four critical factors (Littler (1993)):

1. In response to key customer needs
2. In response to market needs
3. In response to technology changes
4. In response to shareholder expectations

There is a growing realization that exposure to external sources of technology, innovative processes and other business cultures can bring about important organizational benefits (Tidd, Bessant and Pavitt (1997)).

Market orientation is a key driver for all companies, and especially when concerned with the understanding of the 'all important' customer, has become increasing topical. Academics and practitioners have over the last ten years, re-evaluated the importance of the marketing orientation concept (see Kohli and Jaworski(1990); Narver and Slater (1990)). Ruekert(1992) further examined that market orientation goes beyond the long term purpose of a firm to satisfy customer needs, whilst maximizing corporate profits, it strikes at the very root of the effectiveness of organizational systems and linked in with this, the individual job attitudes and their mental models.

Management of information/knowledge acquisition and processing, consumes enormous quantities of resources and cash, and is acknowledged as being pivotal to the company's visibility of customer needs and wants. Nonaka and Takeuchi (1995) concluded in their studies of Japanese companies in the 90's, that knowledge creation and dissemination was the key to the distinctive way that Japanese companies innovate. Ultimately, organizational structure and culture will determine absorptive capacity in inter-organizational learning.

Innovation of products and processes, is key in the delivering sustainable competitive advantage, differentiation in the customers eyes and long-term potential to deliver increased company profit and growth goals, so sought the company executives to satisfy the key stakeholder's. Rothwell (1992), (1994), identified in his studies the increasing emphasize on various forms of "networking" in the innovation process. In particular the horizontal technological collaboration, greater empowerment of managers, effective data sharing systems and the identification and empowerment of product champions/opinion setters.

To provide a background to this paper the following describes what action research is, and three of the main themes within it. Subsequently we examine in more detail participatory action research, its validity, appropriateness and rigor when applied to the research problem.

Action Research

What is action Research?
Rapoport (1970, p499) proposed the following definition: "Action research aims to contribute both to the practical concerns of people in a immediate problematic situation, and to the goal of social science by joint collaboration within a mutually acceptable

framework". It is therefore the researcher's involvement in the action process, which distinguishes it from any other form of applied research.

Inter-Organizational
Networking

Mental Models
Culture

Networking

MarketPlace
(Customer
Needs and
Wants)

Market Information
Generation

Learning Enablers
Learning orientation

Knowledge Transfer
Market Information
Dissemination

Technological &
Process
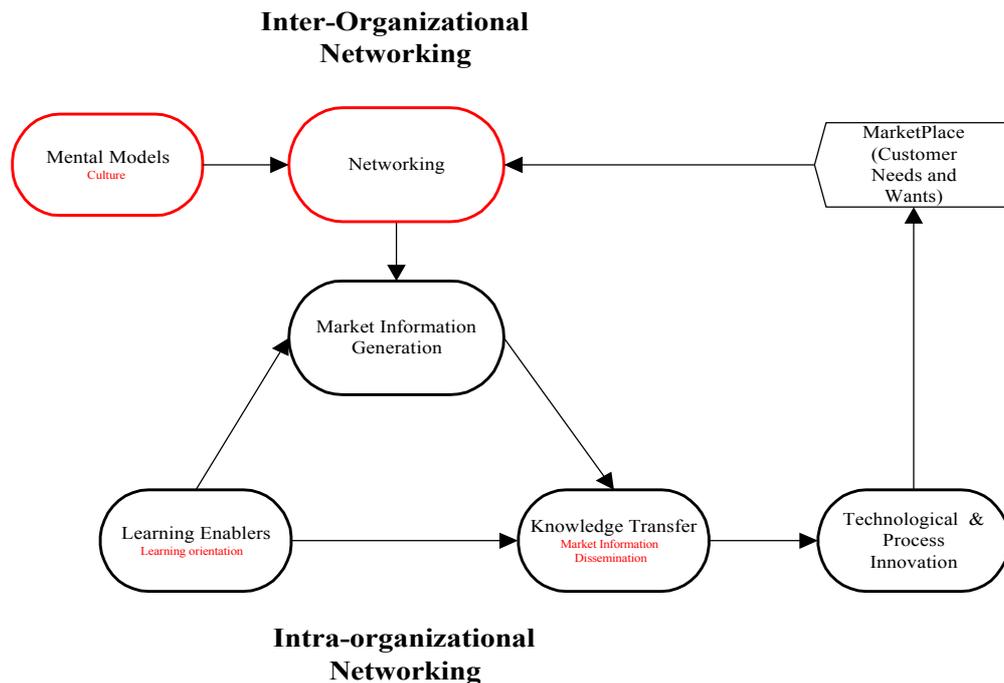Innovation

Intra-organizational
Networking

Figure 1. The Conceptual Framework

The person most often credited with originating the phrase and ideology of 'action research', was Kurt Lewin (1947), who originally said "There is no research without action, and no action without research". Over the last fifty years, action research has become a significant research methodology in the social sciences, however, as yet it is still not commonly used within the business community. Traditionally, the researcher's role was cast as the external expert, designing the study, gathering data and interpreting the findings and then recommending action to the client. Action research however, is definitely hands-on.

Advantage of Action Research
The advantages of action research can be summarized as follows:
1. 'Action research and the researcher are seen as part of the change process itself'. (Easterby Smith, Thorpe and Lowe (1991))
2. A belief that the best way of learning about an organization or social system is through attemping to change it
3. Because the research is participative and reflexive, the research success is driven by the researchers professionalism, to the task
4. The resultant data from participatory action research provides deeper explanations of organizational structures and increased understanding of individual action.

Themes of Action Research
The broad themes of action research are: action research, action science and participatory action research.

Action Research

Action research involves the traditional approach of testing out social theories in real-life practical situations to record the predicted outcomes, and therefore conclude if the theories work or not. The other extreme is the participative inquiry or PAR, whose primary purpose is to break down the barriers between researcher and practitioner. Whatever the methodology, the end result is to understand the problem by actioning change. The main criticism of action research is that the actions undertaken by the researcher are not always done with full participation of all parties. Another issue is the extent to which we can generate generalizable theory from the research data.

Action Science

On this Action Science tries to address this last point; by endeavoring to gain more control of the research study and all the research processes. Clearly, if the researcher or his team are more in control of the research strategy and the definition of the research issues, the data collection can be controlled. Predefined hypotheses/propositions can be utilized and data collected against the research questions. The data analysis would then reveal the correlation of the participants responses to the original propositions. This approach would therefore lead to generalizable theory. Here though the inherent disadvantage is the 'control' the researchers are applying to the study, and the affect this will have on the validity of the collected data.

Participatory Action Research

Participatory action research does however offer a particular advantage over and above that of the two themes mentioned above. Though the researchers would happily defend the rigor of the research strategy outlined above, the risk in the data outcome becoming irrelevant to the practitioners and not generating usable knowledge would be high. The ideal outcome is to define and meet the standards of appropriate rigor without sacrificing relevance. The ultimate action research methodology is therefore a form of action research that involves practitioners as both subjects and co-researchers, that is, participatory action research (PAR).

Participatory action research: the working tool

The general advantages of this research methodology for studying interaction and network phenomena are centered primarily around its aptness to return rich data on individual and organizational characteristics. Participatory action research sets itself apart from non-participatory methods, in that the external consultant acts less as a disciplinary expert and more as a motivator/facilitator. The participatory role establishes four general attributes over other non-participatory research strategies, and these are:

1. PAR postulates shared ownership of the research strategy between the researcher and those who are the focus of the research project. This is established by the active involvement of the latter in most if not all of the aspects of the research process. Thus PAR functions as a partnership, with decision-making and control shared among all those (co-researchers) who have a stake in the outcome of the research (Ashby (1984); Blackie (1984)).
2. PAR is a method of community-based learning (Inter-organizational learning or networking). The methodology encourages collaborative investigation or experimentation, and accompanies this with reflexive dialogue. Ideally the participating groups learn to critically analyze their own particular situations and

problems, and therefore come up with unique and purpose-built solutions (Grossi et al. (1983); Korten (1983)).

3. PAR enables professional researchers to gain insights that allow for reformulation of research questions and to facilitate more realistic interpretations of data via the active collaboration of all stakeholders.

4. Finally, PAR aims to stimulate company-initiated action and to facilitate continual change.

Participatory action research can therefore defend itself against the most ardent critics at all levels; validity, rigor and appropriateness, and still claim the all important relevance characteristics, when viewed both by participants and senior management.

Validity, Relevance and Appropriateness of Participatory Action Research

The authors would suggest that the most problematic issue for positivists and qualitative researchers regarding the use of participatory action research is the aspect of intervention by the participant/ co-researcher. The general concept of intervention within action research has been continually debated in various social research fields. For example, Johnson (1997) from the field of Nursing, observes that the researchers and others who carry a predominantly positivist view of the world feel bound to make two assumptions about intervention:

1. Interventions which happen should have been planned
2. Ideally there should be no participant intervention in the research

Action research because of its very concept of taking action on a real world problem, and then closely examining the effects of the action taken, always involves intervention. Participatory action research is messy, but it does have the potential to both open up explanations of deep organizational structures and a deeper understanding of individual action because it ignores constraining and enabling social structures and mechanisms. This approach may not appeal to those who would like a hygienic research perspective, but action research in its numerous forms can appeal to the phenomenologist and the positivist, because of its ability to still satisfy the requirements of rigor, validity and appropriateness.

Validity
The validity of the PAR comes from Lewinian proposition that causal inferences about the behavior of people are more likely to be valid and enact-able when the people in question participate in building and testing them. Avis (1995) provides an account of 'validity' in the establishment of the credibility of research findings. He argues that there can be no formal set of criteria with which to judge the validity of qualitative research findings; rather the credibility of research findings should be judged on the usefulness of the research project. An 'action-based' research methodology which has 100% participant involvement, both in the research design and the definition of the research questions, can therefore be argued to result in the highest usefulness 'validity' obtainable.

Rigor
Tandon (1982) expressed the commonly held view of positivist researchers that "When strict separation is maintained between researcher and subject in the guise of maintaining rigor, all control of the research is retained in the hands of the researcher". This view was not shared by Tandon, but was purported to be popular with absolutists,

purists, rationalists and elitists, and he argued that the only people to gain from this degree of rigor were the researcher classes themselves. Tandon (1989) extolled the participatory role of PAR, allowing the participants problems to be explored from their perspective, with the added advantage of liberating the mind, which further facilitates critical reflexion, questioning and pursuit of inquiry. The resultant data from such exercises clearly has relevance to the participants problems, and still affords a rich data source for the action researcher to stand back with other case data and look at the generalization of his research.

Appropriateness

The appropriateness of PAR rests on three primary factors:
1. Collaborative relationship between the insiders (participants) and the outsiders (professional researchers).
2. Empowers because of the specific insights, new understandings, and new possibilities that the participants discover in creating better explanations about their social world and finally.
3. PAR can be liberating as in Brown and Tandon's (1982) sense of participative research, when the participants learn how to create new possibilities for action and therefore change.

Reflexivity

An alternative dimension, which could be considered to be of greater importance than validity, rigor and appropriateness, is reflexivity. Koch (1998) suggests that the research project is plausible when the work is engaging, and has internal logic achieved by detailing each interpretative, reflexive turn of its makers (practitioners and participants). This means generating data with awareness that this process operates in a world of existing alternative representations serving to shape the research product with social, political and critical insight.

In the above justification and defense of PAR, regarding its suitability to study organizations and individuals, one area was hinted at, but not explored, and that was the part the co-researchers play in the action research process.

The Co-Researcher

Whyte (1991) described participatory action research as a form of action research that involves practitioners as both subjects and co-researchers. It is based on the Lewinian proposition that causal inferences about the behavior of human beings are more likely to be valid and enact-able when the human beings in question participate in building and testing them.

The Co-Researcher role is significant for business communities for the following reasons:
1. The participants/co-researchers are actively involved in the change/action process and are therefore more likely to show commitment to change.
2. Because of the involvement of the co-researchers in the formalization of organizational understanding, the data is both likely to be rich and have high validity
3. The use of co-researchers more quickly brings ownership of the change within the company, and is more likely to be acceptable to all parties.

in **McLoughlin, Damien. and C. Horan (eds.),** *Proceedings of The 15th Annual IMP Conference,*
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Page 6 of 10

The final part of the puzzle is how all of the attributes and properties of PAR can be utilized to understand and explore the dynamics of inter-organizational learning within the business community.

PAR and it's suitability to the Research Problem

In the preceding sections, the authors have demonstrated some of the generic benefits of participatory action research as a research methodology, in terms of its validity, rigor and appropriateness. The following section explores its particular suitability to the research problem.

The authors accept the cyclic link between market orientation (customer focus), networking, learning, knowledge dissemination, innovation and ultimately the new product offerings. Therefore, to further understand these links, the company needs to co-ordinate both internal and external researchers to assist in the auditing of the current reality and then in identifying the changes necessary to facilitate the new company vision.

To understand the links between individual learning and organizational learning, the researcher must understand both the mind-set of the individuals and the memory capacity of the organization. To do this by conducting a non-participatory study would be extremely difficult, hence the reason for using a participatory methodology.

Utterback (1994) stressed that the main difficulty for established firms seems to be their reluctance to abandon old positions and embrace new ones when radical innovations invade their markets and undermine them. The principal problem for companies is the need for rapid product development, which often precludes internal development of critical technologies, elevating the attractiveness of an external technology acquisition method, such as an alliance or some other form of networking to secure core competencies. The networking option requires organizational flexibility and entrepreneurial spirit, managers of established firms have difficulty in coping with these requirements without external help, but like most are reticent to put their company and its future, totally in the hands of an external researcher/consultant. Hence the attractiveness of a PAR approach which gives them input and control of the overall research project.

Research Problem

The current study being undertaken by the authors involves a longitudinal study of a single company, with the aim of extending it to the entire group of companies. The study is intended to last between three and four years, one of the authors occupies a senior marketing position, and is therefore in an ideal position to help facilitate the research study. The main objectives of the study are to:
1. To involve the entire workforce in an overall assessment of the main issues confronting the business
2. To provide a benchmark of the current reality of the business in regards to marketing orientation, vision, innovation, knowledge transfer and industrial networking.
3. To work with the participants to come up with action plans to change the organizational style and culture to instigate changes required to meet the company's new vision.

The research study is still in the second phase of the overall objectives, that is, establishing the company's 'current reality' benchmark. However, even at this stage of the research there is some very obvious and positive feedback from the participants in regards to the PAR methodology used:

- Very positive feedback on the involvement of participants in the definition of the problems/issues, rather than just reacting to a set of prescriptive research questions.
- The positive reaction to being part of the research process, rather than being just a respondent.
- The collaborative nature of the research has opened up the participants, and brought in considerably richer data on insights into individual and organizational dynamics concerning structure and culture within the company.

The initial results from the author's studies indicate that the research data and subsequent actions originating from this will score very highly from the participants perspective on both 'relevance' and 'appropriateness' categories regarding the research methodology. Of course, it is to early in the research process to 'count one's eggs', but, the signs are good and more importantly the participants are both fully involved and highly motivated to concluding the research study with positive results.

Conclusion

Participatory action research is well suited to organizations researching the links between inter-organizational learning and innovation, where the potential use of external consultants operating more traditional ethnographic research methodologies could be both threatening and/or non-productive. The strengths of PAR rest on its total involvement of the participants in both the design of the research problem and in the subsequent action plan. From the initial results from the authors own research study, the participants have supported and have been motivated by the research methodology. PAR from their perspective scores on *Validity, Appropriateness and Relevance.*

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Page 8 of 10

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Page 9 of 10

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Page 10 of 10